

Status Report

Total Records: 649

Top 3 County Records		Top 3 Log Type Records		Top 3 Coal Records		Top 3 Member Records	
Menard	649	Drillers Log	511	SPRINGFIELD	508	SPRINGFIELD COAL	508
		Multiple log types	120	HERRIN	130	TURNER MINE BLACK SHALE	424
		Gamma Ray Density	8	DANVILLE	76	ST. DAVID LIMESTONE	262

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
SURVANT - UPPER		228.2	193.5	278.0	1.5	1.0	2.0
SURVANT - LOWER		243.3	215.0	298.0	1.0	0.5	1.5
CHAPEL	COAL	111.9	90.0	154.8	0.8	0.3	1.0
WEST FRANKLIN	LIMESTONE	100.7	38.5	151.0	9.2	3.0	38.0
PIASA	LIMESTONE	114.0	114.0	114.0	6.5	6.5	6.5
DANVILLE	COAL	125.3	20.0	199.5	1.5	0.5	4.5
DANVILLE SUMP	COAL	153.1	153.1	153.1	0.5	0.5	0.5
BANKSTON FORK	LIMESTONE	165.7	137.0	200.0	2.7	1.5	4.0
ANVIL ROCK	SANDSTONE	193.0	193.0	193.0	4.0	4.0	4.0
BRERETON	LIMESTONE	154.9	99.0	212.0	3.5	1.0	9.5
ANNA	SHALE	116.8	56.0	217.0	2.1	0.5	4.5
HERRIN	COAL	130.9	42.0	219.5	1.6	0.3	8.0
ST. DAVID	LIMESTONE	135.2	43.0	264.0	1.9	0.2	30.0
TURNER MINE	SHALE	134.2	38.0	272.5	2.3	0.3	6.4
SPRINGFIELD	COAL	136.9	41.0	274.5	5.6	0.2	8.0
HANOVER	LIMESTONE	240.8	240.8	240.8	1.3	1.3	1.3
EXCELLO	SHALE	198.0	81.0	289.0	2.1	1.0	3.5
HOUCHIN CREEK	COAL	210.8	131.5	247.6	1.1	0.2	2.5
SURVANT	COAL	219.8	142.5	288.0	1.9	1.0	3.0
MECCA QUARRY	SHALE	261.3	175.0	333.0	2.8	0.5	4.7
COLCHESTER	COAL	278.3	201.0	340.0	2.5	1.5	3.0
				Net Coal	15.5		

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: 12920579000C **VERSION:** 1 **PROJECT:** NCRDS89
COUNTY: MENARD **TWP/RNG:** 17N 5W **SECTION:** 18 **QUARTERS/FOOTAGES:** 900' S line, 1475' W line
QUADRANGLE: ATHENS **LONGITUDE:** -89.707393 **GEOLOGIST:** SROKA
CONFIDENTIAL: N **LATITUDE:** 39.919432 **DATE COLLECTED:** 8 / 28 / 1975
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 211.5 **LOG TYPE:** Multiple log types
SOURCE: MOBIL OIL SI-5 **WELL TYPE:** Coal Test
COMMENT: GAMMA, DENSITY, RESIST, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0			UNCONSOLIDATED	101.0	0.0
499.0	MODESTO		LIMESTONE	1.5	101.0
497.5	MODESTO		BLACK SHALE	2.5	102.5
495.0	MODESTO		GRAY SHALE	9.0	105.0
486.0	MODESTO	PIASA	SHALY LIMESTONE	6.5	114.0
479.5	MODESTO		GRAY SHALE	15.0	120.5
464.5	MODESTO		BLACK SHALE	1.5	135.5
463.0	CARBONDALE		GRAY SHALE	6.5	137.0
456.5	CARBONDALE		SHALY LIMESTONE	4.0	143.5
452.5	CARBONDALE		SHALE	2.5	147.5
450.0	CARBONDALE		LIMESTONE	1.3	150.0
448.7	CARBONDALE		SHALE	4.7	151.3
444.0	CARBONDALE		CORE LOSS	3.0	156.0
441.0	CARBONDALE		LIMESTONE	1.3	159.0
439.7	CARBONDALE		SILTSTONE	2.1	160.3
437.6	CARBONDALE		SILTY SHALE	0.6	162.4
437.0	CARBONDALE		SHALE	5.0	163.0
432.0	CARBONDALE		GRAY SHALE	7.5	168.0

424.5	CARBONDALE		SILTY SHALE	5.5	175.5
419.0	CARBONDALE		SILTSTONE	2.6	181.0
416.4	CARBONDALE		SHALE	9.4	183.6
407.0	CARBONDALE		GRAY SHALE	2.0	193.0
405.0	CARBONDALE		SHALE	3.0	195.0
402.0	CARBONDALE	ST. DAVID	FOSSILIFEROUS LIMESTONE	0.4	198.0
401.6	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	198.4
398.6	CARBONDALE	SPRINGFIELD	COAL	5.1	201.4
393.5	CARBONDALE		CLAYSTONE & SILTSTONE	2.4	206.5
391.1	CARBONDALE		SILTSTONE & UNDERCLAY	1.1	208.9
390.0	CARBONDALE		CORE LOSS	1.5	210.0

MAPID: 12920605000C **VERSION:** 1 **PROJECT:** NCRDS89
COUNTY: MENARD **TWP/RNG:** 17N 6W **SECTION:** 1 **QUARTERS/FOOTAGES:** 2500' S line, 600' W line
QUADRANGLE: ATHENS **LONGITUDE:** -89.729952 **GEOLOGIST:** SROKA
CONFIDENTIAL: N **LATITUDE:** 39.952808 **DATE COLLECTED:** 10 / 13 / 1975
SURFACE ELEVATION (FT.): 601.0 **LOGGED (FT.):** 300.0 **LOG TYPE:** Multiple log types
SOURCE: MOBIL OIL SI-8 **WELL TYPE:** Coal Test
COMMENT: GAMMA, RESIST, DENSITY, DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT	OVERBURDEN	COMMENT
601.0			UNCONSOLIDATED	124.0	0.0	
477.0	CARBONDALE		SHALE	52.0	124.0	
425.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	176.0	
424.0	CARBONDALE	SPRINGFIELD	COAL	6.5	177.0	
417.5	CARBONDALE		SHALE	8.5	183.5	
409.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	192.0	
407.0	CARBONDALE		GRAY SHALE	51.5	194.0	
355.5	CARBONDALE	SURVANT	COAL	1.0	245.5	
354.5	CARBONDALE		SHALE	53.5	246.5	

MAPID: 12920606000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 17N 6W SECTION: 3 QUARTERS/FOOTAGES: 2175' N line, 600' E line

QUADRANGLE: SALISBURY LONGITUDE: -89.753143

GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.954634

DATE COLLECTED: 11 / 11 / 1975

SURFACE ELEVATION (FT.): 595.0

LOGGED (FT.): 220.0

LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-147

WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0			UNCONSOLIDATED	199.0	0.0	
-	CARBONDALE	HERRIN	COAL	0.0		
-	CARBONDALE	SPRINGFIELD	COAL	0.0		
396.0	CARBONDALE		UNCERTAIN	1.0	199.0	
395.0	CARBONDALE		GRAY SHALE	20.0	200.0	

MAPID: 12920607000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 17N 6W SECTION: 5 QUARTERS/FOOTAGES: 155' S line, 1430' E line

QUADRANGLE: SALISBURY LONGITUDE: -89.793834

GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.946608

DATE COLLECTED: 10 / 15 / 1975

SURFACE ELEVATION (FT.): 600.0

LOGGED (FT.): 180.0

LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-78

WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0			UNCONSOLIDATED	131.0	0.0	
469.0	CARBONDALE		GRAY SHALE	23.0	131.0	
446.0	CARBONDALE	ST. DAVID	LIMESTONE	2.5	154.0	
443.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	156.5	
441.0	CARBONDALE	SPRINGFIELD	COAL	6.0	159.0	
435.0	CARBONDALE		CLAYSTONE & SHALE	9.0	165.0	
426.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	174.0	
424.0	CARBONDALE		SHALE	4.0	176.0	

MAPID: 12920608000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 17N 6W SECTION: 9 QUARTERS/FOOTAGES: 1900' S line, 1900' W line
 QUADRANGLE: SALISBURY LONGITUDE: -89.781645 GEOLOGIST: SROKA
 CONFIDENTIAL: N LATITUDE: 39.936644 DATE COLLECTED: 9 / 25 / 1975
 SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 175.5 LOG TYPE: Multiple log types
 SOURCE: MOBIL OIL SI-10C WELL TYPE: Coal Test
 COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0			UNCONSOLIDATED	141.0	0.0	
464.0	CARBONDALE		SHALE	8.0	141.0	
456.0	CARBONDALE		NO RECORD	11.0	149.0	
445.0	CARBONDALE		CORE LOSS	0.9	160.0	
444.1	CARBONDALE	ST. DAVID	LIMESTONE	3.2	160.9	
441.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	164.0	
438.5	CARBONDALE	SPRINGFIELD	COAL	5.0	166.5	
433.5	CARBONDALE		UNDERCLAY	0.3	171.5	
433.2	CARBONDALE		CORE LOSS	3.7	171.8	

MAPID: 12920609000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 17N 6W SECTION: 10 QUARTERS/FOOTAGES: 12' N line, 42' W line
 QUADRANGLE: SALISBURY LONGITUDE: -89.769618 GEOLOGIST: SROKA
 CONFIDENTIAL: N LATITUDE: 39.946392 DATE COLLECTED: 9 / 25 / 1975
 SURFACE ELEVATION (FT.): 502.0 LOGGED (FT.): 44.0 LOG TYPE: Drillers Log
 SOURCE: MOBIL SI-58 WELL TYPE: Coal Test
 COMMENT: DRILLERS LOG, ABD. HOLE DUE TO CAVING

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
502.0			CLAYSTONE	9.0	0.0	
493.0			SAND & GRAVEL	35.0	9.0	

MAPID: 1292061000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 17N 6W SECTION: 10 QUARTERS/FOOTAGES: 1500' S line, 30' E line

QUADRANGLE: SALISBURY LONGITUDE: -89.750692 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.93524 DATE COLLECTED: 10 / 13 / 1975

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 237.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-80 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.0			UNCONSOLIDATED	47.0	0.0
-	CARBONDALE	HERRIN	COAL	0.0	
-	CARBONDALE	SPRINGFIELD	COAL	0.0	
558.0	CARBONDALE		SHALE	161.5	47.0
396.5	CARBONDALE		BLACK SHALE	3.0	208.5
393.5	CARBONDALE		SHALE	25.5	211.5

MAPID: 12920611000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 17N 6W SECTION: 13 QUARTERS/FOOTAGES: 1180' N line, 1390' W line

QUADRANGLE: ATHENS LONGITUDE: -89.726548 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.928124 DATE COLLECTED: 10 / 29 / 1975

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 245.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-133 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.0			UNCONSOLIDATED	100.0	0.0
505.0	CARBONDALE		SHALE	29.5	100.0
475.5	CARBONDALE		BLACK SHALE	2.0	129.5
473.5	CARBONDALE		SHALE	4.0	131.5
469.5	CARBONDALE	HERRIN	COAL	2.0	135.5
467.5	CARBONDALE		SHALE	32.5	137.5
435.0	CARBONDALE		GRAY SHALE	19.0	170.0
416.0	CARBONDALE	ST. DAVID	SHALY LIMESTONE	4.5	189.0
411.5	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	193.5
407.5	CARBONDALE	SPRINGFIELD	COAL	6.0	197.5
401.5	CARBONDALE		GRAY SHALE	5.5	203.5
396.0	CARBONDALE		LIMESTONE	1.0	209.0
395.0	CARBONDALE		SHALE	2.0	210.0
393.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	212.0
391.0	CARBONDALE		SHALE	31.0	214.0

MAPID: 12920580000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 17N 6W SECTION: 15 QUARTERS/FOOTAGES: 1340' S line, 3100' W line

QUADRANGLE: SALISBURY LONGITUDE: -89.758281 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.920521 DATE COLLECTED: 5 / 8 / 1975

SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 203.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-11 WELL TYPE: Coal Test

COMMENT: HOLE MOVED 500 TO THE EAST TO MATCH ELEV

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
585.0			UNCONSOLIDATED	158.0	0.0
454.5	CARBONDALE	HERRIN	COAL	0.0	130.5
427.0	CARBONDALE		SHALE	2.5	158.0
424.5	CARBONDALE		SILTSTONE & SHALE	2.8	160.5
421.7	CARBONDALE		SILTSTONE	8.7	163.3
413.0	CARBONDALE		CORE LOSS	1.0	172.0
412.0	CARBONDALE		SILTSTONE	7.0	173.0
405.0	CARBONDALE		SHALE	8.9	180.0
396.1	CARBONDALE	ST. DAVID	LIMESTONE	0.2	188.9
395.9	CARBONDALE	TURNER MINE	BLACK SHALE	3.4	189.1
392.5	CARBONDALE	SPRINGFIELD	COAL	5.9	192.5
386.7	CARBONDALE		SHALE	4.3	198.3
382.4	CARBONDALE		CORE LOSS	0.4	202.6

MAPID: 12920581000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 17N 6W SECTION: 17 QUARTERS/FOOTAGES: 24' N line, 906' E line

QUADRANGLE: SALISBURY LONGITUDE: -89.79158 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.931588 DATE COLLECTED: 9 / 26 / 1975

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 166.9 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-57C WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
595.0			UNCONSOLIDATED	110.0	0.0
500.0	CARBONDALE	HERRIN	COAL	0.0	95.0
485.0	CARBONDALE		GRAY SHALE	10.0	110.0
475.0	CARBONDALE		GRAY SHALE	5.5	120.0
469.5	CARBONDALE		CLAYSTONE	2.5	125.5
467.0	CARBONDALE		CLAYSTONE	2.0	128.0
465.0	CARBONDALE		CORE LOSS	2.5	130.0
462.5	CARBONDALE		CLAYSTONE	20.8	132.5
441.7	CARBONDALE		CALCAREOUS SHALE	0.2	153.3
441.5	CARBONDALE	ST. DAVID	ARGILLACEOUS LIMESTONE	0.4	153.5
441.1	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	153.9
440.1	CARBONDALE		CLAYSTONE	0.7	154.9
439.4	CARBONDALE		CORE LOSS	1.4	155.6
438.0	CARBONDALE	SPRINGFIELD	COAL	5.5	157.0
432.5	CARBONDALE		SHALE	4.4	162.5

MAPID: 12920582000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 17N 6W SECTION: 19 QUARTERS/FOOTAGES: 2430' N line, 1270' E line

QUADRANGLE: SALISBURY LONGITUDE: -89.811489 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.910167 DATE COLLECTED: 9 / 9 / 1975

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 168.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-12 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST., DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0			UNCONSOLIDATED	103.0	0.0	
497.0	CARBONDALE		BLACK SHALE	1.5	103.0	
495.5	CARBONDALE	HERRIN	COAL	0.5	104.5	
495.0	CARBONDALE		GRAY SHALE	9.0	105.0	
486.0	CARBONDALE		SHALY LIMESTONE	5.0	114.0	
481.0	CARBONDALE		GRAY SHALE	8.0	119.0	
473.0	CARBONDALE		SHALY SANDSTONE	3.0	127.0	
470.0	CARBONDALE		SHALE	11.7	130.0	
458.3	CARBONDALE		SHALE	5.3	141.7	
453.0	CARBONDALE		CLAYSTONE	4.1	147.0	
448.9	CARBONDALE	ST. DAVID	LIMESTONE	0.6	151.1	
448.3	CARBONDALE	ST. DAVID	FOSSILIFEROUS LIMESTONE	6.7	151.7	
441.6	CARBONDALE	ST. DAVID	CALCAREOUS SHALE	0.8	158.4	
440.8	CARBONDALE	ST. DAVID	LIMESTONE	0.5	159.2	
440.3	CARBONDALE	SPRINGFIELD	COAL	5.3	159.7	
435.0	CARBONDALE		CLAYSTONE	1.0	165.0	
434.0	CARBONDALE		CORE LOSS	2.0	166.0	

MAPID: 12920980000C VERSION: 1

PROJECT: NCRDS91

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 1 QUARTERS/FOOTAGES: 2250' S line, 2575' W line

QUADRANGLE: SALISBURY LONGITUDE: -89.836321 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 39.951755 DATE COLLECTED: 10 / 3 / 1981

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 157.0 LOG TYPE: Drillers Log

SOURCE: PHILLIPS COAL CO. ME-3 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
509.6	CARBONDALE	SPRINGFIELD	COAL	1.6	105.4	ONLY LOGGED COAL, LOG READS ' #5 ? '

MAPID: 12920583000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 3 QUARTERS/FOOTAGES: 40' S line, 81' W line

QUADRANGLE: TALLULA LONGITUDE: -89.882572 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.945512 DATE COLLECTED: 9 / 15 / 1975

SURFACE ELEVATION (FT.): 618.0 LOGGED (FT.): 174.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-15 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST., DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
618.0			UNCONSOLIDATED	105.0	0.0
513.0	CARBONDALE		BLACK SHALE	2.5	105.0
510.5	CARBONDALE	HERRIN	COAL	1.0	107.5
509.5	CARBONDALE		GRAY SHALE	7.0	108.5
502.5	CARBONDALE		LIMESTONE	3.5	115.5
499.0	CARBONDALE		GRAY SHALE	1.0	119.0
498.0	CARBONDALE		LIMESTONE	1.0	120.0
497.0	CARBONDALE		GRAY SHALE	6.5	121.0
490.5	CARBONDALE		LIMESTONE	3.5	127.5
487.0	CARBONDALE		SHALY SANDSTONE	19.0	131.0
468.0	CARBONDALE		SHALE	7.7	150.0
460.3	CARBONDALE	ST. DAVID	LIMESTONE	0.3	157.7
460.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	158.0
458.1	CARBONDALE	SPRINGFIELD	COAL	6.0	159.9
452.0	CARBONDALE		CLAYSTONE	2.8	166.0
449.2	CARBONDALE		CORE LOSS	0.7	168.8
448.5	CARBONDALE		CLAYSTONE	3.9	169.5
444.6	CARBONDALE		CORE LOSS	0.6	173.4

MAPID: 12920189000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 6 QUARTERS/FOOTAGES: 600' N line, 100' W line of NW NW

QUADRANGLE: TALLULA LONGITUDE: -89.93769 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.958308 DATE COLLECTED: 5 / 6 / 1969

SURFACE ELEVATION (FT.): 566.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON K576B WELL TYPE: Coal Test

COMMENT: FOOT EW ESTIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
566.0	PLEISTOCENE		CLAY	26.0	0.0	SANDY
540.0	PLEISTOCENE		CLAY	10.0	26.0	
530.0	PLEISTOCENE		BOULDER	2.0	36.0	LIMESTONE
528.0	PLEISTOCENE		CLAY	22.0	38.0	
506.0	CARBONDALE		LIMESTONE	6.0	60.0	
500.0	CARBONDALE		SHALE	1.0	66.0	DARK
499.0	CARBONDALE		GRAY SHALE	30.0	67.0	LIMESTONE LAMINAE
469.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	97.0	
468.0	CARBONDALE	SPRINGFIELD	COAL	6.0	98.0	
462.0	CARBONDALE		SHALE	11.0	104.0	
451.0	CARBONDALE		COAL	1.0	115.0	
450.0	CARBONDALE		SHALE	9.0	116.0	
441.0	CARBONDALE		LIMESTONE	3.0	125.0	
438.0	CARBONDALE		SHALE	12.0	128.0	

MAPID: 12920190000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 7 QUARTERS/FOOTAGES: SW SE SW NW

QUADRANGLE: TALLULA LONGITUDE: -89.936314 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.938417 DATE COLLECTED: 3 / 28 / 1972

SURFACE ELEVATION (FT.): 619.0 LOGGED (FT.): 100.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON K302 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
619.0	PLEISTOCENE		CLAY	36.0	0.0	
583.0	PLEISTOCENE		GRAVEL	4.0	36.0	
579.0	PLEISTOCENE		CLAY	27.0	40.0	
552.0	CARBONDALE		GRAY SHALE	25.0	67.0	
527.0	CARBONDALE	ANNA	BLACK SHALE	2.0	92.0	
525.0	CARBONDALE	HERRIN	COAL	3.0	94.0	
522.0	CARBONDALE		UNDERCLAY	3.0	97.0	#5 COAL NOT REACHED

MAPID: 12920191000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 7 QUARTERS/FOOTAGES: NW NW NW SE

QUADRANGLE: TALLULA LONGITUDE: -89.929206 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.937541 DATE COLLECTED: 3 / 28 / 1972

SURFACE ELEVATION (FT.): 619.0 LOGGED (FT.): 107.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON K305 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
619.0	PLEISTOCENE		CLAY	60.0	0.0	
559.0	CARBONDALE		LIMESTONE	4.0	60.0	
555.0	CARBONDALE		GRAY SHALE	34.0	64.0	
521.0	CARBONDALE	ANNA	BLACK SHALE	4.0	98.0	
517.0	CARBONDALE	HERRIN	COAL	2.5	102.0	
514.5	CARBONDALE		UNDERCLAY	2.5	104.5	#5 COAL NOT REACHED

MAPID: 12920192000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 8 QUARTERS/FOOTAGES: 30' N line, 35' E line of NE NE

QUADRANGLE: TALLULA LONGITUDE: -89.90193 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.945144 DATE COLLECTED: 1 / 16 / 1970

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 168.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON K417 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0	PLEISTOCENE		CLAY	158.0	0.0	
457.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	158.0	
456.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	159.0	
454.5	CARBONDALE	SPRINGFIELD	COAL	7.0	160.5	
447.5	CARBONDALE		UNDERCLAY	0.5	167.5	

MAPID: 12920193000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 8 QUARTERS/FOOTAGES: 35' S line, 0' E line of SE SE

QUADRANGLE: TALLULA LONGITUDE: -89.901678 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.930765 DATE COLLECTED: 1 / 17 / 1970

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 180.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON K217 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0	PLEISTOCENE		CLAY	38.0	0.0	
577.0	PLEISTOCENE		CLAY & GRAVEL	12.0	38.0	
565.0	PLEISTOCENE		BOULDER	1.0	50.0	LIMESTONE
564.0	PLEISTOCENE		CLAY & GRAVEL	14.0	51.0	
550.0	PLEISTOCENE		CLAY	57.0	65.0	
493.0	CARBONDALE		GRAY SHALE	17.5	122.0	
475.5	CARBONDALE	ST. DAVID	LIMESTONE	7.5	139.5	
468.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	147.0	
467.0	CARBONDALE	SPRINGFIELD	COAL	4.0	148.0	
463.0	CARBONDALE		UNDERCLAY	1.0	152.0	
462.0	CARBONDALE		GRAY SHALE	27.0	153.0	

MAPID: 12920194000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 8 QUARTERS/FOOTAGES: 12' N line, 168' E line of SW NE

QUADRANGLE: TALLULA LONGITUDE: -89.907026 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.941577 DATE COLLECTED: 1 / 16 / 1970

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 157.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON K364P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0	PLEISTOCENE		CLAY	72.0	0.0	
543.0	PLEISTOCENE		BOULDER	1.0	72.0	LIMESTONE
542.0	PLEISTOCENE		CLAY	32.0	73.0	
510.0	PLEISTOCENE		GRAVEL	2.0	105.0	LIMESTONE
508.0	PLEISTOCENE		CLAY	8.0	107.0	
500.0	CARBONDALE		GRAY SHALE	32.0	115.0	
468.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	147.0	
467.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.1	147.5	
465.4	CARBONDALE	SPRINGFIELD	COAL	6.4	149.6	
459.0	CARBONDALE		UNDERCLAY	1.0	156.0	

MAPID: 12920584000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 12 QUARTERS/FOOTAGES: 2610' N line, 2135' W line

QUADRANGLE: SALISBURY LONGITUDE: -89.837716 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.938274 DATE COLLECTED: 9 / 12 / 1975

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 165.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-16 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.0			UNCONSOLIDATED	39.0	0.0
566.0	CARBONDALE		LIMESTONE	6.0	39.0
560.0	CARBONDALE		GRAY SHALE	9.0	45.0
551.0	CARBONDALE		LIMESTONE	6.0	54.0
545.0	CARBONDALE		GRAY SHALE	5.0	60.0
540.0	CARBONDALE		SHALE	4.0	65.0
536.0	CARBONDALE		GRAY SHALE	26.0	69.0
510.0	CARBONDALE	ANNA	BLACK SHALE	3.0	95.0
507.0	CARBONDALE	HERRIN	COAL	1.5	98.0
505.5	CARBONDALE		GRAY SHALE	6.5	99.5
499.0	CARBONDALE		LIMESTONE	3.5	106.0
495.5	CARBONDALE		SHALE	1.0	109.5
494.5	CARBONDALE		LIMESTONE	1.0	110.5
493.5	CARBONDALE		GRAY SHALE	7.5	111.5
486.0	CARBONDALE		SHALY LIMESTONE	3.0	119.0
483.0	CARBONDALE		SILTSTONE	7.9	122.0
475.1	CARBONDALE		SHALE	9.4	129.9
465.7	CARBONDALE		CORE LOSS	1.2	139.3
464.5	CARBONDALE		UNCLASSIFIED	2.7	140.5
461.8	CARBONDALE		SHALE	8.4	143.2
453.4	CARBONDALE	TURNER MINE	BLACK SHALE	1.1	151.6
452.3	CARBONDALE		CORE LOSS	0.8	152.7
451.5	CARBONDALE	TURNER MINE	LIMESTONE	0.7	153.5
450.8	CARBONDALE	SPRINGFIELD	COAL	4.8	154.2
446.0	CARBONDALE		CLAYSTONE & SILTSTONE	2.7	159.0
443.3	CARBONDALE		CORE LOSS	3.3	161.7
440.0	CARBONDALE		UNCLASSIFIED	0.0	165.0

MAPID: 12920981000C VERSION: 1

PROJECT: NCRDS91

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 13 QUARTERS/FOOTAGES: 2200' N line, 1150' W line

QUADRANGLE: SALISBURY LONGITUDE: -89.841041 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 39.924741 DATE COLLECTED: 10 / 2 / 1981

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 169.0 LOG TYPE: Drillers Log

SOURCE: PHILLIPS COAL CO. ME-1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
462.7	CARBONDALE	SPRINGFIELD	COAL	1.1	142.3	
461.6	CARBONDALE	SPRINGFIELD	SHALE	0.5	143.4	PARTING
461.1	CARBONDALE	SPRINGFIELD	COAL	3.4	143.9	

MAPID: 12900079000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 15 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: SALISBURY LONGITUDE: -89.872065 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.922497 DATE COLLECTED: 11 / 19 / 1958

SURFACE ELEVATION (FT.): 609.0 LOGGED (FT.): 236.0 LOG TYPE: Drillers Log

SOURCE: DONAN TP-1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
609.0	PLEISTOCENE		UNCONSOLIDATED	44.0	0.0	
565.0			LIMESTONE	4.0	44.0	
561.0			CLAYSTONE & SILTSTONE	6.0	48.0	
555.0			SHALE	15.0	54.0	
540.0			CLAYSTONE & SILTSTONE	1.8	69.0	
538.2			SHALE	4.5	70.8	
533.7	CARBONDALE		LIMESTONE	0.2	75.3	
533.5	CARBONDALE		SHALE	23.0	75.5	
510.5	CARBONDALE	ANNA	BLACK SHALE	3.2	98.5	
507.3	CARBONDALE		SHALE	0.9	101.7	
506.4	CARBONDALE	HERRIN	COAL	1.3	102.6	
505.2	CARBONDALE		UNDERCLAY	5.9	103.8	
499.2	CARBONDALE		LIMESTONE	2.6	109.8	
496.7	CARBONDALE		CLAYSTONE & SILTSTONE	1.3	112.3	
495.4	CARBONDALE		LIMESTONE	2.2	113.6	
493.2	CARBONDALE		CLAYSTONE & SILTSTONE	4.5	115.8	
488.7	CARBONDALE		SANDY SHALE	3.5	120.3	
485.2	CARBONDALE		SANDSTONE	11.3	123.8	
474.0	CARBONDALE		SHALE	16.8	135.0	
457.2	CARBONDALE		LIMESTONE	0.3	151.8	
457.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.8	152.0	
455.2	CARBONDALE	SPRINGFIELD	COAL	5.5	153.8	
449.7	CARBONDALE		UNDERCLAY	6.8	159.3	
442.8	CARBONDALE		BLACK SHALE	0.5	166.2	
442.3	CARBONDALE		CLAYSTONE & SILTSTONE	6.0	166.7	
436.3	CARBONDALE		SANDSTONE	14.0	172.7	
422.3	CARBONDALE		SHALE	43.1	186.7	
379.2	CARBONDALE	HOUCHIN CREEK	COAL	0.4	229.8	
378.9	CARBONDALE		SANDY SHALE	3.4	230.1	
375.5	CARBONDALE		SHALY SANDSTONE	2.5	233.5	LS FOSSILS & NODULES

MAPID: 12920195000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 15 QUARTERS/FOOTAGES: 110' S line, 969' W line of NW SW
 QUADRANGLE: TALLULA LONGITUDE: -89.879239 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.92002 DATE COLLECTED: 7 / 21 / 1970
 SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON L102B WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	70.0	0.0	
535.0	PLEISTOCENE		CLAY & GRAVEL	2.0	70.0	
533.0	PLEISTOCENE		CLAY	70.0	72.0	
463.0	PLEISTOCENE		GRAVEL	8.0	142.0	
455.0	CARBONDALE		SHALE	4.0	150.0	
451.0	CARBONDALE	SPRINGFIELD	COAL	5.8	154.0	
445.2	CARBONDALE		UNDERCLAY	0.2	159.8	

MAPID: 12920196000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 15 QUARTERS/FOOTAGES: 483' N line, 57' W line of SW SW
 QUADRANGLE: TALLULA LONGITUDE: -89.882502 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.918351 DATE COLLECTED: 7 / 13 / 1970
 SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON L26J WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	38.0	0.0	
567.0	PLEISTOCENE		BOULDER	1.0	38.0	
566.0	PLEISTOCENE		CLAY	71.0	39.0	
495.0	PLEISTOCENE		CLAY & GRAVEL	2.0	110.0	
493.0	PLEISTOCENE		CLAY	8.0	112.0	SILTY
485.0	CARBONDALE		SHALE	16.0	120.0	
469.0	CARBONDALE	ST. DAVID	LIMESTONE	7.5	136.0	
461.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	143.5	
460.0	CARBONDALE	SPRINGFIELD	COAL	3.0	145.0	
457.0	CARBONDALE		GRAY SHALE	12.0	148.0	

MAPID: 12920197000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 15 QUARTERS/FOOTAGES: 480' N line, 126' E line of NE SW

QUADRANGLE: SALISBURY LONGITUDE: -89.873701 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.922064 DATE COLLECTED: 7 / 20 / 1970

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 146.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON L79P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		CLAY	22.0	0.0	
568.0	PLEISTOCENE		CLAY	8.0	22.0	
560.0			RED SHALE	8.0	30.0	
552.0			LIMESTONE W/ SHALE	14.0	38.0	
538.0			SHALE	34.0	52.0	
504.0	CARBONDALE	ANNA	BLACK SHALE	2.0	86.0	INCLUDES COAL
502.0	CARBONDALE		SHALE	8.0	88.0	
494.0	CARBONDALE		LIMESTONE	8.0	96.0	
486.0	CARBONDALE		LIMESTONE W/ SHALE	21.0	104.0	
465.0	CARBONDALE		SHALE	11.0	125.0	
454.0	CARBONDALE	ST. DAVID	LIMESTONE	2.5	136.0	
451.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	138.5	
449.5	CARBONDALE	SPRINGFIELD	COAL	5.0	140.5	
444.5	CARBONDALE		UNDERCLAY	0.5	145.5	

MAPID: 12920198000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 16 QUARTERS/FOOTAGES: 35' N line, 100' W line of SE SW

QUADRANGLE: TALLULA LONGITUDE: -89.896568 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.919663 DATE COLLECTED: 7 / 14 / 1970

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 134.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON K69 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		CLAY	40.0	0.0	
550.0	PLEISTOCENE		CLAY & GRAVEL	5.0	40.0	
545.0			RED SHALE	15.0	45.0	
530.0			SHALE	14.0	60.0	
516.0	CARBONDALE	ANNA	BLACK SHALE	1.0	74.0	
515.0	CARBONDALE	HERRIN	COAL	1.5	75.0	
513.5	CARBONDALE		SHALE	6.5	76.5	
507.0	CARBONDALE		LIMESTONE	5.0	83.0	
502.0	CARBONDALE		SHALE	16.0	88.0	
486.0	CARBONDALE		SHALE	8.0	104.0	LIMESTONE INTERBEDS
478.0	CARBONDALE		SHALE	13.0	112.0	
465.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	125.0	
462.5	CARBONDALE	SPRINGFIELD	COAL	5.0	127.5	
457.5	CARBONDALE		UNDERCLAY	1.5	132.5	

MAPID: 12920199000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 16 QUARTERS/FOOTAGES: 27' N line, 40' E line of SW SE

QUADRANGLE: TALLULA LONGITUDE: -89.887592 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.919634 DATE COLLECTED: 7 / 15 / 1970

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 121.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON K73 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		CLAY	36.0	0.0	
554.0	PLEISTOCENE		BOULDER	2.0	36.0	LIMESTONE
552.0	PLEISTOCENE		CLAY	4.0	38.0	
548.0	PLEISTOCENE		BOULDER	9.0	42.0	LIMESTONE
539.0	PLEISTOCENE		CLAY	31.0	51.0	
508.0	CARBONDALE		SHALE	30.5	82.0	
477.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	112.5	
476.0	CARBONDALE	SPRINGFIELD	COAL	6.3	114.0	
469.7	CARBONDALE		UNDERCLAY	0.7	120.3	

MAPID: 1292020000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 16 QUARTERS/FOOTAGES: 78' N line, 600' E line of NE SE

QUADRANGLE: TALLULA LONGITUDE: -89.88488 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.923113 DATE COLLECTED: 9 / 20 / 1970

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 146.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON K124 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0	PLEISTOCENE		CLAY	115.0	0.0	
480.0	PLEISTOCENE		CLAY, SAND & GRAVEL	7.0	115.0	
473.0	CARBONDALE		SHALE	7.0	122.0	
466.0	CARBONDALE		LIMESTONE	9.5	129.0	
456.5	CARBONDALE		SHALE	2.5	138.5	
454.0	CARBONDALE	SPRINGFIELD	COAL	2.0	141.0	
452.0	CARBONDALE		SHALE	3.0	143.0	

MAPID: 12920201000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 16 QUARTERS/FOOTAGES: 50' N line, 460' W line of NW SE

QUADRANGLE: TALLULA LONGITUDE: -89.890548 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.923221 DATE COLLECTED: 7 / 16 / 1970

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 132.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON K121P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0	PLEISTOCENE		CLAY	36.0	0.0	
559.0	PLEISTOCENE		CLAY & GRAVEL	4.0	36.0	
555.0	PLEISTOCENE		CLAY	20.0	40.0	
535.0	PLEISTOCENE		BOULDERS & CLAY	27.0	60.0	THICKNESS ADJUSTED
508.0	CARBONDALE		LIMESTONE	4.0	87.0	
504.0	CARBONDALE		SHALE	32.0	91.0	
472.0	CARBONDALE		LIMESTONE	1.0	123.0	
471.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	124.0	
469.5	CARBONDALE	SPRINGFIELD	COAL	6.0	125.5	
463.5	CARBONDALE		UNDERCLAY	0.5	131.5	

MAPID: 12920202000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 16 QUARTERS/FOOTAGES: 35' S line, 10' W line of SW NW

QUADRANGLE: TALLULA LONGITUDE: -89.901633 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.923512 DATE COLLECTED: 7 / 16 / 1970

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 152.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON K117 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0	PLEISTOCENE		CLAY	102.0	0.0	
510.0	PLEISTOCENE		BOULDER	3.0	102.0	LIMESTONE
507.0	PLEISTOCENE		CLAY	10.0	105.0	
497.0	CARBONDALE		SHALE	7.0	115.0	
490.0	CARBONDALE		LIMESTONE	2.0	122.0	
488.0	CARBONDALE		SHALE	10.0	124.0	
478.0	CARBONDALE	ST. DAVID	LIMESTONE	11.0	134.0	
467.0	CARBONDALE	TURNER MINE	SHALE	1.0	145.0	DARK
466.0	CARBONDALE	SPRINGFIELD	COAL	5.5	146.0	
460.5	CARBONDALE		UNDERCLAY	0.5	151.5	

MAPID: 12920203000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 16 QUARTERS/FOOTAGES: 35' N line, 160' W line of SW NW

QUADRANGLE: TALLULA LONGITUDE: -89.901101 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.926942 DATE COLLECTED: 7 / 17 / 1970

SURFACE ELEVATION (FT.): 614.0 LOGGED (FT.): 145.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON K111N WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
614.0	PLEISTOCENE		CLAY	60.0	0.0	
554.0	PLEISTOCENE		CLAY & GRAVEL	4.0	60.0	
550.0	PLEISTOCENE		CLAY	9.0	64.0	
541.0	PLEISTOCENE		SAND & GRAVEL	3.0	73.0	
538.0			SHALE	12.0	76.0	
526.0			LIMESTONE	13.5	88.0	
512.5	CARBONDALE		SHALE	8.5	101.5	
504.0	CARBONDALE		LIMESTONE W/ SHALE	10.0	110.0	
494.0	CARBONDALE		SHALE	11.0	120.0	
483.0	CARBONDALE	ST. DAVID	LIMESTONE	6.5	131.0	
476.5	CARBONDALE	TURNER MINE	SHALE	1.0	137.5	DARK
475.5	CARBONDALE	SPRINGFIELD	COAL	5.5	138.5	
470.0	CARBONDALE		UNDERCLAY	1.0	144.0	

MAPID: 12920204000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 17 QUARTERS/FOOTAGES: 20' S line, 45' W line of SE SW

QUADRANGLE: TALLULA LONGITUDE: -89.915477 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.916291 DATE COLLECTED: 7 / 13 / 1970

SURFACE ELEVATION (FT.): 617.0 LOGGED (FT.): 157.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON K11 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.0	PLEISTOCENE		CLAY	60.0	0.0	
557.0			SHALE	46.0	60.0	
511.0			LIMESTONE	6.0	106.0	
505.0			SHALE	8.0	112.0	
497.0	CARBONDALE		LIMESTONE W/ SHALE	6.0	120.0	
491.0	CARBONDALE		SHALE	23.0	126.0	
468.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	149.0	
466.5	CARBONDALE	SPRINGFIELD	COAL	5.5	150.5	
461.0	CARBONDALE		UNDERCLAY	1.0	156.0	

MAPID: 12920205000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 18 QUARTERS/FOOTAGES: 414' N line, 312' E line of NE SE

QUADRANGLE: TALLULA LONGITUDE: -89.921402 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.922361 DATE COLLECTED: 4 / 22 / 1970

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 144.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON K83LC WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0	PLEISTOCENE		CLAY	45.0	0.0	
570.0			GRAY SHALE	45.0	45.0	
525.0	CARBONDALE	ANNA	BLACK SHALE	2.0	90.0	
523.0	CARBONDALE		SHALE	9.0	92.0	
514.0	CARBONDALE		LIMESTONE	4.0	101.0	
510.0	CARBONDALE		SHALE	7.0	105.0	
503.0	CARBONDALE		LIMESTONE	2.0	112.0	
501.0	CARBONDALE		SHALE	11.0	114.0	
490.0	CARBONDALE	ST. DAVID	LIMESTONE	13.0	125.0	SOFT
477.0	CARBONDALE	SPRINGFIELD	COAL	4.8	138.0	
472.2	CARBONDALE		UNDERCLAY	1.2	142.8	

MAPID: 12920206000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 18 QUARTERS/FOOTAGES: NW NW NW NE
 QUADRANGLE: TALLULA LONGITUDE: -89.92914 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.93029 DATE COLLECTED: 8 / 31 / 1970
 SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON K205 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		CLAY	40.0	0.0	
580.0	PLEISTOCENE		CLAY & GRAVEL	10.0	40.0	
570.0	PLEISTOCENE		CLAY	44.0	50.0	
526.0	CARBONDALE	ANNA	BLACK SHALE	1.0	94.0	
525.0	CARBONDALE	HERRIN	COAL	1.5	95.0	
523.5	CARBONDALE		SHALE	10.5	96.5	THICKNESS ADJUSTED
513.0	CARBONDALE		LIMESTONE	2.0	107.0	
511.0	CARBONDALE		SHALE	33.0	109.0	
478.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	142.0	
477.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	143.0	
476.0	CARBONDALE	SPRINGFIELD	COAL	5.8	144.0	
470.2	CARBONDALE		UNDERCLAY	0.2	149.8	

MAPID: 12920207000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 18 QUARTERS/FOOTAGES: 36' N line, 84' W line of NW SE
 QUADRANGLE: TALLULA LONGITUDE: -89.929445 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.923409 DATE COLLECTED: 7 / 17 / 1970
 SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 134.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON K105 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		CLAY	62.0	0.0	
558.0	PLEISTOCENE		CLAY & GRAVEL	3.0	62.0	
555.0			SHALE	13.0	65.0	
542.0	CARBONDALE	ANNA	BLACK SHALE	1.0	78.0	
541.0	CARBONDALE	HERRIN	COAL	2.5	79.0	
538.5	CARBONDALE		SHALE	8.5	81.5	
530.0	CARBONDALE		LIMESTONE	4.0	90.0	
526.0	CARBONDALE		SHALE	24.0	94.0	
502.0	CARBONDALE	ST. DAVID	LIMESTONE	9.0	118.0	
493.0	CARBONDALE	TURNER MINE	SHALE	1.0	127.0	HARD
492.0	CARBONDALE	SPRINGFIELD	COAL	5.6	128.0	
486.4	CARBONDALE		UNDERCLAY	0.4	133.6	

MAPID: 12922243000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 19 QUARTERS/FOOTAGES: 249' S line, 6' E line of SE SE

QUADRANGLE: TALLULA LONGITUDE: -89.920286 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.90248 DATE COLLECTED: 4 / 21 / 1970

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 133.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON 0409J WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		CLAY	35.0	0.0	
585.0	PLEISTOCENE		CLAY & GRAVEL	20.0	35.0	
565.0			LIMESTONE	5.0	55.0	SHALE INTERBEDS
560.0			SHALE	14.0	60.0	
546.0			SHALE	2.0	74.0	WITH COAL
544.0			SHALE	9.0	76.0	
535.0			SHALE	7.0	85.0	LIMESTONE INTERBEDS
528.0	CARBONDALE		SHALE	32.0	92.0	
496.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	124.0	
494.0	CARBONDALE	SPRINGFIELD	COAL	6.0	126.0	
488.0	CARBONDALE		UNDERCLAY	1.0	132.0	

MAPID: 12922244000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 20 QUARTERS/FOOTAGES: NE NW NW SE

QUADRANGLE: TALLULA LONGITUDE: -89.909184 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.908519 DATE COLLECTED: 8 / 29 / 1970

SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 163.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON 0574 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
625.0	PLEISTOCENE		CLAY	40.0	0.0	
585.0	PLEISTOCENE		BOULDERS & CLAY	10.0	40.0	
575.0	PLEISTOCENE		CLAY	10.0	50.0	
565.0			LIMESTONE W/ SHALE	5.0	60.0	
560.0			SHALE	42.0	65.0	
518.0	CARBONDALE	ANNA	BLACK SHALE	1.0	107.0	
517.0	CARBONDALE		SHALE	9.0	108.0	
508.0	CARBONDALE		LIMESTONE	4.0	117.0	
504.0	CARBONDALE		SHALE	19.0	121.0	
485.0	CARBONDALE		SHALE	12.0	140.0	
473.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	152.0	
471.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	154.0	
468.0	CARBONDALE	SPRINGFIELD	COAL	5.6	157.0	
462.4	CARBONDALE		UNDERCLAY	0.4	162.6	

MAPID: 12922245000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 21 QUARTERS/FOOTAGES: SW SW SE NW
 QUADRANGLE: TALLULA LONGITUDE: -89.896265 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.909347 DATE COLLECTED: 4 / 21 / 1970
 SURFACE ELEVATION (FT.): 622.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON 0519 WELL TYPE: Coal Test
 COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
622.0	PLEISTOCENE		CLAY	107.0	0.0	
515.0	CARBONDALE	ANNA	BLACK SHALE	1.0	107.0	
514.0	CARBONDALE		LIMESTONE	17.0	108.0	SHALE INTERBEDS
497.0	CARBONDALE		SHALE	27.5	125.0	
469.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	152.5	
468.0	CARBONDALE	SPRINGFIELD	COAL	5.5	154.0	
462.5	CARBONDALE		UNDERCLAY	0.5	159.5	

MAPID: 12922246000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 21 QUARTERS/FOOTAGES: 21' S line, 70' W line of NE NW
 QUADRANGLE: TALLULA LONGITUDE: -89.896635 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.912572 DATE COLLECTED: 7 / 15 / 1970
 SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 159.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON 0569 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0	PLEISTOCENE		CLAY	42.0	0.0	
570.0	PLEISTOCENE		BOULDER	1.0	42.0	LIMESTONE
569.0	PLEISTOCENE		CLAY	14.0	43.0	
555.0			LIMESTONE	3.0	57.0	
552.0			SHALE	37.5	60.0	
514.5	CARBONDALE	ANNA	BLACK SHALE	1.0	97.5	
513.5	CARBONDALE	HERRIN	COAL	1.5	98.5	
512.0	CARBONDALE		SHALE	7.0	100.0	
505.0	CARBONDALE		LIMESTONE	7.0	107.0	SHALE INTERBEDS
498.0	CARBONDALE		SHALE	35.0	114.0	
463.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	149.0	
460.5	CARBONDALE	SPRINGFIELD	COAL	6.5	151.5	
454.0	CARBONDALE		UNDERCLAY	1.0	158.0	

MAPID: 12922247000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 21 QUARTERS/FOOTAGES: 620' S line, 594' W line of NE NE

QUADRANGLE: TALLULA LONGITUDE: -89.885289 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.91415 DATE COLLECTED: 7 / 14 / 1970

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 180.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON 0599 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		CLAY	36.0	0.0	
574.0	PLEISTOCENE		CLAY & GRAVEL	4.0	36.0	
570.0	PLEISTOCENE		CLAY	30.0	40.0	
540.0	PLEISTOCENE		BOULDERS & CLAY	10.0	70.0	
530.0	PLEISTOCENE		CLAY	40.0	80.0	
490.0	CARBONDALE		GRAY SHALE	20.0	120.0	
470.0	CARBONDALE		SANDSTONE/SHALE	8.0	140.0	
462.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	148.0	
461.0	CARBONDALE	SPRINGFIELD	COAL	4.0	149.0	
457.0	CARBONDALE		SHALE	21.0	153.0	
436.0	CARBONDALE		SHALE	6.0	174.0	LIMESTONE INTERBEDS

MAPID: 12920208000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 22 QUARTERS/FOOTAGES: 460' N line, 210' W line of NE NE

QUADRANGLE: SALISBURY LONGITUDE: -89.86771 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.914948 DATE COLLECTED: 2 / 22 / 1970

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 144.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON P583G WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	20.0	0.0	
580.0	PLEISTOCENE		BOULDERS & CLAY	10.0	20.0	
570.0	PLEISTOCENE		CLAY	12.0	30.0	
558.0			LIMESTONE W/ SHALE	13.0	42.0	
545.0			SHALE	27.0	55.0	
518.0	CARBONDALE	ANNA	BLACK SHALE	4.0	82.0	INCLUDES COAL
514.0	CARBONDALE		SHALE	6.0	86.0	
508.0	CARBONDALE		LIMESTONE	5.0	92.0	
503.0	CARBONDALE		SHALE	16.0	97.0	
487.0	CARBONDALE		LIMESTONE	9.0	113.0	
478.0	CARBONDALE		SHALE	15.0	122.0	
463.0	CARBONDALE	SPRINGFIELD	COAL	6.4	137.0	
456.6	CARBONDALE		UNDERCLAY	0.6	143.4	

MAPID: 12922248000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 22 QUARTERS/FOOTAGES: SW SW NW SE

QUADRANGLE: SALISBURY LONGITUDE: -89.872502 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.905665 DATE COLLECTED: 8 / 6 / 1970

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 173.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON P455 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0	PLEISTOCENE		CLAY	86.0	0.0	
529.0	PLEISTOCENE		BOULDER	1.0	86.0	
528.0	PLEISTOCENE		CLAY	30.0	87.0	
498.0			LIMESTONE	1.0	117.0	
497.0			SHALE	5.0	118.0	
492.0			LIMESTONE	7.0	123.0	
485.0			SHALE	20.0	130.0	LIMEY
465.0	CARBONDALE		SHALE	15.0	150.0	
450.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	165.0	
449.0	CARBONDALE	SPRINGFIELD	COAL	6.5	166.0	
442.5	CARBONDALE		UNDERCLAY	0.5	172.5	

MAPID: 12920585000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 17N 7W SECTION: 23 QUARTERS/FOOTAGES: 2630' S line, 2115' E line

QUADRANGLE: SALISBURY LONGITUDE: -89.852507 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.908887 DATE COLLECTED: 9 / 10 / 1975

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 168.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-17 WELL TYPE: Coal Test

COMMENT: DRILLERS LOG AND CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0			UNCONSOLIDATED	44.0	0.0
566.0	CARBONDALE		SANDSTONE	2.0	44.0
564.0	CARBONDALE		LIMESTONE	8.0	46.0
556.0	CARBONDALE		GRAY SHALE	13.0	54.0
543.0	CARBONDALE		SHALY LIMESTONE	4.5	67.0
538.5	CARBONDALE		GRAY SHALE	13.5	71.5
525.0	CARBONDALE		SHALE	9.0	85.0
516.0	CARBONDALE		GRAY SHALE	9.0	94.0
507.0	CARBONDALE	ANNA	BLACK SHALE	2.0	103.0
505.0	CARBONDALE	HERRIN	COAL	1.5	105.0
503.5	CARBONDALE		GRAY SHALE	9.0	106.5
494.5	CARBONDALE		LIMESTONE	2.0	115.5
492.5	CARBONDALE		GRAY SHALE	2.5	117.5
490.0	CARBONDALE		LIMESTONE	1.0	120.0
489.0	CARBONDALE		GRAY SHALE	3.0	121.0
486.0	CARBONDALE		SHALY LIMESTONE	3.0	124.0
483.0	CARBONDALE		GRAY SHALE	8.0	127.0
475.0	CARBONDALE		SHALY SANDSTONE	7.0	135.0
468.0	CARBONDALE		SHALE	4.3	142.0
463.7	CARBONDALE		SHALE	8.0	146.3
455.7	CARBONDALE		CALCAREOUS SHALE	0.1	154.3
455.6	CARBONDALE	TURNER MINE	BLACK SHALE	1.9	154.4
453.7	CARBONDALE		SHALE	1.1	156.3
452.6	CARBONDALE		CALCAREOUS SHALE	0.3	157.4
452.3	CARBONDALE		UNCLASSIFIED	0.2	157.7
452.1	CARBONDALE	SPRINGFIELD	COAL	6.2	157.9
445.9	CARBONDALE		CLAYSTONE	2.9	164.1
443.0	CARBONDALE		CORE LOSS	1.0	167.0

MAPID: 12920209000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 1 QUARTERS/FOOTAGES: SW SW SW SW

QUADRANGLE: TALLULA LONGITUDE: -89.956132 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.945777 DATE COLLECTED: 5 / 20 / 1969

SURFACE ELEVATION (FT.): 622.0 LOGGED (FT.): 143.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J417 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES GIVEN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
622.0	PLEISTOCENE		CLAY	60.0	0.0	
562.0	PLEISTOCENE		CLAY & GRAVEL	12.0	60.0	
550.0	PLEISTOCENE		CLAY	29.0	72.0	
521.0			LIMESTONE	3.0	101.0	
518.0			GRAY SHALE	10.0	104.0	
508.0			LIMESTONE	2.0	114.0	
506.0	CARBONDALE		GRAY SHALE	18.0	116.0	
488.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	134.0	
487.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.3	134.5	
485.2	CARBONDALE	SPRINGFIELD	COAL	5.6	136.8	
479.6	CARBONDALE		UNDERCLAY	0.6	142.4	

MAPID: 12920210000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 1 QUARTERS/FOOTAGES: NW NW SW NW

QUADRANGLE: TALLULA LONGITUDE: -89.95623 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.955831 DATE COLLECTED: 3 / 6 / 1972

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 116.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J567 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	59.0	0.0	
541.0	PLEISTOCENE		BOULDER	2.0	59.0	LIMESTONE
539.0	PLEISTOCENE		CLAY	3.5	61.0	CLAY AND LIME
535.5			GRAY SHALE	24.5	64.5	
511.0			RED SHALE	4.0	89.0	
507.0	CARBONDALE		GRAY SHALE	12.0	93.0	
495.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	105.0	
493.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	106.5	
491.0	CARBONDALE	SPRINGFIELD	COAL	5.5	109.0	
485.5	CARBONDALE		UNDERCLAY	1.5	114.5	

MAPID: 12920211000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 1 QUARTERS/FOOTAGES: 227' S line, 510' E line of SW SE
 QUADRANGLE: TALLULA LONGITUDE: -89.94448 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.946032 DATE COLLECTED: 12 / 1 / 1969
 SURFACE ELEVATION (FT.): 618.0 LOGGED (FT.): 151.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON J422NK WELL TYPE: Coal Test
 COMMENT: DAY OF DATA UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
618.0	PLEISTOCENE		CLAY	68.0	0.0	
550.0	PLEISTOCENE		BOULDER	3.0	68.0	LIMESTONE
547.0	PLEISTOCENE		CLAY	34.0	71.0	
513.0			LIMESTONE	3.0	105.0	
510.0			GRAY SHALE	12.0	108.0	
498.0			SHALE	2.0	120.0	LIMESTONE LAMINAE
496.0			SHALE	18.0	122.0	
478.0	CARBONDALE		LIMESTONE W/ SHALE	2.0	140.0	
476.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	142.0	
473.0	CARBONDALE	SPRINGFIELD	COAL	5.5	145.0	INCLUDES BONE
467.5	CARBONDALE		UNDERCLAY	0.5	150.5	

MAPID: 12920212000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 1 QUARTERS/FOOTAGES: 720' N line, 100' W line of NW SW
 QUADRANGLE: TALLULA LONGITUDE: -89.956408 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.950645 DATE COLLECTED: 3 / 7 / 1972
 SURFACE ELEVATION (FT.): 622.0 LOGGED (FT.): 143.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON J467D WELL TYPE: Coal Test
 COMMENT: FOOT EW ESTIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
622.0	PLEISTOCENE		CLAY	116.0	0.0	
506.0	CARBONDALE		GRAY SHALE	18.0	116.0	
488.0	CARBONDALE	ST. DAVID	LIMESTONE	1.2	134.0	
486.8	CARBONDALE	TURNER MINE	BLACK SHALE	2.2	135.2	
484.6	CARBONDALE	SPRINGFIELD	COAL	4.6	137.4	
480.0	CARBONDALE		UNDERCLAY	1.0	142.0	

MAPID: 12920213000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 1 QUARTERS/FOOTAGES: 30' S line, 948' W line of SE NE

QUADRANGLE: TALLULA

LONGITUDE: -89.939305

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 39.952785

DATE COLLECTED: 12 / 8 / 1969

SURFACE ELEVATION (FT.): 612.0

LOGGED (FT.): 150.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J473A

WELL TYPE: Coal Test

COMMENT: FOOTAGES UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0	PLEISTOCENE		CLAY	75.0	0.0	
537.0			LIMESTONE	3.0	75.0	
534.0			SHALE	30.0	78.0	
504.0			LIMESTONE	3.0	108.0	
501.0			GRAY SHALE	5.0	111.0	
496.0			LIMESTONE	2.0	116.0	
494.0	CARBONDALE		GRAY SHALE	23.0	118.0	
471.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	141.0	
469.0	CARBONDALE	SPRINGFIELD	COAL	6.1	143.0	BRIGHT BRITTLE
462.9	CARBONDALE		UNDERCLAY	0.9	149.1	

MAPID: 12920214000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 1 QUARTERS/FOOTAGES: 220' N line, 729' W line of NE NW

QUADRANGLE: TALLULA

LONGITUDE: -89.949539

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 39.959346

DATE COLLECTED: 6 / 19 / 1969

SURFACE ELEVATION (FT.): 600.0

LOGGED (FT.): 160.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J595

WELL TYPE: Coal Test

COMMENT: NO #5 COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	62.0	0.0	
538.0	PLEISTOCENE		BOULDER	1.0	62.0	LIMESTONE
537.0	PLEISTOCENE		CLAY	5.0	63.0	
532.0	PLEISTOCENE		BOULDER	1.0	68.0	LIMESTONE
531.0	PLEISTOCENE		CLAY	30.0	69.0	
501.0	CARBONDALE		LIMESTONE	9.0	99.0	
492.0	CARBONDALE		GRAY SHALE	3.0	108.0	
489.0	CARBONDALE	SPRINGFIELD	COAL	1.0	111.0	CLAY DIKE?
488.0	CARBONDALE		GRAY SHALE	10.0	112.0	
478.0	CARBONDALE		BLACK SHALE	0.5	122.0	
477.5	CARBONDALE		BLACK SHALE	7.5	122.5	
470.0	CARBONDALE		LIMESTONE	3.0	130.0	
467.0	CARBONDALE		GRAY SHALE	22.0	133.0	
445.0	CARBONDALE		LIMESTONE	2.0	155.0	
443.0	CARBONDALE		GRAY SHALE	3.0	157.0	

MAPID: 12920215000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 3 QUARTERS/FOOTAGES: NE NE NW NW

QUADRANGLE: TALLULA LONGITUDE: -89.990562 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.95953 DATE COLLECTED: 4 / 27 / 1970

SURFACE ELEVATION (FT.): 629.0 LOGGED (FT.): 155.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J603 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
629.0	PLEISTOCENE		SOIL	3.0	0.0	
626.0	PLEISTOCENE		CLAY	32.0	3.0	
594.0	PLEISTOCENE		CLAY	50.0	35.0	
544.0			GRAY SHALE	20.0	85.0	LIMESTONE INTERBEDS
524.0	CARBONDALE	BRERETON	LIMESTONE	4.0	105.0	SHALE INTERBEDS
520.0	CARBONDALE	ANNA	BLACK SHALE	0.7	109.0	THICKNESS ADJUSTED
519.3	CARBONDALE		GRAY SHALE	6.3	109.7	
513.0	CARBONDALE		UNKNOWN	1.0	116.0	LITHOLOGY UNKNOWN
512.0	CARBONDALE		GRAY SHALE	20.0	117.0	
492.0	CARBONDALE		GRAY SHALE	9.0	137.0	LIMESTONE INTERBEDS
483.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	146.0	
481.0	CARBONDALE	SPRINGFIELD	COAL	6.0	148.0	
475.0	CARBONDALE		UNDERCLAY	1.0	154.0	

MAPID: 12920216000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 3 QUARTERS/FOOTAGES: 35' S line, 8' W line of NW NW

QUADRANGLE: TALLULA LONGITUDE: -89.994722 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.956455 DATE COLLECTED: 4 / 27 / 1970

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 155.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J551 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		SOIL	2.0	0.0	
628.0	PLEISTOCENE		CLAY	58.0	2.0	
570.0			GRAY SHALE	15.0	60.0	
555.0			GRAY SHALE	39.0	75.0	LIMESTONE INTERBEDS
516.0			LIMESTONE	5.0	114.0	HARD
511.0	CARBONDALE		LIMESTONE W/ SHALE	16.0	119.0	INTERBEDDED
495.0	CARBONDALE	ST. DAVID	LIMESTONE	10.5	135.0	
484.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	145.5	
482.0	CARBONDALE	SPRINGFIELD	COAL	6.0	148.0	
476.0	CARBONDALE		UNDERCLAY	1.0	154.0	

MAPID: 12920217000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 3 QUARTERS/FOOTAGES: NW NE NE SE
 QUADRANGLE: TALLULA LONGITUDE: -89.977339 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.952243 DATE COLLECTED: 5 / 10 / 1969
 SURFACE ELEVATION (FT.): 629.0 LOGGED (FT.): 143.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON J508 WELL TYPE: Coal Test
 COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
629.0	PLEISTOCENE		CLAY	114.0	0.0	
515.0			LIMESTONE	3.0	114.0	
512.0	CARBONDALE		GRAY SHALE	16.0	117.0	
496.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	133.0	
494.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	135.0	
492.0	CARBONDALE	SPRINGFIELD	COAL	5.5	137.0	
486.5	CARBONDALE		UNDERCLAY	0.5	142.5	

MAPID: 12920218000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 3 QUARTERS/FOOTAGES: SW SW SW SW
 QUADRANGLE: TALLULA LONGITUDE: -89.994139 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.945942 DATE COLLECTED: 3 / 8 / 1972
 SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON J401 WELL TYPE: Coal Test
 COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		CLAY	60.0	0.0	
570.0	PLEISTOCENE		GRAVEL	3.0	60.0	
567.0	PLEISTOCENE		CLAY	26.0	63.0	
541.0			LIMESTONE	2.0	89.0	
539.0			GRAY SHALE	12.0	91.0	
527.0			LIMESTONE	3.0	103.0	
524.0	CARBONDALE		GRAY SHALE	15.0	106.0	
509.0	CARBONDALE		LIMESTONE	1.0	121.0	
508.0	CARBONDALE	SPRINGFIELD	COAL	0.5	122.0	
507.5	CARBONDALE	SPRINGFIELD	LIMESTONE	2.5	122.5	
505.0	CARBONDALE	SPRINGFIELD	COAL	3.0	125.0	
502.0	CARBONDALE		UNDERCLAY	2.0	128.0	

MAPID: 12920219000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 10 QUARTERS/FOOTAGES: SW SW NW SW

QUADRANGLE: TALLULA LONGITUDE: -89.994019 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.935123 DATE COLLECTED: 3 / 9 / 1972

SURFACE ELEVATION (FT.): 632.0 LOGGED (FT.): 132.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J351 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
632.0	PLEISTOCENE		CLAY	63.0	0.0	
569.0	PLEISTOCENE		GRAVEL	3.0	63.0	
566.0	PLEISTOCENE		CLAY	14.0	66.0	
552.0	CARBONDALE		GRAY SHALE	19.0	80.0	
533.0	CARBONDALE	BRERETON	LIMESTONE	3.0	99.0	CORRELATION UNCERTAIN
530.0	CARBONDALE	ANNA	BLACK SHALE	1.0	102.0	CORRELATION UNCERTAIN
529.0	CARBONDALE		GRAY SHALE	21.5	103.0	LIMESTONE LAMINAE
507.5	CARBONDALE	ST. DAVID	LIMESTONE	1.5	124.5	
506.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	126.0	
504.5	CARBONDALE	SPRINGFIELD	COAL	3.4	127.5	
501.1	CARBONDALE		UNDERCLAY	1.1	130.9	

MAPID: 12920220000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 10 QUARTERS/FOOTAGES: NW NE NE SE

QUADRANGLE: TALLULA LONGITUDE: -89.977258 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.937698 DATE COLLECTED: 3 / 23 / 1972

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J408 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.0	PLEISTOCENE		CLAY	45.0	0.0	
590.0	PLEISTOCENE		CLAY	22.0	45.0	WITH GRAVEL
568.0	PLEISTOCENE		CLAY	32.0	67.0	
536.0	CARBONDALE		LIMESTONE	4.0	99.0	
532.0	CARBONDALE		GRAY SHALE	7.0	103.0	
525.0	CARBONDALE		LIMESTONE	3.0	110.0	
522.0	CARBONDALE		GRAY SHALE	14.0	113.0	
508.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	127.0	
507.0	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	128.0	
503.0	CARBONDALE	SPRINGFIELD	COAL	6.3	132.0	
496.7	CARBONDALE		UNDERCLAY	1.7	138.3	

MAPID: 12920221000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 10 QUARTERS/FOOTAGES: 72' S line, 441' E line of SE NE

QUADRANGLE: TALLULA LONGITUDE: -89.977044 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.938348 DATE COLLECTED: 5 / 21 / 1969

SURFACE ELEVATION (FT.): 634.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J30P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
634.0	PLEISTOCENE		CLAY	101.0	0.0	
533.0	CARBONDALE		LIMESTONE	2.0	101.0	
531.0	CARBONDALE		GRAY SHALE	7.0	103.0	
524.0	CARBONDALE		LIMESTONE	2.0	110.0	
522.0	CARBONDALE		GRAY SHALE	20.0	112.0	
502.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	132.0	
500.5	CARBONDALE	SPRINGFIELD	COAL	6.0	133.5	
494.5	CARBONDALE		UNDERCLAY	0.5	139.5	THICKNESS ADJUSTED

MAPID: 12920222000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 10 QUARTERS/FOOTAGES: SE SE SE NW

QUADRANGLE: TALLULA LONGITUDE: -89.985662 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.938666 DATE COLLECTED: 3 / 7 / 1972

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 136.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J305 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.0	PLEISTOCENE		CLAY	77.0	0.0	
558.0	PLEISTOCENE		BOULDER	0.5	77.0	LIMESTONE
557.5	PLEISTOCENE		CLAY	18.5	77.5	
539.0	CARBONDALE		LIMESTONE	1.0	96.0	
538.0	CARBONDALE		GRAY SHALE	8.0	97.0	HARD
530.0	CARBONDALE	ANNA	BLACK SHALE	1.0	105.0	UNCERTAIN CORRELATION
529.0	CARBONDALE		GRAY SHALE	20.4	106.0	LIMESTONE LAMINAE
508.6	CARBONDALE	ST. DAVID	LIMESTONE	0.6	126.4	
508.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	127.0	
504.5	CARBONDALE	SPRINGFIELD	COAL	4.3	130.5	
500.2	CARBONDALE		UNDERCLAY	1.2	134.8	

MAPID: 12920223000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 10 QUARTERS/FOOTAGES: 0' N line, 200' W line of NW SW

QUADRANGLE: TALLULA LONGITUDE: -89.993938 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.938275 DATE COLLECTED: 6 / 25 / 1969

SURFACE ELEVATION (FT.): 636.0 LOGGED (FT.): 142.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J301NB WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
636.0	PLEISTOCENE		CLAY	8.0	0.0	SANDY
628.0	PLEISTOCENE		CLAY	7.0	8.0	SANDY WITH GRAVEL
621.0	PLEISTOCENE		CLAY	112.0	15.0	WITH GRAVEL
509.0	CARBONDALE		LIMESTONE	0.5	127.0	THICKNESS ADJUSTED
508.5	CARBONDALE		GRAY SHALE	3.7	127.5	THICKNESS ADJUSTED(W/LIMESTONE)
504.8	CARBONDALE	ST. DAVID	LIMESTONE	1.6	131.2	
503.2	CARBONDALE	TURNER MINE	BLACK SHALE	2.7	132.8	
500.5	CARBONDALE	SPRINGFIELD	COAL	0.5	135.5	
500.0	CARBONDALE	SPRINGFIELD	LIMESTONE	0.2	136.0	DARK
499.8	CARBONDALE	SPRINGFIELD	COAL	4.9	136.2	
494.9	CARBONDALE		UNDERCLAY	0.9	141.1	

MAPID: 12920224000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 10 QUARTERS/FOOTAGES: SW SW SW SW

QUADRANGLE: TALLULA LONGITUDE: -89.993979 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.931516 DATE COLLECTED: 3 / 9 / 1972

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J201 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.0	PLEISTOCENE		CLAY	12.0	0.0	
623.0	PLEISTOCENE		UNCONSOLIDATED	10.0	12.0	
613.0	PLEISTOCENE		CLAY	43.0	22.0	
570.0	PLEISTOCENE		GRAVEL	13.0	65.0	
557.0	CARBONDALE		GRAY SHALE	14.0	78.0	
543.0	CARBONDALE	ANNA	BLACK SHALE	1.0	92.0	
542.0	CARBONDALE	HERRIN	COAL	1.5	93.0	
540.5	CARBONDALE		GRAY SHALE	22.5	94.5	LIMESTONE LAMINAE
518.0	CARBONDALE		LIMESTONE	1.0	117.0	
517.0	CARBONDALE		GRAY SHALE	17.0	118.0	
500.0	CARBONDALE	SPRINGFIELD	COAL	4.0	135.0	
496.0	CARBONDALE		UNDERCLAY	1.0	139.0	

MAPID: 12920225000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 10 QUARTERS/FOOTAGES: NW NW SW SW

QUADRANGLE: TALLULA LONGITUDE: -89.994009 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.934221 DATE COLLECTED: 3 / 9 / 1972

SURFACE ELEVATION (FT.): 632.0 LOGGED (FT.): 143.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J251 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
632.0	PLEISTOCENE		CLAY	10.0	0.0	
622.0	PLEISTOCENE		UNCONSOLIDATED	13.0	10.0	
609.0	PLEISTOCENE		CLAY	59.0	23.0	
550.0	PLEISTOCENE		GRAVEL	8.0	82.0	
542.0	CARBONDALE		GRAY SHALE	5.0	90.0	
537.0	CARBONDALE	HERRIN	COAL	1.0	95.0	
536.0	CARBONDALE		GRAY SHALE	11.0	96.0	
525.0	CARBONDALE		LIMESTONE	4.7	107.0	
520.3	CARBONDALE		GRAY SHALE	17.8	111.7	LIMESTONE LAMINAE
502.5	CARBONDALE		LIMESTONE	9.5	129.5	
493.0	CARBONDALE	SPRINGFIELD	COAL	3.0	139.0	
490.0	CARBONDALE		UNDERCLAY	1.0	142.0	

MAPID: 12920226000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 11 QUARTERS/FOOTAGES: 110' N line, 0' W line of NE SW

QUADRANGLE: TALLULA LONGITUDE: -89.970766 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.937815 DATE COLLECTED: 3 / 8 / 1972

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 125.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J313 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		CLAY	78.0	0.0	
552.0	PLEISTOCENE		GRAVEL	2.0	78.0	
550.0	PLEISTOCENE		CLAY	16.0	80.0	
534.0	CARBONDALE		GRAY SHALE	5.0	96.0	
529.0	CARBONDALE		RED SHALE	1.0	101.0	
528.0	CARBONDALE		GRAY SHALE	12.0	102.0	
516.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	114.0	
514.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	116.0	
512.0	CARBONDALE	SPRINGFIELD	COAL	5.7	118.0	
506.3	CARBONDALE		UNDERCLAY	1.3	123.7	

MAPID: 12920227000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 11 QUARTERS/FOOTAGES: SE SE SE SW

QUADRANGLE: TALLULA LONGITUDE: -89.966631 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.931299 DATE COLLECTED: 3 / 24 / 1972

SURFACE ELEVATION (FT.): 632.0 LOGGED (FT.): 125.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J213 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
632.0	PLEISTOCENE		CLAY	17.0	0.0	
615.0	PLEISTOCENE		CLAY	5.0	17.0	W/DRIFT
610.0	PLEISTOCENE		CLAY	19.0	22.0	WITH GRAVEL
591.0	PLEISTOCENE		CLAY	46.0	41.0	
545.0	CARBONDALE		LIMESTONE	9.0	87.0	W/WHITE SHALE
536.0	CARBONDALE		GRAY SHALE	16.0	96.0	
520.0	CARBONDALE	ST. DAVID	LIMESTONE	5.0	112.0	
515.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	117.0	
514.0	CARBONDALE	SPRINGFIELD	COAL	4.0	118.0	
510.0	CARBONDALE		UNDERCLAY	3.0	122.0	

MAPID: 12920228000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 11 QUARTERS/FOOTAGES: NW NW SW SW

QUADRANGLE: TALLULA LONGITUDE: -89.974856 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.934051 DATE COLLECTED: 3 / 5 / 1972

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 135.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J259 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.0	PLEISTOCENE		CLAY	13.0	0.0	
622.0	PLEISTOCENE		CLAY	12.0	13.0	LIMEY
610.0	PLEISTOCENE		CLAY	48.0	25.0	
562.0	CARBONDALE		LIMESTONE	1.0	73.0	
561.0	CARBONDALE		GRAY SHALE	15.0	74.0	
546.0	CARBONDALE		SHALE	14.0	89.0	
532.0	CARBONDALE		LIMESTONE	0.5	103.0	
531.5	CARBONDALE		GRAY SHALE	21.9	103.5	LIMESTONE LAMINAE
509.6	CARBONDALE	ST. DAVID	LIMESTONE	0.6	125.4	
509.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	126.0	
505.5	CARBONDALE	SPRINGFIELD	COAL	4.3	129.5	
501.2	CARBONDALE		UNDERCLAY	1.2	133.8	

MAPID: 12920229000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 11 QUARTERS/FOOTAGES: NE NE SE SW

QUADRANGLE: TALLULA LONGITUDE: -89.966642 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.934023 DATE COLLECTED: 3 / 0 / 1972

SURFACE ELEVATION (FT.): 632.0 LOGGED (FT.): 127.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J263 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES REPTD; DATAYEAR MAY BE 1974

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
632.0	PLEISTOCENE		CLAY	38.0	0.0	
594.0	PLEISTOCENE		GRAVEL	3.0	38.0	
591.0	PLEISTOCENE		CLAY	46.0	41.0	
545.0	CARBONDALE		LIMESTONE	8.0	87.0	
537.0	CARBONDALE		GRAY SHALE	24.0	95.0	THICKNESS ADJUSTED
513.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	119.0	
510.0	CARBONDALE	SPRINGFIELD	COAL	3.9	122.0	
506.1	CARBONDALE		UNDERCLAY	1.1	125.9	

MAPID: 12920230000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 12 QUARTERS/FOOTAGES: 400' S line, 175' E line of SW NE

QUADRANGLE: TALLULA LONGITUDE: -89.943272 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.93926 DATE COLLECTED: 4 / 6 / 1972

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 142.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J322I WELL TYPE: Coal Test

COMMENT: NS FOOTAGE ESTIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		CLAY	56.0	0.0	
564.0	PLEISTOCENE		CLAY & GRAVEL	14.0	56.0	
550.0			LIMESTONE W/ SHALE	12.0	70.0	THICKNESS ADJUSTED
538.0			GRAY SHALE	19.0	82.0	
519.0			LIMESTONE	2.0	101.0	
517.0			GRAY SHALE	5.0	103.0	
512.0	CARBONDALE	ANNA	BLACK SHALE	1.0	108.0	
511.0	CARBONDALE		GRAY SHALE	23.0	109.0	WITH LIMESTONE LAMINAE
488.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	132.0	
487.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.4	132.5	
485.1	CARBONDALE	SPRINGFIELD	COAL	5.1	134.9	
480.0	CARBONDALE		UNDERCLAY	2.0	140.0	

MAPID: 12920231000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 12 QUARTERS/FOOTAGES: 180' S line, 50' E line of NE SW

QUADRANGLE: TALLULA LONGITUDE: -89.947497 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.934997 DATE COLLECTED: 4 / 6 / 1972

SURFACE ELEVATION (FT.): 618.0 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J271J WELL TYPE: Coal Test

COMMENT: FOOT EW ESTIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
618.0	PLEISTOCENE		CLAY	63.0	0.0	
555.0	PLEISTOCENE		CLAY	12.0	63.0	WITH GRAVEL
543.0			LIMESTONE	1.0	75.0	
542.0			GRAY SHALE	41.0	76.0	
501.0			LIMESTONE	2.0	117.0	
499.0	CARBONDALE		GRAY SHALE	2.0	119.0	
497.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	121.0	THICKNESS ADJUSTED
494.5	CARBONDALE	SPRINGFIELD	COAL	5.0	123.5	DEPTH ADJUSTED
489.5	CARBONDALE		UNDERCLAY	1.5	128.5	

MAPID: 12920232000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 12 QUARTERS/FOOTAGES: 14' N line, 72' W line of SW SE

QUADRANGLE: TALLULA LONGITUDE: -89.947059 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.934463 DATE COLLECTED: 12 / 29 / 1969

SURFACE ELEVATION (FT.): 623.0 LOGGED (FT.): 180.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J271J WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
623.0	PLEISTOCENE		CLAY	129.0	0.0	
494.0	PLEISTOCENE		GRAVEL	1.0	129.0	INCLUDES COAL
493.0	CARBONDALE		GRAY SHALE	9.0	130.0	
484.0	CARBONDALE		BLACK SHALE	1.0	139.0	
483.0	CARBONDALE		GRAY SHALE	5.0	140.0	
478.0	CARBONDALE		LIMESTONE	3.0	145.0	
475.0	CARBONDALE		GRAY SHALE	11.0	148.0	
464.0	CARBONDALE		LIMESTONE	2.0	159.0	
462.0	CARBONDALE		GRAY SHALE	19.0	161.0	

MAPID: 12920233000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 12 QUARTERS/FOOTAGES: SE SE SE SW

QUADRANGLE: TALLULA LONGITUDE: -89.947896 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.931325 DATE COLLECTED: 4 / 6 / 1972

SURFACE ELEVATION (FT.): 622.0 LOGGED (FT.): 143.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J221 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
622.0	PLEISTOCENE		CLAY	57.0	0.0	
565.0	PLEISTOCENE		BOULDER	2.0	57.0	LIMESTONE
563.0	PLEISTOCENE		CLAY	16.0	59.0	
547.0	CARBONDALE		GRAY SHALE	33.0	75.0	
514.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	108.0	
513.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	109.0	
510.5	CARBONDALE	SPRINGFIELD	COAL	5.5	111.5	
505.0	CARBONDALE		UNDERCLAY	12.0	117.0	
493.0	CARBONDALE		GRAY SHALE	14.0	129.0	

MAPID: 12920234000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 14 QUARTERS/FOOTAGES: SW SW SE NE

QUADRANGLE: TALLULA LONGITUDE: -89.960797 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.924044 DATE COLLECTED: 4 / 8 / 1970

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 105.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J115 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		CLAY	56.0	0.0	
564.0	CARBONDALE	ANNA	BLACK SHALE	2.0	56.0	INCLUDES
562.0	CARBONDALE		LIMESTONE	8.0	58.0	
554.0	CARBONDALE		SHALE	11.0	66.0	
543.0	CARBONDALE		LIMESTONE	3.0	77.0	
540.0	CARBONDALE		SHALE	15.5	80.0	
524.5	CARBONDALE	ST. DAVID	LIMESTONE	1.5	95.5	THICKNESS ADJUSTED
523.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	97.0	
521.5	CARBONDALE	SPRINGFIELD	COAL	6.0	98.5	
515.6	CARBONDALE		UNDERCLAY	0.5	104.4	

MAPID: 12920235000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 14 QUARTERS/FOOTAGES: 6' N line, 18' E line of NW NW

QUADRANGLE: TALLULA LONGITUDE: -89.970801 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.930843 DATE COLLECTED: 12 / 9 / 1969

SURFACE ELEVATION (FT.): 633.0 LOGGED (FT.): 127.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J217 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
633.0	PLEISTOCENE		CLAY	98.0	0.0
535.0	CARBONDALE		LIMESTONE	3.0	98.0
532.0	CARBONDALE		SHALE	11.0	101.0
521.0	CARBONDALE		LIMESTONE	5.0	112.0
516.0	CARBONDALE		GRAY SHALE	2.5	117.0
513.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	119.5
512.0	CARBONDALE	SPRINGFIELD	COAL	5.2	121.0
506.8	CARBONDALE		UNDERCLAY	0.8	126.2

MAPID: 12920236000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 14 QUARTERS/FOOTAGES: NE NE SE NE

QUADRANGLE: TALLULA LONGITUDE: -89.957262 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.926746 DATE COLLECTED: 4 / 13 / 1970

SURFACE ELEVATION (FT.): 627.0 LOGGED (FT.): 116.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J167 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
627.0	PLEISTOCENE		CLAY	72.0	0.0
555.0	CARBONDALE		SHALE	6.0	72.0 LIMESTONE INTERBEDS
549.0	CARBONDALE		SHALE	23.5	78.0
525.5	CARBONDALE	ST. DAVID	LIMESTONE	8.5	101.5
517.0	CARBONDALE	TURNER MINE	BLACK SHALE	0.5	110.0
516.5	CARBONDALE	SPRINGFIELD	COAL	4.5	110.5
512.0	CARBONDALE		UNDERCLAY	1.0	115.0

MAPID: 12920237000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 14 QUARTERS/FOOTAGES: SW SW SW SE
 QUADRANGLE: TALLULA LONGITUDE: -89.965549 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.916824 DATE COLLECTED: 4 / 8 / 1970
 SURFACE ELEVATION (FT.): 632.0 LOGGED (FT.): 108.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON J13 WELL TYPE: Coal Test
 COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
632.0	PLEISTOCENE		SOIL	2.0	0.0	
630.0	PLEISTOCENE		CLAY	64.0	2.0	
566.0	CARBONDALE		LIMESTONE	5.0	66.0	SHALE INTERBEDS
561.0	CARBONDALE		GRAY SHALE	15.0	71.0	
546.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	86.0	
544.0	CARBONDALE	SPRINGFIELD	COAL	4.0	88.0	
540.0	CARBONDALE		UNDERCLAY	15.5	92.0	

MAPID: 12920238000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 14 QUARTERS/FOOTAGES: 12' N line, 25' W line of SW SE
 QUADRANGLE: TALLULA LONGITUDE: -89.966029 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.919958 DATE COLLECTED: 4 / 13 / 1970
 SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 96.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON J63 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		CLAY	55.0	0.0	
565.0	PLEISTOCENE		CLAY & GRAVEL	2.0	55.0	
563.0	CARBONDALE		SHALE	10.0	57.0	
553.0	CARBONDALE		LIMESTONE	2.0	67.0	
551.0	CARBONDALE		SHALE	17.0	69.0	
534.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	86.0	
533.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	87.0	
531.0	CARBONDALE	SPRINGFIELD	COAL	6.0	89.0	
525.0	CARBONDALE		UNDERCLAY	1.0	95.0	

MAPID: 12920239000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 14 QUARTERS/FOOTAGES: 90' N line, 96' W line of NW SE

QUADRANGLE: TALLULA LONGITUDE: -89.96575 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.923359 DATE COLLECTED: 5 / 16 / 1969

SURFACE ELEVATION (FT.): 626.0 LOGGED (FT.): 115.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J83CA WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
626.0	PLEISTOCENE		CLAY	57.0	0.0	
569.0	PLEISTOCENE		GRAVEL	2.0	57.0	
567.0	PLEISTOCENE		CLAY	11.0	59.0	THICKNESS ADJUSTED
556.0	PLEISTOCENE		BOULDER	4.0	70.0	LIMESTONE
552.0	PLEISTOCENE		CLAY	13.0	74.0	
539.0	CARBONDALE		LIMESTONE	2.0	87.0	
537.0	CARBONDALE		SHALE	16.0	89.0	
521.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	105.0	
519.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	107.0	CARBONACEOUS
516.5	CARBONDALE	SPRINGFIELD	COAL	4.0	109.5	ANALYSIS AVAILABLE ON LOG
512.5	CARBONDALE		UNDERCLAY	1.5	113.5	

MAPID: 12920240000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 15 QUARTERS/FOOTAGES: 24' N line, 12' W line of NW NE

QUADRANGLE: TALLULA LONGITUDE: -89.984959 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.930908 DATE COLLECTED: 4 / 10 / 1970

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 137.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J205 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
638.0	PLEISTOCENE		SOIL	3.0	0.0	
635.0	PLEISTOCENE		CLAY	62.0	3.0	
573.0			LIMESTONE W/ SHALE	22.0	65.0	INTERBEDDED
551.0			SHALE	3.0	87.0	WITH COAL
548.0			GRAY SHALE	3.0	90.0	
545.0			LIMESTONE	7.0	93.0	HARD, THICKNESS ADJUSTED
538.0	CARBONDALE		GRAY SHALE	23.0	100.0	LIMESTONE INTERBED
515.0	CARBONDALE		LIMESTONE	4.0	123.0	HARD
511.0	CARBONDALE		LIMESTONE	3.5	127.0	HARD; SHALE INTERBEDS
507.5	CARBONDALE	SPRINGFIELD	COAL	5.5	130.5	
502.0	CARBONDALE		UNDERCLAY	1.0	136.0	

MAPID: 12920241000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 15 QUARTERS/FOOTAGES: 12' N line, 15' E line of NW NE

QUADRANGLE: TALLULA LONGITUDE: -89.980269 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.930891 DATE COLLECTED: 4 / 10 / 1970

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 139.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J207 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
638.0	PLEISTOCENE		CLAY	80.0	0.0	
558.0	CARBONDALE		SHALE	7.0	80.0	
551.0	CARBONDALE		LIMESTONE	6.0	87.0	
545.0	CARBONDALE		SHALE	17.0	93.0	LIMESTONE LAMINAE
528.0	CARBONDALE		SHALE	18.0	110.0	
510.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	128.0	
508.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	130.0	
505.0	CARBONDALE	SPRINGFIELD	COAL	5.4	133.0	
499.6	CARBONDALE		UNDERCLAY	0.6	138.4	

MAPID: 12920242000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 15 QUARTERS/FOOTAGES: 20' S line, 12' W line of SW NE

QUADRANGLE: TALLULA LONGITUDE: -89.98497 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.92377 DATE COLLECTED: 4 / 11 / 1970

SURFACE ELEVATION (FT.): 637.0 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J105 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
637.0	PLEISTOCENE		SOIL	3.5	0.0	
633.5	PLEISTOCENE		CLAY	85.5	3.5	
548.0	CARBONDALE		SANDSTONE	9.0	89.0	HARD:SHALE INTERBEDS
539.0	CARBONDALE		GRAY SHALE	26.0	98.0	LIMESTONE INTERBEDS
513.0	CARBONDALE	SPRINGFIELD	COAL	5.0	124.0	
508.0	CARBONDALE		UNDERCLAY	1.0	129.0	

MAPID: 12920243000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 15 QUARTERS/FOOTAGES: 35' S line, 15' E line of SW NE

QUADRANGLE: TALLULA LONGITUDE: -89.980314

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.923775

DATE COLLECTED: 4 / 10 / 1970

SURFACE ELEVATION (FT.): 637.0 LOGGED (FT.): 131.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J107

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
637.0	PLEISTOCENE		CLAY	80.0	0.0	
557.0	CARBONDALE		SHALE	4.0	80.0	
553.0	CARBONDALE		SHALE	10.0	84.0	LIMESTONE INTERBEDS
543.0	CARBONDALE		SHALE	29.5	94.0	
513.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	123.5	
512.0	CARBONDALE	SPRINGFIELD	COAL	5.0	125.0	
507.0	CARBONDALE		UNDERCLAY	1.0	130.0	

MAPID: 12920244000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 15 QUARTERS/FOOTAGES: 444' S line, 0' W line of SW NW

QUADRANGLE: TALLULA LONGITUDE: -89.994536

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.925011

DATE COLLECTED: 5 / 17 / 1969

SURFACE ELEVATION (FT.): 637.0 LOGGED (FT.): 140.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J126C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
637.0	PLEISTOCENE		CLAY	40.0	0.0	
597.0	PLEISTOCENE		BOULDER	0.5	40.0	LIMESTONE
596.5	PLEISTOCENE		CLAY	32.5	40.5	
564.0	CARBONDALE		LIMESTONE	2.0	73.0	
562.0	CARBONDALE		GRAY SHALE	25.0	75.0	
537.0	CARBONDALE		LIMESTONE	2.0	100.0	
535.0	CARBONDALE		GRAY SHALE	12.0	102.0	
523.0	CARBONDALE		LIMESTONE	2.0	114.0	
521.0	CARBONDALE		GRAY SHALE	14.0	116.0	
507.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	130.0	DARK
506.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	131.0	
503.0	CARBONDALE	SPRINGFIELD	COAL	5.3	134.0	
497.7	CARBONDALE		UNDERCLAY	0.7	139.3	

MAPID: 12920245000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 15 QUARTERS/FOOTAGES: 0' S line, 12' W line of NW NE

QUADRANGLE: TALLULA LONGITUDE: -89.984966 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.927344 DATE COLLECTED: 4 / 11 / 1970

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 136.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J155 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
638.0	PLEISTOCENE		SOIL	3.0	0.0	
635.0	PLEISTOCENE		CLAY	73.5	3.0	
561.5	CARBONDALE	ANNA	BLACK SHALE	1.5	76.5	
560.0	CARBONDALE	ANNA	BLACK SHALE	3.0	78.0	WITH COAL, THICKNESS ADJUSTED
557.0	CARBONDALE		GRAY SHALE	7.0	81.0	
550.0	CARBONDALE		LIMESTONE	4.0	88.0	HARD
546.0	CARBONDALE		LIMESTONE W/ SHALE	34.0	92.0	
512.0	CARBONDALE	SPRINGFIELD	COAL	4.6	126.0	
507.4	CARBONDALE		LIMESTONE	0.9	130.6	HARD
506.5	CARBONDALE		SHALE	4.5	131.5	

MAPID: 12920246000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 15 QUARTERS/FOOTAGES: 0' N line, 12' E line of SW NE

QUADRANGLE: TALLULA LONGITUDE: -89.980281 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.9273 DATE COLLECTED: 4 / 10 / 1970

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 131.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON J157 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
638.0	PLEISTOCENE		CLAY	15.0	0.0	
623.0	PLEISTOCENE		CLAY	5.0	15.0	WITH WOOD
618.0	PLEISTOCENE		CLAY	59.0	20.0	
559.0	CARBONDALE	ANNA	SHALE	2.0	79.0	WITH COAL
557.0	CARBONDALE		SHALE	7.0	81.0	
550.0	CARBONDALE		LIMESTONE	4.0	88.0	
546.0	CARBONDALE		SHALE	10.0	92.0	LIMESTONE INTERBEDS
536.0	CARBONDALE		SHALE	18.0	102.0	
518.0	CARBONDALE	ST. DAVID	LIMESTONE	3.5	120.0	
514.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	123.5	
513.0	CARBONDALE	SPRINGFIELD	COAL	4.8	125.0	
508.2	CARBONDALE		UNDERCLAY	1.2	129.8	

MAPID: 12920247000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 22 QUARTERS/FOOTAGES: 105' S line, 0' W line of NW SW

QUADRANGLE: TALLULA LONGITUDE: -89.994508 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.905918 DATE COLLECTED: 5 / 16 / 1969

SURFACE ELEVATION (FT.): 637.0 LOGGED (FT.): 114.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N451J WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
637.0	PLEISTOCENE		CLAY	88.0	0.0
549.0	CARBONDALE		LIMESTONE	2.0	88.0
547.0	CARBONDALE		GRAY SHALE	15.0	90.0
532.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	105.0
531.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	105.5
529.5	CARBONDALE	SPRINGFIELD	COAL	5.8	107.5
523.7	CARBONDALE		UNDERCLAY	0.7	113.3

MAPID: 12920248000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 22 QUARTERS/FOOTAGES: NW NW NW NW

QUADRANGLE: TALLULA LONGITUDE: -89.993891 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.916044 DATE COLLECTED: 3 / 10 / 1972

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 118.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N601 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
638.0	PLEISTOCENE		CLAY	12.0	0.0
626.0	PLEISTOCENE		UNCONSOLIDATED	22.0	12.0
604.0	PLEISTOCENE		CLAY	38.0	34.0
566.0	CARBONDALE		GRAY SHALE	6.0	72.0
560.0	CARBONDALE		LIMESTONE	3.0	78.0
557.0	CARBONDALE		GRAY SHALE	13.0	81.0
544.0	CARBONDALE		LIMESTONE	1.0	94.0
543.0	CARBONDALE		GRAY SHALE	14.0	95.0
529.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	109.0
528.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	110.0
527.0	CARBONDALE	SPRINGFIELD	COAL	6.0	111.0
521.0	CARBONDALE		UNDERCLAY	1.0	117.0

MAPID: 12920249000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 22 QUARTERS/FOOTAGES: SW SW NW NW
 QUADRANGLE: TALLULA LONGITUDE: -89.993901 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.913325 DATE COLLECTED: 3 / 10 / 1972
 SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 115.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON N551 WELL TYPE: Coal Test
 COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
638.0	PLEISTOCENE		CLAY	15.0	0.0
623.0	PLEISTOCENE		UNCONSOLIDATED	7.0	15.0
616.0	PLEISTOCENE		CLAY	43.0	22.0
573.0	CARBONDALE		GRAY SHALE	13.0	65.0
560.0	CARBONDALE		LIMESTONE	2.0	78.0
558.0	CARBONDALE		LIMESTONE W/ SHALE	18.0	80.0
540.0	CARBONDALE		GRAY SHALE	11.0	98.0
529.0	CARBONDALE	SPRINGFIELD	COAL	5.0	109.0
524.0	CARBONDALE		UNDERCLAY	1.0	114.0

MAPID: 12920250000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 22 QUARTERS/FOOTAGES: 25' S line, 40' W line of SW SW
 QUADRANGLE: TALLULA LONGITUDE: -89.994373 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.902073 DATE COLLECTED: 4 / 11 / 1970
 SURFACE ELEVATION (FT.): 637.0 LOGGED (FT.): 100.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON N401 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
637.0	PLEISTOCENE		CLAY	85.0	0.0
552.0	CARBONDALE		SHALE	7.5	85.0
544.5	CARBONDALE	ST. DAVID	LIMESTONE	0.5	92.5
544.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	93.0
542.5	CARBONDALE	SPRINGFIELD	COAL	4.5	94.5
538.0	CARBONDALE		UNDERCLAY	1.0	99.0

MAPID: 12920251000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 22 QUARTERS/FOOTAGES: 30' S line, 0' E line of SW SW

QUADRANGLE: TALLULA LONGITUDE: -89.98979 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.902073 DATE COLLECTED: 4 / 11 / 1970

SURFACE ELEVATION (FT.): 637.0 LOGGED (FT.): 100.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N403 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
637.0	PLEISTOCENE		CLAY	80.0	0.0	
557.0	CARBONDALE		SHALE	14.5	80.0	
542.5	CARBONDALE	SPRINGFIELD	COAL	5.0	94.5	
537.5	CARBONDALE		UNDERCLAY	0.5	99.5	

MAPID: 12920252000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 22 QUARTERS/FOOTAGES: 35' S line, 10' E line of SE SW

QUADRANGLE: TALLULA LONGITUDE: -89.985095 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.902071 DATE COLLECTED: 4 / 13 / 1970

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 101.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N405 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
638.0	PLEISTOCENE		SOIL	2.0	0.0	
636.0	PLEISTOCENE		CLAY	19.0	2.0	
617.0	PLEISTOCENE		CLAY & GRAVEL	19.0	21.0	
598.0	CARBONDALE		GRAY SHALE	51.0	40.0	LS INTERBEDDED
547.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	91.0	HARD
546.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	92.0	
544.0	CARBONDALE	SPRINGFIELD	COAL	6.0	94.0	
538.0	CARBONDALE		UNDERCLAY	1.0	100.0	

MAPID: 12920253000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 22 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE SW

QUADRANGLE: TALLULA LONGITUDE: -89.988601 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.904697 DATE COLLECTED: 8 / 28 / 1970

SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 110.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N428A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
625.0	PLEISTOCENE		CLAY	84.0	0.0
541.0	CARBONDALE		LIMESTONE W/ SHALE	3.0	84.0
538.0	CARBONDALE		SHALE	8.0	87.0
530.0	CARBONDALE		LIMESTONE	6.0	95.0
524.0	CARBONDALE		SHALE	2.0	101.0
522.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	103.0
520.0	CARBONDALE	SPRINGFIELD	COAL	4.6	105.0
515.4	CARBONDALE		UNDERCLAY	0.4	109.6

MAPID: 12920254000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 23 QUARTERS/FOOTAGES: 10' N line, 45' W line of NE NE

QUADRANGLE: TALLULA LONGITUDE: -89.961262 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.916328 DATE COLLECTED: 4 / 8 / 1970

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 98.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N615 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
635.0	PLEISTOCENE		SOIL	2.0	0.0
633.0	PLEISTOCENE		CLAY	63.0	2.0
570.0	CARBONDALE		LIMESTONE W/ SHALE	14.0	65.0
556.0	CARBONDALE		SHALE	10.0	79.0
546.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.2	89.0
543.8	CARBONDALE	SPRINGFIELD	COAL	5.8	91.2
538.0	CARBONDALE		UNDERCLAY	1.0	97.0

MAPID: 12920255000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 23 QUARTERS/FOOTAGES: SE SE SE SE

QUADRANGLE: TALLULA LONGITUDE: -89.957414 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.902286 DATE COLLECTED: 8 / 29 / 1970

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 91.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N417 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		CLAY	61.0	0.0	
569.0	CARBONDALE		LIMESTONE	3.0	61.0	
566.0	CARBONDALE		SHALE	19.0	64.0	
547.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	83.0	WITH BONE
545.0	CARBONDALE	SPRINGFIELD	COAL	5.6	85.0	
539.4	CARBONDALE		UNDERCLAY	0.4	90.6	

MAPID: 12920256000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 23 QUARTERS/FOOTAGES: 30' S line, 381' W line of NW SE

QUADRANGLE: TALLULA LONGITUDE: -89.964832 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.905583 DATE COLLECTED: 5 / 12 / 1970

SURFACE ELEVATION (FT.): 633.0 LOGGED (FT.): 90.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N459B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
633.0	PLEISTOCENE		SOIL	12.0	0.0	
621.0	PLEISTOCENE		GLACIAL DRIFT	50.0	12.0	
571.0	CARBONDALE		GRAY SHALE	3.5	62.0	LIMEY
567.5	CARBONDALE		GRAY SHALE	14.1	65.5	
553.4	CARBONDALE	TURNER MINE	BLACK SHALE	0.8	79.6	
552.6	CARBONDALE	SPRINGFIELD	COAL	5.5	80.4	
547.1	CARBONDALE		GRAY SHALE	4.1	85.9	

MAPID: 12920257000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 23 QUARTERS/FOOTAGES: 36' S line, 28' W line of NE NE

QUADRANGLE: TALLULA LONGITUDE: -89.96135 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.912831 DATE COLLECTED: 4 / 8 / 1970

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 90.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N565 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.0	PLEISTOCENE		CLAY	10.0	0.0	
625.0	PLEISTOCENE		CLAY	15.0	10.0	INCLUDES WOOD
610.0	PLEISTOCENE		CLAY	29.0	25.0	
581.0	PLEISTOCENE		BOULDER	6.0	54.0	LIMESTONE
575.0	CARBONDALE		SHALE	22.0	60.0	
553.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	82.0	
552.0	CARBONDALE	SPRINGFIELD	COAL	6.5	83.0	
545.5	CARBONDALE		UNDERCLAY	0.5	89.5	

MAPID: 12920258000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 24 QUARTERS/FOOTAGES: 15' N line, 10' W line of NW NW

QUADRANGLE: TALLULA LONGITUDE: -89.956674 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.916296 DATE COLLECTED: 4 / 9 / 1970

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 108.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N617 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.0	PLEISTOCENE		CLAY	10.0	0.0	
625.0	PLEISTOCENE		CLAY	15.0	10.0	INCLUDES WOOD
610.0	PLEISTOCENE		CLAY	43.0	25.0	
567.0	CARBONDALE		SHALE	4.0	68.0	LIMESTONE INTERBEDS
563.0	CARBONDALE		SHALE	26.0	72.0	
537.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	98.0	
536.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	99.0	
534.0	CARBONDALE	SPRINGFIELD	COAL	6.2	101.0	
527.8	CARBONDALE		UNDERCLAY	0.8	107.2	

MAPID: 12920259000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 24 QUARTERS/FOOTAGES: NE NE NW NE

QUADRANGLE: TALLULA LONGITUDE: -89.943267 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.915939 DATE COLLECTED: 4 / 10 / 1970

SURFACE ELEVATION (FT.): 628.0 LOGGED (FT.): 134.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N628 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
628.0	PLEISTOCENE		CLAY	15.0	0.0	
613.0	PLEISTOCENE		CLAY	5.0	15.0	INCLUDES WOOD
608.0	PLEISTOCENE		CLAY	34.0	20.0	
574.0	PLEISTOCENE		CLAY	11.0	54.0	GRAVEL INTERBEDS
563.0	CARBONDALE		SHALE	15.0	65.0	
548.0	CARBONDALE	ANNA	BLACK SHALE	1.0	80.0	INCLUDES COAL
547.0	CARBONDALE		SHALE	6.0	81.0	
541.0	CARBONDALE		LIMESTONE	6.0	87.0	
535.0	CARBONDALE		SHALE	12.0	93.0	LIMESTONE INTERBEDS
523.0	CARBONDALE		SHALE	21.5	105.0	
501.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	126.5	
500.5	CARBONDALE	SPRINGFIELD	COAL	6.2	127.5	
494.3	CARBONDALE		UNDERCLAY	0.3	133.7	

MAPID: 12920260000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 24 QUARTERS/FOOTAGES: 0' N line, 40' E line of NE NW

QUADRANGLE: TALLULA LONGITUDE: -89.947499 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.916375 DATE COLLECTED: 4 / 9 / 1970

SURFACE ELEVATION (FT.): 628.0 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N621 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
628.0	PLEISTOCENE		CLAY	60.0	0.0	
568.0	CARBONDALE		SHALE	15.0	60.0	
553.0	CARBONDALE		LIMESTONE	7.5	75.0	
545.5	CARBONDALE		SHALE	20.5	82.5	LIMESTONE INTERBEDS
525.0	CARBONDALE		SHALE	19.5	103.0	
505.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	122.5	
504.0	CARBONDALE	SPRINGFIELD	COAL	5.7	124.0	
498.3	CARBONDALE		UNDERCLAY	0.3	129.7	

MAPID: 12920261000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 24 QUARTERS/FOOTAGES: 10' S line, 0' E line of NW NW

QUADRANGLE: TALLULA

LONGITUDE: -89.95206

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 39.912756

DATE COLLECTED: 4 / 9 / 1970

SURFACE ELEVATION (FT.): 630.0

LOGGED (FT.): 120.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N619

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		CLAY	68.0	0.0	
562.0	CARBONDALE		LIMESTONE	4.0	68.0	
558.0	CARBONDALE		SHALE	13.0	72.0	LIMESTONE INTERBEDS
545.0	CARBONDALE		SHALE	26.0	85.0	
519.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	111.0	
517.0	CARBONDALE	SPRINGFIELD	COAL	6.2	113.0	
510.8	CARBONDALE		UNDERCLAY	0.8	119.2	

MAPID: 12920262000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 24 QUARTERS/FOOTAGES: SW SW SW NE

QUADRANGLE: TALLULA

LONGITUDE: -89.94681

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 39.909569

DATE COLLECTED: 4 / 10 / 1970

SURFACE ELEVATION (FT.): 630.0

LOGGED (FT.): 104.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N521

WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		SOIL	3.0	0.0	
627.0	PLEISTOCENE		CLAY	55.0	3.0	
572.0	CARBONDALE	ANNA	BLACK SHALE	3.0	58.0	INCLUDES COAL, TOP ERODED
569.0	CARBONDALE		GRAY SHALE	7.0	61.0	
562.0	CARBONDALE		LIMESTONE	10.0	68.0	HARD, SHALE INTERBEDS
552.0	CARBONDALE		SHALE	16.5	78.0	LIMESTONE INTERBEDS
535.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	94.5	
532.5	CARBONDALE	SPRINGFIELD	COAL	5.5	97.5	
527.0	CARBONDALE		UNDERCLAY	1.0	103.0	

MAPID: 12920263000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 24 QUARTERS/FOOTAGES: SE SE SW NE

QUADRANGLE: TALLULA LONGITUDE: -89.943295 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.909582 DATE COLLECTED: 4 / 9 / 1970

SURFACE ELEVATION (FT.): 628.0 LOGGED (FT.): 120.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N523 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
628.0	PLEISTOCENE		SOIL	3.0	0.0	
625.0	PLEISTOCENE		CLAY	62.0	3.0	
563.0	CARBONDALE	ANNA	SHALE	3.0	65.0	INCLUDES COAL, TOP ERODED
560.0	CARBONDALE		GRAY SHALE	9.0	68.0	
551.0	CARBONDALE		LIMESTONE	4.0	77.0	
547.0	CARBONDALE		GRAY SHALE	4.0	81.0	
543.0	CARBONDALE		LIMESTONE	2.5	85.0	HARD
540.5	CARBONDALE		SHALE WITH LIMESTONE	26.5	87.5	
514.0	CARBONDALE	SPRINGFIELD	COAL	5.8	114.0	
508.2	CARBONDALE		UNDERCLAY	0.2	119.8	

MAPID: 12920264000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 24 QUARTERS/FOOTAGES: 30' S line, 0' W line of NW NW

QUADRANGLE: TALLULA LONGITUDE: -89.956737 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.912793 DATE COLLECTED: 4 / 8 / 1970

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 98.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N567 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.0	PLEISTOCENE		CLAY	10.0	0.0	
625.0	PLEISTOCENE		CLAY	15.0	10.0	INCLUDES WOOD
610.0	PLEISTOCENE		CLAY	35.0	25.0	
575.0	PLEISTOCENE		SAND & GRAVEL	6.0	60.0	THICKNESS ADJUSTED
569.0	CARBONDALE		SHALE	9.0	66.0	LIMESTONE INTERBEDS
560.0	CARBONDALE		SHALE	16.0	75.0	
544.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	91.0	
543.0	CARBONDALE	SPRINGFIELD	COAL	5.2	92.0	
537.8	CARBONDALE		UNDERCLAY	0.8	97.2	

MAPID: 12920265000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 24 QUARTERS/FOOTAGES: 30' S line, 35' E line of NE NW

QUADRANGLE: TALLULA LONGITUDE: -89.947501

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.912826

DATE COLLECTED: 4 / 9 / 1970

SURFACE ELEVATION (FT.): 634.0 LOGGED (FT.): 127.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N571

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
634.0	PLEISTOCENE		SOIL	3.0	0.0	
631.0	PLEISTOCENE		CLAY	55.0	3.0	
576.0	PLEISTOCENE		CLAY	7.0	58.0	WITH GRAVEL
569.0	PLEISTOCENE		CLAY	9.0	65.0	W/LIMESTONE BANDS
560.0	CARBONDALE	ANNA	BLACK SHALE	2.0	74.0	INCLUDES COAL
558.0	CARBONDALE		GRAY SHALE	7.0	76.0	
551.0	CARBONDALE		LIMESTONE	1.5	83.0	HARD
549.5	CARBONDALE		GRAY SHALE	35.5	84.5	THICKNESS ADJUSTED
514.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	120.0	
513.0	CARBONDALE	SPRINGFIELD	COAL	5.5	121.0	
507.5	CARBONDALE		UNDERCLAY	0.5	126.5	

MAPID: 12920266000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 24 QUARTERS/FOOTAGES: 39' S line, 10' W line of NE NW

QUADRANGLE: TALLULA LONGITUDE: -89.952021

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.912836

DATE COLLECTED: 4 / 8 / 1970

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 114.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N569

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.0	PLEISTOCENE		CLAY	57.0	0.0	
578.0	PLEISTOCENE		CLAY & GRAVEL	8.0	57.0	
570.0	CARBONDALE	ANNA	BLACK SHALE	1.0	65.0	INCLUDES COAL, TOP ERODED
569.0	CARBONDALE		SHALE	4.0	66.0	
565.0	CARBONDALE		LIMESTONE	4.0	70.0	
561.0	CARBONDALE		SHALE	16.0	74.0	LIMESTONE INTERBEDS
545.0	CARBONDALE		SHALE	16.0	90.0	
529.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	106.0	
528.0	CARBONDALE	SPRINGFIELD	COAL	6.5	107.0	
521.5	CARBONDALE		UNDERCLAY	0.5	113.5	

MAPID: 12920982000C VERSION: 1

PROJECT: NCRDS91

COUNTY: MENARD TWP/RNG: 17N 8W SECTION: 24 QUARTERS/FOOTAGES: 2550' S line, 2400' E line

QUADRANGLE: TALLULA LONGITUDE: -89.94663 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 39.908891 DATE COLLECTED: 10 / 3 / 1981

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 304.0 LOG TYPE: Drillers Log

SOURCE: PHILLIPS COAL CO. ME-2 WELL TYPE: Coal Test

COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
571.9	CARBONDALE	HERRIN	COAL	0.7	58.1	
571.2	CARBONDALE	HERRIN	SHALE	0.4	58.8	PARTING
570.8	CARBONDALE	HERRIN	COAL	1.0	59.2	
524.1	CARBONDALE	SPRINGFIELD	COAL	5.5	105.9	
405.6	CARBONDALE	COLCHESTER	COAL	1.7	224.4	
377.4	SPOON		COAL	1.0	252.6	
335.2	SPOON		COAL	1.0	294.8	

MAPID: 12920613000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 4W SECTION: 6 QUARTERS/FOOTAGES: 70' N line, 390' E line

QUADRANGLE: MIDDLETOWN LONGITUDE: -89.58096 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.04859 DATE COLLECTED: 10 / 31 / 1975

SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 223.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.0			CLAY	18.0	0.0	
584.0			SILT & CLAY	39.0	18.0	
545.0	MODESTO		SHALE	20.0	57.0	
525.0	MODESTO		LIMESTONE	1.5	77.0	
523.5	MODESTO		SHALE	7.0	78.5	
516.5	MODESTO	WEST FRANKLIN	LIMESTONE	12.5	85.5	
504.0	MODESTO		BLACK SHALE	3.0	98.0	
501.0	MODESTO		SHALE	4.0	101.0	
497.0	CARBONDALE	DANVILLE	COAL	1.0	105.0	UNCERTAIN CORRELATION
496.0			SHALE	8.0	106.0	
488.0	CARBONDALE		SHALE	6.5	114.0	
481.5	CARBONDALE		BLACK SHALE	4.5	120.5	
477.0	CARBONDALE		SHALE	9.0	125.0	
468.0	CARBONDALE		SHALE	10.0	134.0	
458.0	CARBONDALE		SHALE	5.5	144.0	
452.5	CARBONDALE	BRERETON	LIMESTONE	1.0	149.5	
451.5	CARBONDALE	ANNA	BLACK SHALE	2.5	150.5	
449.0	CARBONDALE	HERRIN	COAL	2.0	153.0	
447.0	CARBONDALE		SHALE	5.0	155.0	
442.0	CARBONDALE		SHALE	4.0	160.0	
438.0	CARBONDALE		SHALE	39.0	164.0	
399.0	CARBONDALE		SHALE	2.0	203.0	
397.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	205.0	
395.0	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	207.0	
391.0	CARBONDALE	SPRINGFIELD	COAL	6.5	211.0	
384.5	CARBONDALE		UNDERCLAY	4.5	217.5	
380.0	CARBONDALE		LIMESTONE	1.0	222.0	
379.0	CARBONDALE		SHALE	4.0	223.0	

MAPID: 12920614000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 1 QUARTERS/FOOTAGES: 70' N line, 2112' E line

QUADRANGLE: MIDDLETOWN LONGITUDE: -89.607756 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.048428 DATE COLLECTED: 10 / 29 / 1975

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 200.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0			CLAY	18.0	0.0
582.0			SAND & GRAVEL	3.0	18.0
579.0			CLAY	9.0	21.0
570.0	MODESTO		SHALE	15.0	30.0
555.0	MODESTO		LIMESTONE	3.0	45.0
552.0	MODESTO		SHALE	2.5	48.0
549.5	MODESTO		SHALE	7.5	50.5
542.0	MODESTO		SHALE	2.0	58.0
540.0	MODESTO		BLACK SHALE	1.0	60.0
539.0	MODESTO		SHALE	7.0	61.0
532.0	MODESTO	WEST FRANKLIN	LIMESTONE	8.0	68.0
524.0	MODESTO		SHALE	14.0	76.0
510.0	MODESTO		SHALE	5.0	90.0
505.0	MODESTO		BLACK SHALE	2.5	95.0
502.5	CARBONDALE	DANVILLE	COAL	0.5	97.5
502.0	CARBONDALE		SHALE	3.5	98.0
498.5	CARBONDALE		LIMESTONE	1.0	101.5
497.5	CARBONDALE		SHALE	8.0	102.5
489.5	CARBONDALE		SHALE	12.5	110.5
477.0	CARBONDALE	HERRIN	COAL	2.0	123.0
475.0	CARBONDALE		SHALE	5.0	125.0
470.0	CARBONDALE		SHALE	4.0	130.0
466.0	CARBONDALE		SANDSTONE	2.0	134.0
464.0	CARBONDALE		SHALE	45.5	136.0
418.5	CARBONDALE	ST. DAVID	LIMESTONE	1.0	181.5
417.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	182.5
416.0	CARBONDALE	SPRINGFIELD	COAL	5.6	184.0
410.4	CARBONDALE		UNDERCLAY	2.4	189.6
408.0	CARBONDALE		SHALE	8.0	192.0

MAPID: 12920710000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 1 QUARTERS/FOOTAGES: 90' N line, 528' E line of SE

QUADRANGLE: MIDDLETOWN LONGITUDE: -89.601985 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.041073 DATE COLLECTED: 12 / 22 / 1975

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 228.0 LOG TYPE: Multiple log types

SOURCE: HYDROCARBON SURVEY WELL TYPE: Coal Test

COMMENT: GAMMA, S.P., RESIST, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0			UNCONSOLIDATED	42.0	0.0	
573.0	MODESTO		LIMESTONE	5.0	42.0	
568.0	MODESTO		SHALE	5.0	47.0	
563.0	MODESTO		LIMESTONE	4.0	52.0	
559.0	MODESTO		SHALE	36.0	56.0	CALCAREOUS IN PLACES
523.0	MODESTO		SANDSTONE	4.0	92.0	
519.0	MODESTO		SHALE	10.0	96.0	
509.0	CARBONDALE	DANVILLE	COAL	1.0	106.0	CORRELATION UNCERTAIN
508.0	CARBONDALE		SHALE	1.0	107.0	
507.0	CARBONDALE		LIMESTONE	2.0	108.0	
505.0	CARBONDALE		SHALE	20.0	110.0	
485.0	CARBONDALE		LIMESTONE	2.0	130.0	
483.0	CARBONDALE		SHALE	6.0	132.0	
477.0	CARBONDALE	HERRIN	COAL	2.0	138.0	CORRELATION UNCERTAIN
475.0	CARBONDALE		SHALE	2.0	140.0	
473.0	CARBONDALE		SILTY LIMESTONE	3.0	142.0	
470.0	CARBONDALE		SHALE	13.0	145.0	
457.0	CARBONDALE		SHALY SANDSTONE	2.0	158.0	
455.0	CARBONDALE		SHALE	4.0	160.0	
451.0	CARBONDALE		CALCAREOUS SHALE	21.0	164.0	
430.0	CARBONDALE		SHALE	26.8	185.0	SID. NODULES; ISGS DESCRIP TO 224.5
403.2	CARBONDALE	ST. DAVID	SILTY LIMESTONE	1.2	211.8	FOSSILIF
402.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.2	213.0	
400.8	CARBONDALE	SPRINGFIELD	COAL	6.4	214.2	
394.4	CARBONDALE		CLAYSTONE & SILTSTONE	3.9	220.6	MOSTLY CALCAREOUS; STIGMARIA FRAGS
390.5	CARBONDALE		SHALE	3.5	224.5	

MAPID: 12920710000C VERSION: 2

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 1 QUARTERS/FOOTAGES: 90' N line, 528' E line of SE

QUADRANGLE: MIDDLETOWN LONGITUDE: -89.601985 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.041073 DATE COLLECTED: 12 / 22 / 1975

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 224.5 LOG TYPE: Multiple log types

SOURCE: HYDROCARBON SURVEY WELL TYPE: Coal Test

COMMENT: CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
615.0			UNCONSOLIDATED	42.0	0.0
573.0	MODESTO		UNCLASSIFIED	49.0	42.0
524.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	91.0
518.0	MODESTO		UNCLASSIFIED	30.0	97.0
488.0	MODESTO		BLACK SHALE	2.5	127.0
485.5	CARBONDALE	DANVILLE	COAL	2.0	129.5
483.5	CARBONDALE		UNCLASSIFIED	5.5	131.5
478.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	137.0
475.5	CARBONDALE		UNCLASSIFIED	17.0	139.5
458.5	CARBONDALE	ANNA	BLACK SHALE	1.5	156.5
457.0	CARBONDALE	HERRIN	COAL	2.8	158.0
454.2	CARBONDALE		UNCLASSIFIED	24.3	160.8
430.0	CARBONDALE		GRAY SHALE	26.8	185.0
403.2	CARBONDALE	ST. DAVID	LIMESTONE	1.2	211.8
402.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.2	213.0
400.8	CARBONDALE	SPRINGFIELD	COAL	6.4	214.2
394.4	CARBONDALE		UNDERCLAY	3.9	220.6

MAPID: 12920849000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 1 QUARTERS/FOOTAGES: 2610' S line, 1375' W line

QUADRANGLE: MIDDLETOWN LONGITUDE: -89.6141 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.041134 DATE COLLECTED: 7 / 31 / 1979

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 214.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
595.0			CLAY	56.0	0.0
539.0	MODESTO	WEST FRANKLIN	LIMESTONE	8.5	56.0
530.5	MODESTO		BLACK SHALE	2.0	64.5
528.5	MODESTO		SHALE	7.5	66.5
521.0	MODESTO		SHALE	3.0	74.0
518.0	MODESTO		LIMESTONE	3.0	77.0
515.0	MODESTO		SHALE	14.0	80.0
501.0	MODESTO		SHALE	4.0	94.0
497.0	MODESTO		SHALE	12.5	98.0
484.5	MODESTO		BLACK SHALE	3.5	110.5
481.0	CARBONDALE	DANVILLE	COAL	1.0	114.0
480.0	CARBONDALE		SHALE	15.0	115.0
465.0	CARBONDALE		SHALE	8.0	130.0
457.0	CARBONDALE	HERRIN	COAL	1.5	138.0
455.5	CARBONDALE		SHALE	18.0	139.5
437.5	CARBONDALE		LIMESTONE	1.0	157.5
436.5	CARBONDALE		SHALE	12.5	158.5
424.0	CARBONDALE		SHALE	0.9	171.0
423.1	CARBONDALE		SHALE	0.9	171.9
422.2	CARBONDALE		SHALE	1.0	172.8
421.2	CARBONDALE		SHALE	7.0	173.8
414.3	CARBONDALE		CORE LOSS	0.3	180.7
414.0	CARBONDALE		SHALE	9.7	181.0
404.3	CARBONDALE		CORE LOSS	0.4	190.7
404.0	CARBONDALE		SHALE	0.5	191.0
403.5	CARBONDALE	ST. DAVID	LIMESTONE	0.3	191.5
403.2	CARBONDALE	TURNER MINE	BLACK SHALE	1.9	191.8
401.3	CARBONDALE	SPRINGFIELD	COAL	5.5	193.7
395.8	CARBONDALE		SHALE	1.7	199.2
394.1	CARBONDALE		CORE LOSS	0.1	200.9
394.0	CARBONDALE		SHALE	8.8	201.0
385.2	CARBONDALE		CORE LOSS	0.2	209.8
385.0	CARBONDALE		SHALE	1.4	210.0
383.6	CARBONDALE		LIMESTONE	1.0	211.4
382.6			CORE LOSS	1.6	212.4

MAPID: 12920615000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 2 QUARTERS/FOOTAGES: 170' N line, 2560' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.628765 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.04799 DATE COLLECTED: 10 / 29 / 1975

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 240.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
630.0			CLAY	2.0	0.0
628.0			SILTY CLAY	28.0	2.0
600.0			CLAY, SAND & GRAVEL	18.0	30.0
582.0			CLAY	25.0	48.0
557.0	MODESTO		GRAY SHALE	9.0	73.0
548.0	MODESTO		LIMESTONE	1.5	82.0
546.5	MODESTO		SHALE	4.5	83.5
542.0	MODESTO	WEST FRANKLIN	LIMESTONE	8.0	88.0
534.0	MODESTO		BLACK SHALE	3.0	96.0
531.0	MODESTO		SHALE	6.0	99.0
525.0	MODESTO		SHALE	3.5	105.0
521.5	MODESTO		LIMESTONE	3.0	108.5
518.5	MODESTO		SHALE	14.5	111.5
504.0	MODESTO		SHALE	18.0	126.0
486.0	MODESTO		SHALE	4.0	144.0
482.0	MODESTO		BLACK SHALE	4.0	148.0
478.0	CARBONDALE	DANVILLE	COAL	1.5	152.0
476.5	CARBONDALE		CLAYSTONE & SHALE	9.0	153.5
467.5	CARBONDALE		LIMESTONE	3.5	162.5
464.0	CARBONDALE		SHALE	7.5	166.0
456.5	CARBONDALE	HERRIN	COAL	1.5	173.5
455.0	CARBONDALE		SHALE	35.0	175.0
420.0	CARBONDALE		SANDSTONE	2.0	210.0
418.0	CARBONDALE		BLACK SHALE	3.5	212.0
414.5	CARBONDALE	ST. DAVID	LIMESTONE	7.0	215.5
407.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	222.5
404.5	CARBONDALE	SPRINGFIELD	COAL	6.0	225.5
398.5	CARBONDALE		UNDERCLAY	5.5	231.5
393.0	CARBONDALE		SHALE	3.0	237.0

MAPID: 12920586000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 3 QUARTERS/FOOTAGES: 2590' N line, 1190' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.652684 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.041087 DATE COLLECTED: 10 / 24 / 1975

SURFACE ELEVATION (FT.): 623.0 LOGGED (FT.): 207.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
623.0			UNCONSOLIDATED	165.0	0.0
501.0	CARBONDALE	DANVILLE	COAL	0.0	122.0
479.0			COAL	0.0	144.0
458.0			SHALE	19.6	165.0
438.4			CLAYSTONE & SILTSTONE	2.4	184.6
436.0			CORE LOSS	2.0	187.0
434.0			SHALE	4.2	189.0
429.8			BLACK SHALE	1.4	193.2
428.4			LIMESTONE	1.3	194.6
427.1	CARBONDALE	SPRINGFIELD	COAL	6.5	195.9
420.6	CARBONDALE		CLAYSTONE & SILTSTONE	1.6	202.4
419.0	CARBONDALE		CORE LOSS	3.1	204.0

MAPID: 12920616000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 3 QUARTERS/FOOTAGES: 2590' N line, 1302' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.652282 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.041093 DATE COLLECTED: 10 / 24 / 1975

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 210.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0			CLAY	1.0	0.0	
619.0			SILT & CLAY	19.0	1.0	
600.0			CLAY	89.0	20.0	
511.0			SAND/CLAY	5.0	109.0	
506.0			SILT & CLAY	30.0	114.0	
498.0	CARBONDALE	DANVILLE	COAL	0.0	122.0	
477.0	CARBONDALE	HERRIN	COAL	0.0	143.0	
476.0	CARBONDALE		SHALE	6.0	144.0	
470.0	CARBONDALE		SHALE	37.0	150.0	
433.0	CARBONDALE		SHALE	2.0	187.0	
431.0	CARBONDALE	ST. DAVID	LIMESTONE	3.5	189.0	
427.5	CARBONDALE	TURNER MINE	BLACK SHALE	4.5	192.5	
423.0	CARBONDALE	SPRINGFIELD	COAL	4.0	197.0	
419.0	CARBONDALE		UNDERCLAY	5.0	201.0	
414.0	CARBONDALE		SHALE	4.0	206.0	

MAPID: 12900103000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 5 QUARTERS/FOOTAGES: 1' S line, 1' E line of SW NW

QUADRANGLE: GREENVIEW LONGITUDE: -89.690172 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.040569 DATE COLLECTED: 3 / 31 / 1967

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 170.4 LOG TYPE: Multiple log types

SOURCE: ATLANTIC RICHFIELD WELL TYPE: Coal Test

COMMENT: DRILLERS LOG AND CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0			UNCONSOLIDATED	41.0	0.0	
554.0	MODESTO		LIMESTONE	1.0	41.0	
553.0	MODESTO		CLAYSTONE & SILTSTONE	60.0	42.0	
493.0	CARBONDALE	DANVILLE	COAL	2.0	102.0	
491.0	CARBONDALE		LIMESTONE	4.0	104.0	
487.0	CARBONDALE		CLAYSTONE & SILTSTONE	15.0	108.0	
472.0	CARBONDALE	HERRIN	CLAYSTONE & SILTSTONE	8.0	123.0	WITH COAL STREAKS; CORRELATION UNCERTAIN
464.0	CARBONDALE		CLAYSTONE & SILTSTONE	14.0	131.0	WITH LS STREAKS
450.0	CARBONDALE		CLAYSTONE & SILTSTONE	9.0	145.0	WITH COAL STREAK 2 INCHES
441.0	CARBONDALE		BLACK SHALE	4.0	154.0	
437.0	CARBONDALE		SHALE	4.2	158.0	ISGS DESCRIPTION TO 170.37
432.8	CARBONDALE	ST. DAVID	FOSSILIFEROUS LIMESTONE	0.6	162.2	BRACHIOPODS, CRINOIDS, FORAMS
432.2	CARBONDALE		SHALE	0.0	162.8	N SH COAL, DRK.GRAY
432.2	CARBONDALE	SPRINGFIELD	COAL	5.8	162.8	CLAY LAYERS, CALCITE ON CLEATS
426.4	CARBONDALE		CLAYSTONE & SILTSTONE	0.8	168.6	STIGMARIA
425.7	CARBONDALE		CLAYSTONE & SILTSTONE	0.4	169.3	WITH SIDERITIC AND PYRITIC INCLUSIONS
425.2	CARBONDALE		CLAYSTONE	0.6	169.8	

MAPID: 12920617000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 5 QUARTERS/FOOTAGES: 555' N line, 120' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.676539 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.046447 DATE COLLECTED: 10 / 23 / 1975

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 172.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0			CLAY	112.0	0.0
513.0	CARBONDALE	DANVILLE	COAL	0.0	87.0
491.0	CARBONDALE	HERRIN	COAL	0.0	109.0
488.0	CARBONDALE		SHALE	2.0	112.0
486.0	CARBONDALE		SHALE	34.0	114.0
452.0	CARBONDALE		SHALE	4.0	148.0
448.0	CARBONDALE		LIMESTONE	2.0	152.0
446.0	CARBONDALE		SHALE	2.0	154.0
444.0	CARBONDALE	ST. DAVID	LIMESTONE	5.3	156.0
438.7	CARBONDALE	SPRINGFIELD	COAL	5.3	161.3
433.4	CARBONDALE		CLAYSTONE & SILTSTONE	6.4	166.6

MAPID: 12920618000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 5 QUARTERS/FOOTAGES: 1550' S line, 550' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.692849 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.037493 DATE COLLECTED: 11 / 12 / 1975

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 205.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0			SAND/CLAY	25.0	0.0
575.0			CLAY, SAND & GRAVEL	35.0	25.0
540.0			CLAY	40.0	60.0
500.0			SILT	19.0	100.0
482.0	CARBONDALE	DANVILLE	COAL	0.0	118.0
481.0	CARBONDALE		SHALE	12.0	119.0
469.0	CARBONDALE		LIMESTONE	6.0	131.0
463.0	CARBONDALE		SHALE	4.0	137.0
459.0	CARBONDALE	HERRIN	COAL	0.0	141.0
459.0	CARBONDALE		SHALE	11.0	141.0
448.0	CARBONDALE		LIMESTONE	3.0	152.0
445.0	CARBONDALE		SHALE	3.0	155.0
442.0	CARBONDALE		SHALE	32.0	158.0
410.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.8	190.0
408.2	CARBONDALE	SPRINGFIELD	COAL	5.6	191.8
402.6	CARBONDALE		SHALE	7.6	197.4

MAPID: 1292085000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 5 QUARTERS/FOOTAGES: 2550' N line, 2376' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.684586 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.040882 DATE COLLECTED: 7 / 31 / 1979

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 205.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0			CLAY	107.0	0.0	
493.0	CARBONDALE	DANVILLE	BLACK SHALE	4.5	107.0	
488.5	CARBONDALE		SHALE	9.5	111.5	
479.0	CARBONDALE		LIMESTONE	5.0	121.0	
474.0	CARBONDALE		BLACK SHALE	3.5	126.0	
470.5	CARBONDALE	HERRIN	COAL	0.0	129.5	
470.5	CARBONDALE		SHALE	48.5	129.5	
422.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.6	178.0	
419.4	CARBONDALE	SPRINGFIELD	COAL	5.9	180.6	
413.5	CARBONDALE		CLAYSTONE & SHALE	0.9	186.5	
412.6	CARBONDALE		SHALE	0.4	187.4	
412.2	CARBONDALE		CORE LOSS	0.3	187.8	
412.0	CARBONDALE		SHALE	4.0	188.0	
408.0	CARBONDALE		LIMESTONE	1.0	192.0	
407.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	193.0	
405.0	CARBONDALE		SHALE	4.0	195.0	
401.0	CARBONDALE		SHALE	6.0	199.0	

MAPID: 12920178000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 7 QUARTERS/FOOTAGES: 2630' N line, 1320' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.6994 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.025828 DATE COLLECTED: 5 / 21 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 235.0 LOG TYPE: Multiple log types

SOURCE: CARTER OIL WELL TYPE: Coal Test

COMMENT: HAROLD KINCAID FARM; CORE, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0			UNCONSOLIDATED	66.0	0.0	
554.0	MODESTO		LIMESTONE	8.5	66.0	GRAY
545.5	MODESTO		SHALE	2.5	74.5	
543.0	MODESTO		BLACK SHALE	1.5	77.0	
541.5	MODESTO		SHALE	1.5	78.5	
540.0	MODESTO		SHALE	8.0	80.0	
532.0	MODESTO		DARK SHALE & SANDSTONE	17.0	88.0	SANDY SH
515.0	MODESTO		SHALE	9.0	105.0	
506.0	MODESTO		SHALE	3.0	114.0	
503.0	MODESTO		SHALE	10.0	117.0	
493.0	MODESTO		SHALE	3.5	127.0	
489.5	MODESTO		LIMESTONE	0.5	130.5	
489.0	MODESTO		SHALE	14.5	131.0	
474.5	MODESTO		SHALE	3.0	145.5	
471.5	CARBONDALE	DANVILLE	COAL	0.8	148.5	
470.7	CARBONDALE		SHALE	3.8	149.3	
467.0	CARBONDALE		COAL	0.5	153.0	
466.5	CARBONDALE		SANDY SHALE	6.5	153.5	
460.0	CARBONDALE		LIMESTONE	4.0	160.0	GRAY
456.0	CARBONDALE		SHALE	1.0	164.0	
455.0	CARBONDALE		SHALE	5.0	165.0	
450.0	CARBONDALE		LIMESTONE	1.0	170.0	GRAY
449.0	CARBONDALE		DARK SHALE & SANDSTONE	3.0	171.0	
446.0	CARBONDALE		SILTY SHALE	11.0	174.0	
435.0	CARBONDALE		SANDSTONE	3.0	185.0	
432.0	CARBONDALE		SHALE	9.5	188.0	SIDERITE BANDS; ISGS DESCRIPT. TO 234.4
422.5	CARBONDALE		SHALE	7.5	197.5	SIDERITE BANDS, SILTY IN PLACES
415.0	CARBONDALE		SHALE	10.3	205.0	SID. BANDS & NODS, PYRITIC TRAILS
404.7	CARBONDALE	ST. DAVID	SILTY LIMESTONE	0.8	215.3	
403.9	CARBONDALE	TURNER MINE	BLACK SHALE	1.7	216.1	
402.2	CARBONDALE	SPRINGFIELD	COAL	6.3	217.8	
395.9	CARBONDALE		SILTY CLAYSTONE	2.2	224.1	STIGMARIAN FOSSILS; CALC. FROM 224.7
393.7	CARBONDALE		CLAYSTONE & SILTSTONE	2.4	226.3	CALCAREOUS NODULES
391.3	CARBONDALE		CLAYSTONE	1.5	228.7	FOSSILIFEROUS, SILTY
389.8	CARBONDALE		CARBONACEOUS SILTSTONE	0.6	230.2	CALCAREOUS INTERLAMINATIONS
389.2	CARBONDALE		SILTY SHALE	0.6	230.8	CALCAREOUS INTERLAMINATIONS

388.6	CARBONDALE	EXCELLO	BLACK SHALE	1.5	231.4
387.1	CARBONDALE		SILTY CLAYSTONE	2.1	232.9

MAPID: 12920178000C VERSION: 2

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 7 QUARTERS/FOOTAGES: 2630' N line, 1320' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.6994 GEOLOGIST: COATS

CONFIDENTIAL: N LATITUDE: 40.025828 DATE COLLECTED: 5 / 21 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 233.5 LOG TYPE: Multiple log types

SOURCE: CARTER OIL COMPANY WELL TYPE: Coal Test

COMMENT: DL & SCD; LOCATION FROM MAP FROM CONSOL.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0			UNCONSOLIDATED	15.0	0.0
605.0			UNCONSOLIDATED	51.0	15.0
554.0	MODESTO	WEST FRANKLIN	LIMESTONE	8.5	66.0
545.5	MODESTO		GRAY SHALE	2.5	74.5
543.0	MODESTO		BLACK SHALE	1.5	77.0
541.5	MODESTO		GRAY SHALE	1.5	78.5
540.0	MODESTO		VARRIGATED SHALE	8.0	80.0
532.0	MODESTO		SANDY SHALE	17.0	88.0
515.0	MODESTO		VARRIGATED SHALE	9.0	105.0
506.0	MODESTO		GRAY SHALE	3.0	114.0
503.0	MODESTO		VARRIGATED SHALE	10.0	117.0
493.0	MODESTO		GRAY SHALE	3.5	127.0
489.5	MODESTO		LIMESTONE	0.5	130.5
489.0	MODESTO		GRAY SHALE	14.5	131.0
474.5	MODESTO		SHALE	3.0	145.5
471.5	CARBONDALE	DANVILLE	COAL	0.8	148.5
470.7	CARBONDALE		GRAY SHALE	3.8	149.3
466.9	CARBONDALE	DANVILLE SUMP	COAL	0.5	153.1
466.4	CARBONDALE		SANDY SHALE	6.5	153.6
459.9	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	160.1
455.9	CARBONDALE		DARK SHALE	1.0	164.1
454.9	CARBONDALE		GRAY SHALE	5.0	165.1
449.9	CARBONDALE		LIMESTONE	1.0	170.1
448.9	CARBONDALE		SILTY SHALE	14.0	171.1
434.9	CARBONDALE		SANDSTONE	10.4	185.1
424.5	CARBONDALE		GRAY SHALE	19.5	195.5
405.0	CARBONDALE	ST. DAVID	LIMESTONE	0.8	215.0
404.2	CARBONDALE	TURNER MINE	FOSSILIFEROUS BLACK SHALES	1.7	215.8
402.5	CARBONDALE	SPRINGFIELD	COAL	6.3	217.5
396.2	CARBONDALE		CLAYSTONE	5.5	223.8
390.7	CARBONDALE		SILTSTONE	0.6	229.3
390.1	CARBONDALE		SILTY SHALE	0.6	229.9
389.5	CARBONDALE		SILTY SHALE	1.5	230.5
388.0	CARBONDALE		SILTY CLAYSTONE	1.5	232.0

MAPID: 12920723000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 8 QUARTERS/FOOTAGES: 2610' S line, 2016' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.682931 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.026067 DATE COLLECTED: 8 / 25 / 1978

SURFACE ELEVATION (FT.): 621.0 LOGGED (FT.): 225.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
621.0			CLAY	16.0	0.0
605.0			WOOD	6.0	16.0
599.0			CLAY, SAND & GRAVEL	150.0	22.0
491.0	CARBONDALE	DANVILLE	COAL	0.0	130.0
469.0	CARBONDALE	HERRIN	COAL	0.0	152.0
449.0	CARBONDALE		LIMESTONE	2.5	172.0
446.5	CARBONDALE		SANDSTONE	7.5	174.5
439.0	CARBONDALE		SHALE	15.0	182.0
424.0	CARBONDALE	ST. DAVID	LIMESTONE	3.0	197.0
421.0	CARBONDALE	TURNER MINE	BLACK SHALE	4.4	200.0
416.6	CARBONDALE	SPRINGFIELD	COAL	5.9	204.4
410.7	CARBONDALE		UNDERCLAY	2.8	210.3
408.0	CARBONDALE		LIMESTONE	1.5	213.0
406.5	CARBONDALE		SHALE	10.5	214.5

MAPID: 12920177000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 9 QUARTERS/FOOTAGES: 2640' N line, 1' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.656736 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.026221 DATE COLLECTED: 4 / 16 / 1968

SURFACE ELEVATION (FT.): 631.0 LOGGED (FT.): 253.0 LOG TYPE: Multiple log types

SOURCE: CARTER OIL WELL TYPE: Coal Test

COMMENT: E1/2 SEC;HAROLD ACKERMAN FARM; CORE; LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
631.0			UNCONSOLIDATED	144.0	0.0	
487.0	MODESTO		SHALE	3.0	144.0	
484.0	MODESTO		SHALE	10.5	147.0	
473.5	MODESTO		BLACK SHALE	3.0	157.5	
470.5	CARBONDALE	DANVILLE	COAL	1.5	160.5	
469.0	CARBONDALE		SHALE	12.0	162.0	
457.0	CARBONDALE		LIMESTONE	2.0	174.0	GRAY
455.0	CARBONDALE		SILTY SHALE	12.0	176.0	
443.0	CARBONDALE		SILTY SHALE	3.0	188.0	WITH NODULES
440.0	CARBONDALE		DARK SHALE & SANDSTONE	10.0	191.0	SILTY SHALE
430.0	CARBONDALE		SHALE	26.5	201.0	SIDERITE LENSES; ISGS DESCRIP. TO 251.3
403.5	CARBONDALE	ST. DAVID	SILTY LIMESTONE	2.0	227.5	FOSSILIFEROUS
401.5	CARBONDALE		SHALE	3.2	229.5	
398.3	CARBONDALE	SPRINGFIELD	COAL	5.0	232.7	
393.3	CARBONDALE		CARBONACEOUS CLAYSTONE	1.5	237.7	CALCAREOUS
391.8	CARBONDALE		CLAYSTONE	3.7	239.2	CALCAREOUS NODULES
388.1	CARBONDALE		SILTSTONE	2.3	242.9	CALCAREOUS
385.8	CARBONDALE		CARBONACEOUS SHALE	2.4	245.2	
383.4	CARBONDALE	HOUCHIN CREEK	COAL	0.2	247.6	
383.3	CARBONDALE		SILTY CLAYSTONE	5.3	247.7	WITH CARBONACEOUS PLANT MAT.

MAPID: 12920177000C VERSION: 2

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 9 QUARTERS/FOOTAGES: 2640' N line, 1' E line
QUADRANGLE: GREENVIEW LONGITUDE: -89.656736 GEOLOGIST: COATS
CONFIDENTIAL: N LATITUDE: 40.026221 DATE COLLECTED: 4 / 16 / 1968
SURFACE ELEVATION (FT.): 631.0 LOGGED (FT.): 250.2 LOG TYPE: Multiple log types
SOURCE: CARTER OIL COMPANY WELL TYPE: Coal Test
COMMENT: DL & SCD; APPROX. LOC. FROM CONSOL. MAP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
631.0			UNCONSOLIDATED	12.0	0.0
619.0			UNCONSOLIDATED	132.0	12.0
487.0	MODESTO		SHALE	3.0	144.0
484.0	MODESTO		GRAY SHALE	10.5	147.0
473.5	MODESTO		BLACK SHALE	3.0	157.5
470.5	CARBONDALE	DANVILLE	COAL	1.5	160.5
469.0	CARBONDALE		GRAY SHALE	12.0	162.0
457.0	CARBONDALE		LIMESTONE	2.0	174.0
455.0	CARBONDALE		SILTY SHALE	27.0	176.0
428.0	CARBONDALE		SILTY SHALE	24.4	203.0
403.6	CARBONDALE	ST. DAVID	FOSSILIFEROUS & ARG LIMESTONE	2.0	227.4
401.6	CARBONDALE	TURNER MINE	BLACK SHALE, SILTY, FOSSILIFEROUS	3.2	229.4
398.4	CARBONDALE	SPRINGFIELD	COAL	5.0	232.6
393.4	CARBONDALE		SILTY CLAYSTONE	4.2	237.6
389.2	CARBONDALE		CALCAREOUS SILTSTONE	2.3	241.8
386.9	CARBONDALE		GRAY SHALE	2.4	244.1
384.5	CARBONDALE		COAL	0.2	246.5
384.4	CARBONDALE		SILTY CLAYSTONE	3.6	246.6

MAPID: 12920619000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 9 QUARTERS/FOOTAGES: 1335' N line, 65' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.675606 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.029787 DATE COLLECTED: 10 / 24 / 1975

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 200.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0			CLAY	18.0	0.0
602.0			CLAY, SAND & GRAVEL	32.0	18.0
570.0			CLAY	108.0	50.0
512.0	CARBONDALE	DANVILLE	COAL	0.0	108.0
490.0	CARBONDALE	HERRIN	COAL	0.0	130.0
462.0	CARBONDALE		SHALE	19.0	158.0
443.0	CARBONDALE		SHALE	2.0	177.0
441.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	179.0
440.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	180.0
438.0	CARBONDALE	SPRINGFIELD	COAL	6.0	182.0
432.0	CARBONDALE		UNDERCLAY	4.0	188.0
428.0	CARBONDALE		SHALE	3.5	192.0
424.5	CARBONDALE	EXCELLO	BLACK SHALE	2.0	195.5
422.5	CARBONDALE		SHALE	2.5	197.5

MAPID: 12920704000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 9 QUARTERS/FOOTAGES: 25' N line, 72' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.657151 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.033434 DATE COLLECTED: 10 / 30 / 1975

SURFACE ELEVATION (FT.): 618.0 LOGGED (FT.): 242.0 LOG TYPE: Multiple log types

SOURCE: HYDROCARBON SURVEY WELL TYPE: Coal Test

COMMENT: GAMMA, S.P., RESIST, CORRELATIONS UNCERT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
618.0			UNCONSOLIDATED	120.0	0.0	
498.0	MODESTO		SHALE	28.0	120.0	
470.0	CARBONDALE	DANVILLE	COAL	1.5	148.0	UNCERTAIN CORRELATION
468.5	CARBONDALE		SHALE	10.5	149.5	
458.0	CARBONDALE		LIMESTONE	2.0	160.0	
456.0	CARBONDALE		SHALE	2.0	162.0	
454.0	CARBONDALE	HERRIN	COAL	2.0	164.0	UNCERTAIN CORRELATION
452.0	CARBONDALE		SHALE	14.0	166.0	
438.0	CARBONDALE		SILTY SHALE	20.0	180.0	
418.0	CARBONDALE		SHALE	18.0	200.0	
400.0	CARBONDALE	ST. DAVID	LIMESTONE	3.0	218.0	
397.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	221.0	
395.0	CARBONDALE	SPRINGFIELD	COAL	5.0	223.0	
390.0	CARBONDALE		SHALE	4.0	228.0	
386.0	CARBONDALE		LIMESTONE	2.0	232.0	
384.0	CARBONDALE		SHALE	4.0	234.0	
380.0	CARBONDALE	EXCELLO	BLACK SHALE	1.0	238.0	
379.0	CARBONDALE		SHALE	3.0	239.0	

MAPID: 12920724000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 9 QUARTERS/FOOTAGES:

QUADRANGLE: GREENVIEW LONGITUDE: -89.666217

GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.026244

DATE COLLECTED: 8 / 24 / 1978

SURFACE ELEVATION (FT.): 625.0

LOGGED (FT.): 215.0

LOG TYPE: Multiple log types

SOURCE: MOBIL OIL

WELL TYPE: Coal Test

COMMENT: DRILLERS LOG AND CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
625.0			CLAY	138.5	0.0
503.0	CARBONDALE	DANVILLE	COAL	0.0	122.0
486.5	CARBONDALE		LIMESTONE	3.7	138.5
482.8	CARBONDALE	HERRIN	COAL	0.0	142.2
482.8	CARBONDALE		SHALE	43.3	142.2
439.5	CARBONDALE		SHALE	0.5	185.5
439.0	CARBONDALE		LIMESTONE	4.0	186.0
435.0	CARBONDALE		BLACK SHALE	1.5	190.0
433.5	CARBONDALE	ST. DAVID	LIMESTONE	4.0	191.5
429.5	CARBONDALE	SPRINGFIELD	COAL	5.6	195.5
423.9	CARBONDALE		CLAYSTONE & SHALE	0.2	201.1
423.7	CARBONDALE		CORE LOSS	0.2	201.3
423.5	CARBONDALE		SHALE	13.5	201.5

MAPID: 12920856000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 10 QUARTERS/FOOTAGES: 2613' S line, 1350' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.642496 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.026333 DATE COLLECTED: 8 / 23 / 1979

SURFACE ELEVATION (FT.): 629.0 LOGGED (FT.): 235.0 WELL TYPE: Coal Test

SOURCE: MOBIL OIL

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
629.0			CLAY	10.0	0.0
619.0			CLAY, SAND & SILTSTONE	89.0	10.0
530.0			CLAY	94.0	99.0
488.0	CARBONDALE	DANVILLE	COAL	0.0	141.0
466.0	CARBONDALE	HERRIN	COAL	0.0	163.0
436.0	CARBONDALE		LIMESTONE	1.5	193.0
434.5	CARBONDALE		SHALE	11.7	194.5
422.8	CARBONDALE		LIMESTONE	3.8	206.2
419.0	CARBONDALE		SHALE	2.6	210.0
416.4	CARBONDALE	ST. DAVID	LIMESTONE	2.6	212.6
413.8	CARBONDALE	SPRINGFIELD	COAL	5.6	215.2
408.2	CARBONDALE		SHALE	0.4	220.8
407.8	CARBONDALE		SHALE	11.8	221.2
396.0	CARBONDALE		SHALE	2.0	233.0

MAPID: 12920185000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 12 QUARTERS/FOOTAGES: 1990' N line, 2280' E line

QUADRANGLE: MIDDLETOWN LONGITUDE: -89.608084 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.028461 DATE COLLECTED: 3 / 21 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 214.5 LOG TYPE: Multiple log types

SOURCE: CARTER OIL WELL TYPE: Coal Test

COMMENT: S1/2 NW; RUSSEL OLSON FARM; CORE & LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0			UNCONSOLIDATED	125.0	0.0	
495.0			SHALE	12.0	125.0	
483.0			SHALE	3.0	137.0	
480.0			SHALE	3.0	140.0	
477.0			SANDSTONE	6.0	143.0	
471.0	CARBONDALE	BRERETON	LIMESTONE	3.0	149.0	
468.0	CARBONDALE		UNCLASSIFIED	2.0	152.0	
466.0	CARBONDALE	HERRIN	COAL	0.5	154.0	
465.5	CARBONDALE		SHALE	5.5	154.5	
460.0	CARBONDALE		SANDSTONE	14.0	160.0	
446.0	CARBONDALE		SHALE	11.0	174.0	
435.0	CARBONDALE		SHALE	12.5	185.0	SID. BANDS & NODS; ISGS DESCRIP. TO 213
422.5	CARBONDALE		SILTSTONE	7.7	197.5	CALCAREOUS
414.8	CARBONDALE	SPRINGFIELD	COAL	5.7	205.2	
409.1	CARBONDALE		CLAYSTONE	3.6	210.9	

MAPID: 12920185000C VERSION: 2

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 12 QUARTERS/FOOTAGES: 1990' N line, 2280' E line

QUADRANGLE: MIDDLETOWN LONGITUDE: -89.608084 GEOLOGIST: COATS

CONFIDENTIAL: N LATITUDE: 40.028461 DATE COLLECTED: 3 / 21 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 213.0 LOG TYPE: Multiple log types

SOURCE: CARTER OIL COMPANY WELL TYPE: Coal Test

COMMENT: DL & SCD; APPROX. LOC. FROM CONSOL. MAP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0			CLAY	10.0	0.0
610.0			UNCONSOLIDATED	60.0	10.0
550.0			CLAY	55.0	70.0
495.0			GRAY SHALE	15.0	125.0
480.0	CARBONDALE		SANDSTONE	5.0	140.0
475.0	CARBONDALE	BRERETON	LIMESTONE	5.0	145.0
470.0	CARBONDALE		UNKNOWN	4.0	150.0
466.0	CARBONDALE	HERRIN	COAL	0.5	154.0
465.5	CARBONDALE		GRAY SHALE	5.5	154.5
460.0	CARBONDALE		SANDSTONE	5.0	160.0
455.0	CARBONDALE		GRAY SHALE	20.0	165.0
435.0	CARBONDALE		GRAY SHALE	12.5	185.0
422.5	CARBONDALE		SILTSTONE	7.7	197.5
414.8	CARBONDALE	SPRINGFIELD	COAL	5.7	205.2
409.1	CARBONDALE		CLAYSTONE	2.1	210.9

MAPID: 12920705000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 14 QUARTERS/FOOTAGES: 46' N line, 1998' E line

QUADRANGLE: WILLIAMSVILLE LONGITUDE: -89.625858 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.019104 DATE COLLECTED: 10 / 29 / 1975

SURFACE ELEVATION (FT.): 622.0 LOGGED (FT.): 300.0 LOG TYPE: Multiple log types

SOURCE: HYDROCARBON SURVEY WELL TYPE: Coal Test

COMMENT: GAMMA, S.P., RESIST; CORRELATIONS UNCERT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
622.0			UNCONSOLIDATED	180.0	0.0	
466.0	CARBONDALE	DANVILLE	COAL	0.0	156.0	DANVILLE #7 COAL ERODED
444.0	CARBONDALE	HERRIN	COAL	0.0	178.0	HERRIN #6 COAL ERODED
442.0	CARBONDALE		SHALE	4.0	180.0	
438.0	CARBONDALE		SANDSTONE	10.0	184.0	
428.0	CARBONDALE		SHALE	39.0	194.0	
389.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	233.0	
388.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	234.0	
387.0	CARBONDALE	SPRINGFIELD	COAL	5.0	235.0	CORRELATION UNCERTAIN
382.0	CARBONDALE		SHALE	5.0	240.0	
377.0	CARBONDALE		LIMESTONE	3.0	245.0	
374.0	CARBONDALE		SHALE	3.0	248.0	
371.0	CARBONDALE	EXCELLO	BLACK SHALE	1.5	251.0	
369.5	CARBONDALE		DARK SHALE & SANDSTONE	10.5	252.5	SANDY OR SILTY SH
359.0	CARBONDALE		SHALE	37.0	263.0	

MAPID: 12920705000C VERSION: 2

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 14 QUARTERS/FOOTAGES: 46' N line, 1998' E line
QUADRANGLE: WILLIAMSVILLE LONGITUDE: -89.625858 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 40.019104 DATE COLLECTED: 10 / 29 / 1975
SURFACE ELEVATION (FT.): 622.0 LOGGED (FT.): 300.0 LOG TYPE: Gamma Ray Density
SOURCE: HYDROCARBON SURVEY WELL TYPE: Coal Test
COMMENT: NO DENSITY LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
622.0			UNCONSOLIDATED	158.0	0.0
464.0	CARBONDALE		UNCLASSIFIED	12.0	158.0
452.0	CARBONDALE	BRERETON	LIMESTONE	3.0	170.0
449.0	CARBONDALE		UNCLASSIFIED	4.5	173.0
444.5	CARBONDALE	HERRIN	COAL	2.5	177.5
442.0	CARBONDALE		UNCLASSIFIED	53.0	180.0
389.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	233.0
387.0	CARBONDALE	SPRINGFIELD	COAL	5.0	235.0
382.0	CARBONDALE		UNCLASSIFIED	7.0	240.0
375.0	CARBONDALE	EXCELLO	BLACK SHALE	2.5	247.0
372.5	CARBONDALE		UNCLASSIFIED	50.5	249.5

MAPID: 12920851000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 14 QUARTERS/FOOTAGES: 43' S line, 1308' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.632518 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.004765 DATE COLLECTED: 8 / 2 / 1979

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 280.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0			CLAY	35.0	0.0
585.0			SANDY CLAY	80.0	35.0
505.0			SILT	2.0	115.0
503.0			SILTY CLAY	15.0	117.0
488.0			CLAY	14.0	132.0
474.0	MODESTO		LIMESTONE	3.0	146.0
471.0	MODESTO		SANDSTONE	2.0	149.0
469.0	MODESTO		SHALE	11.2	151.0
457.8	MODESTO		LIMESTONE	1.3	162.2
456.5	MODESTO		SHALE	5.5	163.5
451.0	MODESTO		SHALE	7.0	169.0
444.0	MODESTO		SHALE	3.0	176.0
441.0	MODESTO		SHALE	4.0	179.0
437.0	MODESTO		BLACK SHALE	3.7	183.0
433.3	CARBONDALE	DANVILLE	COAL	1.3	186.7
432.0	CARBONDALE		SHALE	11.5	188.0
420.5	CARBONDALE		LIMESTONE	1.5	199.5
419.0	CARBONDALE		SHALE	5.0	201.0
414.0	CARBONDALE	BRERETON	LIMESTONE	2.5	206.0
411.5	CARBONDALE	HERRIN	COAL	1.0	208.5
410.5	CARBONDALE		SHALE	8.0	209.5
402.5	CARBONDALE		LIMESTONE	1.5	217.5
401.0	CARBONDALE		SHALE	28.5	219.0
372.5	CARBONDALE		SANDSTONE	0.5	247.5
372.0	CARBONDALE		SHALE	4.5	248.0
367.5	CARBONDALE		LIMESTONE	1.5	252.5
366.0	CARBONDALE		SHALE	3.4	254.0
362.6	CARBONDALE	ST. DAVID	LIMESTONE	2.0	257.4
360.6	CARBONDALE	TURNER MINE	BLACK SHALE	1.1	259.4
359.5	CARBONDALE	SPRINGFIELD	COAL	5.8	260.5
353.7	CARBONDALE		SHALE	1.0	266.3
352.6	CARBONDALE		CORE LOSS	0.2	267.4
352.5	CARBONDALE		SHALE	12.5	267.5

MAPID: 12920725000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 15 QUARTERS/FOOTAGES: 54' S line, 2450' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.646004 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.0047 DATE COLLECTED: 8 / 24 / 1978

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 286.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0			CLAY	30.0	0.0
580.0			CLAY & GRAVEL	52.0	30.0
528.0	MODESTO		SHALE	28.0	82.0
500.0	MODESTO		LIMESTONE	1.5	110.0
498.5	MODESTO		BLACK SHALE	1.5	111.5
497.0	MODESTO		SHALE	2.5	113.0
494.5	MODESTO	WEST FRANKLIN	LIMESTONE	7.5	115.5
487.0	MODESTO		BLACK SHALE	2.0	123.0
485.0	MODESTO		SHALE	7.0	125.0
478.0	MODESTO		SHALE	8.3	132.0
469.7	MODESTO		SHALE	7.2	140.3
462.5	MODESTO		LIMESTONE	8.5	147.5
454.0	MODESTO		SHALE	19.0	156.0
435.0	MODESTO		BLACK SHALE	3.0	175.0
432.0	MODESTO		SHALE	3.0	178.0
429.0	CARBONDALE	DANVILLE	COAL	1.0	181.0
428.0	CARBONDALE		SHALE	4.0	182.0
424.0	CARBONDALE	BRERETON	LIMESTONE	9.5	186.0
414.5	CARBONDALE	ANNA	BLACK SHALE	1.0	195.5
413.5	CARBONDALE	HERRIN	COAL	1.0	196.5
412.5	CARBONDALE		SHALE	4.0	197.5
408.5	CARBONDALE		LIMESTONE	1.5	201.5
407.0	CARBONDALE		SHALE	9.0	203.0
398.0	CARBONDALE		LIMESTONE	5.0	212.0
393.0	CARBONDALE		SHALE	28.0	217.0
365.0	CARBONDALE	ST. DAVID	LIMESTONE	0.3	245.0
364.7	CARBONDALE	TURNER MINE	BLACK SHALE	2.2	245.3
362.5	CARBONDALE	SPRINGFIELD	COAL	5.8	247.5
356.7	CARBONDALE		UNDERCLAY	1.2	253.3
355.5	CARBONDALE		SHALE	7.5	254.5
348.0	CARBONDALE		LIMESTONE	4.0	262.0
344.0	CARBONDALE		SHALE	20.0	266.0

MAPID: 12900130000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 18 QUARTERS/FOOTAGES: 1' N line, 1' E line of NW SE

QUADRANGLE: GREENVIEW LONGITUDE: -89.699351 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.011265 DATE COLLECTED: 9 / 6 / 1972

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 216.0 LOG TYPE: Multiple log types

SOURCE: CONSOLIDATION COAL CO. WELL TYPE: Coal Test

COMMENT: GAMMA, S.P., RESIST, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0			UNCONSOLIDATED	56.0	0.0	
564.0	MODESTO		SHALE	12.0	56.0	
552.0	MODESTO		LIMESTONE	3.0	68.0	
549.0	MODESTO		SHALE	22.0	71.0	
527.0	MODESTO		LIMESTONE	2.0	93.0	
525.0	MODESTO		SHALE	30.0	95.0	
495.0	MODESTO		BLACK SHALE	3.0	125.0	
492.0	CARBONDALE	DANVILLE	COAL	1.0	128.0	
491.0	CARBONDALE		SHALE	19.0	129.0	CALCAREOUS IN PLACES
472.0	CARBONDALE	BRERETON	LIMESTONE	3.0	148.0	
469.0	CARBONDALE	ANNA	BLACK SHALE	3.0	151.0	
466.0	CARBONDALE	HERRIN	COAL	0.0	154.0	HERRIN #6 COAL NOT PRESENT
466.0	CARBONDALE		SHALE	16.6	154.0	
449.4	CARBONDALE		SHALE	12.8	170.6	SID. NODS & BANDS; ISGS DESCRIP. TO T.D.
436.6	CARBONDALE		FOSSILIFEROUS LIMESTONE	2.3	183.4	SHALEY
434.3	CARBONDALE		SHALE	0.6	185.7	FOSSILIFEROUS AT TOP
433.7	CARBONDALE	ST. DAVID	SILTY LIMESTONE	5.0	186.3	FOSSILIFEROUS
428.7	CARBONDALE	TURNER MINE	BLACK SHALE	2.2	191.3	BRACHIOPODS
426.6	CARBONDALE	SPRINGFIELD	COAL	6.6	193.4	FROM E-LOG
420.0	CARBONDALE		UNCLASSIFIED	7.1	200.0	
412.9	CARBONDALE		SHALE	1.6	207.1	CALCAREOUS NODULES
411.3	CARBONDALE		CARBONACEOUS SHALE	0.2	208.7	
411.1	CARBONDALE		SHALE	2.9	208.9	CALCAREOUS NODULES
408.2	CARBONDALE		CLAYSTONE & SILTSTONE	4.3	211.8	CALCAREOUS NODULES; PYRITIC

MAPID: 12920587000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 18 QUARTERS/FOOTAGES: 190' S line, 2085' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.706904 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.00438 DATE COLLECTED: 11 / 10 / 1975

SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 180.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
585.0			CLAY	30.0	0.0
555.0	MODESTO		SHALE	2.0	30.0
553.0	MODESTO		SHALE	4.0	32.0
549.0	MODESTO		SHALE	3.0	36.0
546.0	MODESTO		LIMESTONE	1.0	39.0
545.0	MODESTO		SHALE	19.0	40.0
526.0	MODESTO		LIMESTONE	2.5	59.0
523.5	MODESTO		SHALE	4.5	61.5
519.0	MODESTO		SHALE	29.0	66.0
490.0	MODESTO		BLACK SHALE	5.5	95.0
484.5	CARBONDALE	DANVILLE	COAL	1.5	100.5
483.0	CARBONDALE		SHALE	9.0	102.0
474.0	CARBONDALE		LIMESTONE	2.0	111.0
472.0	CARBONDALE		SHALE	3.0	113.0
469.0	CARBONDALE	BRERETON	LIMESTONE	2.5	116.0
466.5	CARBONDALE	ANNA	BLACK SHALE	1.5	118.5
465.0	CARBONDALE	HERRIN	COAL	0.0	120.0
465.0	CARBONDALE		SHALE	4.0	120.0
461.0	CARBONDALE		SHALE	8.0	124.0
453.0	CARBONDALE		SHALE	8.0	132.0
445.0	CARBONDALE		SHALE	4.0	140.0
441.0	CARBONDALE		SHALE	2.0	144.0
439.0	CARBONDALE		SHALE	8.4	146.0
430.6	CARBONDALE		SHALE	12.3	154.4
418.3	CARBONDALE		SHALE	0.2	166.7
418.1	CARBONDALE	TURNER MINE	BLACK SHALE	2.7	166.9
415.4	CARBONDALE	SPRINGFIELD	COAL	6.2	169.6
409.2	CARBONDALE		CLAYSTONE & SILTSTONE	0.6	175.8
408.6	CARBONDALE		CLAYSTONE & SILTSTONE	2.4	176.4
406.2	CARBONDALE		LIMESTONE	1.0	178.8
405.2	CARBONDALE		CORE LOSS	0.2	179.8

MAPID: 12920620000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 18 QUARTERS/FOOTAGES: 200' S line, 2100' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.70685 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.00441 DATE COLLECTED: 10 / 25 / 1975

SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 245.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
585.0			CLAY	35.0	0.0
556.0	MODESTO		SHALE	32.0	29.0
524.0	MODESTO		LIMESTONE	3.0	61.0
521.0	MODESTO		SHALE	35.0	64.0
486.0	MODESTO		BLACK SHALE	3.0	99.0
483.0	CARBONDALE	DANVILLE	COAL	2.0	102.0
481.0	CARBONDALE		SHALE	14.0	104.0
467.0	CARBONDALE	BRERETON	LIMESTONE	2.5	118.0
464.5	CARBONDALE	ANNA	BLACK SHALE	2.0	120.5
462.5	CARBONDALE	HERRIN	COAL	0.0	122.5
462.5	CARBONDALE		SHALE	46.0	122.5
416.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	168.5
413.5	CARBONDALE	SPRINGFIELD	COAL	6.0	171.5
407.5	CARBONDALE		SHALE	7.5	177.5
400.0	CARBONDALE	EXCELLO	BLACK SHALE	1.5	185.0
398.5	CARBONDALE		SHALE	56.0	186.5
342.5	CARBONDALE	COLCHESTER	COAL	1.5	242.5
341.0	CARBONDALE		SHALE	1.0	244.0

MAPID: 12920852000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 18 QUARTERS/FOOTAGES: 792' N line, 1350' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.699337 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.016334 DATE COLLECTED: 8 / 2 / 1979

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 240.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0			CLAY	18.0	0.0	
594.0			CLAY, SAND & GRAVEL	41.0	18.0	
553.0	MODESTO		LIMESTONE	12.5	59.0	
540.5	MODESTO		BLACK SHALE	1.5	71.5	
539.0	MODESTO		SHALE	3.0	73.0	
536.0	MODESTO		SHALE	6.0	76.0	
530.0	MODESTO		SHALE	2.0	82.0	
528.0	MODESTO		LIMESTONE	12.0	84.0	
516.0	MODESTO		SHALE	4.0	96.0	
512.0	MODESTO		SHALE	43.0	100.0	
469.0	MODESTO		BLACK SHALE	2.0	143.0	
467.0	CARBONDALE	DANVILLE	COAL	2.0	145.0	UNCERTAIN CORRELATION
465.0	CARBONDALE		SHALE	15.0	147.0	
450.0	CARBONDALE	BRERETON	LIMESTONE	2.0	162.0	
448.0	CARBONDALE	ANNA	BLACK SHALE	1.5	164.0	
446.5	CARBONDALE	HERRIN	COAL	0.0	165.5	UNCERTAIN CORRELATION
446.5	CARBONDALE		SHALE	4.0	165.5	
442.5	CARBONDALE		LIMESTONE	3.0	169.5	
439.5	CARBONDALE		SHALE	41.5	172.5	
398.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	214.0	
395.5	CARBONDALE	SPRINGFIELD	COAL	6.1	216.5	
389.4	CARBONDALE		SHALE	5.9	222.6	
383.5	CARBONDALE		LIMESTONE	2.5	228.5	
381.0	CARBONDALE		SHALE	8.0	231.0	
373.0	CARBONDALE		LIMESTONE	1.0	239.0	

MAPID: 12920179000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 19 QUARTERS/FOOTAGES: SW SE SE

QUADRANGLE: ATHENS LONGITUDE: -89.697689 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.990781 DATE COLLECTED: 5 / 22 / 1968

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 224.0 LOG TYPE: Multiple log types

SOURCE: CARTER OIL WELL TYPE: Coal Test

COMMENT: ALMA MITCHELL FARM; CORE, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0			UNCONSOLIDATED	38.5	0.0	
576.5	MODESTO		LIMESTONE	10.5	38.5	
566.0	MODESTO		SHALE	9.0	49.0	
557.0	MODESTO		LIMESTONE	18.5	58.0	
538.5	MODESTO		SHALE	2.0	76.5	
536.5	MODESTO		SHALE	9.5	78.5	
527.0	MODESTO		SHALE	4.0	88.0	
523.0	MODESTO		SHALE	46.0	92.0	SANDY SHALE
477.0	MODESTO		BLACK SHALE	2.0	138.0	
475.0	CARBONDALE	DANVILLE	COAL	1.5	140.0	
473.5	CARBONDALE		SHALE	2.5	141.5	
471.0	CARBONDALE		LIMESTONE	2.5	144.0	
468.5	CARBONDALE		SHALE	28.5	146.5	
440.0	CARBONDALE		SHALE	5.0	175.0	SANDY SHALE
435.0	CARBONDALE		SANDSTONE	12.0	180.0	
423.0	CARBONDALE		SHALE	13.5	192.0	SID. BANDS & NODS; ISGS DESCRIP TO 223.5
409.5	CARBONDALE		SHALE	0.2	205.5	PYRITIC
409.3	CARBONDALE		SHALE	0.1	205.7	CALCAREOUS NODS
409.2	CARBONDALE	TURNER MINE	BLACK SHALE	2.8	205.8	BRACHS, TRAILS, PHOSPHATIC NODS
406.4	CARBONDALE	SPRINGFIELD	COAL	5.7	208.6	
400.7	CARBONDALE		CLAYSTONE & SILTSTONE	3.7	214.3	SILTY; CARBONACEOUS & PYRITIC UPPER PART
397.0	CARBONDALE		CLAYSTONE & SILTSTONE	1.5	218.0	CALCAREOUS NODULES
395.5	CARBONDALE		SILTSTONE	2.2	219.5	
393.3	CARBONDALE		SHALE	0.5	221.7	PYRITIC, CARBONACEOUS, PHOSPHATIC NODS
392.8	CARBONDALE	HOUCHIN CREEK	BLACK SHALE	1.8	222.2	INCLUDES DARK GRAY SH; COALY BOTTOM (.1')

MAPID: 12920179000C VERSION: 2

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 19 QUARTERS/FOOTAGES: SW SE SE

QUADRANGLE: ATHENS LONGITUDE: -89.697689 GEOLOGIST: COATS

CONFIDENTIAL: N LATITUDE: 39.990781 DATE COLLECTED: 5 / 22 / 1968

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 221.3 LOG TYPE: Multiple log types

SOURCE: CARTER OIL COMPANY WELL TYPE: Coal Test

COMMENT: DRILLERS LOG & SURVEY CORE DESCRIPTIONS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0			UNCONSOLIDATED	8.0	0.0	
607.0			UNCONSOLIDATED	30.5	8.0	
576.5	MODESTO	WEST FRANKLIN	LIMESTONE	10.5	38.5	
566.0	MODESTO	WEST FRANKLIN	GRAY SHALE	9.0	49.0	
557.0	MODESTO	WEST FRANKLIN	LIMESTONE	18.5	58.0	
538.5	MODESTO		DARK SHALE	2.0	76.5	
536.5	MODESTO		GRAY SHALE	9.5	78.5	
527.0	MODESTO		SHALE	4.0	88.0	
523.0	MODESTO		SANDY SHALE	46.0	92.0	
477.0	MODESTO		BLACK SHALE	2.0	138.0	
475.0	CARBONDALE	DANVILLE	COAL	1.5	140.0	UNCERTAIN CORRELATION
473.5	CARBONDALE		GRAY SHALE	2.5	141.5	
471.0	CARBONDALE		LIMESTONE	2.5	144.0	
468.5	CARBONDALE		SANDY SHALE	33.5	146.5	
435.0	CARBONDALE		SANDSTONE	12.0	180.0	
423.0	CARBONDALE		GRAY SHALE	3.0	192.0	
420.0	CARBONDALE		GRAY SHALE, SILTY, FOSSILIFEROUS	11.6	195.0	
408.4	CARBONDALE	SPRINGFIELD	COAL	5.7	206.6	
402.7	CARBONDALE		SILTY CLAYSTONE	5.2	212.3	
397.5	CARBONDALE		SILTSTONE	2.2	217.5	
395.3	CARBONDALE		GRAY SHALE	1.6	219.7	

MAPID: 12920176000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 20 QUARTERS/FOOTAGES: 15' N line, 56' E line of SE NE

QUADRANGLE: GREENVIEW LONGITUDE: -89.675343 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.000711 DATE COLLECTED: 4 / 15 / 1968

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 230.0 LOG TYPE: Multiple log types

SOURCE: CARTER OIL WELL TYPE: Coal Test

COMMENT: ALMA MITCHELL FARM, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0			UNCONSOLIDATED	55.0	0.0	
560.0	MODESTO		SHALE	23.0	55.0	
537.0	MODESTO		SHALE	2.0	78.0	
535.0	MODESTO		SHALE	2.0	80.0	
533.0	MODESTO		LIMESTONE	3.0	82.0	
530.0	MODESTO		SHALE	3.0	85.0	
527.0	MODESTO		LIMESTONE	2.0	88.0	
525.0	MODESTO		LIMESTONE	7.0	90.0	
518.0	MODESTO		BLACK SHALE	5.0	97.0	
513.0	MODESTO		SHALE	2.0	102.0	
511.0	MODESTO		SHALE	4.0	104.0	
507.0	MODESTO		SHALE	6.0	108.0	WITH NODULES
501.0	MODESTO		SHALE	3.0	114.0	SANDY SHALE
498.0	MODESTO		SHALE	13.0	117.0	
485.0	MODESTO		SHALE	12.0	130.0	
473.0	MODESTO		SHALE	6.0	142.0	
467.0	MODESTO		SHALE	4.5	148.0	
462.5	CARBONDALE	DANVILLE	COAL	1.5	152.5	
461.0	CARBONDALE		SHALE	4.0	154.0	
457.0	CARBONDALE		SHALE	1.0	158.0	
456.0	CARBONDALE		SHALE	12.0	159.0	SILTY SHALE
444.0	CARBONDALE	HERRIN	COAL	1.0	171.0	
443.0	CARBONDALE		SHALE	1.0	172.0	
442.0	CARBONDALE		SHALE	24.0	173.0	SILTY SHALE
418.0	CARBONDALE		SHALE	7.0	197.0	SID. BANDS; ISGS DESCRIP. 230
411.0	CARBONDALE		SHALE	2.7	204.0	PYRITIZED PLANT REMAINS
408.3	CARBONDALE		CORE LOSS	3.9	206.7	
404.4	CARBONDALE		CLAYSTONE & SILTSTONE	1.9	210.6	PYRITIZED PLANT REMAINS
402.5	CARBONDALE	ST. DAVID	LIMESTONE	4.6	212.5	SHALEY
397.9	CARBONDALE	TURNER MINE	BLACK SHALE	1.2	217.1	BRACHS AND CLAMS
396.7	CARBONDALE	SPRINGFIELD	COAL	6.5	218.3	
390.2	CARBONDALE		CLAYSTONE & SILTSTONE	1.7	224.8	PYRITIZED PLANT FRAGS; SILTY
388.5	CARBONDALE		CLAYSTONE & SILTSTONE	3.5	226.5	CALCAREOUS NODULES

MAPID: 12920176000C VERSION: 2

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 20 QUARTERS/FOOTAGES: 15' N line, 56' E line of SE NE

QUADRANGLE: GREENVIEW LONGITUDE: -89.675343 GEOLOGIST: COATS

CONFIDENTIAL: N LATITUDE: 40.000711 DATE COLLECTED: 4 / 15 / 1968

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 230.6 LOG TYPE: Multiple log types

SOURCE: CARTER OIL COMPANY WELL TYPE: Coal Test

COMMENT: DRILLERS LOG & SURVEY CORE DESCRIPTIONS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
615.0			UNCONSOLIDATED	8.0	0.0
607.0			UNCONSOLIDATED	47.0	8.0
560.0	MODESTO		SANDY SHALE	27.0	55.0
533.0	MODESTO	WEST FRANKLIN	LIMESTONE	3.0	82.0
530.0	MODESTO	WEST FRANKLIN	GRAY SHALE	3.0	85.0
527.0	MODESTO	WEST FRANKLIN	SANDY LIMESTONE	9.0	88.0
518.0	MODESTO		BLACK SHALE	5.0	97.0
513.0	MODESTO		GRAY SHALE	2.0	102.0
511.0	MODESTO		VARRIGATED SHALE	10.0	104.0
501.0	MODESTO		SANDY SHALE	3.0	114.0
498.0	MODESTO		SILTY SHALE	13.0	117.0
485.0	MODESTO		VARRIGATED SHALE	12.0	130.0
473.0	MODESTO		SILTY SHALE	6.0	142.0
467.0	MODESTO		DARK SHALE	4.0	148.0
463.0	CARBONDALE	DANVILLE	COAL	2.0	152.0
461.0	CARBONDALE		SILTY SHALE	17.0	154.0
444.0	CARBONDALE	HERRIN	COAL	1.0	171.0
443.0	CARBONDALE		GRAY SHALE	25.0	172.0
418.0	CARBONDALE		SILTY SHALE	9.7	197.0
408.3	CARBONDALE		CORE LOSS	3.9	206.7
404.4	CARBONDALE		CLAYSTONE	2.1	210.6
402.3	CARBONDALE	ST. DAVID	FOSSILIFEROUS & ARG LIMESTONE	4.6	212.7
397.7	CARBONDALE	TURNER MINE	FOSSILIFEROUS BLACK SHALE	1.2	217.3
396.5	CARBONDALE	SPRINGFIELD	COAL	6.5	218.5
390.0	CARBONDALE		CLAYSTONE, SILTY, FOSSILIFEROUS	5.6	225.0

MAPID: 12920983000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 21 QUARTERS/FOOTAGES: SW NW SW

QUADRANGLE: ATHENS LONGITUDE: -89.673892

GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.99455

DATE COLLECTED: 7 / 26 / 1972

SURFACE ELEVATION (FT.): 613.7

LOGGED (FT.): 250.7

LOG TYPE: Multiple log types

SOURCE: CONSOLIDATION COAL CO.

WELL TYPE: Coal Test

COMMENT: DRILLERS LOG AND CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
613.7			UNCONSOLIDATED	34.0	0.0	
579.7	MODESTO		SHALE	2.9	34.0	WITH SS STREAKS
576.8	MODESTO		BLACK SHALE	3.1	36.9	WITH COAL
573.7	MODESTO		SHALE	9.5	40.0	
564.2	MODESTO		DARK SHALE & SANDSTONE	35.5	49.5	SANDY SHALE
528.7	MODESTO		LIMESTONE	1.8	85.0	DRK.GRAY
526.9	MODESTO		SHALE	3.2	86.8	WITH LS STREAKS
523.7	MODESTO		LIMESTONE	7.5	90.0	GRAY
516.2	MODESTO		SHALE	1.9	97.5	
514.3	MODESTO		SHALE	1.1	99.4	PERHAPS A BLACK SHALE
513.2	MODESTO		SHALE	10.7	100.5	
502.5	MODESTO		LIMESTONE	4.2	111.2	BRN/GRAY
498.3	MODESTO		SHALE	8.8	115.4	WITH LS STREAKS
489.5	MODESTO		SANDY SHALE	10.5	124.2	WITH SS STREAKS
479.0	MODESTO		SHALE	7.1	134.7	WITH SS STREAKS
471.9	MODESTO		SANDY SHALE	9.0	141.8	WITH SS STREAKS
462.9	MODESTO		SHALE	1.5	150.8	
461.4	MODESTO		BLACK SHALE	0.5	152.3	
460.9	CARBONDALE	DANVILLE	COAL	1.1	152.8	
459.8	CARBONDALE		SHALE	9.8	153.9	
450.0	CARBONDALE		SHALE	2.3	163.7	WITH LS STREAKS
447.7	CARBONDALE		SANDY SHALE	8.0	166.0	WITH SS STREAKS
439.7	CARBONDALE	HERRIN	COAL	1.6	174.0	ISGS DESCRIPTION TO T.D.
438.1	CARBONDALE		CARBONACEOUS SHALE	0.8	175.6	
437.3	CARBONDALE		CLAYSTONE & SILTSTONE	9.6	176.4	CALCAREOUS NODULES
427.8	CARBONDALE		SILTY SHALE	26.9	185.9	SIDERITIC AND PYRITIC NODS.
400.9	CARBONDALE		SHALE	9.7	212.8	SOME SID. AND PYR. NODS
391.2	CARBONDALE	ST. DAVID	SILTY LIMESTONE	2.7	222.5	FOSSILIF
388.5	CARBONDALE		SHALE	0.5	225.2	
388.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	225.7	
385.5	CARBONDALE	SPRINGFIELD	COAL	5.9	228.2	
379.6	CARBONDALE		CARBONACEOUS CLAYSTONE	1.7	234.1	
377.9	CARBONDALE		CLAYSTONE & SILTSTONE	3.1	235.8	CALCAREOUS NODULES
374.8	CARBONDALE		SILTY LIMESTONE	0.7	238.9	NODULAR
374.1	CARBONDALE		CALCAREOUS SHALE	1.2	239.6	LS NODULES
372.9	CARBONDALE	HANOVER	FOSSILIFEROUS LIMESTONE	1.3	240.8	SHALEY

371.6	CARBONDALE		SHALE	1.3	242.1	
370.3	CARBONDALE	HOUCHIN CREEK	COAL	0.3	243.4	
370.0	CARBONDALE		CARBONACEOUS CLAYSTONE	0.2	243.7	
369.8	CARBONDALE		CLAYSTONE & SILTSTONE	4.0	243.9	
365.9	CARBONDALE		LIMESTONE	2.9	247.8	GRAY

MAPID: 12920186000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 22 QUARTERS/FOOTAGES: 1' N line, 1' E line of SE

QUADRANGLE: ATHENS LONGITUDE: -89.637298 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.997496 DATE COLLECTED: 5 / 20 / 1968

SURFACE ELEVATION (FT.): 609.0 LOGGED (FT.): 262.0 LOG TYPE: Multiple log types

SOURCE: CARTER OIL WELL TYPE: Coal Test

COMMENT: CORE, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
609.0			UNCONSOLIDATED	135.5	0.0	
473.5	MODESTO		LIMESTONE	2.5	135.5	GRAY
471.0	MODESTO		SANDSTONE	5.0	138.0	GRAY
466.0	MODESTO		DARK SHALE & SANDSTONE	12.0	143.0	SILTY SHALE
454.0	MODESTO		LIMESTONE	1.0	155.0	BROWN
453.0	MODESTO		SHALE	9.0	156.0	
444.0	MODESTO		SILTY SHALE	5.0	165.0	
439.0	MODESTO		BLACK SHALE	1.5	170.0	
437.5	CARBONDALE	DANVILLE	COAL	2.0	171.5	
435.5	CARBONDALE		UNDERCLAY	1.5	173.5	
434.0	CARBONDALE		SILTY SHALE	16.0	175.0	
418.0	CARBONDALE		DARK SHALE & SANDSTONE	2.0	191.0	SANDY SHALE
416.0	CARBONDALE	ANVIL ROCK	SANDSTONE	4.0	193.0	
412.0	CARBONDALE		SILTY SHALE	3.0	197.0	
409.0	CARBONDALE	ANNA	BLACK SHALE	0.5	200.0	
408.5	CARBONDALE	HERRIN	COAL	0.0	200.5	HERRIN #6 COAL NOT PRESENT
408.5	CARBONDALE		SILTY SHALE	4.5	200.5	CALCAREOUS
404.0	CARBONDALE		DARK SHALE & SANDSTONE	12.0	205.0	SANDY SHALE
392.0	CARBONDALE		SANDSTONE	3.0	217.0	
389.0	CARBONDALE		DARK SHALE & SANDSTONE	3.0	220.0	SANDY SHALE
386.0	CARBONDALE		SHALE	19.5	223.0	SIDERITE BANDS; ISGS DESCRIPT. TO T.D.
366.5	CARBONDALE	ST. DAVID	SILTY LIMESTONE	1.4	242.5	FOSSILIFEROUS
365.1	CARBONDALE	TURNER MINE	BLACK SHALE	2.4	243.9	BRACHS
362.7	CARBONDALE	SPRINGFIELD	COAL	6.1	246.3	
356.6	CARBONDALE		CARBONACEOUS CLAYSTONE	3.6	252.4	SILTY, CARBONIZED PLANT MATERIAL
353.0	CARBONDALE		CLAYSTONE	5.5	256.0	SILTY, CALCAREOUS NODULES
347.5	CARBONDALE		SILTSTONE	0.5	261.5	CALCAREOUS NODULES

MAPID: 12920186000C VERSION: 2

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 22 QUARTERS/FOOTAGES: 1' N line, 1' E line of SE

QUADRANGLE: ATHENS LONGITUDE: -89.637298 GEOLOGIST: COATS

CONFIDENTIAL: N LATITUDE: 39.997496 DATE COLLECTED: 5 / 20 / 1968

SURFACE ELEVATION (FT.): 609.0 LOGGED (FT.): 262.0 LOG TYPE: Multiple log types

SOURCE: CARTER OIL COMPANY WELL TYPE: Coal Test

COMMENT: DRILLERS LOG & SURVEY CORE DESCRIPTIONS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
609.0			UNCONSOLIDATED	16.0	0.0
593.0			UNCONSOLIDATED	119.5	16.0
473.5	MODESTO	WEST FRANKLIN	ARGILLACEOUS LIMESTONE	3.0	135.5
470.5	MODESTO		SANDSTONE	5.0	138.5
465.5	MODESTO		SHALE	12.0	143.5
453.5	MODESTO		LIMESTONE	1.0	155.5
452.5	MODESTO		SHALE	9.0	156.5
443.5	MODESTO		SILTY SHALE	5.0	165.5
438.5	MODESTO		BLACK SHALE	1.5	170.5
437.0	CARBONDALE	DANVILLE	COAL	2.0	172.0
435.0	CARBONDALE		CLAYSTONE	1.5	174.0
433.5	CARBONDALE		SILTY SHALE	18.0	175.5
415.5	CARBONDALE		SANDSTONE	4.0	193.5
411.5	CARBONDALE		SILTY, SANDY SHALE	20.0	197.5
391.5	CARBONDALE		SANDSTONE	2.5	217.5
389.0	CARBONDALE		SANDY SHALE	15.0	220.0
374.0	CARBONDALE		GRAY SHALE	7.5	235.0
366.5	CARBONDALE	ST. DAVID	LIMESTONE	1.4	242.5
365.1	CARBONDALE	TURNER MINE	FOSSILIFEROUS BLACK SHALE	2.4	243.9
362.7	CARBONDALE	SPRINGFIELD	COAL	6.1	246.3
356.6	CARBONDALE		SILTY CLAYSTONE	9.1	252.4
347.5	CARBONDALE		SILTSTONE	0.5	261.5

MAPID: 12920180000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 24 QUARTERS/FOOTAGES: 20' N line, 2375' W line

QUADRANGLE: MIDDLETOWN LONGITUDE: -89.60996 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.004706 DATE COLLECTED: 4 / 2 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 279.0 LOG TYPE: Multiple log types

SOURCE: CARTER OIL WELL TYPE: Coal Test

COMMENT: MARY WINTERBAUER FARM; CORE, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0			UNCONSOLIDATED	90.0	0.0	
530.0	MODESTO		SHALE	61.0	90.0	
469.0	MODESTO		LIMESTONE	3.8	151.0	
465.2	MODESTO	CHAPEL	COAL	0.3	154.8	
465.0	MODESTO		LIMESTONE	0.3	155.0	
464.7	MODESTO		CORE LOSS	12.3	155.3	
452.5	MODESTO		SANDSTONE/LIMESTONE	2.5	167.5	
450.0	MODESTO		CORE LOSS	10.0	170.0	
440.0	MODESTO		SHALE	5.0	180.0	WITH SOME COAL
435.0	MODESTO		SHALE	2.0	185.0	
433.0	CARBONDALE	DANVILLE	COAL	1.5	187.0	
431.5	CARBONDALE		SHALE	11.5	188.5	
420.0	CARBONDALE		SILTY LIMESTONE	1.5	200.0	
418.5	CARBONDALE		SILTY CLAYSTONE	3.4	201.5	CALCAREOUS NODULES
415.1	CARBONDALE	BRERETON	SILTY LIMESTONE	3.7	204.9	FOSSILIFEROUS, SILTY
411.4	CARBONDALE	HERRIN	COAL	2.3	208.6	
409.1	CARBONDALE		CORE LOSS	3.8	210.9	
405.3	CARBONDALE		SILTY CLAYSTONE	1.8	214.7	CALCAREOUS NODULES
403.5	CARBONDALE		CLAYSTONE	1.3	216.5	CALCAREOUS AND PHOSPHATIC NODULES
402.2	CARBONDALE		SILTY LIMESTONE	1.8	217.8	SILTY
400.4	CARBONDALE		SILTSTONE	6.4	219.6	LOWER 2 FT. D SLST, SS, CLYST
394.0	CARBONDALE		SHALY SANDSTONE	5.5	226.0	
388.5	CARBONDALE		SILTSTONE	5.8	231.5	D SLST, SS, CARBONACEOUS MATERIALS
382.7	CARBONDALE		SHALE	22.8	237.3	SIDERITE BANDS, PYRITIC
359.9	CARBONDALE	ST. DAVID	FOSSILIFEROUS LIMESTONE	0.3	260.1	SHALEY, PYRITIC
359.6	CARBONDALE	TURNER MINE	BLACK SHALE	1.7	260.4	
357.9	CARBONDALE	SPRINGFIELD	COAL	5.0	262.1	PYRITE: CLEATS, CALCITE VEINS
352.9	CARBONDALE		CARBONACEOUS CLAYSTONE	2.4	267.1	COALY PLANT MATERIAL
350.5	CARBONDALE		CLAYSTONE & SILTSTONE	6.1	269.5	CALCAREOUS NODULES
344.4	CARBONDALE		SILTY LIMESTONE	1.9	275.6	
342.5	CARBONDALE		SHALE	1.5	277.5	

MAPID: 12920180000C VERSION: 2

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 24 QUARTERS/FOOTAGES: 20' N line, 2375' W line

QUADRANGLE: MIDDLETOWN LONGITUDE: -89.60996 GEOLOGIST: COATS

CONFIDENTIAL: N LATITUDE: 40.004706 DATE COLLECTED: 4 / 2 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 277.5 LOG TYPE: Multiple log types

SOURCE: CARTER OIL COMPANY WELL TYPE: Coal Test

COMMENT: DRILLERS LOG & SURVEY CORE DESCRIPTIONS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0			UNCONSOLIDATED	15.0	0.0
605.0			UNCONSOLIDATED	75.0	15.0
530.0	MODESTO		SHALE	61.0	90.0
469.0	MODESTO	WEST FRANKLIN	LIMESTONE	3.8	151.0
465.2	MODESTO		COAL	0.3	154.8
465.0	MODESTO		LIMESTONE	0.3	155.0
464.7	MODESTO		VARRIGATED SHALE	12.2	155.3
452.5	MODESTO		SANDSTONE/LIMESTONE	2.5	167.5
450.0	MODESTO		VARRIGATED SHALE	10.0	170.0
440.0	MODESTO		DARK SHALE	7.0	180.0
433.0	CARBONDALE	DANVILLE	COAL	1.5	187.0
431.5	CARBONDALE		GRAY SHALE	11.5	188.5
420.0	CARBONDALE	BANKSTON FORK	LIMESTONE	0.9	200.0
419.1	CARBONDALE	BANKSTON FORK	ARGILLACEOUS LIMESTONE	0.6	200.9
418.5	CARBONDALE		SILTY CLAYSTONE	3.4	201.5
415.1	CARBONDALE	BRERETON	LIMESTONE, SHALEY	3.7	204.9
411.4	CARBONDALE	HERRIN	COAL	2.3	208.6
409.1	CARBONDALE		CORE LOSS	3.8	210.9
405.3	CARBONDALE		SILTY CLAYSTONE	3.5	214.7
401.8	CARBONDALE		ARGILLACEOUS LIMESTONE	1.8	218.2
400.0	CARBONDALE		SILTSTONE	6.4	220.0
393.6	CARBONDALE		SANDSTONE	5.5	226.4
388.1	CARBONDALE		SILTSTONE	5.8	231.9
382.3	CARBONDALE		VARRIGATED SHALE	0.3	237.7
382.0	CARBONDALE		GRAY SHALE	22.1	238.0
359.9	CARBONDALE	ST. DAVID	FOSSILIFEROUS & ARG LIMESTONE	0.3	260.1
359.6	CARBONDALE	TURNER MINE	SILTY BLACK SHALE	1.7	260.4
357.9	CARBONDALE	SPRINGFIELD	COAL	5.0	262.1
352.9	CARBONDALE		SILTY CLAYSTONE	8.5	267.1
344.4	CARBONDALE		ARGILLACEOUS LIMESTONE	1.9	275.6

MAPID: 12920621000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 25 QUARTERS/FOOTAGES:

QUADRANGLE: WILLIAMSVILLE LONGITUDE: -89.608676

GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.982976

DATE COLLECTED: 10 / 30 / 1975

SURFACE ELEVATION (FT.): 600.0

LOGGED (FT.): 245.0

LOG TYPE: Multiple log types

SOURCE: MOBIL OIL

WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0			CLAY	25.0	0.0
575.0			SILT	55.0	25.0
520.0	MODESTO		SHALE	9.5	80.0
510.5	MODESTO		BLACK SHALE	1.5	89.5
509.0	MODESTO	CHAPEL	COAL	1.0	91.0
508.0	MODESTO		UNDERCLAY	3.0	92.0
505.0	MODESTO		SHALE	47.0	95.0
458.0	MODESTO		LIMESTONE	4.0	142.0
454.0	MODESTO		SHALE	4.0	146.0
450.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	150.0
444.0	MODESTO		BLACK SHALE	3.0	156.0
441.0	MODESTO		SHALE	17.0	159.0
424.0	MODESTO		LIMESTONE	5.0	176.0
419.0	MODESTO		SHALE	8.0	181.0
411.0	CARBONDALE	DANVILLE	COAL	1.0	189.0
410.0	CARBONDALE		SHALE	12.5	190.0
397.5	CARBONDALE	ANNA	BLACK SHALE	4.0	202.5
393.5	CARBONDALE	HERRIN	COAL	1.5	206.5
392.0	CARBONDALE		SHALE	17.0	208.0
375.0	CARBONDALE		BLACK SHALE	2.0	225.0
373.0	CARBONDALE		SHALE	18.0	227.0

MAPID: 12920622000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 25 QUARTERS/FOOTAGES: 20' N line, 96' E line

QUADRANGLE: WILLIAMSVILLE LONGITUDE: -89.599718 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.990212 DATE COLLECTED: 11 / 10 / 1975

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 293.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
612.0			UNCONSOLIDATED	76.0	0.0
536.0	MODESTO		SHALE	12.0	76.0
524.0	MODESTO		BLACK SHALE	2.0	88.0
522.0	MODESTO	CHAPEL	COAL	1.0	90.0
521.0	MODESTO		UNDERCLAY	3.0	91.0
518.0	MODESTO		SHALE	47.0	94.0
471.0	MODESTO		LIMESTONE	4.0	141.0
467.0	MODESTO		SHALE	4.0	145.0
463.0	MODESTO	WEST FRANKLIN	LIMESTONE	4.5	149.0
458.5	MODESTO		BLACK SHALE	4.0	153.5
454.5	MODESTO		SHALE	14.5	157.5
440.0	MODESTO		SHALY LIMESTONE	8.0	172.0
432.0	MODESTO		SHALE	8.0	180.0
424.0	CARBONDALE	DANVILLE	COAL	1.0	188.0
423.0	CARBONDALE		SHALE	12.5	189.0
410.5	CARBONDALE	ANNA	BLACK SHALE	4.5	201.5
406.0	CARBONDALE	HERRIN	COAL	1.0	206.0
405.0	CARBONDALE		SHALE	13.0	207.0
392.0	CARBONDALE		LIMESTONE	4.0	220.0
388.0	CARBONDALE		BLACK SHALE	2.0	224.0
386.0	CARBONDALE		SHALE	15.0	226.0
371.0	CARBONDALE		LIMESTONE	4.0	241.0
367.0	CARBONDALE		SHALE	15.0	245.0
352.0	CARBONDALE		SHALE	12.5	260.0
339.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	272.5
337.5	CARBONDALE	SPRINGFIELD	COAL	5.5	274.5
332.0	CARBONDALE		SHALE	9.0	280.0
323.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	289.0
321.0	CARBONDALE		SHALE	2.0	291.0

MAPID: 12920706000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 25 QUARTERS/FOOTAGES: 1296' N line, 114' E line

QUADRANGLE: WILLIAMSVILLE LONGITUDE: -89.59972 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.98669 DATE COLLECTED: 11 / 1 / 1975

SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 284.0 LOG TYPE: Multiple log types

SOURCE: HYDROCARBON SURVEY WELL TYPE: Coal Test

COMMENT: GAMMA, S.P., RESIST; CORRELATIONS UNCERT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0			UNCONSOLIDATED	84.0	0.0	
501.0	MODESTO		SHALE	27.0	84.0	SANDY OR SILTY
474.0	MODESTO		SHALE	26.0	111.0	
448.0	MODESTO		SILTY LIMESTONE	5.0	137.0	
443.0	MODESTO		SHALE	3.0	142.0	
440.0	MODESTO		SANDSTONE	5.0	145.0	
435.0	MODESTO		SHALE	15.0	150.0	
420.0	MODESTO		SANDY SHALE	9.0	165.0	WITH SS
411.0	MODESTO		SHALE	7.0	174.0	
404.0	CARBONDALE	DANVILLE	COAL	2.0	181.0	CORRELATION UNCERTAIN
402.0	CARBONDALE		SHALE	16.0	183.0	
386.0	CARBONDALE	BRERETON	LIMESTONE	3.0	199.0	
383.0	CARBONDALE	ANNA	BLACK SHALE	2.0	202.0	
381.0	CARBONDALE	HERRIN	COAL	2.0	204.0	CORRELATION UNCERTAIN
379.0	CARBONDALE		SILTY SHALE	13.0	206.0	
366.0	CARBONDALE		SHALE	5.0	219.0	
361.0	CARBONDALE		SILTY SHALE	16.0	224.0	
345.0	CARBONDALE		SHALE	24.0	240.0	
321.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	264.0	
320.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	265.0	
317.0	CARBONDALE	SPRINGFIELD	COAL	6.0	268.0	
311.0	CARBONDALE		SHALE	10.0	274.0	

MAPID: 12920706000C VERSION: 2

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 25 QUARTERS/FOOTAGES: 1296' N line, 114' E line
QUADRANGLE: WILLIAMSVILLE LONGITUDE: -89.59972 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 39.98669 DATE COLLECTED: 11 / 1 / 1975
SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 281.0 LOG TYPE: Gamma Ray Density
SOURCE: HYDROCARBON SURVEY WELL TYPE: Coal Test
COMMENT: COMPANY REPORTED SURF. ELEVATION AS 585

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0			UNCONSOLIDATED	85.0	0.0
515.0	MODESTO		UNCLASSIFIED	60.0	85.0
455.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	145.0
449.0	MODESTO		UNCLASSIFIED	46.0	151.0
403.0	MODESTO		BLACK SHALE	2.5	197.0
400.5	CARBONDALE	DANVILLE	COAL	2.3	199.5
398.2	CARBONDALE		UNCLASSIFIED	10.3	201.8
388.0	CARBONDALE	BRERETON	LIMESTONE	5.0	212.0
383.0	CARBONDALE	ANNA	BLACK SHALE	2.5	217.0
380.5	CARBONDALE	HERRIN	COAL	0.0	219.5
380.5	CARBONDALE		UNCLASSIFIED	44.5	219.5
336.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	264.0
334.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	265.5
333.0	CARBONDALE	SPRINGFIELD	COAL	6.9	267.0
326.1	CARBONDALE		UNCLASSIFIED	7.1	273.9

MAPID: 12920623000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 27 QUARTERS/FOOTAGES: 84' N line, 195' W line

QUADRANGLE: ATHENS LONGITUDE: -89.655686 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.989997 DATE COLLECTED: 10 / 31 / 1975

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 245.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0			CLAY	75.0	0.0	
528.0	MODESTO		LIMESTONE	8.0	75.0	
520.0	MODESTO		BLACK SHALE	3.0	83.0	
517.0	MODESTO		SHALE	12.0	86.0	
505.0	MODESTO		SHALY SANDSTONE	7.0	98.0	
498.0	MODESTO		SHALE	5.0	105.0	
493.0	MODESTO		LIMESTONE	2.0	110.0	
491.0	CARBONDALE	DANVILLE	COAL	0.0	112.0	UNCERTAIN CORRELATION
491.0	CARBONDALE		SHALE	19.0	112.0	
472.0	CARBONDALE	ANNA	BLACK SHALE	3.5	131.0	
468.5	CARBONDALE	HERRIN	COAL	1.5	134.5	
467.0	CARBONDALE		SHALE	11.5	136.0	
455.5	CARBONDALE		LIMESTONE	1.5	147.5	
454.0	CARBONDALE		CALCAREOUS SHALE	4.5	149.0	
449.5	CARBONDALE		LIMESTONE	2.0	153.5	
447.5	CARBONDALE		SHALE	4.5	155.5	
443.0	CARBONDALE		SHALY LIMESTONE	7.0	160.0	
436.0	CARBONDALE		SHALE	41.0	167.0	
395.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	208.0	
393.5	CARBONDALE	SPRINGFIELD	COAL	6.0	209.5	
387.5	CARBONDALE		SHALE	5.5	215.5	
382.0	CARBONDALE		LIMESTONE	1.0	221.0	
381.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	222.0	
379.0	CARBONDALE		SHALE	21.0	224.0	

MAPID: 12920624000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 18N 5W SECTION: 29 QUARTERS/FOOTAGES: 75' S line, 2390' E line

QUADRANGLE: ATHENS LONGITUDE: -89.683157 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.975606 DATE COLLECTED: 10 / 31 / 1975

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 225.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0			CLAY	10.0	0.0	
602.0			SILT	50.0	10.0	
552.0	MODESTO		SHALE	38.0	60.0	
514.0	MODESTO		BLACK SHALE	2.5	98.0	
511.5	CARBONDALE	DANVILLE	COAL	0.0	100.5	UNCERTAIN CORRELATION
511.5	CARBONDALE		SHALE	21.0	100.5	
490.5	CARBONDALE		BLACK SHALE	3.5	121.5	
487.0	CARBONDALE	HERRIN	COAL	1.0	125.0	
486.0	CARBONDALE		SHALE	9.0	126.0	
477.0	CARBONDALE		LIMESTONE	4.5	135.0	
472.5	CARBONDALE		SHALE	1.5	139.5	
471.0	CARBONDALE		LIMESTONE	3.0	141.0	
468.0	CARBONDALE		SHALE	19.0	144.0	
449.0	CARBONDALE		LIMESTONE	2.0	163.0	
447.0	CARBONDALE		SHALE	19.5	165.0	
427.5	CARBONDALE		LIMESTONE	1.0	184.5	
426.5	CARBONDALE		SHALE	2.5	185.5	
424.0	CARBONDALE		LIMESTONE	1.0	188.0	
423.0	CARBONDALE		SHALE	1.5	189.0	
421.5	CARBONDALE	ST. DAVID	LIMESTONE	5.0	190.5	
416.5	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	195.5	
412.5	CARBONDALE	SPRINGFIELD	COAL	4.5	199.5	
408.0	CARBONDALE		SHALE	5.5	204.0	
402.5	CARBONDALE		LIMESTONE	0.5	209.5	
402.0	CARBONDALE		BLACK SHALE	2.0	210.0	
400.0	CARBONDALE		SHALE	13.0	212.0	

MAPID: 1292145000C VERSION: 1

PROJECT: NCRDS98

COUNTY: MENARD TWP/RNG: 18N 6W SECTION: 1 QUARTERS/FOOTAGES: 2000' S line, 1310' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.71951 GEOLOGIST: J MCBETH

CONFIDENTIAL: N LATITUDE: 40.033627 DATE COLLECTED: 9 / 14 / 1978

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 40.0 LOG TYPE: Drillers Log

SOURCE: MOBIL OIL CORP. S1-78-61 WELL TYPE: Coal Test

COMMENT: HOLE ABANDONED & PLUGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0	PLEISTOCENE		CLAY	26.0	0.0	
589.0			LIMESTONE	2.0	26.0	WEATHERED & FRACTURED
587.0			GRAY SHALE	2.0	28.0	WITH LIMESTONE STREAKS
585.0			LIMESTONE	10.0	30.0	WEATHERED & FRACTURED

MAPID: 12921451000C VERSION: 1

PROJECT: NCRDS98

COUNTY: MENARD TWP/RNG: 18N 6W SECTION: 1 QUARTERS/FOOTAGES: 2300' S line, 1310' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.71951 GEOLOGIST: J MCBETH

CONFIDENTIAL: N LATITUDE: 40.03371 DATE COLLECTED: 9 / 14 / 1978

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 40.0 LOG TYPE: Drillers Log

SOURCE: MOBIL OIL CORP. S1-78-61A WELL TYPE: Coal Test

COMMENT: HOLE ABANDONED & PLUGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0	PLEISTOCENE		CLAY	28.0	0.0	
587.0	PLEISTOCENE		SILTY CLAY	2.0	28.0	WITH WOOD FRAGMENTS
585.0			LIMESTONE	10.0	30.0	WEATHERED & FRACTURED

MAPID: 12920625000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 18N 6W SECTION: 2 QUARTERS/FOOTAGES: 30' S line, 75' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.734333 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.033317 DATE COLLECTED: 10 / 24 / 1975

SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 205.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-116 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
602.0			UNCONSOLIDATED	42.0	0.0
560.0	CARBONDALE		SHALE	33.0	42.0
527.0	CARBONDALE		GRAY SHALE	14.0	75.0
513.0	CARBONDALE		BLACK SHALE	1.0	89.0
512.0	CARBONDALE	HERRIN	COAL	2.0	90.0
510.0	CARBONDALE		GRAY SHALE	11.0	92.0
499.0	CARBONDALE		LIMESTONE	2.5	103.0
496.5	CARBONDALE		SHALE	53.5	105.5
443.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	159.0
441.5	CARBONDALE	SPRINGFIELD	COAL	6.5	160.5
435.0	CARBONDALE		CLAYSTONE	7.0	167.0
428.0	CARBONDALE		BLACK SHALE	2.0	174.0
426.0	CARBONDALE		SHALE	29.0	176.0

MAPID: 12920626000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 18N 6W SECTION: 2 QUARTERS/FOOTAGES: 30' N line, 1590' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.747093 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.047661 DATE COLLECTED: 11 / 12 / 1975

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 179.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-145 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL, LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
580.0			UNCONSOLIDATED	106.0	0.0
495.0	CARBONDALE	HERRIN	COAL	0.0	85.0
474.0	CARBONDALE		BLACK SHALE	2.0	106.0
472.0	CARBONDALE		GRAY SHALE	34.0	108.0
438.0	CARBONDALE	SPRINGFIELD	COAL	0.0	142.0
438.0	CARBONDALE		GRAY SHALE	15.5	142.0
422.5	CARBONDALE	HOUCHIN CREEK	COAL	2.0	157.5
420.5	CARBONDALE		UNDERCLAY	3.5	159.5
417.0	CARBONDALE		SHALE	12.0	163.0
405.0	CARBONDALE		GRAY SHALE	4.0	175.0

MAPID: 12920726000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 18N 6W SECTION: 2 QUARTERS/FOOTAGES: 2610' N line, 915' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.737287 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.040611 DATE COLLECTED: 8 / 29 / 1978

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 200.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-78-40 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST., DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0			UNCONSOLIDATED	104.0	0.0	
519.0	CARBONDALE	HERRIN	COAL	0.0	81.0	
496.0	CARBONDALE		GRAY SHALE	33.0	104.0	
463.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	137.0	
462.0	CARBONDALE	SPRINGFIELD	COAL	6.0	138.0	
456.0	CARBONDALE		UNDERCLAY	7.0	144.0	
449.0	CARBONDALE	EXCELLO	BLACK SHALE	2.5	151.0	
446.5	CARBONDALE		GRAY SHALE	3.5	153.5	
443.0	CARBONDALE		GRAY SHALE	43.0	157.0	

MAPID: 12920627000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 18N 6W SECTION: 4 QUARTERS/FOOTAGES: 1100' N line, 900' E line

QUADRANGLE: PETERSBURG LONGITUDE: -89.774513 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.044758 DATE COLLECTED: 10 / 11 / 1975

SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 200.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-93 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.0			UNCONSOLIDATED	200.0	0.0	
-	CARBONDALE	HERRIN	COAL	0.0		
-	CARBONDALE	SPRINGFIELD	COAL	0.0		

MAPID: 12920628000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 18N 6W SECTION: 14 QUARTERS/FOOTAGES: 65' N line, 1280' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.738468 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.018486 DATE COLLECTED: 11 / 11 / 1975

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 192.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-146 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0			UNCONSOLIDATED	46.0	0.0	
566.0	CARBONDALE		GRAY SHALE	58.0	46.0	
508.0	CARBONDALE		BLACK SHALE	3.5	104.0	
504.5	CARBONDALE	HERRIN	COAL	1.5	107.5	
503.0	CARBONDALE		GRAY SHALE	7.0	109.0	
496.0	CARBONDALE		SHALY LIMESTONE	4.0	116.0	
492.0	CARBONDALE		GRAY SHALE	5.0	120.0	
487.0	CARBONDALE		DARK SHALE & SANDSTONE	7.0	125.0	
480.0	CARBONDALE		SANDSTONE	4.0	132.0	
476.0	CARBONDALE		GRAY SHALE	4.0	136.0	
472.0	CARBONDALE		GRAY SHALE	31.0	140.0	
441.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	171.0	
440.0	CARBONDALE	SPRINGFIELD	COAL	6.0	172.0	
434.0	CARBONDALE		CLAYSTONE & SILTSTONE	8.0	178.0	
426.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	186.0	
424.0	CARBONDALE		GRAY SHALE	4.0	188.0	

MAPID: 12920727000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 18N 6W SECTION: 14 QUARTERS/FOOTAGES: 1550' S line, 57' W line

QUADRANGLE: PETERSBURG LONGITUDE: -89.752464 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.008867 DATE COLLECTED: 8 / 29 / 1978

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 205.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-78-46 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0			UNCONSOLIDATED	140.0	0.0
480.0	CARBONDALE	HERRIN	COAL	0.0	130.0
470.0	CARBONDALE		GRAY SHALE	2.0	140.0
468.0	CARBONDALE		SHALY LIMESTONE	4.0	142.0
464.0	CARBONDALE		SHALE	39.0	146.0
425.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	185.0
424.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	186.0
422.5	CARBONDALE	SPRINGFIELD	COAL	5.5	187.5
417.0	CARBONDALE		CLAYSTONE & SILTSTONE	8.0	193.0
409.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	201.0
407.0	CARBONDALE		UNCLASSIFIED	2.0	203.0

MAPID: 12920629000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 18N 6W SECTION: 15 QUARTERS/FOOTAGES: 2600' N line, 2400' W line

QUADRANGLE: PETERSBURG LONGITUDE: -89.762478 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.011812 DATE COLLECTED: 10 / 11 / 1975

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 260.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-84 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
612.0			UNCONSOLIDATED	199.0	0.0
-	CARBONDALE	HERRIN	COAL	0.0	
-	CARBONDALE	SPRINGFIELD	COAL	0.0	
413.0	CARBONDALE		CLAYSTONE & SHALE	1.5	199.0
411.5	CARBONDALE	EXCELLO	BLACK SHALE	2.0	200.5
409.5	CARBONDALE		GRAY SHALE	57.5	202.5

MAPID: 12920588000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 18N 6W SECTION: 20 QUARTERS/FOOTAGES: 480' N line, 1250' E line

QUADRANGLE: PETERSBURG LONGITUDE: -89.794262 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.003055 DATE COLLECTED: 9 / 16 / 1975

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 189.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-22 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0			UNCONSOLIDATED	152.0	0.0	
483.0	CARBONDALE	HERRIN	COAL	0.0	120.0	
451.0	CARBONDALE		GRAY SHALE	10.0	152.0	
441.0	CARBONDALE		SHALE	2.4	162.0	
438.6	CARBONDALE		CORE LOSS	3.9	164.4	
434.7	CARBONDALE		SHALE	2.3	168.3	
432.4	CARBONDALE	ST. DAVID	SHALY LIMESTONE	1.2	170.6	
431.2	CARBONDALE	TURNER MINE	BLACK SHALE	4.7	171.8	
426.5	CARBONDALE	SPRINGFIELD	COAL	6.0	176.5	
420.5	CARBONDALE		CLAYSTONE	2.4	182.5	
418.1	CARBONDALE		CORE LOSS	4.1	184.9	
414.0	CARBONDALE		UNCLASSIFIED	0.0	189.0	

MAPID: 12920630000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 18N 6W SECTION: 23 QUARTERS/FOOTAGES: 446' N line, 1016' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.737298 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.002838 DATE COLLECTED: 10 / 21 / 1975

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 225.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0			UNCONSOLIDATED	130.0	0.0	
470.0	CARBONDALE		GRAY SHALE	5.0	130.0	
465.0	CARBONDALE	HERRIN	COAL	0.0	135.0	
465.0	CARBONDALE		GRAY SHALE	5.0	135.0	
460.0	CARBONDALE		GRAY SHALE	5.0	140.0	
455.0	CARBONDALE		SHALY SANDSTONE	4.0	145.0	
451.0	CARBONDALE		SHALE	11.0	149.0	
440.0	CARBONDALE		SANDSTONE	7.0	160.0	
433.0	CARBONDALE		SHALE	23.5	167.0	
409.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	190.5	
407.5	CARBONDALE	SPRINGFIELD	COAL	5.5	192.5	
402.0	CARBONDALE		CLAYSTONE	8.5	198.0	
393.5	CARBONDALE	EXCELLO	BLACK SHALE	2.5	206.5	
391.0	CARBONDALE		GRAY SHALE	16.0	209.0	

MAPID: 12920631000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 18N 6W SECTION: 27 QUARTERS/FOOTAGES: 325' S line, 1020' E line

QUADRANGLE: SALISBURY LONGITUDE: -89.755552 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.976057 DATE COLLECTED: 10 / 23 / 1975

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 242.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-118 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0			UNCONSOLIDATED	165.0	0.0	
440.0			SHALE	35.0	165.0	
405.0			SANDSTONE	5.0	200.0	
400.0			SHALE	37.0	205.0	

MAPID: 12920632000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 18N 6W SECTION: 28 QUARTERS/FOOTAGES: 25' N line, 2525' W line

QUADRANGLE: SALISBURY LONGITUDE: -89.780628 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.989589 DATE COLLECTED: 10 / 24 / 1975

SURFACE ELEVATION (FT.): 611.0 LOGGED (FT.): 265.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-119 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
611.0			UNCONSOLIDATED	225.0	0.0	
-	CARBONDALE	HERRIN	COAL	0.0		
-	CARBONDALE	SPRINGFIELD	COAL	0.0		
366.0	CARBONDALE		UNCLASSIFIED	20.0	245.0	

MAPID: 12920633000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 18N 6W SECTION: 29 QUARTERS/FOOTAGES: 2010' S line, 21' W line

QUADRANGLE: SALISBURY LONGITUDE: -89.808344 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.980451 DATE COLLECTED: 10 / 23 / 1975

SURFACE ELEVATION (FT.): 606.0 LOGGED (FT.): 210.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-120 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
606.0			UNCONSOLIDATED	157.0	0.0	
-	CARBONDALE	HERRIN	COAL	0.0		
449.0	CARBONDALE		SHALE	18.6	157.0	
430.4	CARBONDALE	ST. DAVID	LIMESTONE	0.6	175.6	
429.8	CARBONDALE	TURNER MINE	BLACK SHALE	4.8	176.2	
425.0	CARBONDALE	SPRINGFIELD	COAL	5.6	181.0	
419.4	CARBONDALE		CLAYSTONE	8.4	186.6	
411.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	195.0	
409.0	CARBONDALE		UNCLASSIFIED	13.0	197.0	

MAPID: 12920634000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 18N 6W SECTION: 33 QUARTERS/FOOTAGES: 2200' N line, 1250' W line

QUADRANGLE: SALISBURY LONGITUDE: -89.784842 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.969018 DATE COLLECTED: 10 / 23 / 1975

SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 145.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-121 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
525.0			UNCONSOLIDATED	35.0	0.0	
490.0	CARBONDALE		GRAY SHALE	16.0	35.0	
474.0	CARBONDALE	HERRIN	COAL	2.0	51.0	
472.0	CARBONDALE		GRAY SHALE	40.5	53.0	
431.5	CARBONDALE	ST. DAVID	LIMESTONE	0.2	93.5	
431.3	CARBONDALE	TURNER MINE	BLACK SHALE	2.1	93.7	
429.2	CARBONDALE	SPRINGFIELD	COAL	5.2	95.8	
424.0	CARBONDALE		CLAYSTONE & SILTSTONE	8.0	101.0	
416.0	CARBONDALE		BLACK SHALE	3.0	109.0	
413.0	CARBONDALE		GRAY SHALE	33.0	112.0	

MAPID: 12920635000C **VERSION:** 1 **PROJECT:** NCRDS89
COUNTY: MENARD **TWP/RNG:** 18N 6W **SECTION:** 34 **QUARTERS/FOOTAGES:** 15' N line, 1600' W line
QUADRANGLE: SALISBURY **LONGITUDE:** -89.764868 **GEOLOGIST:** SROKA
CONFIDENTIAL: N **LATITUDE:** 39.975073 **DATE COLLECTED:** 10 / 13 / 1975
SURFACE ELEVATION (FT.): 603.0 **LOGGED (FT.):** 260.0 **LOG TYPE:** Multiple log types
SOURCE: MOBIL OIL SI-85 **WELL TYPE:** Coal Test
COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
603.0			UNCONSOLIDATED	222.0	0.0
-	CARBONDALE	HERRIN	COAL	0.0	
-	CARBONDALE	SPRINGFIELD	COAL	0.0	
381.0	CARBONDALE		CLAYSTONE & SILTSTONE	38.0	222.0

MAPID: 12920348000C **VERSION:** 1 **PROJECT:** NCRDS96
COUNTY: MENARD **TWP/RNG:** 18N 7W **SECTION:** 3 **QUARTERS/FOOTAGES:** 660' N line, 0' W line of NW SE
QUADRANGLE: PETERSBURG **LONGITUDE:** -89.87436 **GEOLOGIST:** HAMER
CONFIDENTIAL: N **LATITUDE:** 40.038258 **DATE COLLECTED:** 12 / 5 / 1968
SURFACE ELEVATION (FT.): 560.0 **LOGGED (FT.):** 99.0 **LOG TYPE:** Drillers Log
SOURCE: COMMONWEALTH EDISON G80 **WELL TYPE:** Coal Test
COMMENT: DATE OF DATA UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
560.0	PLEISTOCENE		CLAY	20.0	0.0
540.0	PLEISTOCENE		SAND & GRAVEL	10.0	20.0
530.0	PLEISTOCENE		CLAY	58.0	30.0
472.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	88.0
469.0	CARBONDALE	SPRINGFIELD	COAL	6.7	91.0
462.3	CARBONDALE		UNDERCLAY	1.3	97.7

MAPID: 12920267000C **VERSION:** 1 **PROJECT:** NCRDS96
COUNTY: MENARD **TWP/RNG:** 18N 7W **SECTION:** 6 **QUARTERS/FOOTAGES:** NE NE NE SW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.931733 **GEOLOGIST:** HAMER
CONFIDENTIAL: N **LATITUDE:** 40.038954 **DATE COLLECTED:** 5 / 16 / 1970
SURFACE ELEVATION (FT.): 605.0 **LOGGED (FT.):** 160.0 **LOG TYPE:** Drillers Log
SOURCE: COMMONWEALTH EDISON C605 **WELL TYPE:** Coal Test
COMMENT: NO COAL LOGGED,NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.0	PLEISTOCENE		CLAY	40.0	0.0
565.0	PLEISTOCENE		BOULDERS & GRAVEL	25.0	40.0
540.0	PLEISTOCENE		CLAY	75.0	65.0
465.0	PLEISTOCENE		SAND & GRAVEL	20.0	140.0

INCLUDES
WOOD

MAPID: 12990067000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 7W **SECTION:** 6 **QUARTERS/FOOTAGES:** 1' N line, 1' E line of NW NW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.933602 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.046689 **DATE COLLECTED:** 9 / 20 / 1966
SURFACE ELEVATION (FT.): 583.6 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE V603 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
583.6	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0
565.6	PLEISTOCENE		SAND & GRAVEL	130.0	18.0

MAPID: 12990068000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 7W **SECTION:** 6 **QUARTERS/FOOTAGES:** 1' N line, 1' W line of NW NW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.937508 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.046652 **DATE COLLECTED:** 9 / 20 / 1966
SURFACE ELEVATION (FT.): 604.0 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE V601 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
604.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0
597.0	PLEISTOCENE		CLAY	5.0	7.0
592.0	PLEISTOCENE		CLAY	136.0	12.0

MAPID: 12990069000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 7W **SECTION:** 6 **QUARTERS/FOOTAGES:** 1' S line, 1' E line of NE NW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.931256 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.043068 **DATE COLLECTED:** 9 / 20 / 1966
SURFACE ELEVATION (FT.): 600.7 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE V555 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.7	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0
593.7	PLEISTOCENE		CLAY	19.0	7.0
574.7	PLEISTOCENE		CLAY	122.0	26.0

MAPID: 12990070000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 7W **SECTION:** 6 **QUARTERS/FOOTAGES:** 1' S line, 1' E line of NW NW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.933672 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.043032 **DATE COLLECTED:** 9 / 21 / 1966
SURFACE ELEVATION (FT.): 587.0 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE V553 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
587.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0
573.0	PLEISTOCENE		SAND & GRAVEL	134.0	14.0

MAPID: 12990071000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 7W **SECTION:** 6 **QUARTERS/FOOTAGES:** 1' N line, 1' E line of NE SW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.931158 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.039417 **DATE COLLECTED:** 9 / 21 / 1966
SURFACE ELEVATION (FT.): 600.8 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE V505 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.8	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0
593.8	PLEISTOCENE		CLAY	5.0	7.0
588.8	PLEISTOCENE		CLAY	136.0	12.0

MAPID: 12990072000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 7W **SECTION:** 6 **QUARTERS/FOOTAGES:** 1' S line, 1' W line of SE NW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.93589 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.039334 **DATE COLLECTED:** 9 / 21 / 1966
SURFACE ELEVATION (FT.): 587.1 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE V503 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
587.1	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0
566.1	PLEISTOCENE		SAND & GRAVEL	127.0	21.0

MAPID: 12920268000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 7 QUARTERS/FOOTAGES: 660' S line, 200' E line of SE SW

QUADRANGLE: OAKFORD LONGITUDE: -89.931419 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.01954 DATE COLLECTED: 1 / 31 / 1970

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 137.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C229P WELL TYPE: Coal Test

COMMENT: FOOT NS ESTIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0	PLEISTOCENE		CLAY	19.0	0.0	
576.0	PLEISTOCENE		CLAY	22.0	19.0	WITH GRAVEL
554.0	PLEISTOCENE		CLAY	4.0	41.0	
550.0	PLEISTOCENE		CLAY	69.0	45.0	WITH GRAVEL
481.0	CARBONDALE		GRAY SHALE	13.5	114.0	LIMESTONE INTERBEDS
467.5	CARBONDALE	ST. DAVID	LIMESTONE	1.0	127.5	HARD
466.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	128.5	
464.0	CARBONDALE	SPRINGFIELD	COAL	5.5	131.0	
458.5	CARBONDALE		UNDERCLAY	0.5	136.5	

MAPID: 12920269000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 7 QUARTERS/FOOTAGES: 0' S line, 0' W line of NW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.937794 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.021228 DATE COLLECTED: 2 / 11 / 1970

SURFACE ELEVATION (FT.): 599.0 LOGGED (FT.): 162.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C252 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
599.0	PLEISTOCENE		CLAY	16.0	0.0	
583.0	PLEISTOCENE		CLAY	76.0	16.0	WITH GRAVEL
507.0	CARBONDALE		GRAY SHALE	60.0	92.0	LIMESTONE LAMINAE
447.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	152.0	HARD
446.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	153.0	
444.0	CARBONDALE	SPRINGFIELD	COAL	6.7	155.0	
437.3	CARBONDALE		UNDERCLAY	0.3	161.7	

MAPID: 12920270000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 7 QUARTERS/FOOTAGES: 15' S line, 0' E line of NW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.933663

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.021326

DATE COLLECTED: 2 / 11 / 1970

SURFACE ELEVATION (FT.): 598.0 LOGGED (FT.): 136.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C253

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
598.0	PLEISTOCENE		CLAY	16.0	0.0	
582.0	PLEISTOCENE		CLAY	60.0	16.0	WITH GRAVEL
522.0	PLEISTOCENE		CLAY	50.5	76.0	
471.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	126.5	
470.0	CARBONDALE	SPRINGFIELD	COAL	7.4	128.0	TOP OF UNIT IS DIRTY
462.6	CARBONDALE		UNDERCLAY	0.6	135.4	

MAPID: 12920271000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 7 QUARTERS/FOOTAGES: 0' N line, 200' W line of SE SW

QUADRANGLE: OAKFORD LONGITUDE: -89.932945

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.021295

DATE COLLECTED: 1 / 30 / 1970

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 132.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C254P

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		CLAY	32.0	0.0	
558.0	PLEISTOCENE		SAND & GRAVEL	7.0	32.0	
551.0	PLEISTOCENE		CLAY	59.0	39.0	WITH GRAVEL
492.0	CARBONDALE		GRAY SHALE	24.0	98.0	LIMESTONE INTERBEDS
468.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	122.0	HARD
467.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.3	122.5	SOFT
465.2	CARBONDALE	SPRINGFIELD	COAL	6.5	124.8	
458.7	CARBONDALE		UNDERCLAY	0.7	131.3	

MAPID: 12920272000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 7 QUARTERS/FOOTAGES: 35' N line, 340' E line of SW SE

QUADRANGLE: OAKFORD LONGITUDE: -89.927219

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.021278

DATE COLLECTED: 2 / 10 / 1970

SURFACE ELEVATION (FT.): 554.0 LOGGED (FT.): 117.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C256B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
554.0	PLEISTOCENE		CLAY	45.0	0.0	
509.0	PLEISTOCENE		CLAY	60.0	45.0	WITH GRAVEL
449.0	CARBONDALE		GRAY SHALE	5.5	105.0	LIMESTONE INTERBEDS
443.5	CARBONDALE	ST. DAVID	LIMESTONE	0.5	110.5	HARD
443.0	CARBONDALE	SPRINGFIELD	COAL	3.2	111.0	
439.8	CARBONDALE		UNDERCLAY	2.8	114.2	

MAPID: 12920273000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 7 QUARTERS/FOOTAGES: 660' N line, 30' W line of NW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.937719

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.022978

DATE COLLECTED: 2 / 23 / 1970

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 180.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C277

WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0	PLEISTOCENE		CLAY	171.0	0.0	
432.0	PLEISTOCENE		CLAY	1.0	171.0	W/GROUND COAL
431.0	CARBONDALE		GRAY SHALE	8.0	172.0	

MAPID: 12920274000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 7 QUARTERS/FOOTAGES: 750' S line, 200' E line of NE SW

QUADRANGLE: OAKFORD

LONGITUDE: -89.9315

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 40.023384

DATE COLLECTED: 2 / 11 / 1970

SURFACE ELEVATION (FT.): 585.0

LOGGED (FT.): 134.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C279BC

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0	PLEISTOCENE		CLAY	37.0	0.0	
548.0	PLEISTOCENE		CLAY	75.0	37.0	WITH GRAVEL
473.0	CARBONDALE		GRAY SHALE	12.0	112.0	LIMESTONE INTERBEDS
461.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	124.0	HARD
460.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	125.0	
457.5	CARBONDALE	SPRINGFIELD	COAL	6.0	127.5	
451.5	CARBONDALE		UNDERCLAY	0.5	133.5	

MAPID: 12920275000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 7 QUARTERS/FOOTAGES: 0' N line, 690' W line of NW SW

QUADRANGLE: OAKFORD

LONGITUDE: -89.935387

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 40.024841

DATE COLLECTED: 2 / 22 / 1970

SURFACE ELEVATION (FT.): 575.0

LOGGED (FT.): 160.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C303

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.0	PLEISTOCENE		CLAY	14.0	0.0	
561.0	PLEISTOCENE		SAND & GRAVEL	2.0	14.0	
559.0	PLEISTOCENE		CLAY	113.0	16.0	WITH GRAVEL
446.0	CARBONDALE		BLACK SHALE	2.0	129.0	
444.0	CARBONDALE		GRAY SHALE	29.0	131.0	LIMESTONE LAMINAE

MAPID: 12920276000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 7 QUARTERS/FOOTAGES: 40' N line, 200' E line of NE SW

QUADRANGLE: OAKFORD LONGITUDE: -89.931527 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.024803 DATE COLLECTED: 2 / 18 / 1970

SURFACE ELEVATION (FT.): 598.0 LOGGED (FT.): 138.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C304BC WELL TYPE: Coal Test

COMMENT: ELEV.CALCULATED FROM COAL ELEV

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
598.0	PLEISTOCENE		CLAY	39.0	0.0	
559.0	PLEISTOCENE		CLAY	56.0	39.0	WITH GRAVEL
503.0	PLEISTOCENE		CLAY	33.0	95.0	
470.0	CARBONDALE	ST. DAVID	LIMESTONE	0.7	128.0	HARD
469.3	CARBONDALE	TURNER MINE	BLACK SHALE	1.8	128.7	
467.5	CARBONDALE	SPRINGFIELD	COAL	7.0	130.5	
460.5	CARBONDALE		UNDERCLAY	0.5	137.5	

MAPID: 12920277000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 7 QUARTERS/FOOTAGES: 105' N line, 450' E line of NW SE

QUADRANGLE: OAKFORD LONGITUDE: -89.927685 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.024695 DATE COLLECTED: 2 / 18 / 1970

SURFACE ELEVATION (FT.): 553.0 LOGGED (FT.): 112.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C306 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
553.0	PLEISTOCENE		CLAY	12.0	0.0	
541.0	PLEISTOCENE		CLAY	28.0	12.0	SANDY WITH GRAVEL
513.0	PLEISTOCENE		CLAY	60.5	40.0	WITH GRAVEL
452.5	CARBONDALE	ST. DAVID	LIMESTONE	0.2	100.5	HARD
452.3	CARBONDALE	TURNER MINE	BLACK SHALE	2.8	100.7	
449.5	CARBONDALE	SPRINGFIELD	COAL	7.5	103.5	
442.0	CARBONDALE		UNDERCLAY	1.0	111.0	

MAPID: 12920278000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 7 QUARTERS/FOOTAGES: 105' N line, 450' E line of NW SE

QUADRANGLE: OAKFORD LONGITUDE: -89.927685

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.024695

DATE COLLECTED: 2 / 21 / 1970

SURFACE ELEVATION (FT.): 598.0 LOGGED (FT.): 170.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C306N

WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
598.0	PLEISTOCENE		CLAY	20.0	0.0	
578.0	PLEISTOCENE		CLAY	134.0	20.0	WITH GRAVEL
444.0	CARBONDALE		BLACK SHALE	1.0	154.0	
443.0	CARBONDALE		GRAY SHALE	15.0	155.0	LIMESTONE LAMINAE

MAPID: 12920279000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 7 QUARTERS/FOOTAGES: NE NE NE SE

QUADRANGLE: OAKFORD LONGITUDE: -89.921923

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.024636

DATE COLLECTED: 9 / 25 / 1969

SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 180.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C309

WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED;NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
588.0	PLEISTOCENE		CLAY	25.0	0.0	
563.0	PLEISTOCENE		UNCONSOLIDATED	108.0	25.0	
455.0	PLEISTOCENE		CLAY & GRAVEL	10.0	133.0	
445.0	PLEISTOCENE		CLAY	7.0	143.0	POSSIBLY GRAY SHALES
438.0	CARBONDALE		GRAY SHALE	1.0	150.0	
437.0	CARBONDALE		GRAY SHALE	29.0	151.0	LIMESTONE LAMINAE

MAPID: 12920280000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 7 QUARTERS/FOOTAGES: 0' N line, 0' W line of NW SW

QUADRANGLE: OAKFORD

LONGITUDE: -89.93786

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 40.024796

DATE COLLECTED: 5 / 7 / 1969

SURFACE ELEVATION (FT.): 587.0

LOGGED (FT.): 165.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C302

WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
587.0	PLEISTOCENE		CLAY	40.0	0.0	
547.0	PLEISTOCENE		SAND & GRAVEL	5.0	40.0	INCLUDES LIMESTONE
542.0	PLEISTOCENE		CLAY	63.0	45.0	
479.0	PLEISTOCENE		CLAY	2.0	108.0	WITH FLOAT COAL
477.0	PLEISTOCENE		CLAY	46.0	110.0	
431.0	PLEISTOCENE		GRAVEL	6.0	156.0	INCLUDES LIMESTONE
425.0	CARBONDALE		LIMESTONE	1.0	162.0	
424.0	CARBONDALE		GRAY SHALE	1.5	163.0	
422.5	CARBONDALE		LIMESTONE	0.5	164.5	

MAPID: 12920636000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 12 QUARTERS/FOOTAGES: 900' S line, 33' E line

QUADRANGLE: PETERSBURG LONGITUDE: -89.827514 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.021176 DATE COLLECTED: 9 / 23 / 1975

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 237.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-26 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0			UNCONSOLIDATED	143.0	0.0
-	CARBONDALE	HERRIN	COAL	0.0	
457.0	CARBONDALE		GRAY SHALE	3.5	143.0
453.5	CARBONDALE	ST. DAVID	LIMESTONE	1.5	146.5
452.0	CARBONDALE	SPRINGFIELD	COAL	6.5	148.0
445.5	CARBONDALE		GRAY SHALE	2.5	154.5
443.0	CARBONDALE		SHALE	5.5	157.0
437.5	CARBONDALE	EXCELLO	BLACK SHALE	1.5	162.5
436.0	CARBONDALE		SHALE	4.0	164.0
432.0	CARBONDALE		GRAY SHALE	5.8	168.0
426.2	CARBONDALE		LIMESTONE AND SANDSTONE	1.3	173.8
424.9	CARBONDALE		SHALE	4.9	175.1
420.0	CARBONDALE		GRAY SHALE	46.0	180.0
374.0	CARBONDALE	SURVANT	COAL	1.0	226.0
373.0	CARBONDALE		SHALE	3.5	227.0
369.5	CARBONDALE		SANDSTONE/LIMESTONE	2.5	230.5
367.0	CARBONDALE		SHALE	4.0	233.0

MAPID: 12920637000C VERSION: 1

PROJECT: NCRDS92

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 15 QUARTERS/FOOTAGES: 2313' S line, 102' W line
 QUADRANGLE: OAKFORD LONGITUDE: -89.883178 GEOLOGIST: C TREWORY
 CONFIDENTIAL: N LATITUDE: 40.010199 DATE COLLECTED: 10 / 1 / 1975
 SURFACE ELEVATION (FT.): 599.0 LOGGED (FT.): 220.0 LOG TYPE: Drillers Log
 SOURCE: MOBIL OIL SI-27 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
599.0			CLAY	20.0	0.0	DGRAY
579.0			SANDY CLAY	40.0	20.0	
539.0	CARBONDALE		SHALE	70.0	60.0	
469.0	CARBONDALE		GRAY SHALE	8.0	130.0	
461.0	CARBONDALE		LIMESTONE	0.5	138.0	
460.5	CARBONDALE		DARK GRAY SHALE	2.5	138.5	
458.0	CARBONDALE		COAL	1.0	141.0	
457.0	CARBONDALE		SANDY SHALE	23.0	142.0	DGY SDY SH W/ SS
434.0	CARBONDALE		GRAY SHALE	48.0	165.0	
386.0	CARBONDALE		COAL	2.5	213.0	
383.5	CARBONDALE		DARK GRAY SHALE	4.5	215.5	

MAPID: 12920637000C VERSION: 2

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 15 QUARTERS/FOOTAGES: 2313' S line, 102' W line
 QUADRANGLE: OAKFORD LONGITUDE: -89.883178 GEOLOGIST: SROKA
 CONFIDENTIAL: N LATITUDE: 40.010199 DATE COLLECTED: 10 / 1 / 1975
 SURFACE ELEVATION (FT.): 599.0 LOGGED (FT.): 220.0 LOG TYPE: Multiple log types
 SOURCE: WELL TYPE: Coal Test
 COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
599.0			UNCONSOLIDATED	130.0	0.0	
-	CARBONDALE	HERRIN	COAL	0.0		
469.0	CARBONDALE		GRAY SHALE	8.0	130.0	
461.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	138.0	
460.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	138.5	
458.0	CARBONDALE	SPRINGFIELD	COAL	1.0	141.0	
457.0	CARBONDALE		SHALE	6.0	142.0	
451.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	148.0	
449.0	CARBONDALE		SHALE	15.0	150.0	
434.0	CARBONDALE		CLAYSTONE	48.0	165.0	
386.0	CARBONDALE	SURVANT - UPPER	COAL	1.0	213.0	
385.0	CARBONDALE		SHALE	1.0	214.0	
384.0	CARBONDALE	SURVANT - LOWER	COAL	0.5	215.0	
383.5	CARBONDALE		SHALE	4.5	215.5	

MAPID: 12920281000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 16 QUARTERS/FOOTAGES: 40' S line, 42' W line of SW NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.90251 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.010996 DATE COLLECTED: 11 / 25 / 1969
 SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 220.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON C117 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.0	PLEISTOCENE		CLAY	40.0	0.0	SANDY
562.0	PLEISTOCENE		CLAY	162.0	40.0	
400.0	PLEISTOCENE		GRAVEL	2.0	202.0	
398.0	CARBONDALE		GRAY SHALE	13.0	204.0	
385.0	CARBONDALE		LIMESTONE	1.5	217.0	
383.5	CARBONDALE		GRAY SHALE	1.5	218.5	

MAPID: 12920282000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 16 QUARTERS/FOOTAGES: 50' S line, 24' W line of SW NE
 QUADRANGLE: OAKFORD LONGITUDE: -89.893025 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.011086 DATE COLLECTED: 11 / 0 / 1969
 SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 220.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON C121 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED, DAY OF DATA UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.0	PLEISTOCENE		CLAY	10.0	0.0	
592.0	PLEISTOCENE		SAND	20.0	10.0	INCLUDES WOOD
572.0	PLEISTOCENE		CLAY	70.0	30.0	
502.0	PLEISTOCENE		CLAY & GRAVEL	20.0	100.0	
482.0	PLEISTOCENE		SAND & GRAVEL	20.0	120.0	
462.0	PLEISTOCENE		SANDY CLAY	68.0	140.0	
394.0	CARBONDALE		GRAY SHALE	4.0	208.0	
390.0	CARBONDALE		LIMESTONE	1.5	212.0	
388.5	CARBONDALE		GRAY SHALE	6.5	213.5	

MAPID: 12920283000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 16 QUARTERS/FOOTAGES: 10' S line, 45' E line of SE SE

QUADRANGLE: OAKFORD LONGITUDE: -89.883581 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.003842 DATE COLLECTED: 11 / 24 / 1969

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 220.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C25 WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0	PLEISTOCENE		CLAY	15.0	0.0	
588.0	PLEISTOCENE		SAND	15.0	15.0	INCLUDES WOOD
573.0	PLEISTOCENE		CLAY	75.0	30.0	
498.0	PLEISTOCENE		SAND & GRAVEL	5.0	105.0	
493.0	PLEISTOCENE		CLAY	75.0	110.0	
418.0	CARBONDALE		GRAY SHALE	35.0	185.0	

MAPID: 12920284000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 17 QUARTERS/FOOTAGES: 1080' N line, 45' E line of NW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.916739 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.007753 DATE COLLECTED: 1 / 14 / 1970

SURFACE ELEVATION (FT.): 568.0 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C61JJ WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
568.0	PLEISTOCENE		CLAY	30.0	0.0	
538.0	PLEISTOCENE		BOULDER	2.0	30.0	
536.0	PLEISTOCENE		CLAY	92.0	32.0	
444.0	CARBONDALE		GRAY SHALE	3.0	124.0	
441.0	CARBONDALE		BLACK SHALE	2.0	127.0	
439.0	CARBONDALE		GRAY SHALE	21.0	129.0	LIMESTONE LAMINAE

MAPID: 12920285000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 17 QUARTERS/FOOTAGES: 42' S line, 200' W line of SW NE
 QUADRANGLE: OAKFORD LONGITUDE: -89.91122 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.01091 DATE COLLECTED: 12 / 2 / 1969
 SURFACE ELEVATION (FT.): 594.0 LOGGED (FT.): 180.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON C113N WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
594.0	PLEISTOCENE		CLAY	35.0	0.0	
559.0	PLEISTOCENE		CLAY & GRAVEL	125.0	35.0	
434.0	CARBONDALE	SPRINGFIELD	COAL	1.0	160.0	TOP ERODED
433.0	CARBONDALE		UNDERCLAY	19.0	161.0	INCLUDES GRAY SHALE

MAPID: 12920286000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 17 QUARTERS/FOOTAGES: NE NE NW SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.917157 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.010282 DATE COLLECTED: 1 / 28 / 1970
 SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON C111 WELL TYPE: Coal Test
 COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
565.0			CLAY	16.0	0.0	SANDY
549.0			CLAY	46.0	16.0	
503.0			CLAY	15.0	62.0	WITH GRAVEL
488.0			CLAY	39.0	77.0	
449.0	CARBONDALE	SPRINGFIELD	COAL	0.2	116.0	TOP ERODED, CORRELATION UNCERTAIN
448.8	CARBONDALE		GRAY SHALE	5.8	116.2	
443.0	CARBONDALE		BLACK SHALE	0.5	122.0	
442.5	CARBONDALE		GRAY SHALE	29.5	122.5	LIMESTONE INTERBEDS
413.0	CARBONDALE		LIMESTONE	1.0	152.0	HARD
412.0	CARBONDALE		GRAY SHALE	7.0	153.0	

MAPID: 12920287000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 17 QUARTERS/FOOTAGES: 10' S line, 30' W line of NW SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.921122 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.00715 DATE COLLECTED: 1 / 28 / 1970
 SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON C59 WELL TYPE: Coal Test
 COMMENT: FOOT NS ESTIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		CLAY	82.0	0.0	
508.0	PLEISTOCENE		CLAY & GRAVEL	25.0	82.0	
483.0	PLEISTOCENE		CLAY	33.0	107.0	W/LIMESTONE BANDS
450.0	CARBONDALE		GRAY SHALE	12.0	140.0	THICKNESS ADJUSTED
438.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	152.0	
436.5	CARBONDALE	SPRINGFIELD	COAL	5.5	153.5	HARD,BRIGHT
431.0	CARBONDALE		UNDERCLAY	1.0	159.0	

MAPID: 12920288000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 900' N line, 0' W line of NW SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.937934 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.008038 DATE COLLECTED: 5 / 7 / 1969
 SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 100.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON C52CC WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
565.0	PLEISTOCENE		CLAY	37.0	0.0	
528.0	PLEISTOCENE		BOULDER	6.0	37.0	SOFT LIMESTONE
522.0	PLEISTOCENE		CLAY	36.0	43.0	
486.0	PLEISTOCENE		CLAY	1.0	79.0	INCLUDES WOOD
485.0	PLEISTOCENE		CLAY	14.0	80.0	
471.0	CARBONDALE	SPRINGFIELD	COAL	5.0	94.0	TOP ERODED
466.0	CARBONDALE		UNDERCLAY	1.0	99.0	

MAPID: 12920289000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 800' N line, 0' W line of NW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.937928 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.008314 DATE COLLECTED: 5 / 7 / 1969

SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 120.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C52D WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
565.0	PLEISTOCENE		CLAY	72.0	0.0	
493.0	PLEISTOCENE		CLAY	20.0	72.0	W/GRAVEL?
473.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	92.0	
472.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	93.0	
469.0	CARBONDALE	SPRINGFIELD	COAL WITH SHALE	3.0	96.0	INCLUDES SHALE
466.0	CARBONDALE		UNDERCLAY	1.0	99.0	
465.0	CARBONDALE		SHALE	12.0	100.0	SOFT,LIMESTONE INTERBEDS
453.0	CARBONDALE		BLACK SHALE	1.0	112.0	INCLUDES COAL
452.0	CARBONDALE		GRAY SHALE	5.0	113.0	LIMESTONE INTERBEDS
447.0	CARBONDALE		LIMESTONE	2.0	118.0	

MAPID: 12920290000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 660' S line, 180' E line of SE NW

QUADRANGLE: OAKFORD LONGITUDE: -89.931329 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.012409 DATE COLLECTED: 1 / 29 / 1970

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 170.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C129P WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0	PLEISTOCENE		CLAY	39.0	0.0	
564.0	PLEISTOCENE		CLAY	118.0	39.0	WITH GRAVEL
446.0	CARBONDALE		GRAY SHALE	13.0	157.0	LIMESTONE LAMINAE

MAPID: 12920291000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 0' N line, 30' E line of SW NE

QUADRANGLE: OAKFORD LONGITUDE: -89.926045 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.014206 DATE COLLECTED: 2 / 7 / 1970

SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 137.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C132 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
588.0	PLEISTOCENE		CLAY	24.0	0.0	
564.0	PLEISTOCENE		SAND & GRAVEL	1.0	24.0	
563.0	PLEISTOCENE		CLAY & GRAVEL	70.0	25.0	
493.0	CARBONDALE		GRAY SHALE	34.0	95.0	LIMESTONE INTERBEDS
459.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	129.0	
457.0	CARBONDALE	SPRINGFIELD	COAL	5.8	131.0	MAY INCLUDE CLAY BED
451.2	CARBONDALE		UNDERCLAY	0.2	136.8	

MAPID: 12920292000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 0' N line, 200' E line of SE NW

QUADRANGLE: OAKFORD LONGITUDE: -89.931393 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.014153 DATE COLLECTED: 1 / 30 / 1970

SURFACE ELEVATION (FT.): 601.0 LOGGED (FT.): 170.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C154P WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
601.0	PLEISTOCENE		CLAY	70.0	0.0	
531.0	PLEISTOCENE		CLAY	81.0	70.0	WITH GRAVEL
450.0	CARBONDALE		BLACK SHALE	0.5	151.0	
449.5	CARBONDALE		GRAY SHALE	18.5	151.5	W/LIMESTONE LAMINAE,THICKNESS

MAPID: 12920293000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 175' N line, 10' W line of NW NW

QUADRANGLE: OAKFORD LONGITUDE: -89.937701 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.017177 DATE COLLECTED: 6 / 10 / 1969

SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C171D WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.0	PLEISTOCENE		CLAY	37.0	0.0	SANDY
565.0	PLEISTOCENE		CLAY	76.0	37.0	SANDY WITH GRAVEL
489.0	PLEISTOCENE		CLAY	11.0	113.0	
478.0	CARBONDALE		GRAY SHALE	12.5	124.0	LIMEY
465.5	CARBONDALE	ST. DAVID	LIMESTONE	0.7	136.5	
464.8	CARBONDALE	TURNER MINE	SHALE	3.4	137.2	DARK LIMESTONE LAMINAE
461.4	CARBONDALE	SPRINGFIELD	COAL	5.6	140.6	
455.8	CARBONDALE		UNDERCLAY	1.8	146.2	

MAPID: 12920294000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 660' S line, 200' E line of NE NW

QUADRANGLE: OAKFORD LONGITUDE: -89.931386 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.015975 DATE COLLECTED: 2 / 6 / 1970

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 145.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C179P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	41.0	0.0	
559.0	PLEISTOCENE		CLAY	95.5	41.0	W/GRAVEL THICKNESS ADJUSTED
463.5	CARBONDALE	ST. DAVID	LIMESTONE	0.5	136.5	HARD
463.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	137.0	
459.5	CARBONDALE	SPRINGFIELD	COAL	3.5	140.5	
456.0	CARBONDALE		UNDERCLAY	1.0	144.0	

MAPID: 12920295000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 0' N line, 200' E line of NE NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.931379 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.017719 DATE COLLECTED: 1 / 31 / 1970
 SURFACE ELEVATION (FT.): 594.0 LOGGED (FT.): 133.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON C204P WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
594.0	PLEISTOCENE		CLAY	27.0	0.0	
567.0	PLEISTOCENE		CLAY	83.0	27.0	WITH GRAVEL
484.0	CARBONDALE		GRAY SHALE	14.0	110.0	LIMESTONE INTERBEDS
470.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	124.0	HARD
469.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	124.5	
467.5	CARBONDALE	SPRINGFIELD	COAL	5.5	126.5	
462.0	CARBONDALE		UNDERCLAY	1.0	132.0	

MAPID: 12920296000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 100' N line, 40' E line of NW NE
 QUADRANGLE: OAKFORD LONGITUDE: -89.926069 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.017492 DATE COLLECTED: 2 / 10 / 1970
 SURFACE ELEVATION (FT.): 573.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON C207 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
573.0	PLEISTOCENE		CLAY	3.0	0.0	
570.0	PLEISTOCENE		CLAY	15.0	3.0	SANDY
555.0	PLEISTOCENE		CLAY	57.0	18.0	WITH GRAVEL
498.0	PLEISTOCENE		CLAY	61.5	75.0	
436.5	CARBONDALE		LIMESTONE	0.5	136.5	HARD
436.0	CARBONDALE		GRAY SHALE	6.0	137.0	
430.0	CARBONDALE		BLACK SHALE	0.8	143.0	
429.2	CARBONDALE		GRAY SHALE	16.2	143.8	LIMESTONE LAMINAE

MAPID: 12920297000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 660' N line, 15' E line of NE SW

QUADRANGLE: OAKFORD LONGITUDE: -89.93075 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.008771 DATE COLLECTED: 12 / 31 / 1969

SURFACE ELEVATION (FT.): 604.0 LOGGED (FT.): 145.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C80 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
604.0	PLEISTOCENE		CLAY	111.0	0.0	
493.0	PLEISTOCENE		BOULDER	1.0	111.0	
492.0	PLEISTOCENE		CLAY	24.5	112.0	
467.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	136.5	
466.5	CARBONDALE	SPRINGFIELD	COAL	6.8	137.5	
459.7	CARBONDALE		UNDERCLAY	0.7	144.3	

MAPID: 12920298000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 318' S line, 264' W line of SW NW

QUADRANGLE: OAKFORD LONGITUDE: -89.936914 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.011412 DATE COLLECTED: 5 / 17 / 1969

SURFACE ELEVATION (FT.): 592.0 LOGGED (FT.): 138.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C102A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
592.0	PLEISTOCENE		CLAY	32.0	0.0	SANDY
560.0	PLEISTOCENE		CLAY	28.0	32.0	SANDY WITH GRAVEL
532.0	PLEISTOCENE		SAND & GRAVEL	3.0	60.0	CLAYEY
529.0	PLEISTOCENE		CLAY	43.5	63.0	WITH GRAVEL
485.5	PLEISTOCENE		CLAY	15.5	106.5	W/LIMESTONE RIBS
470.0	PLEISTOCENE		CLAY	5.0	122.0	
465.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	127.0	HARD
464.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.2	128.0	
460.8	CARBONDALE	SPRINGFIELD	COAL	0.4	131.2	BONY
460.4	CARBONDALE	SPRINGFIELD	COAL	6.0	131.6	
454.4	CARBONDALE		UNDERCLAY	0.4	137.6	THICKNESS ADJUSTED

MAPID: 12920299000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 40' N line, 660' W line of NW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.935516 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.010437 DATE COLLECTED: 1 / 3 / 1970

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 141.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C103 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		CLAY	45.0	0.0
555.0	PLEISTOCENE		CLAY & GRAVEL	5.0	45.0
550.0	PLEISTOCENE		CLAY	78.0	50.0
472.0	CARBONDALE		GRAY SHALE	4.5	128.0
467.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	132.5
466.0	CARBONDALE	SPRINGFIELD	COAL	6.4	134.0
459.6	CARBONDALE		UNDERCLAY	0.6	140.4

MAPID: 12920300000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 45' N line, 645' E line of NE SW

QUADRANGLE: OAKFORD LONGITUDE: -89.933003 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.010446 DATE COLLECTED: 12 / 30 / 1969

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 170.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C104 WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		CLAY	120.0	0.0
480.0	PLEISTOCENE		GRAVEL	1.0	120.0
479.0	PLEISTOCENE		CLAY	29.0	121.0
450.0	CARBONDALE		GRAY SHALE	5.0	150.0
445.0	CARBONDALE		BLACK SHALE	1.0	155.0
444.0	CARBONDALE		GRAY SHALE	14.0	156.0

MAPID: 12920301000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 45' N line, 39' E line of NE SW

QUADRANGLE: OAKFORD LONGITUDE: -89.930828 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.010468 DATE COLLECTED: 12 / 30 / 1969

SURFACE ELEVATION (FT.): 598.0 LOGGED (FT.): 138.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C105 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
598.0	PLEISTOCENE		CLAY	80.0	0.0	
518.0	PLEISTOCENE		BOULDER	1.0	80.0	
517.0	PLEISTOCENE		CLAY	49.0	81.0	
468.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	130.0	
465.5	CARBONDALE	SPRINGFIELD	COAL	5.0	132.5	BRIGHT
460.5	CARBONDALE		UNDERCLAY	0.5	137.5	

MAPID: 12920302000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 324' S line, 8' W line of SE NE

QUADRANGLE: OAKFORD LONGITUDE: -89.925922 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.011535 DATE COLLECTED: 2 / 7 / 1970

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 146.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C107C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	16.5	0.0	
583.5	PLEISTOCENE		CLAY	100.5	16.5	W/GRAVEL, THICKNESS ADJUSTED
483.0	CARBONDALE		GRAY SHALE	15.0	117.0	
468.0	CARBONDALE		GRAY SHALE	7.0	132.0	LIMESTONE INTERBEDS
461.0	CARBONDALE	TURNER MINE	BLACK SHALE	0.5	139.0	
460.5	CARBONDALE	SPRINGFIELD	COAL	5.7	139.5	
454.8	CARBONDALE		UNDERCLAY	0.8	145.2	

MAPID: 12920303000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 0' S line, 0' E line of SE NE

QUADRANGLE: OAKFORD LONGITUDE: -89.921215 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.010688 DATE COLLECTED: 9 / 25 / 1969

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 157.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C109 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		CLAY	105.0	0.0	
485.0	PLEISTOCENE		BOULDER	1.0	105.0	LIMESTONE
484.0	PLEISTOCENE		CLAY	9.0	106.0	
475.0			CLAY	31.0	115.0	POSSIBLY GRAY SHALE
444.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	146.0	
441.0	CARBONDALE	SPRINGFIELD	COAL	7.5	149.0	HARD-BONEY IN PLACES
433.5	CARBONDALE		UNDERCLAY	0.5	156.5	

MAPID: 12920304000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 15' S line, 0' W line of SE SW

QUADRANGLE: OAKFORD LONGITUDE: -89.93545 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.003458 DATE COLLECTED: 2 / 10 / 1970

SURFACE ELEVATION (FT.): 601.0 LOGGED (FT.): 137.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C3 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
601.0	PLEISTOCENE		CLAY	105.0	0.0	
496.0	CARBONDALE		SHALE	2.0	105.0	LIMESTONE LAMINAE
494.0	CARBONDALE		GRAY SHALE	20.5	107.0	THICKNESS ADJUSTED
473.5	CARBONDALE	ST. DAVID	LIMESTONE	0.5	127.5	
473.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.2	128.0	
470.8	CARBONDALE	SPRINGFIELD	COAL	6.2	130.2	
464.6	CARBONDALE		UNDERCLAY	0.6	136.4	

MAPID: 12920305000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 20' S line, 30' E line of SE SW

QUADRANGLE: OAKFORD LONGITUDE: -89.930821 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.003516 DATE COLLECTED: 1 / 2 / 1970

SURFACE ELEVATION (FT.): 604.0 LOGGED (FT.): 143.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C5 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
604.0	PLEISTOCENE		CLAY	80.0	0.0	
524.0	PLEISTOCENE		SAND & GRAVEL	5.0	80.0	
519.0	PLEISTOCENE		CLAY	35.0	85.0	
484.0	CARBONDALE		GRAY SHALE	12.5	120.0	
471.5	CARBONDALE	ST. DAVID	LIMESTONE	0.5	132.5	
471.0	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	133.0	LIMESTONE LAMINAE
467.0	CARBONDALE	SPRINGFIELD	COAL	5.5	137.0	
461.5	CARBONDALE		UNDERCLAY	0.5	142.5	

MAPID: 12920306000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 660' S line, 15' E line of SE SW

QUADRANGLE: OAKFORD LONGITUDE: -89.930761 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.005283 DATE COLLECTED: 1 / 2 / 1970

SURFACE ELEVATION (FT.): 606.0 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C30 WELL TYPE: Coal Test

COMMENT: COMMONWEALTH EDISON C30

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
606.0	PLEISTOCENE		CLAY	105.0	0.0	
501.0	PLEISTOCENE		SAND & GRAVEL	5.0	105.0	
496.0	PLEISTOCENE		BOULDER	4.0	110.0	LIMESTONE
492.0	PLEISTOCENE		CLAY	16.0	114.0	
476.0	CARBONDALE		GRAY SHALE	6.5	130.0	
469.5	CARBONDALE	ST. DAVID	LIMESTONE	1.0	136.5	DARK
468.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	137.5	
465.0	CARBONDALE	SPRINGFIELD	COAL	6.7	141.0	
458.3	CARBONDALE		UNDERCLAY	0.3	147.7	

MAPID: 12920307000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 21' N line, 12' W line of SW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.937916 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.006898 DATE COLLECTED: 1 / 29 / 1970

SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C52 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0	PLEISTOCENE		CLAY	130.0	0.0	
455.0	CARBONDALE		BLACK SHALE	1.5	130.0	
453.5	CARBONDALE	HOUCHIN CREEK	COAL	0.5	131.5	
453.0	CARBONDALE		SHALE	4.0	132.0	BLACK & GRAY
449.0	CARBONDALE		UNDERCLAY	4.0	136.0	
445.0	CARBONDALE		SHALE	10.0	140.0	LIMESTONE INTERBEDS

MAPID: 12920308000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 250' S line, 66' E line of NW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.934002 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.007686 DATE COLLECTED: 2 / 10 / 1970

SURFACE ELEVATION (FT.): 562.0 LOGGED (FT.): 120.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C52JA WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
562.0	PLEISTOCENE		CLAY	100.0	0.0	
462.0	PLEISTOCENE		CLAY & GRAVEL	3.0	100.0	
459.0	PLEISTOCENE		GRAVEL	1.0	103.0	MAY INCLUDE COAL
458.0	CARBONDALE		GRAY SHALE	9.0	104.0	
449.0	CARBONDALE		BLACK SHALE	2.0	113.0	
447.0	CARBONDALE		GRAY SHALE	5.0	115.0	

MAPID: 12920309000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 18 QUARTERS/FOOTAGES: 20' S line, 12' E line of NE SW

QUADRANGLE: OAKFORD LONGITUDE: -89.930747 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.007082 DATE COLLECTED: 12 / 31 / 1969

SURFACE ELEVATION (FT.): 596.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON C55 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
596.0	PLEISTOCENE		CLAY	30.0	0.0	
566.0	PLEISTOCENE		SAND & GRAVEL	10.0	30.0	
556.0	PLEISTOCENE		CLAY	65.0	40.0	
491.0	PLEISTOCENE		BOULDER	2.0	105.0	LIMESTONE
489.0	PLEISTOCENE		CLAY	30.0	107.0	
459.0	PLEISTOCENE		GRAVEL	1.0	137.0	INCLUDES COAL,POSSIBLY INSITU
458.0	CARBONDALE		UNDERCLAY	3.0	138.0	
455.0	CARBONDALE		GRAY SHALE	7.0	141.0	
448.0	CARBONDALE		BLACK SHALE	1.0	148.0	
447.0	CARBONDALE		GRAY SHALE	11.0	149.0	

MAPID: 12920310000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 19 QUARTERS/FOOTAGES: 416' N line, 30' E line of SE NW

QUADRANGLE: TALLULA LONGITUDE: -89.930982 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.998688 DATE COLLECTED: 1 / 12 / 1970

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 137.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G530J WELL TYPE: Coal Test

COMMENT: FOOT NS UNCLEAR

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	118.0	0.0	
482.0	CARBONDALE		GRAY SHALE	8.0	118.0	
474.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	126.0	
473.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	126.5	
471.5	CARBONDALE	SPRINGFIELD	BONE COAL	1.0	128.5	
470.5	CARBONDALE	SPRINGFIELD	COAL	6.5	129.5	HARD, BRITTLE
464.0	CARBONDALE		UNDERCLAY	1.0	136.0	

MAPID: 12920311000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 19 QUARTERS/FOOTAGES: 1115' N line, 20' E line of NE SW

QUADRANGLE: TALLULA LONGITUDE: -89.93113 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.993132 DATE COLLECTED: 1 / 20 / 1970

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G555J WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0	PLEISTOCENE		CLAY	55.0	0.0	
548.0	PLEISTOCENE		CLAY & GRAVEL	5.0	55.0	
543.0	PLEISTOCENE		CLAY	48.0	60.0	
495.0	CARBONDALE		GRAY SHALE	22.0	108.0	
473.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	130.0	HARD BLACK
472.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	131.0	
469.0	CARBONDALE	SPRINGFIELD	COAL	5.0	134.0	
464.0	CARBONDALE		UNDERCLAY	1.0	139.0	

MAPID: 12920312000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 19 QUARTERS/FOOTAGES: 54' N line, 24' W line of NE NE

QUADRANGLE: OAKFORD LONGITUDE: -89.925897 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.003363 DATE COLLECTED: 1 / 14 / 1970

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G607 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0	PLEISTOCENE		CLAY	38.0	0.0	
565.0	PLEISTOCENE		GRAVEL	3.0	38.0	
562.0	PLEISTOCENE		CLAY	29.0	41.0	
533.0	PLEISTOCENE		CLAY & GRAVEL	6.0	70.0	
527.0	PLEISTOCENE		CLAY	9.0	76.0	
518.0	PLEISTOCENE		CLAY & GRAVEL	10.0	85.0	
508.0	PLEISTOCENE		CLAY	32.0	95.0	
476.0	CARBONDALE		SHALE	2.0	127.0	
474.0	CARBONDALE	ANNA	BLACK SHALE	1.0	129.0	
473.0	CARBONDALE	HERRIN	COAL	1.0	130.0	
472.0	CARBONDALE		UNDERCLAY	1.0	131.0	
471.0	CARBONDALE		SHALE	18.0	132.0	LIMESTONE LAMINAE

MAPID: 12920313000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 19 QUARTERS/FOOTAGES: 42' N line, 18' W line of NE NE

QUADRANGLE: OAKFORD LONGITUDE: -89.925918

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.003396

DATE COLLECTED: 1 / 27 / 1970

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 171.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G607REDRIL

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0	PLEISTOCENE		CLAY	73.0	0.0	
530.0	PLEISTOCENE		CLAY	47.0	73.0	WITH GRAVEL
483.0	CARBONDALE		GRAY SHALE	8.0	120.0	
475.0	CARBONDALE	ANNA	BLACK SHALE	1.0	128.0	
474.0	CARBONDALE	HERRIN	COAL	1.0	129.0	
473.0	CARBONDALE		GRAY SHALE	33.0	130.0	LIMESTONE LAMINAE
440.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	163.0	
439.0	CARBONDALE	SPRINGFIELD	COAL	6.5	164.0	
432.5	CARBONDALE		UNDERCLAY	0.5	170.5	

MAPID: 12920314000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 19 QUARTERS/FOOTAGES:

QUADRANGLE: TALLULA LONGITUDE: -89.929786

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.996223

DATE COLLECTED: 1 / 28 / 1970

SURFACE ELEVATION (FT.): 604.0 LOGGED (FT.): 132.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G527KC

WELL TYPE: Coal Test

COMMENT: LOCATION NOT SPECIFIED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
604.0	PLEISTOCENE		CLAY	110.0	0.0	
494.0	CARBONDALE		GRAY SHALE	12.0	110.0	
482.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	122.0	
480.0	CARBONDALE	SPRINGFIELD	COAL	7.0	124.0	
473.0	CARBONDALE		UNDERCLAY	1.0	131.0	

MAPID: 12920315000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 19 QUARTERS/FOOTAGES: 67' S line, 12' W line of SE SE

QUADRANGLE: TALLULA LONGITUDE: -89.926413 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.9892 DATE COLLECTED: 11 / 19 / 1969

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 133.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G407 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	30.0	0.0	
570.0	PLEISTOCENE		SAND & GRAVEL	10.0	30.0	
560.0	PLEISTOCENE		CLAY	75.0	40.0	
485.0	CARBONDALE		GRAY SHALE	8.0	115.0	
477.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	123.0	
475.0	CARBONDALE	SPRINGFIELD	COAL	6.6	125.0	BRIGHT
468.4	CARBONDALE		UNDERCLAY	1.4	131.6	THICKNESS ADJUSTED

MAPID: 12920316000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 19 QUARTERS/FOOTAGES: 500' S line, 450' E line of NE SW

QUADRANGLE: TALLULA LONGITUDE: -89.932646 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.993949 DATE COLLECTED: 2 / 6 / 1970

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 132.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G454F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	20.0	0.0	
585.0	PLEISTOCENE		CLAY & GRAVEL	25.0	20.0	
560.0	PLEISTOCENE		SAND & GRAVEL	27.0	45.0	VERY POORLY CONSOLIDATED
533.0	PLEISTOCENE		CLAY	21.0	72.0	
512.0	CARBONDALE		SHALE	29.0	93.0	
483.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	122.0	
480.0	CARBONDALE	SPRINGFIELD	COAL	6.5	125.0	HARD
473.5	CARBONDALE		UNDERCLAY	0.5	131.5	

MAPID: 12920317000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 19 QUARTERS/FOOTAGES: NW NW SE SE

QUADRANGLE: TALLULA LONGITUDE: -89.925764 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.992191 DATE COLLECTED: 4 / 7 / 1970

SURFACE ELEVATION (FT.): 607.0 LOGGED (FT.): 174.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G427 WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED, NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
607.0	PLEISTOCENE		SOIL	2.5	0.0	
604.5	PLEISTOCENE		CLAY	142.5	2.5	WITH GRAVEL
462.0	CARBONDALE		SHALE	2.0	145.0	DARK
460.0	CARBONDALE		GRAY SHALE	27.0	147.0	

MAPID: 12920318000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 19 QUARTERS/FOOTAGES: 175' N line, 450' E line of NE SW

QUADRANGLE: TALLULA LONGITUDE: -89.932589 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.99571 DATE COLLECTED: 2 / 6 / 1970

SURFACE ELEVATION (FT.): 606.0 LOGGED (FT.): 133.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G418F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
606.0	PLEISTOCENE		CLAY	112.0	0.0	
494.0	CARBONDALE		GRAY SHALE	10.0	112.0	
484.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	122.0	
483.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	122.5	
480.5	CARBONDALE	SPRINGFIELD	COAL	6.5	125.5	
474.0	CARBONDALE		UNDERCLAY	1.0	132.0	

MAPID: 12920319000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 19 QUARTERS/FOOTAGES: 540' S line, 12' E line of SE NW

QUADRANGLE: TALLULA LONGITUDE: -89.930951

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.997701

DATE COLLECTED: 2 / 10 / 1970

SURFACE ELEVATION (FT.): 593.0 LOGGED (FT.): 127.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G505D

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
593.0	PLEISTOCENE		CLAY	110.0	0.0	
483.0	CARBONDALE		GRAY SHALE	6.0	110.0	
477.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	116.0	DARK
476.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	117.0	
473.0	CARBONDALE	SPRINGFIELD	COAL	6.3	120.0	
466.7	CARBONDALE		UNDERCLAY	0.7	126.3	

MAPID: 12920320000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 19 QUARTERS/FOOTAGES: 540' S line, 0' W line of SW SW

QUADRANGLE: TALLULA LONGITUDE: -89.938124

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.990371

DATE COLLECTED: 5 / 12 / 1969

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 76.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G402D

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		CLAY	30.0	0.0	
520.0	PLEISTOCENE		GRAVEL	6.0	30.0	INCLUDES WOOD
514.0	PLEISTOCENE		BOULDER	2.0	36.0	LOG REPORTS "LIMESTONE"
512.0	PLEISTOCENE		CLAY	29.0	38.0	POSSIBLY SHALE
483.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	67.0	FISSILE, PYRITE NEAR BASE
480.5	CARBONDALE	SPRINGFIELD	COAL	5.9	69.5	ANALYSIS AVAILABLE
474.6	CARBONDALE		UNDERCLAY	0.6	75.4	

MAPID: 12920321000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 19 QUARTERS/FOOTAGES: 280' S line, 115' W line of SE SW

QUADRANGLE: TALLULA

LONGITUDE: -89.935494

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 39.989683

DATE COLLECTED: 1 / 27 / 1970

SURFACE ELEVATION (FT.): 605.0

LOGGED (FT.): 126.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON

G403CB

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	90.0	0.0	
515.0	CARBONDALE		GRAY SHALE	25.0	90.0	
490.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.4	115.0	
486.6	CARBONDALE	SPRINGFIELD	COAL	6.4	118.4	
480.2	CARBONDALE		UNDERCLAY	1.2	124.8	

MAPID: 12920322000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 19 QUARTERS/FOOTAGES: 30' S line, 0' W line of NE NE

QUADRANGLE: TALLULA

LONGITUDE: -89.925535

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 39.999975

DATE COLLECTED: 1 / 23 / 1970

SURFACE ELEVATION (FT.): 605.0

LOGGED (FT.): 170.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON

G557

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	122.0	0.0	
483.0	CARBONDALE		GRAY SHALE	2.0	122.0	
481.0	CARBONDALE	ANNA	BLACK SHALE	2.0	124.0	
479.0	CARBONDALE		GRAY SHALE	32.5	126.0	
446.5	CARBONDALE	ST. DAVID	LIMESTONE	0.5	158.5	
446.0	CARBONDALE	TURNER MINE	BLACK SHALE	5.0	159.0	WITH BONE
441.0	CARBONDALE	SPRINGFIELD	COAL	5.5	164.0	HARD
435.5	CARBONDALE		UNDERCLAY	0.5	169.5	

MAPID: 12920323000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 20 QUARTERS/FOOTAGES: 26' S line, 9' W line of NE NE

QUADRANGLE: OAKFORD LONGITUDE: -89.907288 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.000106 DATE COLLECTED: 1 / 26 / 1970

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G559 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0	PLEISTOCENE		CLAY	38.0	0.0	
565.0	PLEISTOCENE		CLAY	32.0	38.0	WITH GRAVEL
533.0	PLEISTOCENE		CLAY	59.0	70.0	
474.0	CARBONDALE		GRAY SHALE	10.0	129.0	
464.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	139.0	DARK
463.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.7	139.5	HARD, BRIGHT
461.8	CARBONDALE	SPRINGFIELD	COAL	6.5	141.2	
455.3	CARBONDALE		UNDERCLAY	0.3	147.7	

MAPID: 12920324000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 20 QUARTERS/FOOTAGES: 6' S line, 52' W line of SW SE

QUADRANGLE: TALLULA LONGITUDE: -89.912082 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.989146 DATE COLLECTED: 11 / 0 / 1969

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 200.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G413 WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED, DAY OF DATA UNCLEAR

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	30.0	0.0	
575.0	PLEISTOCENE		GRAVEL	5.0	30.0	
570.0	PLEISTOCENE		CLAY	37.0	35.0	
533.0	PLEISTOCENE		BOULDER	1.0	72.0	
532.0	PLEISTOCENE		CLAY	32.0	73.0	
500.0	PLEISTOCENE		CLAY & GRAVEL	15.0	105.0	
485.0	PLEISTOCENE		BOULDER	2.0	120.0	LIMESTONE
483.0	PLEISTOCENE		CLAY	38.0	122.0	WITH GRAVEL
445.0	CARBONDALE		LIMESTONE	5.0	160.0	SHALEY
440.0	CARBONDALE		GRAY SHALE	35.0	165.0	

MAPID: 12920325000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 20 QUARTERS/FOOTAGES: 15' N line, 15' W line of SW SW

QUADRANGLE: TALLULA LONGITUDE: -89.921554 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.992648 DATE COLLECTED: 11 / 20 / 1969

SURFACE ELEVATION (FT.): 604.0 LOGGED (FT.): 142.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G459 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
604.0	PLEISTOCENE		CLAY	60.0	0.0	
544.0	PLEISTOCENE		CLAY & GRAVEL	2.0	60.0	
542.0	PLEISTOCENE		CLAY	43.0	62.0	
499.0	PLEISTOCENE		SANDY CLAY	15.0	105.0	WITH WOOD
484.0	CARBONDALE		GRAY SHALE	11.0	120.0	
473.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	131.0	DARK
472.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	132.0	
470.0	CARBONDALE	SPRINGFIELD	COAL	6.4	134.0	BRIGHT
463.6	CARBONDALE		UNDERCLAY	1.6	140.4	

MAPID: 12920326000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 20 QUARTERS/FOOTAGES: 373' S line, 24' W line of NE SW

QUADRANGLE: TALLULA LONGITUDE: -89.916778 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.993752 DATE COLLECTED: 11 / 20 / 1969

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G461C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	35.0	0.0	
570.0	PLEISTOCENE		CLAY & GRAVEL	5.0	35.0	
565.0	PLEISTOCENE		CLAY	15.0	40.0	
550.0	PLEISTOCENE		GRAVEL	10.0	55.0	AQUIFER
540.0	PLEISTOCENE		CLAY	25.0	65.0	
515.0	PLEISTOCENE		CLAY & GRAVEL	15.0	90.0	
500.0	PLEISTOCENE		CLAY	15.0	105.0	
485.0	PLEISTOCENE		CLAY & GRAVEL	12.0	120.0	
473.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	132.0	
471.5	CARBONDALE	SPRINGFIELD	COAL	6.0	133.5	BRIGHT, BRITTLE
465.5	CARBONDALE		UNDERCLAY	0.5	139.5	

MAPID: 12920327000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 20 QUARTERS/FOOTAGES: 0' S line, 42' W line of SE NE
 QUADRANGLE: TALLULA LONGITUDE: -89.907245 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.99641 DATE COLLECTED: 11 / 19 / 1969
 SURFACE ELEVATION (FT.): 598.0 LOGGED (FT.): 200.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON G615 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
598.0	PLEISTOCENE		CLAY	35.0	0.0	
563.0	PLEISTOCENE		BOULDER	2.0	35.0	LIMESTONE
561.0	PLEISTOCENE		CLAY	118.0	37.0	
443.0	PLEISTOCENE		CLAY & GRAVEL	5.0	155.0	
438.0	CARBONDALE		GRAY SHALE	40.0	160.0	

MAPID: 12920328000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 20 QUARTERS/FOOTAGES: 15' N line, 105' W line of NW NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.920866 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.003519 DATE COLLECTED: 1 / 27 / 1970
 SURFACE ELEVATION (FT.): 594.0 LOGGED (FT.): 141.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON G609 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
594.0	PLEISTOCENE		CLAY	133.0	0.0	GRAVEL AT BASE
461.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	133.0	
459.5	CARBONDALE	SPRINGFIELD	COAL	6.0	134.5	
453.5	CARBONDALE		UNDERCLAY	0.5	140.5	

MAPID: 12920329000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 20 QUARTERS/FOOTAGES: 18' N line, 51' E line of NW NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.916761 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.003542 DATE COLLECTED: 1 / 13 / 1970
 SURFACE ELEVATION (FT.): 596.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON G611 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
596.0	PLEISTOCENE		CLAY	140.0	0.0	
456.0	CARBONDALE		GRAY SHALE	13.0	140.0	
443.0	CARBONDALE		BLACK SHALE & LIMESTONE	2.0	153.0	
441.0	CARBONDALE		GRAY SHALE	5.0	155.0	

MAPID: 12920330000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 20 QUARTERS/FOOTAGES: 270' S line, 60' E line of SW NW
 QUADRANGLE: TALLULA LONGITUDE: -89.916981 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.997091 DATE COLLECTED: 1 / 13 / 1970
 SURFACE ELEVATION (FT.): 614.0 LOGGED (FT.): 180.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON G511C WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
614.0	PLEISTOCENE		CLAY	174.0	0.0
440.0	CARBONDALE		GRAY SHALE	6.0	174.0

MAPID: 12970000000C VERSION: 1

PROJECT: NCRDS

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 24 QUARTERS/FOOTAGES: 880' N line, 1260' W line
 QUADRANGLE: PETERSBURG LONGITUDE: -89.841381 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 40.00149 DATE COLLECTED: 0 / 0 / 1941
 SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 285.0 LOG TYPE: Drillers Log
 SOURCE: UTAH INTERNATIONAL 01C28 WELL TYPE: Coal Test
 COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
490.0			NO RECORD	30.0	0.0
460.0	CARBONDALE		COAL	3.0	30.0
457.0	CARBONDALE		SHALE	32.0	33.0
425.0	CARBONDALE	SPRINGFIELD	COAL	5.0	65.0
420.0	CARBONDALE		SHALE	20.0	70.0
400.0			LIMESTONE	30.0	90.0
370.0			SHALE	70.0	120.0
300.0			DARK SHALE	5.0	190.0
295.0			SHALE	35.0	195.0
260.0			SANDSTONE	55.0	230.0

MAPID: 12920638000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 25 QUARTERS/FOOTAGES: 2000' S line, 1600' E line

QUADRANGLE: SALISBURY LONGITUDE: -89.832831 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.980757 DATE COLLECTED: 10 / 9 / 1915

SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 100.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-88 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
510.0			UNCONSOLIDATED	35.0	0.0	
-	CARBONDALE	HERRIN	COAL	0.0		
475.0	CARBONDALE		CLAYSTONE	29.5	35.0	
445.5	CARBONDALE	ST. DAVID	LIMESTONE	1.0	64.5	
444.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	65.5	
442.0	CARBONDALE	SPRINGFIELD	COAL	6.0	68.0	
436.0	CARBONDALE		CLAYSTONE & SILTSTONE	7.0	74.0	
429.0	CARBONDALE	EXCELLO	BLACK SHALE	1.5	81.0	
427.5	CARBONDALE		UNCLASSIFIED	17.5	82.5	

MAPID: 12920331000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 29 QUARTERS/FOOTAGES: 12' S line, 120' W line of SW SE

QUADRANGLE: TALLULA LONGITUDE: -89.911699 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.974619 DATE COLLECTED: 4 / 17 / 1968

SURFACE ELEVATION (FT.): 572.0 LOGGED (FT.): 180.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G213N WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
572.0	PLEISTOCENE		CLAY	135.0	0.0	FILL
437.0	PLEISTOCENE		CLAY & GRAVEL	3.0	135.0	
434.0	PLEISTOCENE		CLAY	42.0	138.0	

MAPID: 12920332000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 29 QUARTERS/FOOTAGES: 33' S line, 9' E line of SE SE
 QUADRANGLE: TALLULA LONGITUDE: -89.902681 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.974744 DATE COLLECTED: 4 / 17 / 1968
 SURFACE ELEVATION (FT.): 577.0 LOGGED (FT.): 180.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B217 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
577.0	PLEISTOCENE		CLAY	85.0	0.0	FILL
492.0	PLEISTOCENE		BOULDER	5.0	85.0	LIMESTONE
487.0	PLEISTOCENE		CLAY	35.0	90.0	FILL
452.0	PLEISTOCENE		SANDY CLAY	10.0	125.0	
442.0	PLEISTOCENE		CLAY	33.0	135.0	
409.0	PLEISTOCENE		GRAVEL	2.0	168.0	
407.0	CARBONDALE		GRAY SHALE	10.0	170.0	

MAPID: 12920333000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 29 QUARTERS/FOOTAGES: 20' N line, 3' E line of SE SE
 QUADRANGLE: TALLULA LONGITUDE: -89.902698 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.978233 DATE COLLECTED: 11 / 13 / 1969
 SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 180.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON G267 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	20.0	0.0	
585.0	PLEISTOCENE		UNCONSOLIDATED	110.0	20.0	
475.0	PLEISTOCENE		CLAY	25.0	130.0	
450.0	PLEISTOCENE		GRAVEL	2.0	155.0	INCLUDES COAL
448.0	CARBONDALE		GRAY SHALE	23.0	157.0	

MAPID: 12920334000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 30 QUARTERS/FOOTAGES: 0' N line, 12' W line of NW NE

QUADRANGLE: TALLULA LONGITUDE: -89.931155 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.988959 DATE COLLECTED: 1 / 28 / 1970

SURFACE ELEVATION (FT.): 608.0 LOGGED (FT.): 159.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G405 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.0	PLEISTOCENE		CLAY	35.0	0.0	
573.0	PLEISTOCENE		CLAY & GRAVEL	10.0	35.0	
563.0	PLEISTOCENE		CLAY	40.0	45.0	
523.0	PLEISTOCENE		SAND & GRAVEL	25.0	85.0	THICKNESS ADJUSTED
498.0	PLEISTOCENE		CLAY	15.0	110.0	
483.0	CARBONDALE		GRAY SHALE	23.0	125.0	
460.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	148.0	DARK
459.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	149.0	
456.0	CARBONDALE	SPRINGFIELD	COAL	6.4	152.0	HARD,BRIGHT
449.6	CARBONDALE		UNDERCLAY	0.6	158.4	

MAPID: 12920335000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 30 QUARTERS/FOOTAGES: 15' N line, 45' E line of NE SW

QUADRANGLE: TALLULA LONGITUDE: -89.931297 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.981681 DATE COLLECTED: 11 / 22 / 1969

SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 162.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G305 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.0	PLEISTOCENE		CLAY	76.0	0.0	
526.0	PLEISTOCENE		BOULDER	3.0	76.0	LIMESTONE
523.0	PLEISTOCENE		CLAY	29.0	79.0	
494.0	CARBONDALE		LIMESTONE	10.0	108.0	CLAY INTERBEDS
484.0	CARBONDALE		GRAY SHALE	33.5	118.0	LIMESTONE INTERBEDS
450.5	CARBONDALE	ST. DAVID	LIMESTONE	1.0	151.5	DARK
449.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	152.5	
448.0	CARBONDALE	SPRINGFIELD	COAL	7.0	154.0	BRITTLE
441.0	CARBONDALE		UNDERCLAY	1.0	161.0	

MAPID: 12920336000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 30 QUARTERS/FOOTAGES: 48' S line, 8' W line of SE NE

QUADRANGLE: TALLULA LONGITUDE: -89.926376 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.981889 DATE COLLECTED: 7 / 21 / 1969

SURFACE ELEVATION (FT.): 606.0 LOGGED (FT.): 157.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G307 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
606.0	PLEISTOCENE		CLAY	30.0	0.0	
576.0	PLEISTOCENE		CLAY & GRAVEL	10.0	30.0	
566.0	PLEISTOCENE		CLAY	50.0	40.0	
516.0	PLEISTOCENE		GRAVEL	5.0	90.0	
511.0	PLEISTOCENE		CLAY	25.0	95.0	
486.0	CARBONDALE		GRAY SHALE	27.0	120.0	
459.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	147.0	
458.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	148.0	
456.5	CARBONDALE	SPRINGFIELD	COAL	6.5	149.5	BRIGHT
450.0	CARBONDALE		UNDERCLAY	1.0	156.0	

MAPID: 12920337000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 30 QUARTERS/FOOTAGES: 27' S line, 12' E line of SE NE

QUADRANGLE: TALLULA LONGITUDE: -89.921712 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.981864 DATE COLLECTED: 11 / 21 / 1969

SURFACE ELEVATION (FT.): 607.0 LOGGED (FT.): 158.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G300 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
607.0	PLEISTOCENE		CLAY	40.0	0.0	SANDY
567.0	PLEISTOCENE		CLAY	105.0	40.0	
462.0	PLEISTOCENE		SANDY CLAY	5.0	145.0	WITH WOOD
457.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	150.0	
456.0	CARBONDALE	SPRINGFIELD	COAL	6.0	151.0	
450.0	CARBONDALE		UNDERCLAY	1.0	157.0	

MAPID: 12920338000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 30 QUARTERS/FOOTAGES: 0' S line, 45' E line of NE NE

QUADRANGLE: TALLULA LONGITUDE: -89.921859 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.985427 DATE COLLECTED: 1 / 15 / 1970

SURFACE ELEVATION (FT.): 606.0 LOGGED (FT.): 144.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G357 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
606.0	PLEISTOCENE		CLAY	38.0	0.0	
568.0	PLEISTOCENE		CLAY & GRAVEL	7.0	38.0	
561.0	PLEISTOCENE		CLAY	14.0	45.0	
547.0	PLEISTOCENE		SAND & GRAVEL	6.0	59.0	AQUIFER
541.0	PLEISTOCENE		CLAY	25.0	65.0	
516.0	PLEISTOCENE		CLAY & GRAVEL	8.0	90.0	
508.0	PLEISTOCENE		CLAY	33.0	98.0	
475.0	CARBONDALE		GRAY SHALE	5.0	131.0	
470.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	136.0	
468.0	CARBONDALE	SPRINGFIELD	COAL	5.2	138.0	
462.8	CARBONDALE		UNDERCLAY	0.8	143.2	

MAPID: 12920339000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 30 QUARTERS/FOOTAGES: NE NE SE NE

QUADRANGLE: TALLULA LONGITUDE: -89.922283 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.98497 DATE COLLECTED: 1 / 15 / 1970

SURFACE ELEVATION (FT.): 607.0 LOGGED (FT.): 153.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G359 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES GIVEN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
607.0	PLEISTOCENE		CLAY	110.0	0.0	
497.0	PLEISTOCENE		BOULDER	1.5	110.0	LIMESTONE
495.5	PLEISTOCENE		CLAY	31.5	111.5	THICKNESS ADJUSTED
464.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	143.0	
462.0	CARBONDALE	SPRINGFIELD	COAL	7.0	145.0	
455.0	CARBONDALE		UNDERCLAY	1.0	152.0	

MAPID: 12920340000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 30 QUARTERS/FOOTAGES: 210' N line, 72' W line of NW NW

QUADRANGLE: TALLULA

LONGITUDE: -89.937882

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 39.988302

DATE COLLECTED: 1 / 27 / 1970

SURFACE ELEVATION (FT.): 570.0

LOGGED (FT.): 97.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G377CA

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0	PLEISTOCENE		CLAY	68.0	0.0	
502.0	CARBONDALE		GRAY SHALE	5.0	68.0	LIMESTONE LAMINAE
497.0	CARBONDALE		GRAY SHALE	13.0	73.0	
484.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	86.0	
483.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	87.0	
480.0	CARBONDALE	SPRINGFIELD	COAL	6.5	90.0	
473.5	CARBONDALE		UNDERCLAY	0.5	96.5	

MAPID: 12920341000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 30 QUARTERS/FOOTAGES: 660' N line, 220' E line of NE NW

QUADRANGLE: TALLULA

LONGITUDE: -89.931972

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 39.987129

DATE COLLECTED: 1 / 27 / 1970

SURFACE ELEVATION (FT.): 557.0

LOGGED (FT.): 90.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G378N

WELL TYPE: Coal Test

COMMENT: FOOT NS ESTIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
557.0	PLEISTOCENE		CLAY	39.0	0.0	
518.0	PLEISTOCENE		GRAVEL	2.0	39.0	
516.0	PLEISTOCENE		CLAY	24.0	41.0	
492.0	CARBONDALE		GRAY SHALE	15.5	65.0	
476.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	80.5	
474.5	CARBONDALE	SPRINGFIELD	COAL	6.5	82.5	
468.0	CARBONDALE		UNDERCLAY	1.0	89.0	

MAPID: 12920342000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 30 QUARTERS/FOOTAGES: SW SW SE SW

QUADRANGLE: TALLULA LONGITUDE: -89.935222 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.974927 DATE COLLECTED: 12 / 4 / 1969

SURFACE ELEVATION (FT.): 606.0 LOGGED (FT.): 162.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G204 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES GIVEN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
606.0	PLEISTOCENE		CLAY	55.0	0.0	
551.0	PLEISTOCENE		CLAY & GRAVEL	5.0	55.0	
546.0	PLEISTOCENE		CLAY	65.0	60.0	
481.0	CARBONDALE		GRAY SHALE	28.0	125.0	
453.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	153.0	
451.0	CARBONDALE	SPRINGFIELD	COAL	6.2	155.0	
444.8	CARBONDALE		UNDERCLAY	0.8	161.2	

MAPID: 12920343000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 30 QUARTERS/FOOTAGES: 120' N line, 0' W line of SW SW

QUADRANGLE: TALLULA LONGITUDE: -89.938178 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.977739 DATE COLLECTED: 5 / 6 / 1969

SURFACE ELEVATION (FT.): 555.0 LOGGED (FT.): 100.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G227D WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
555.0	PLEISTOCENE		CLAY	45.0	0.0	SANDY
510.0	PLEISTOCENE		CLAY	10.0	45.0	W/LIMESTONE GRAVEL
500.0	CARBONDALE		LIMESTONE	5.0	55.0	
495.0	CARBONDALE		GRAY SHALE	30.5	60.0	
464.5	CARBONDALE	ST. DAVID	LIMESTONE	1.0	90.5	
463.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	91.5	SOFT
462.0	CARBONDALE	SPRINGFIELD	COAL	6.0	93.0	
456.0	CARBONDALE		UNDERCLAY	1.0	99.0	

MAPID: 12920344000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 30 QUARTERS/FOOTAGES: SE NE SE SW
 QUADRANGLE: TALLULA LONGITUDE: -89.931686 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.976745 DATE COLLECTED: 12 / 4 / 1969
 SURFACE ELEVATION (FT.): 577.0 LOGGED (FT.): 128.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON G230J WELL TYPE: Coal Test
 COMMENT: NO FOOTAGES GIVEN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
577.0	PLEISTOCENE		CLAY	73.0	0.0	
504.0	PLEISTOCENE		BOULDER	3.0	73.0	LIMESTONE
501.0	PLEISTOCENE		CLAY	24.0	76.0	
477.0	CARBONDALE		GRAY SHALE	16.5	100.0	
460.5	CARBONDALE	ST. DAVID	LIMESTONE	1.0	116.5	DARK
459.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	117.5	
456.5	CARBONDALE	SPRINGFIELD	COAL	7.0	120.5	
449.5	CARBONDALE		UNDERCLAY	0.5	127.5	

MAPID: 12920345000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 30 QUARTERS/FOOTAGES: 830' S line, 460' E line of SW SE
 QUADRANGLE: TALLULA LONGITUDE: -89.928009 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.976786 DATE COLLECTED: 12 / 3 / 1969
 SURFACE ELEVATION (FT.): 556.0 LOGGED (FT.): 103.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON G231KK WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
556.0	PLEISTOCENE		CLAY	15.0	0.0	
541.0	PLEISTOCENE		SAND	15.0	15.0	
526.0	PLEISTOCENE		CLAY	60.0	30.0	
466.0	PLEISTOCENE		GRAVEL	2.0	90.0	INCLUDES COAL
464.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	92.0	
463.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	93.0	
460.5	CARBONDALE	SPRINGFIELD	COAL	7.0	95.5	
453.5	CARBONDALE		UNDERCLAY	0.5	102.5	

MAPID: 12920346000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 30 QUARTERS/FOOTAGES: 1000' S line, 800' E line of SE SE

QUADRANGLE: TALLULA

LONGITUDE: -89.9245

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 39.977265

DATE COLLECTED: 12 / 3 / 1969

SURFACE ELEVATION (FT.): 593.0

LOGGED (FT.): 141.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON

G232I

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
593.0	PLEISTOCENE		CLAY	45.0	0.0
548.0	PLEISTOCENE		CLAY & GRAVEL	5.0	45.0
543.0	PLEISTOCENE		CLAY	82.0	50.0
461.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	132.0
459.5	CARBONDALE	SPRINGFIELD	COAL	6.5	133.5
453.0	CARBONDALE		UNDERCLAY	1.0	140.0

MAPID: 12990089000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 30 QUARTERS/FOOTAGES: 1' S line, 1' W line of NW SW

QUADRANGLE: TALLULA

LONGITUDE: -89.938173

GEOLOGIST: STRAAYER

CONFIDENTIAL: N

LATITUDE: 39.978073

DATE COLLECTED: 6 / 16 / 1966

SURFACE ELEVATION (FT.): 568.0

LOGGED (FT.): 108.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE

O275

WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN COMMENT	
568.0	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
552.0	PLEISTOCENE		CLAY	39.0	16.0	
513.0	CARBONDALE		SANDSTONE	1.0	55.0	
512.0	CARBONDALE		GRAY SHALE	37.0	56.0	
475.0	CARBONDALE		LIMESTONE	1.0	93.0	HARD
474.0	CARBONDALE		BLACK SHALE	2.0	94.0	SOFT
472.0	CARBONDALE		GRAY SHALE	3.0	96.0	HARD
469.0	CARBONDALE	SPRINGFIELD	COAL	2.5	99.0	HARD
466.5	CARBONDALE		UNDERCLAY	2.5	101.5	
464.0	CARBONDALE		GRAY SHALE	4.0	104.0	SOFT

MAPID: 12920347000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 31 QUARTERS/FOOTAGES: 804' S line, 672' W line of SW NW
 QUADRANGLE: TALLULA LONGITUDE: -89.935733 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.969441 DATE COLLECTED: 4 / 15 / 1969
 SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 143.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON G121J WELL TYPE: Coal Test
 COMMENT: DATE OF DATA UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.0	PLEISTOCENE		CLAY	30.0	0.0
560.0	PLEISTOCENE		CLAY & GRAVEL	12.0	30.0
548.0	PLEISTOCENE		CLAY	92.5	42.0
455.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	134.5
453.5	CARBONDALE	SPRINGFIELD	COAL	6.0	136.5
447.5	CARBONDALE		UNDERCLAY	0.5	142.5

MAPID: 12920349000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 31 QUARTERS/FOOTAGES: 210' N line, 33' W line of SW SW
 QUADRANGLE: TALLULA LONGITUDE: -89.937971 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.96301 DATE COLLECTED: 12 / 8 / 1969
 SURFACE ELEVATION (FT.): 608.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON G27D WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
608.0	PLEISTOCENE		CLAY	45.0	0.0
563.0	PLEISTOCENE		CLAY & GRAVEL	2.0	45.0
561.0	PLEISTOCENE		CLAY	48.0	47.0
513.0	PLEISTOCENE		CLAY & GRAVEL	20.0	95.0
493.0	CARBONDALE		LIMESTONE	4.0	115.0
489.0	CARBONDALE		SHALE	29.0	119.0
460.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	148.0
459.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	149.0
457.0	CARBONDALE	SPRINGFIELD	COAL	6.2	151.0
450.8	CARBONDALE		UNDERCLAY	2.2	157.2
448.6	CARBONDALE		LIMESTONE	0.6	159.4

MAPID: 12920350000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 31 QUARTERS/FOOTAGES: 900' N line, 100' E line of NE NW

QUADRANGLE: TALLULA

LONGITUDE: -89.931427

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 39.972001

DATE COLLECTED: 9 / 28 / 1969

SURFACE ELEVATION (FT.): 602.0

LOGGED (FT.): 200.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G154I

WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED;FOOT EW ESTIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.0	PLEISTOCENE		CLAY	175.0	0.0	
427.0	CARBONDALE		SHALE	5.0	175.0	LIMESTONE INTERBEDS
422.0	CARBONDALE		GRAY SHALE	20.0	180.0	

MAPID: 12920351000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 31 QUARTERS/FOOTAGES: 900' N line, 900' E line of NE NE

QUADRANGLE: TALLULA

LONGITUDE: -89.924827

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 39.97202

DATE COLLECTED: 9 / 27 / 1969

SURFACE ELEVATION (FT.): 590.0

LOGGED (FT.): 180.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G157AA

WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		CLAY	72.0	0.0	
518.0	PLEISTOCENE		GRAVEL	2.0	72.0	
516.0	PLEISTOCENE		CLAY	66.0	74.0	
450.0	PLEISTOCENE		LIMESTONE	4.0	140.0	DRILLER SUSPECTS BOULDERS
446.0			GRAY SHALE	36.0	144.0	

MAPID: 12920353000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 31 QUARTERS/FOOTAGES: 63' S line, 0' W line of SW NW

QUADRANGLE: TALLULA LONGITUDE: -89.938127 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.96739 DATE COLLECTED: 9 / 24 / 1969

SURFACE ELEVATION (FT.): 592.0 LOGGED (FT.): 135.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G102 WELL TYPE: Coal Test

COMMENT: COMPANY SURFELV 562'; TOPO SHOWS 592'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
592.0	PLEISTOCENE		CLAY	82.0	0.0	
510.0	CARBONDALE		LIMESTONE	6.0	82.0	
504.0	CARBONDALE		GRAY SHALE	3.0	88.0	
501.0	CARBONDALE	ANNA	BLACK SHALE	1.0	91.0	
500.0	CARBONDALE		GRAY SHALE	28.0	92.0	
472.0	CARBONDALE		GRAY SHALE	3.0	120.0	DARK
469.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	123.0	
468.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	124.0	
466.5	CARBONDALE	SPRINGFIELD	COAL WITH SHALE	3.2	125.5	GRAY SHALE WITH COAL INTERBEDS
463.3	CARBONDALE	SPRINGFIELD	COAL	0.5	128.7	
462.8	CARBONDALE		SHALE	5.8	129.2	UNDERCLAY AND GRAY SHALE

MAPID: 12920354000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 31 QUARTERS/FOOTAGES: 0' N line, 0' E line of NE SW

QUADRANGLE: TALLULA LONGITUDE: -89.931049 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.967234 DATE COLLECTED: 9 / 27 / 1969

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G105 WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		CLAY	80.0	0.0	
510.0	PLEISTOCENE		CLAY & GRAVEL	10.0	80.0	
500.0	PLEISTOCENE		CLAY	37.0	90.0	
463.0	PLEISTOCENE		CLAY & GRAVEL	3.0	127.0	
460.0	CARBONDALE		GRAY SHALE	10.0	130.0	

MAPID: 12920355000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 31 QUARTERS/FOOTAGES: 290' N line, 1130' E line of NE SE

QUADRANGLE: TALLULA LONGITUDE: -89.925632 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.966447 DATE COLLECTED: 9 / 26 / 1969

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 124.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G82E WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0	PLEISTOCENE		CLAY	25.0	0.0	
555.0	PLEISTOCENE		SAND & GRAVEL	7.0	25.0	
548.0	PLEISTOCENE		CLAY	29.0	32.0	
519.0	PLEISTOCENE		CLAY & GRAVEL	9.0	61.0	
510.0	PLEISTOCENE		CLAY	35.0	70.0	MAY INCLUDE SHALE
475.0	CARBONDALE		GRAY SHALE	10.0	105.0	
465.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	115.0	
464.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	116.0	
463.0	CARBONDALE	SPRINGFIELD	COAL	6.7	117.0	
456.3	CARBONDALE		UNDERCLAY	0.3	123.7	

MAPID: 12920356000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 31 QUARTERS/FOOTAGES: 0' N line, 0' W line of NW SW

QUADRANGLE: TALLULA LONGITUDE: -89.938126 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.967216 DATE COLLECTED: 9 / 24 / 1969

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON G102 WELL TYPE: Coal Test

COMMENT: COMPANY SURFELV 560'; TOPO SHOWS 590'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		CLAY	80.0	0.0	
510.0	CARBONDALE		LIMESTONE	5.0	80.0	
505.0	CARBONDALE		GRAY SHALE	5.0	85.0	
500.0	CARBONDALE	ANNA	BLACK SHALE	1.5	90.0	
498.5	CARBONDALE		GRAY SHALE	28.5	91.5	
470.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	120.0	
469.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	121.0	RASHY AT BOTTOM
467.0	CARBONDALE	SPRINGFIELD	COAL	5.5	123.0	
461.5	CARBONDALE		UNDERCLAY	1.5	128.5	

MAPID: 12930352000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 31 QUARTERS/FOOTAGES: 660' N line, 660' E line of NE NW
 QUADRANGLE: TALLULA LONGITUDE: -89.93344 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.972659 DATE COLLECTED: 12 / 4 / 1969
 SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 190.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON G179 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0	PLEISTOCENE		CLAY	60.0	0.0	
543.0	PLEISTOCENE		SAND & GRAVEL	5.0	60.0	
538.0	PLEISTOCENE		CLAY	40.0	65.0	
498.0	PLEISTOCENE		SAND	5.0	105.0	INCLUDES WOOD & COAL
493.0	PLEISTOCENE		CLAY	68.0	110.0	
425.0			LIMESTONE	3.0	178.0	
422.0			GRAY SHALE	9.0	181.0	

MAPID: 12990083000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 31 QUARTERS/FOOTAGES: 1' S line, 1' W line of NW SW
 QUADRANGLE: TALLULA LONGITUDE: -89.938089 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.963592 DATE COLLECTED: 6 / 15 / 1966
 SURFACE ELEVATION (FT.): 597.0 LOGGED (FT.): 159.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O75 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
597.0	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0	
568.0	PLEISTOCENE		SAND & GRAVEL	85.0	29.0	
483.0	CARBONDALE		LIMESTONE	4.0	114.0	HARD
479.0	CARBONDALE		GRAY SHALE	6.0	118.0	SOFT
473.0	CARBONDALE		SHALE WITH LIMESTONE	25.0	124.0	
448.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	149.0	HARD
447.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	149.5	SOFT
446.0	CARBONDALE	SPRINGFIELD	COAL	6.1	151.0	HARD
439.9	CARBONDALE		UNDERCLAY	1.9	157.1	

MAPID: 12990084000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 31 QUARTERS/FOOTAGES: 1' N line, 1' W line of NW SW

QUADRANGLE: TALLULA LONGITUDE: -89.938123 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 39.967213 DATE COLLECTED: 6 / 16 / 1966

SURFACE ELEVATION (FT.): 564.0 LOGGED (FT.): 127.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE O125 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
564.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
554.0	PLEISTOCENE		SAND & GRAVEL	72.0	10.0	
482.0	CARBONDALE		LIMESTONE	0.8	82.0	
481.2	CARBONDALE		GRAY SHALE	10.2	82.8	
471.0	CARBONDALE		LIMESTONE	1.8	93.0	
469.2	CARBONDALE		GRAY SHALE	22.3	94.8	
447.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	117.0	
446.0	CARBONDALE	TURNER MINE	LIMESTONE	2.0	118.0	
444.0	CARBONDALE	SPRINGFIELD	COAL	6.0	120.0	HARD
438.0	CARBONDALE		UNDERCLAY	1.0	126.0	

MAPID: 12990085000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 31 QUARTERS/FOOTAGES: 1' N line, 1' W line of SW NW

QUADRANGLE: TALLULA LONGITUDE: -89.938153 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 39.970839 DATE COLLECTED: 6 / 16 / 1966

SURFACE ELEVATION (FT.): 557.0 LOGGED (FT.): 124.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE O175 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
557.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
550.0	PLEISTOCENE		CLAY	14.0	7.0	
536.0	PLEISTOCENE		SAND & GRAVEL	94.0	21.0	
442.0	CARBONDALE		DARK SHALE	9.0	115.0	

MAPID: 12990086000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 7W **SECTION:** 31 **QUARTERS/FOOTAGES:** 1' N line, 1' W line of NW NW
QUADRANGLE: TALLULA **LONGITUDE:** -89.938186 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 39.974466 **DATE COLLECTED:** 6 / 16 / 1966
SURFACE ELEVATION (FT.): 555.0 **LOGGED (FT.):** 98.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE O225 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
555.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
545.0	PLEISTOCENE		CLAY	10.0	10.0	
535.0	PLEISTOCENE		CLAY	40.0	20.0	
495.0	CARBONDALE		GRAY SHALE	26.0	60.0	
469.0	CARBONDALE	ST. DAVID	LIMESTONE	3.0	86.0	SOFT
466.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	89.0	HARD
465.0	CARBONDALE	SPRINGFIELD	COAL	6.4	90.0	HARD
458.6	CARBONDALE		UNDERCLAY	1.6	96.4	

MAPID: 12920357000C **VERSION:** 1 **PROJECT:** NCRDS96
COUNTY: MENARD **TWP/RNG:** 18N 7W **SECTION:** 32 **QUARTERS/FOOTAGES:** SE SE SE NW
QUADRANGLE: TALLULA **LONGITUDE:** -89.912677 **GEOLOGIST:** HAMER
CONFIDENTIAL: N **LATITUDE:** 39.967771 **DATE COLLECTED:** 9 / 25 / 1969
SURFACE ELEVATION (FT.): 608.0 **LOGGED (FT.):** 104.0 **LOG TYPE:** Drillers Log
SOURCE: COMMONWEALTH EDISON G109 **WELL TYPE:** Coal Test
COMMENT: NO FOOTAGES GIVEN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.0	PLEISTOCENE		CLAY	101.0	0.0	
507.0	CARBONDALE		LIMESTONE	3.0	101.0	#5 COAL NOT REACHED

MAPID: 12920358000C **VERSION:** 1 **PROJECT:** NCRDS96
COUNTY: MENARD **TWP/RNG:** 18N 7W **SECTION:** 32 **QUARTERS/FOOTAGES:** 27' S line, 0' W line of SW NE
QUADRANGLE: TALLULA **LONGITUDE:** -89.912083 **GEOLOGIST:** HAMER
CONFIDENTIAL: N **LATITUDE:** 39.967395 **DATE COLLECTED:** 11 / 13 / 1969
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 143.0 **LOG TYPE:** Drillers Log
SOURCE: COMMONWEALTH EDISON G113 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		UNCONSOLIDATED	134.0	0.0	
466.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	134.0	
465.0	CARBONDALE	SPRINGFIELD	COAL	6.2	135.0	
458.8	CARBONDALE		UNDERCLAY	1.8	141.2	

MAPID: 12920639000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 18N 7W SECTION: 35 QUARTERS/FOOTAGES: 1000' N line, 1700' E line

QUADRANGLE: SALISBURY LONGITUDE: -89.852005 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.972108 DATE COLLECTED: 10 / 8 / 1975

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 200.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-87 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0			UNCONSOLIDATED	117.0	0.0
483.0	CARBONDALE		SHALE	5.0	117.0
477.0	CARBONDALE		SHALE	3.0	123.0
475.0	CARBONDALE		CLAYSTONE & SILTSTONE	35.0	125.0
440.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	160.0
437.5	CARBONDALE	SPRINGFIELD	COAL	4.0	162.5
433.5	CARBONDALE		CLAYSTONE & SILTSTONE	8.5	166.5
425.0	CARBONDALE	EXCELLO	BLACK SHALE	2.5	175.0
422.5	CARBONDALE		CLAYSTONE & SILTSTONE	22.5	177.5

MAPID: 12920359000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 1 QUARTERS/FOOTAGES: SE SE SW NE

QUADRANGLE: OAKFORD LONGITUDE: -89.943113 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.039748 DATE COLLECTED: 5 / 16 / 1970

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON R523 WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
550.0	PLEISTOCENE		CLAY	20.0	0.0
530.0	PLEISTOCENE		GRAVEL	25.0	20.0
505.0	PLEISTOCENE		CLAY	75.0	45.0
430.0	PLEISTOCENE		SAND	20.0	120.0 FINE
410.0	CARBONDALE		LIMESTONE	1.0	140.0
409.0	CARBONDALE		GRAY SHALE	19.0	141.0

MAPID: 12990045000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 1 QUARTERS/FOOTAGES: 1' S line, 1' W line of SE SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.94268 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.031981 DATE COLLECTED: 10 / 5 / 1966
 SURFACE ELEVATION (FT.): 587.0 LOGGED (FT.): 137.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U423 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
587.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0
580.0	PLEISTOCENE		CLAY	14.0	7.0
566.0	PLEISTOCENE		CLAY	106.0	21.0
460.0	CARBONDALE		DARK SHALE	10.0	127.0

MAPID: 12990049000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 1 QUARTERS/FOOTAGES: 1' N line, 1' E line of NW SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.952076 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.039287 DATE COLLECTED: 7 / 28 / 1966
 SURFACE ELEVATION (FT.): 601.6 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U519 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
601.6	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0
592.6	PLEISTOCENE		CLAY	23.0	9.0
569.6	PLEISTOCENE		CLAY	100.0	32.0
469.6	CARBONDALE		SANDSTONE	16.0	132.0 HARD

MAPID: 12990061000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 1 QUARTERS/FOOTAGES: 1' N line, 1' W line of NW SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.956844 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.039288 DATE COLLECTED: 7 / 17 / 1966
 SURFACE ELEVATION (FT.): 607.1 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U517 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
607.1	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0
582.1	PLEISTOCENE		CLAY	35.0	25.0
547.1	PLEISTOCENE		SAND & GRAVEL	4.0	60.0
543.1	PLEISTOCENE		SAND & GRAVEL	84.0	64.0 HARDPAN

MAPID: 12990073000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 1 **QUARTERS/FOOTAGES:** 1' N line, 1' W line of NE NE
QUADRANGLE: OAKFORD **LONGITUDE:** -89.942367 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.046604 **DATE COLLECTED:** 9 / 21 / 1966
SURFACE ELEVATION (FT.): 591.0 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U623 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
591.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
584.0	PLEISTOCENE		CLAY	6.0	7.0	
578.0	PLEISTOCENE		CLAY	135.0	13.0	

MAPID: 12990077000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 1 **QUARTERS/FOOTAGES:** 60' S line, 450' E line of SE NE
QUADRANGLE: OAKFORD **LONGITUDE:** -89.939363 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.039459 **DATE COLLECTED:** 9 / 20 / 1966
SURFACE ELEVATION (FT.): 591.1 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U524N **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
591.1	PLEISTOCENE		UNCONSOLIDATED	37.0	0.0	
554.1	PLEISTOCENE		SAND & GRAVEL	111.0	37.0	

MAPID: 12990078000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 1 **QUARTERS/FOOTAGES:** 1' N line, 1' E line of NE SW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.947304 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.039288 **DATE COLLECTED:** 7 / 28 / 1966
SURFACE ELEVATION (FT.): 584.2 **LOGGED (FT.):** 147.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U521 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
584.2	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
574.2	PLEISTOCENE		CLAY	14.0	10.0	
560.2	PLEISTOCENE		SAND & GRAVEL	5.0	24.0	
555.2	PLEISTOCENE		SAND & GRAVEL	118.0	29.0	HARDPAN

MAPID: 12920360000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 2 QUARTERS/FOOTAGES: 600' N line, 0' W line of NW SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.966129 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.037618 DATE COLLECTED: 5 / 15 / 1970
 SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 120.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B488 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.0	PLEISTOCENE		CLAY	65.0	0.0	
475.0	PLEISTOCENE		CLAY	20.0	65.0	WITH GRAVEL
455.0	CARBONDALE	ST. DAVID	LIMESTONE	30.0	85.0	SHALE INTERBEDS
425.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	115.0	
423.0	CARBONDALE	SPRINGFIELD	COAL	1.5	117.0	
421.5	CARBONDALE		UNDERCLAY	1.5	118.5	

MAPID: 12920361000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 2 QUARTERS/FOOTAGES: 100' S line, 450' W line of SW NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.973861 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.039538 DATE COLLECTED: 5 / 15 / 1970
 SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 120.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B509M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
530.0	PLEISTOCENE		CLAY	60.0	0.0	
470.0	PLEISTOCENE		CLAY	30.0	60.0	WITH GRAVEL
440.0	CARBONDALE		GRAY SHALE	15.0	90.0	LIMESTONE INTERBEDS
425.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	105.0	
422.5	CARBONDALE	SPRINGFIELD	COAL	1.5	107.5	
421.0	CARBONDALE		GRAY SHALE	11.0	109.0	

MAPID: 12920362000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 2 QUARTERS/FOOTAGES: NE NE NE SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.957423 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.038838 DATE COLLECTED: 5 / 16 / 1970
 SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B517 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	20.0	0.0	
585.0	PLEISTOCENE		CLAY	140.0	20.0	WITH GRAVEL

MAPID: 12990044000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 2 QUARTERS/FOOTAGES: 1' S line, 1' E line of SE SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.956754 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.032118 DATE COLLECTED: 9 / 26 / 1966
 SURFACE ELEVATION (FT.): 598.0 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U417 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
598.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0
589.0	PLEISTOCENE		CLAY	15.0	9.0
574.0	PLEISTOCENE		SAND & GRAVEL	104.0	24.0
470.0	CARBONDALE		GRAY SHALE	20.0	128.0

MAPID: 12990047000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 2 QUARTERS/FOOTAGES: 660' N line, 660' E line of SW SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.97308 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.033839 DATE COLLECTED: 9 / 29 / 1966
 SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U435 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
580.0	PLEISTOCENE		CLAY	18.0	20.0
562.0	PLEISTOCENE		CLAY	110.0	38.0

MAPID: 12990052000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 2 QUARTERS/FOOTAGES: 1' N line, 1' E line of SW SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.970751 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.035662 DATE COLLECTED: 9 / 29 / 1966
 SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U461 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0
583.0	PLEISTOCENE		CLAY	22.0	7.0
561.0	PLEISTOCENE		CLAY	119.0	29.0

MAPID: 12990053000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 2 **QUARTERS/FOOTAGES:** 503' S line, 330' W line of NE SE
QUADRANGLE: OAKFORD **LONGITUDE:** -89.960284 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.03708 **DATE COLLECTED:** 9 / 26 / 1966
SURFACE ELEVATION (FT.): 554.2 **LOGGED (FT.):** 98.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U465F **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
554.2	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
537.2	PLEISTOCENE		SAND & GRAVEL	53.0	17.0	
484.2	CARBONDALE	SPRINGFIELD	COAL	1.0	70.0	SOFT; TOP ERODED
483.2	CARBONDALE		MICACEOUS SHALE	2.0	71.0	
481.2	CARBONDALE		SHALE WITH LIMESTONE	25.0	73.0	

MAPID: 12990054000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 2 **QUARTERS/FOOTAGES:** 1' S line, 1' E line of NE SE
QUADRANGLE: OAKFORD **LONGITUDE:** -89.956803 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.035706 **DATE COLLECTED:** 9 / 26 / 1966
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U467 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
590.0	PLEISTOCENE		CLAY	20.0	10.0	
570.0	PLEISTOCENE		SAND & GRAVEL	89.0	30.0	
481.0	CARBONDALE		GRAY SHALE	29.0	119.0	

MAPID: 12990055000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 2 **QUARTERS/FOOTAGES:** 660' N line, 1' E line of NE SW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.966131 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.037452 **DATE COLLECTED:** 9 / 26 / 1966
SURFACE ELEVATION (FT.): 532.6 **LOGGED (FT.):** 108.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U488 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
532.6	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
512.6	PLEISTOCENE		SAND & GRAVEL	4.0	20.0	
508.6	PLEISTOCENE		SAND & GRAVEL	31.0	24.0	HARDPAN
477.6	CARBONDALE		GRAY SHALE	39.0	55.0	
438.6	CARBONDALE		DARK SHALE	4.0	94.0	
434.6	CARBONDALE		SHALE WITH LIMESTONE	10.0	98.0	

MAPID: 12990059000C **VERSION:** 1 **PROJECT:** NCRDS0
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 2 **QUARTERS/FOOTAGES:** 1' N line, 660' E line of NW SW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.973184 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.039259 **DATE COLLECTED:** 6 / 14 / 1966
SURFACE ELEVATION (FT.): 590.0 **LOGGED (FT.):** 111.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U510 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
568.0	PLEISTOCENE		SAND & GRAVEL	64.0	22.0	
504.0	CARBONDALE		GRAY SHALE	17.0	86.0	
487.0	CARBONDALE		BLACK SHALE	1.0	103.0	SOFT
486.0	CARBONDALE		SHALE	2.0	104.0	HARD
484.0	CARBONDALE		DARK SHALE	1.0	106.0	
483.0	CARBONDALE	SPRINGFIELD	COAL	2.5	107.0	HARD
480.5	CARBONDALE		UNDERCLAY	1.5	109.5	

MAPID: 12990060000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 2 **QUARTERS/FOOTAGES:** 1' N line, 1' E line of NW SW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.970818 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.039263 **DATE COLLECTED:** 6 / 14 / 1966
SURFACE ELEVATION (FT.): 585.0 **LOGGED (FT.):** 58.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U511 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
567.0	PLEISTOCENE		SAND & GRAVEL	40.0	18.0	QUIT HOLD

MAPID: 12990074000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 2 **QUARTERS/FOOTAGES:** 1' S line, 330' E line of NE NW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.967406 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.042873 **DATE COLLECTED:** 9 / 23 / 1966
SURFACE ELEVATION (FT.): 608.3 **LOGGED (FT.):** 158.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U562B **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.3	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
601.3	PLEISTOCENE		CLAY	16.0	7.0	
585.3	PLEISTOCENE		CLAY	135.0	23.0	

MAPID: 12990075000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 2 **QUARTERS/FOOTAGES:** 1' S line, 1' E line of NW NW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.970886 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.04287 **DATE COLLECTED:** 9 / 26 / 1966
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U561 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
594.0	PLEISTOCENE		CLAY	14.0	6.0	
580.0	PLEISTOCENE		CLAY	128.0	20.0	

MAPID: 12920363000C **VERSION:** 1 **PROJECT:** NCRDS96
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 3 **QUARTERS/FOOTAGES:** NW NW NW SW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.993627 **GEOLOGIST:** HAMER
CONFIDENTIAL: N **LATITUDE:** 40.038913 **DATE COLLECTED:** 5 / 19 / 1970
SURFACE ELEVATION (FT.): 595.0 **LOGGED (FT.):** 160.0 **LOG TYPE:** Drillers Log
SOURCE: COMMONWEALTH EDISON B501 **WELL TYPE:** Coal Test
COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0	PLEISTOCENE		SOIL	2.0	0.0	
593.0	PLEISTOCENE		CLAY	63.0	2.0	SANDY
530.0	PLEISTOCENE		CLAY	15.0	65.0	
515.0	PLEISTOCENE		GRAVEL	10.0	80.0	
505.0	PLEISTOCENE		CLAY	30.0	90.0	
475.0	CARBONDALE		GRAY SHALE	40.0	120.0	LIMESTONE INTERBEDS

MAPID: 12920364000C **VERSION:** 1 **PROJECT:** NCRDS96
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 3 **QUARTERS/FOOTAGES:** SE SE SE NW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.985432 **GEOLOGIST:** HAMER
CONFIDENTIAL: N **LATITUDE:** 40.039767 **DATE COLLECTED:** 5 / 19 / 1970
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 160.0 **LOG TYPE:** Drillers Log
SOURCE: COMMONWEALTH EDISON B505 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	65.0	0.0	SANDY
535.0	PLEISTOCENE		CLAY	55.0	65.0	WITH GRAVEL
480.0	CARBONDALE		GRAY SHALE	40.0	120.0	LIMESTONE INTERBEDS

MAPID: 12990046000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 3 **QUARTERS/FOOTAGES:** 660' N line, 1' E line of SE SE
QUADRANGLE: OAKFORD **LONGITUDE:** -89.975359 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.033833 **DATE COLLECTED:** 9 / 29 / 1966
SURFACE ELEVATION (FT.): 597.0 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U434 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
597.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
589.0	PLEISTOCENE		CLAY	26.0	8.0
563.0	PLEISTOCENE		CLAY	114.0	34.0

MAPID: 12990048000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 3 **QUARTERS/FOOTAGES:** 1' N line, 1' E line of SW SW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.989508 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.03574 **DATE COLLECTED:** 9 / 30 / 1966
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U451 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		UNCONSOLIDATED	31.0	0.0
569.0	PLEISTOCENE		SAND & GRAVEL	85.0	31.0
484.0	CARBONDALE		GRAY SHALE	32.0	116.0 HARD

MAPID: 12990050000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 3 **QUARTERS/FOOTAGES:** 1' N line, 1' E line of SW SW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.989508 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.03574 **DATE COLLECTED:** 9 / 30 / 1966
SURFACE ELEVATION (FT.): 597.0 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U453 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
597.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
585.0	PLEISTOCENE		CLAY	36.0	12.0
549.0	PLEISTOCENE		SAND & GRAVEL	17.0	48.0
532.0	PLEISTOCENE		SAND & GRAVEL	34.0	65.0 HARDPAN
498.0	CARBONDALE		GRAY SHALE	49.0	99.0

MAPID: 12990051000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 3 **QUARTERS/FOOTAGES:** 495' S line, 1' E line of NW SE
QUADRANGLE: OAKFORD **LONGITUDE:** -89.980124 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.037048 **DATE COLLECTED:** 9 / 20 / 1966
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U457D **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0
560.0	PLEISTOCENE		SAND & GRAVEL	62.0	40.0
498.0	CARBONDALE		GRAY SHALE	46.0	102.0

MAPID: 12990056000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 3 **QUARTERS/FOOTAGES:** 1' N line, 1' W line of NW SW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.994208 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.039364 **DATE COLLECTED:** 10 / 3 / 1966
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U501 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		UNCONSOLIDATED	38.0	0.0
562.0	PLEISTOCENE		SAND & GRAVEL	70.0	38.0
492.0	CARBONDALE		GRAY SHALE	40.0	108.0

MAPID: 12990057000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 3 **QUARTERS/FOOTAGES:** 1' N line, 1' E line of NW SW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.989529 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.039336 **DATE COLLECTED:** 10 / 3 / 1966
SURFACE ELEVATION (FT.): 590.0 **LOGGED (FT.):** 129.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U503 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
580.0	PLEISTOCENE		CLAY	40.0	10.0
540.0	PLEISTOCENE		SAND & GRAVEL	12.0	50.0
528.0	PLEISTOCENE		CLAY	37.0	62.0
491.0	CARBONDALE		GRAY SHALE	30.0	99.0

MAPID: 12990058000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 3 QUARTERS/FOOTAGES: 1' N line, 1' E line of NE SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.984843 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.039311 DATE COLLECTED: 9 / 30 / 1966
 SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U505 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0
593.0	PLEISTOCENE		CLAY	14.0	7.0
579.0	PLEISTOCENE		CLAY	94.0	21.0
485.0	CARBONDALE		SANDY SHALE	10.0	115.0
475.0	CARBONDALE		DARK SHALE	23.0	125.0

MAPID: 12990076000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 3 QUARTERS/FOOTAGES: 1' S line, 660' E line of NW NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.991921 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.042953 DATE COLLECTED: 10 / 3 / 1966
 SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 137.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U552 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
585.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0
578.0	PLEISTOCENE		CLAY	12.0	7.0
566.0	PLEISTOCENE		CLAY	77.0	19.0
489.0	CARBONDALE		GRAY SHALE	41.0	96.0

MAPID: 12920365000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 10 QUARTERS/FOOTAGES: 18' S line, 6' W line of SW SE

QUADRANGLE: OAKFORD LONGITUDE: -89.985002 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.017707 DATE COLLECTED: 7 / 17 / 1969

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 125.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B205 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	100.0	0.0	
500.0	PLEISTOCENE		CLAY & GRAVEL	10.0	100.0	
490.0			CLAY	6.5	110.0	POSSIBLY GRAY SHALE
483.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.7	116.5	
481.8	CARBONDALE	SPRINGFIELD	BONE COAL	0.6	118.2	
481.2	CARBONDALE	SPRINGFIELD	COAL	5.4	118.8	
475.8	CARBONDALE		UNDERCLAY	0.8	124.2	

MAPID: 12920366000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 10 QUARTERS/FOOTAGES: 35' N line, 6' W line of SW SE

QUADRANGLE: OAKFORD LONGITUDE: -89.984936 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.021173 DATE COLLECTED: 7 / 17 / 1969

SURFACE ELEVATION (FT.): 606.0 LOGGED (FT.): 128.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B255 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
606.0	PLEISTOCENE		CLAY	40.0	0.0	
566.0	PLEISTOCENE		GRAVEL	5.0	40.0	
561.0	PLEISTOCENE		CLAY	55.0	45.0	
506.0	PLEISTOCENE		GRAVEL	5.0	100.0	
501.0	PLEISTOCENE		CLAY	14.5	105.0	
486.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.1	119.5	
483.4	CARBONDALE	SPRINGFIELD	COAL	4.8	122.6	
478.6	CARBONDALE		UNDERCLAY	0.6	127.4	

MAPID: 12920367000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 10 QUARTERS/FOOTAGES: 60' N line, 0' W line of NW SE

QUADRANGLE: OAKFORD LONGITUDE: -89.984896 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.02472 DATE COLLECTED: 6 / 11 / 1969

SURFACE ELEVATION (FT.): 608.0 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B305 WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
608.0	PLEISTOCENE		CLAY	40.0	0.0	SANDY
568.0	PLEISTOCENE		CLAY & GRAVEL	87.0	40.0	
481.0	PLEISTOCENE		SAND	21.0	127.0	WITH GRAVEL

MAPID: 12920368000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 10 QUARTERS/FOOTAGES: 330' N line, 10' W line of NE SE

QUADRANGLE: OAKFORD LONGITUDE: -89.980207 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.023972 DATE COLLECTED: 2 / 25 / 1970

SURFACE ELEVATION (FT.): 609.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B282C WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
609.0	PLEISTOCENE		CLAY	27.0	0.0	
582.0	PLEISTOCENE		CLAY	8.0	27.0	SILTY
574.0	PLEISTOCENE		CLAY	121.0	35.0	WITH GRAVEL
453.0	CARBONDALE		GRAY SHALE	4.0	156.0	

MAPID: 12920369000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 10 QUARTERS/FOOTAGES: 330' S line, 25' W line of NE SE

QUADRANGLE: OAKFORD LONGITUDE: -89.980198 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.022192 DATE COLLECTED: 2 / 25 / 1970

SURFACE ELEVATION (FT.): 609.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B282C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
609.0	PLEISTOCENE		CLAY	115.0	0.0	
494.0	CARBONDALE		GRAY SHALE	16.0	115.0	
478.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	131.0	
476.0	CARBONDALE	SPRINGFIELD	COAL	6.0	133.0	
470.0	CARBONDALE		UNDERCLAY	1.0	139.0	

MAPID: 12920370000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 10 QUARTERS/FOOTAGES: 225' S line, 8' E line of NE SE

QUADRANGLE: OAKFORD LONGITUDE: -89.975673 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.021915 DATE COLLECTED: 2 / 20 / 1970

SURFACE ELEVATION (FT.): 607.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B259JC WELL TYPE: Coal Test

COMMENT: DAY OF DATA UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
607.0	PLEISTOCENE		CLAY	122.0	0.0	
485.0	CARBONDALE		GRAY SHALE	6.0	122.0	
479.0	CARBONDALE	ST. DAVID	LIMESTONE	3.0	128.0	HARD
476.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	131.0	
474.5	CARBONDALE	SPRINGFIELD	COAL	6.7	132.5	
467.8	CARBONDALE		UNDERCLAY	0.8	139.2	

MAPID: 12920371000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 10 QUARTERS/FOOTAGES: 885' S line, 12' E line of SE SE

QUADRANGLE: OAKFORD LONGITUDE: -89.975744 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.020151 DATE COLLECTED: 2 / 20 / 1970

SURFACE ELEVATION (FT.): 609.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B234JC WELL TYPE: Coal Test

COMMENT: DAY OF DATA UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
609.0	PLEISTOCENE		CLAY	70.0	0.0	
539.0	PLEISTOCENE		CLAY	48.0	70.0	WITH GRAVEL
491.0	CARBONDALE		LIMESTONE	0.5	118.0	HARD
490.5	CARBONDALE		GRAY SHALE	12.5	118.5	
478.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	131.0	
475.5	CARBONDALE	SPRINGFIELD	COAL	6.0	133.5	
469.5	CARBONDALE		UNDERCLAY	0.5	139.5	

MAPID: 12920372000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 10 QUARTERS/FOOTAGES: 981' S line, 15' W line of SE SE

QUADRANGLE: OAKFORD LONGITUDE: -89.980279 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.020389 DATE COLLECTED: 2 / 23 / 1970

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 136.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B232C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.0	PLEISTOCENE		CLAY	95.0	0.0
510.0	PLEISTOCENE		SAND	20.0	95.0
490.0	PLEISTOCENE		CLAY	5.0	115.0
485.0	CARBONDALE		GRAY SHALE	6.0	120.0
479.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	126.0
478.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	127.0
476.5	CARBONDALE	SPRINGFIELD	COAL	6.3	128.5
470.2	CARBONDALE		UNDERCLAY	1.2	134.8

MAPID: 12920373000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 10 QUARTERS/FOOTAGES: 500' S line, 500' W line of SW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.992466 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.018995 DATE COLLECTED: 6 / 2 / 1969

SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 113.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B201 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
602.0	PLEISTOCENE		CLAY	20.0	0.0 SILTY
582.0	PLEISTOCENE		SAND & GRAVEL	15.0	20.0
567.0	PLEISTOCENE		CLAY	28.0	35.0
539.0	PLEISTOCENE		CLAY, SAND & GRAVEL	7.0	63.0
532.0	PLEISTOCENE		CLAY	35.5	70.0
496.5	CARBONDALE	TURNER MINE	BLACK SHALE	0.9	105.5
495.6	CARBONDALE	SPRINGFIELD	COAL	6.1	106.4
489.5	CARBONDALE		UNDERCLAY	0.5	112.5

MAPID: 12920374000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 200' N line, 36' E line of SW SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.97107 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.0207 DATE COLLECTED: 2 / 23 / 1970
 SURFACE ELEVATION (FT.): 607.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B236D WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
607.0	PLEISTOCENE		CLAY	145.0	0.0	
462.0	PLEISTOCENE		SAND & GRAVEL	13.0	145.0	INCLUDES FLOAT COAL
449.0	CARBONDALE		SHALE	2.0	158.0	GRAY AND BLACK SHALES

MAPID: 12920375000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 0' N line, 1045' W line of NW SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.962385 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.024816 DATE COLLECTED: 2 / 21 / 1970
 SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 131.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B314B WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0	PLEISTOCENE		CLAY	118.0	0.0	
462.0	PLEISTOCENE		GRAVEL	1.0	118.0	
461.0	CARBONDALE		SHALE	1.0	119.0	
460.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	120.0	
459.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	121.0	
456.5	CARBONDALE	SPRINGFIELD	COAL	6.5	123.5	
450.0	CARBONDALE		UNDERCLAY	1.0	130.0	

MAPID: 12920376000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 45' S line, 30' W line of SW NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.975439 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.025001 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 608.0 LOGGED (FT.): 157.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B309 WELL TYPE: Coal Test
 COMMENT: NO DATE,NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.0	PLEISTOCENE		CLAY	37.0	0.0	SANDY
571.0	PLEISTOCENE		CLAY & GRAVEL	78.0	37.0	
493.0	PLEISTOCENE		SILT	16.0	115.0	W/SAND & GRAVEL
477.0	PLEISTOCENE		CLAY	26.0	131.0	FINE

MAPID: 12920377000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 560' N line, 24' W line of NW SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.966073 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.023286 DATE COLLECTED: 2 / 20 / 1970
 SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 128.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B288 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		CLAY	118.0	0.0
482.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	118.0
480.0	CARBONDALE	SPRINGFIELD	COAL	7.0	120.0
473.0	CARBONDALE		UNDERCLAY	1.0	127.0

MAPID: 12920378000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 380' S line, 87' E line of NW SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.971214 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.022303 DATE COLLECTED: 2 / 23 / 1970
 SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B261C WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
603.0	PLEISTOCENE		CLAY	155.0	0.0
448.0	PLEISTOCENE		GRAVEL	4.0	155.0
444.0	CARBONDALE		SHALE	1.0	159.0

MAPID: 12920379000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 100' S line, 35' W line of NW SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.966061 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.021484 DATE COLLECTED: 2 / 20 / 1970
 SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 90.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B263 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
540.0	PLEISTOCENE		CLAY	15.0	0.0
525.0	PLEISTOCENE		CLAY & GRAVEL	5.0	15.0
520.0	PLEISTOCENE		CLAY	60.0	20.0
460.0	CARBONDALE		GRAY SHALE	10.0	80.0

MAPID: 12920380000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 40' S line, 600' E line of SW SE

QUADRANGLE: OAKFORD LONGITUDE: -89.963623 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.01766 DATE COLLECTED: 2 / 17 / 1970

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B214 WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	35.0	0.0	
565.0	PLEISTOCENE		CLAY & GRAVEL	5.0	35.0	
560.0	PLEISTOCENE		CLAY	88.0	40.0	
472.0	PLEISTOCENE		SAND & GRAVEL	14.0	128.0	INCLUDES FLOAT COAL
458.0	CARBONDALE		GRAY SHALE	18.0	142.0	

MAPID: 12920381000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 126' S line, 940' E line of SE SE

QUADRANGLE: OAKFORD LONGITUDE: -89.960078 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.017851 DATE COLLECTED: 2 / 19 / 1970

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B215BC WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0	PLEISTOCENE		CLAY	25.0	0.0	
555.0	PLEISTOCENE		CLAY & GRAVEL	10.0	25.0	
545.0	PLEISTOCENE		CLAY	83.0	35.0	
462.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	118.0	INCLUDES COAL & FIRE CLY
460.0	CARBONDALE		GRAY SHALE	8.0	120.0	
452.0	CARBONDALE		BLACK SHALE	1.0	128.0	
451.0	CARBONDALE		SHALE	11.0	129.0	LIMESTONE INTERBEDS

MAPID: 12920382000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 21' S line, 450' E line of SE SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.958317 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.017537 DATE COLLECTED: 2 / 20 / 1970
 SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 55.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B216N WELL TYPE: Coal Test
 COMMENT: COMMONWEALTH EDISON

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
522.0	PLEISTOCENE		CLAY	10.0	0.0	
512.0	PLEISTOCENE		SANDY CLAY	25.0	10.0	INCLUDES WOOD
487.0	PLEISTOCENE		CLAY	17.0	35.0	HARD
470.0	CARBONDALE	SPRINGFIELD	COAL	1.5	52.0	SOFT.TOP ERODED
468.5	CARBONDALE		UNDERCLAY	1.5	53.5	

MAPID: 12920383000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 25' S line, 75' E line of SE SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.956971 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.017532 DATE COLLECTED: 2 / 12 / 1970
 SURFACE ELEVATION (FT.): 524.0 LOGGED (FT.): 51.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B217 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
524.0	PLEISTOCENE		CLAY	19.0	0.0	
505.0	PLEISTOCENE		SAND	16.0	19.0	
489.0	PLEISTOCENE		CLAY	7.0	35.0	
482.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	42.0	
480.0	CARBONDALE	SPRINGFIELD	COAL	6.3	44.0	
473.7	CARBONDALE		UNDERCLAY	0.7	50.3	

MAPID: 12920384000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 129' S line, 216' W line of SE NW

QUADRANGLE: OAKFORD LONGITUDE: -89.970059 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.025208 DATE COLLECTED: 6 / 12 / 1969

SURFACE ELEVATION (FT.): 592.0 LOGGED (FT.): 134.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B311K WELL TYPE: Coal Test

COMMENT: DAY OF DATA UNCERTAIN,NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
592.0	PLEISTOCENE		CLAY	25.0	0.0	SANDY
567.0	PLEISTOCENE		CLAY	55.0	25.0	WITH GRAVEL
512.0	PLEISTOCENE		CLAY	40.0	80.0	SILTY
472.0	PLEISTOCENE		GRAVEL	1.0	120.0	LIMESTONE
471.0	CARBONDALE		GRAY SHALE	13.0	121.0	LIMESTONE LAMINAE

MAPID: 12920385000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 30' S line, 195' E line of SE NW

QUADRANGLE: OAKFORD LONGITUDE: -89.966837 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.02492 DATE COLLECTED: 6 / 11 / 1969

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 127.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON \B312P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0	PLEISTOCENE		CLAY	39.0	0.0	SANDY
564.0	PLEISTOCENE		CLAY	50.0	39.0	WITH GRAVEL
514.0	PLEISTOCENE		CLAY	30.5	89.0	SANDY
483.5	CARBONDALE	TURNER MINE	SHALE	0.8	119.5	DARK, RASHY
482.7	CARBONDALE	SPRINGFIELD	COAL	5.9	120.3	
476.8	CARBONDALE		UNDERCLAY	0.8	126.2	

MAPID: 12990024000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 30' S line, 660' E line of SE SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.968609 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.017698 DATE COLLECTED: 5 / 6 / 1966
 SURFACE ELEVATION (FT.): 602.5 LOGGED (FT.): 133.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U212 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.5	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0	
579.5	PLEISTOCENE		SAND & GRAVEL	99.0	23.0	
480.5	CARBONDALE		SANDY SHALE	1.0	122.0	
479.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	123.0	SOFT
476.5	CARBONDALE	SPRINGFIELD	COAL	5.5	126.0	HARD
471.0	CARBONDALE		UNDERCLAY	1.5	131.5	

MAPID: 12990025000C VERSION: 1

PROJECT: NCDRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 50' S line, 25' E line of SE SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.96633 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.017724 DATE COLLECTED: 5 / 5 / 1966
 SURFACE ELEVATION (FT.): 594.4 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U213 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
594.4	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0	
571.4	PLEISTOCENE		SAND & GRAVEL	115.0	23.0	
456.4	CARBONDALE		GRAY SHALE	10.0	138.0	HARD

MAPID: 12990030000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 1' N line, 1' E line of SW SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.97093 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.021247 DATE COLLECTED: 5 / 5 / 1966
 SURFACE ELEVATION (FT.): 605.6 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U261 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.6	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
598.6	PLEISTOCENE		CLAY	19.0	7.0	
579.6	PLEISTOCENE		CLAY	122.0	26.0	

MAPID: 12990031000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 11 **QUARTERS/FOOTAGES:** 50' S line, 30' E line of NE SW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.966297 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.021348 **DATE COLLECTED:** 5 / 5 / 1966
SURFACE ELEVATION (FT.): 542.5 **LOGGED (FT.):** 108.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U263 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
542.5	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
532.5	PLEISTOCENE		CLAY	80.0	10.0
452.5	CARBONDALE		GRAY SHALE	18.0	90.0

MAPID: 12990032000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 11 **QUARTERS/FOOTAGES:** 60' S line, 1' E line of SW NW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.970844 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.025022 **DATE COLLECTED:** 5 / 3 / 1966
SURFACE ELEVATION (FT.): 600.9 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U311 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.9	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0
577.9	PLEISTOCENE		SAND & GRAVEL	125.0	23.0

MAPID: 12990033000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 11 **QUARTERS/FOOTAGES:** 1' S line, 1' E line of SE NW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.96614 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.024837 **DATE COLLECTED:** 5 / 2 / 1966
SURFACE ELEVATION (FT.): 603.2 **LOGGED (FT.):** 129.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE U313 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN COMMENT	
603.2	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
596.2	PLEISTOCENE		CLAY	14.0	7.0	
582.2	PLEISTOCENE		CLAY	96.0	21.0	
486.2	CARBONDALE		SHALE	3.0	117.0	
483.2	CARBONDALE	SPRINGFIELD	COAL W/ BLACK SHALE	1.0	120.0	HARD
482.2	CARBONDALE	SPRINGFIELD	COAL	6.1	121.0	HARD
476.1	CARBONDALE		UNDERCLAY	1.9	127.1	

MAPID: 12990034000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 660' S line, 1' W line of SE NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.970798 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.026676 DATE COLLECTED: 5 / 4 / 1966
 SURFACE ELEVATION (FT.): 608.6 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U336 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.6	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
590.6	PLEISTOCENE		SAND & GRAVEL	117.0	18.0	
473.6	CARBONDALE		GRAY SHALE	13.0	135.0	

MAPID: 12990035000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 617' S line, 660' E line of SE NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.968482 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.026547 DATE COLLECTED: 5 / 4 / 1966
 SURFACE ELEVATION (FT.): 608.5 LOGGED (FT.): 138.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U337 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.5	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
586.5	PLEISTOCENE		SAND & GRAVEL	106.0	22.0	
480.5	CARBONDALE	SPRINGFIELD	COAL W/ BLACK SHALE	3.0	128.0	SOFT; TOP ERODED
477.5	CARBONDALE		UNDERCLAY	2.0	131.0	
475.5	CARBONDALE		GRAY SHALE	5.0	133.0	HARF

MAPID: 12990036000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 1' S line, 1' E line of NW NW

QUADRANGLE: OAKFORD LONGITUDE: -89.970763 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.028464 DATE COLLECTED: 5 / 3 / 1966

SURFACE ELEVATION (FT.): 608.8 LOGGED (FT.): 136.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE U361 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.8	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
589.8	PLEISTOCENE		CLAY	19.0	19.0	
570.8	PLEISTOCENE		CLAY	67.0	38.0	
503.8	CARBONDALE		GRAY SHALE	21.0	105.0	
482.8	CARBONDALE	TURNER MINE	BLACK SHALE	0.3	126.0	
482.5	CARBONDALE		GRAY SHALE	0.7	126.3	
481.8	CARBONDALE	SPRINGFIELD	COAL W/ BLACK SHALE	1.8	127.0	
480.0	CARBONDALE	SPRINGFIELD	COAL	6.0	128.8	HARD
474.0	CARBONDALE		UNDERCLAY	1.2	134.8	

MAPID: 12990037000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 1' N line, 660' E line of SE NW

QUADRANGLE: OAKFORD LONGITUDE: -89.968455 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.028457 DATE COLLECTED: 5 / 5 / 1966

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 134.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE U362 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
597.0	PLEISTOCENE		CLAY	19.0	8.0	
578.0	PLEISTOCENE		CLAY	72.0	27.0	
506.0	PLEISTOCENE		SAND & GRAVEL	27.0	99.0	
479.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	126.0	
478.0	CARBONDALE	SPRINGFIELD	COAL	5.3	127.0	HARD
472.7	CARBONDALE		UNDERCLAY	1.8	132.3	

MAPID: 12990038000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 1' N line, 1' E line of SE NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.966089 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.028455 DATE COLLECTED: 5 / 3 / 1966
 SURFACE ELEVATION (FT.): 590.7 LOGGED (FT.): 121.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U363 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.7	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
584.7	PLEISTOCENE		CLAY	18.0	6.0	
566.7	PLEISTOCENE		CLAY	61.0	24.0	
505.7	PLEISTOCENE		SAND & GRAVEL	22.0	85.0	
483.7	CARBONDALE	ST. DAVID	LIMESTONE	1.0	107.0	
482.7	CARBONDALE	TURNER MINE	BLACK SHALE	5.0	108.0	
477.7	CARBONDALE	SPRINGFIELD	COAL	6.0	113.0	HARD
471.7	CARBONDALE		UNDERCLAY	2.0	119.0	

MAPID: 12990039000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 1' S line, 1' E line of NE NE
 QUADRANGLE: OAKFORD LONGITUDE: -89.956741 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.028453 DATE COLLECTED: 9 / 26 / 1966
 SURFACE ELEVATION (FT.): 584.1 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U367 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
584.1	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0	
560.1	PLEISTOCENE		SAND & GRAVEL	84.0	24.0	
476.1	CARBONDALE		GRAY SHALE	40.0	108.0	HARD

MAPID: 12990040000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 660' S line, 1' E line of NW NW

QUADRANGLE: OAKFORD LONGITUDE: -89.970722 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.030283 DATE COLLECTED: 5 / 4 / 1966

SURFACE ELEVATION (FT.): 609.7 LOGGED (FT.): 129.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE U386 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
609.7	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
603.7	PLEISTOCENE		CLAY	21.0	6.0	
582.7	PLEISTOCENE		CLAY	92.0	27.0	
490.7	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	119.0	
487.7	CARBONDALE	SPRINGFIELD	COAL	5.5	122.0	HARD
482.2	CARBONDALE		UNDERCLAY	1.5	127.5	

MAPID: 12990041000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 660' N line, 660' E line of NE NW

QUADRANGLE: OAKFORD LONGITUDE: -89.968431 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.030251 DATE COLLECTED: 5 / 5 / 1966

SURFACE ELEVATION (FT.): 608.6 LOGGED (FT.): 132.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE U387 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.6	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
602.6	PLEISTOCENE		CLAY	15.0	6.0	
587.6	PLEISTOCENE		CLAY	86.0	21.0	
501.6	CARBONDALE		GRAY SHALE	15.0	107.0	SOFT
486.6	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	122.0	
484.1	CARBONDALE	SPRINGFIELD	COAL	5.5	124.5	HARD
478.6	CARBONDALE		UNDERCLAY	2.0	130.0	

MAPID: 12990042000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 210' N line, 220' E line of NE NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.966831 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.031499 DATE COLLECTED: 5 / 3 / 1966
 SURFACE ELEVATION (FT.): 528.5 LOGGED (FT.): 49.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U387G WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
528.5	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
513.5	PLEISTOCENE		SAND & GRAVEL	23.0	15.0	
490.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	38.0	
487.5	CARBONDALE	SPRINGFIELD	COAL	6.4	41.0	
481.1	CARBONDALE		UNDERCLAY	1.6	47.4	

MAPID: 12990043000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 11 QUARTERS/FOOTAGES: 660' N line, 1' E line of NE NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.966065 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.03026 DATE COLLECTED: 5 / 4 / 1966
 SURFACE ELEVATION (FT.): 545.3 LOGGED (FT.): 69.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U388 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
545.3	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
539.3	PLEISTOCENE		CLAY	14.0	6.0	
525.3	PLEISTOCENE		CLAY	35.0	20.0	
490.3	CARBONDALE		GRAY SHALE	4.0	55.0	SOFT
486.3	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	59.0	
483.8	CARBONDALE	SPRINGFIELD	COAL	6.0	61.5	HARD
477.8	CARBONDALE		UNDERCLAY	1.5	67.5	

MAPID: 12920386000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 12 QUARTERS/FOOTAGES: SW SW SW NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.956138 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.025246 DATE COLLECTED: 5 / 8 / 1969
 SURFACE ELEVATION (FT.): 541.0 LOGGED (FT.): 100.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B317 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
541.0	PLEISTOCENE		CLAY	73.0	0.0	SILTY, SNDY, W/SAND&GRVL INTERBEDS
468.0	PLEISTOCENE		CLAY	1.0	73.0	WITH WOOD
467.0	PLEISTOCENE		SAND	11.0	74.0	FINE, INCLUDES FLOAT COAL
456.0	PLEISTOCENE		CLAY	15.0	85.0	FINE

MAPID: 12920387000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 12 QUARTERS/FOOTAGES: 846' N line, 33' W line of NW SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.956601 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.022451 DATE COLLECTED: 7 / 18 / 1969
 SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B267C WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.0	PLEISTOCENE		CLAY	28.0	0.0	
532.0	PLEISTOCENE		CLAY & GRAVEL	2.0	28.0	
530.0	PLEISTOCENE		CLAY	85.0	30.0	
445.0	CARBONDALE		GRAY SHALE	25.0	115.0	

MAPID: 12920388000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 12 QUARTERS/FOOTAGES: 384' N line, 10' W line of SW SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.947206 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.020116 DATE COLLECTED: 7 / 17 / 1969
 SURFACE ELEVATION (FT.): 601.0 LOGGED (FT.): 135.5 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B246C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
601.0	PLEISTOCENE		SANDY CLAY	20.0	0.0	
581.0	PLEISTOCENE		CLAY & GRAVEL	70.0	20.0	SANDY
511.0	PLEISTOCENE		CLAY	32.0	90.0	
479.0	PLEISTOCENE		CLAY	3.0	122.0	W/LIME RIBS
476.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	125.0	
473.5	CARBONDALE	SPRINGFIELD	COAL	6.5	127.5	
467.0	CARBONDALE		UNDERCLAY	1.5	134.0	

MAPID: 12920389000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 12 QUARTERS/FOOTAGES: 45' N line, 219' E line of NW SE

QUADRANGLE: OAKFORD LONGITUDE: -89.943362 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.024671 DATE COLLECTED: 7 / 18 / 1969

SURFACE ELEVATION (FT.): 604.0 LOGGED (FT.): 138.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B322P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
604.0	PLEISTOCENE		CLAY	30.0	0.0	SANDY
574.0	PLEISTOCENE		CLAY	77.5	30.0	WITH GRAVEL
496.5	PLEISTOCENE		CLAY	21.0	107.5	W/LIMESTONE RIBS
475.5	CARBONDALE	ST. DAVID	LIMESTONE	1.1	128.5	HARD
474.4	CARBONDALE	TURNER MINE	BLACK SHALE	1.8	129.6	
472.6	CARBONDALE	SPRINGFIELD	COAL	6.2	131.4	
466.4	CARBONDALE		UNDERCLAY	0.4	137.6	

MAPID: 12920390000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 12 QUARTERS/FOOTAGES: 40' N line, 345' E line of NE SE

QUADRANGLE: OAKFORD LONGITUDE: -89.939097 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.024684 DATE COLLECTED: 3 / 16 / 1970

SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 120.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B324B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0	PLEISTOCENE		CLAY	30.0	0.0	
555.0	PLEISTOCENE		CLAY & GRAVEL	10.0	30.0	
545.0	PLEISTOCENE		CLAY	70.0	40.0	
475.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	110.0	
474.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	111.0	
472.0	CARBONDALE	SPRINGFIELD	COAL	6.8	113.0	
465.2	CARBONDALE		UNDERCLAY	0.2	119.8	

MAPID: 12920391000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 12 QUARTERS/FOOTAGES: 219' N line, 6' W line of SW NE
 QUADRANGLE: OAKFORD LONGITUDE: -89.947306 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.027805 DATE COLLECTED: 7 / 18 / 1969
 SURFACE ELEVATION (FT.): 604.0 LOGGED (FT.): 154.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B346C WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
604.0	PLEISTOCENE		CLAY	20.0	0.0	SANDY
584.0	PLEISTOCENE		CLAY	59.0	20.0	SAND W/GRAVEL
525.0	PLEISTOCENE		CLAY	11.0	79.0	WITH GRAVEL
514.0	PLEISTOCENE		CLAY	64.0	90.0	W/GRAVEL INCLUDING LIMESTONE RIBS

MAPID: 12920392000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 12 QUARTERS/FOOTAGES: 500' N line, 0' W line of NW NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.956745 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.030735 DATE COLLECTED: 5 / 15 / 1970
 SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B392J WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		CLAY & GRAVEL	22.0	0.0	
528.0	PLEISTOCENE		CLAY	40.0	22.0	
488.0	PLEISTOCENE		CLAY & GRAVEL	8.0	62.0	
480.0	PLEISTOCENE		GRAVEL	31.0	70.0	
449.0	CARBONDALE		GRAY SHALE	41.0	101.0	LIMESTONE INTERBEDS
408.0	CARBONDALE		BLACK SHALE	2.0	142.0	
406.0	CARBONDALE		GRAY SHALE	16.0	144.0	WITH LIME BANDS

MAPID: 12920393000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 12 QUARTERS/FOOTAGES: 84' S line, 18' E line of SW NW

QUADRANGLE: OAKFORD LONGITUDE: -89.952077 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.025021 DATE COLLECTED: 7 / 18 / 1969

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B319 WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	85.0	0.0	
515.0	PLEISTOCENE		GRAVEL	1.0	85.0	
514.0	PLEISTOCENE		CLAY	46.0	86.0	
468.0	CARBONDALE		BLACK SHALE	0.5	132.0	
467.5	CARBONDALE		GRAY SHALE	27.5	132.5	

MAPID: 12920394000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 12 QUARTERS/FOOTAGES: 330' N line, 18' W line of NW SE

QUADRANGLE: OAKFORD LONGITUDE: -89.94722 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.023881 DATE COLLECTED: 7 / 17 / 1969

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 135.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B296C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0	PLEISTOCENE		CLAY	5.0	0.0	SANDY
598.0	PLEISTOCENE		CLAY	25.0	5.0	
573.0	PLEISTOCENE		SAND & GRAVEL	40.0	30.0	CLAY INTERBEDS, AQUIFER
533.0	PLEISTOCENE		CLAY	19.0	70.0	SANDY
514.0	PLEISTOCENE		CLAY	37.5	89.0	SANDY WITH LIMESTONE "RIBS"
476.5	CARBONDALE	TURNER MINE	BLACK SHALE	0.5	126.5	
476.0	CARBONDALE	SPRINGFIELD	COAL	7.2	127.0	
468.8	CARBONDALE		UNDERCLAY	0.8	134.2	

MAPID: 12920395000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 12 QUARTERS/FOOTAGES: 20' N line, 120' W line of SE SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.951552 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.021096 DATE COLLECTED: 2 / 16 / 1970
 SURFACE ELEVATION (FT.): 601.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B269N WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
601.0	PLEISTOCENE		CLAY	80.0	0.0	
521.0	PLEISTOCENE		CLAY & GRAVEL	5.0	80.0	
516.0	PLEISTOCENE		CLAY	35.0	85.0	
481.0	PLEISTOCENE		GRAVEL	1.0	120.0	BLACK SHALE, COAL
480.0	CARBONDALE		GRAY SHALE	9.0	121.0	INCLUDES UNDER CLAY
471.0	CARBONDALE		SHALE	7.0	130.0	LIMESTONE INTERBEDS
464.0	CARBONDALE		BLACK SHALE	1.0	137.0	
463.0	CARBONDALE		GRAY SHALE	2.0	138.0	

MAPID: 12920396000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 12 QUARTERS/FOOTAGES: 0' S line, 660' E line of SW SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.944839 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.017583 DATE COLLECTED: 2 / 13 / 1970
 SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 133.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B222 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0	PLEISTOCENE		CLAY	45.0	0.0	
558.0	PLEISTOCENE		SAND & GRAVEL	5.0	45.0	
553.0	PLEISTOCENE		CLAY	45.0	50.0	
508.0	PLEISTOCENE		GRAVEL	3.0	95.0	
505.0	PLEISTOCENE		CLAY	22.0	98.0	
483.0	PLEISTOCENE		GRAVEL	1.0	120.0	
482.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	121.0	HARD
480.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	123.0	
477.5	CARBONDALE	SPRINGFIELD	COAL	6.2	125.5	
471.3	CARBONDALE		UNDERCLAY	1.3	131.7	

MAPID: 12920397000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 12 QUARTERS/FOOTAGES: 333' S line, 660' W line of NE SE

QUADRANGLE: OAKFORD LONGITUDE: -89.940169

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.022132

DATE COLLECTED: 2 / 16 / 1970

SURFACE ELEVATION (FT.): 597.0 LOGGED (FT.): 132.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B274C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
597.0	PLEISTOCENE		CLAY	68.0	0.0	
529.0	PLEISTOCENE		SAND & GRAVEL	4.0	68.0	
525.0	PLEISTOCENE		CLAY	17.0	72.0	
508.0	PLEISTOCENE		BOULDER	2.5	89.0	LIMESTONE
505.5	PLEISTOCENE		CLAY	23.5	91.5	
482.0	CARBONDALE		GRAY SHALE	6.0	115.0	
476.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	121.0	
474.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	122.5	
472.0	CARBONDALE	SPRINGFIELD	COAL	6.5	125.0	
465.5	CARBONDALE		UNDERCLAY	0.5	131.5	

MAPID: 12920398000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 12 QUARTERS/FOOTAGES: 825' S line, 0' W line of SE SE

QUADRANGLE: OAKFORD LONGITUDE: -89.942506

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.019886

DATE COLLECTED: 2 / 13 / 1970

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 147.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B248J

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0	PLEISTOCENE		CLAY	95.0	0.0	
508.0	PLEISTOCENE		CLAY & GRAVEL	5.0	95.0	
503.0	PLEISTOCENE		CLAY	25.0	100.0	
478.0	CARBONDALE		GRAY SHALE	11.0	125.0	
467.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	136.0	
464.5	CARBONDALE	SPRINGFIELD	COAL	7.1	138.5	
457.4	CARBONDALE		UNDERCLAY	1.4	145.6	

MAPID: 12920399000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 12 QUARTERS/FOOTAGES: 660' S line, 50' W line of SW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.95653 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.019283 DATE COLLECTED: 6 / 10 / 1969

SURFACE ELEVATION (FT.): 527.0 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B242J WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
527.0	PLEISTOCENE		CLAY	23.0	0.0	SANDY
504.0	PLEISTOCENE		SAND & GRAVEL	2.0	23.0	
502.0	PLEISTOCENE		CLAY & GRAVEL	18.0	25.0	
484.0	CARBONDALE	ST. DAVID	LIMESTONE	2.7	43.0	
481.3	CARBONDALE	TURNER MINE	SHALE	3.3	45.7	DARK, RASHY
478.0	CARBONDALE	SPRINGFIELD	COAL	6.4	49.0	
471.6	CARBONDALE		UNDERCLAY	0.6	55.4	

MAPID: 12920400000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 12 QUARTERS/FOOTAGES: SE NW SW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.954936 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.019761 DATE COLLECTED: 9 / 30 / 1969

SURFACE ELEVATION (FT.): 531.0 LOGGED (FT.): 60.5 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B242NA WELL TYPE: Coal Test

COMMENT: NO FOOTAGES GIVEN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
531.0	PLEISTOCENE		CLAY	15.0	0.0	
516.0	PLEISTOCENE		CLAY	5.0	15.0	WITH GRAVEL
511.0	PLEISTOCENE		CLAY	29.0	20.0	
482.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	49.0	
480.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	50.5	
477.0	CARBONDALE	SPRINGFIELD	COAL	0.2	54.0	FISHTAILED
476.8	CARBONDALE	SPRINGFIELD	COAL	6.0	54.2	PYRITE NODULES, SEAMS
470.8	CARBONDALE		UNDERCLAY	0.3	60.2	

MAPID: 12920401000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 12 QUARTERS/FOOTAGES: 769' S line, 100' W line of SW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.956349

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.019584

DATE COLLECTED: 9 / 30 / 1969

SURFACE ELEVATION (FT.): 529.0 LOGGED (FT.): 58.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B242K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
529.0	PLEISTOCENE		CLAY	46.0	0.0	SANDY
483.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	46.0	
482.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	47.0	
480.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	49.0	PYRITE FOSSILS
478.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.2	50.5	LIMESTONE LAMINAE,PYRITE
477.3	CARBONDALE	SPRINGFIELD	COAL	6.2	51.7	PYRITE
471.1	CARBONDALE		UNDERCLAY	0.1	57.9	

MAPID: 12920402000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: NE NE NE NE

QUADRANGLE: OAKFORD LONGITUDE: -89.938329

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.017208

DATE COLLECTED: 2 / 12 / 1970

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 140.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B223

WELL TYPE: Coal Test

COMMENT: NO FOOTAGES GIVEN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	56.0	0.0	
544.0	PLEISTOCENE		BOULDER	1.0	56.0	
543.0	PLEISTOCENE		CLAY	13.0	57.0	
530.0	PLEISTOCENE		SAND	2.0	70.0	
528.0	PLEISTOCENE		CLAY	58.0	72.0	
470.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	130.0	
469.0	CARBONDALE	SPRINGFIELD	COAL	6.5	131.0	
462.5	CARBONDALE		LIMESTONE	1.5	137.5	
461.0	CARBONDALE		SHALE	1.0	139.0	

MAPID: 12920403000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: NE NE NE NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.947808 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.017111 DATE COLLECTED: 2 / 11 / 1970
 SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 132.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B221 WELL TYPE: Coal Test
 COMMENT: NO FOOTAGES GIVEN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0	PLEISTOCENE		CLAY	100.0	0.0	
503.0	PLEISTOCENE		CLAY & GRAVEL	5.0	100.0	
498.0	PLEISTOCENE		CLAY	15.0	105.0	
483.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	120.0	
482.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	121.0	
479.0	CARBONDALE	SPRINGFIELD	COAL	7.0	124.0	
472.0	CARBONDALE		UNDERCLAY	1.0	131.0	

MAPID: 12920404000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 15' N line, 940' E line of NE NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.950589 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.017482 DATE COLLECTED: 2 / 11 / 1970
 SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 127.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B219B WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.0	PLEISTOCENE		CLAY	35.0	0.0	
567.0	PLEISTOCENE		CLAY	15.0	35.0	WITH GRAVEL
552.0	PLEISTOCENE		CLAY	67.0	50.0	
485.0	PLEISTOCENE		GRAVEL	3.0	117.0	WITH FLOAT COAL
482.0	CARBONDALE	SPRINGFIELD	COAL	3.5	120.0	TOP ERODED
478.5	CARBONDALE		LIMESTONE	2.5	123.5	SHALEY
476.0	CARBONDALE		SHALE	1.0	126.0	

MAPID: 12920405000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: NE NE SE NE

QUADRANGLE: OAKFORD LONGITUDE: -89.938403 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.013642 DATE COLLECTED: 2 / 12 / 1970

SURFACE ELEVATION (FT.): 597.0 LOGGED (FT.): 134.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B173 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES GIVEN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
597.0	PLEISTOCENE		CLAY	35.0	0.0
562.0	PLEISTOCENE		CLAY & GRAVEL	10.0	35.0
552.0	PLEISTOCENE		CLAY	28.0	45.0
524.0	PLEISTOCENE		SAND	3.0	73.0
521.0	PLEISTOCENE		CLAY	34.0	76.0
487.0	CARBONDALE		GRAY SHALE	13.0	110.0
474.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	123.0
472.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	124.5
470.5	CARBONDALE	SPRINGFIELD	COAL	6.3	126.5
464.2	CARBONDALE		UNDERCLAY	1.2	132.8

MAPID: 12920406000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 180' N line, 0' E line of SW NW

QUADRANGLE: OAKFORD LONGITUDE: -89.951945 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.013483 DATE COLLECTED: 2 / 11 / 1970

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 127.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B144D WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		CLAY	114.0	0.0
486.0	CARBONDALE		GRAY SHALE	3.0	114.0
483.0	CARBONDALE		BLACK SHALE	1.5	117.0
481.5	CARBONDALE		LIMESTONE	1.5	118.5
480.0	CARBONDALE	SPRINGFIELD	COAL	6.0	120.0
474.0	CARBONDALE		UNDERCLAY	1.0	126.0

HARD,
BLACK, "BONE"

MAPID: 12920407000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 680' S line, 370' E line of SE NW

QUADRANGLE: OAKFORD LONGITUDE: -89.948571

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.012345

DATE COLLECTED: 1 / 29 / 1970

SURFACE ELEVATION (FT.): 598.0 LOGGED (FT.): 124.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B145NA

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
598.0	PLEISTOCENE		CLAY	112.0	0.0
486.0	CARBONDALE		GRAY SHALE	2.0	112.0
484.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	114.0
483.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	115.0
481.0	CARBONDALE	SPRINGFIELD	COAL	6.2	117.0
474.8	CARBONDALE		UNDERCLAY	0.8	123.2

MAPID: 12920408000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 14' S line, 78' W line of SW NW

QUADRANGLE: OAKFORD LONGITUDE: -89.95634

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.010463

DATE COLLECTED: 7 / 18 / 1969

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 133.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B117

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN COMMENT	
600.0	PLEISTOCENE		CLAY	35.0	0.0	
565.0	PLEISTOCENE		SAND & GRAVEL	15.0	35.0	
550.0	PLEISTOCENE		CLAY	65.0	50.0	
485.0	PLEISTOCENE		CLAY & GRAVEL	5.0	115.0	
480.0	PLEISTOCENE		CLAY	3.5	120.0	POSSIBLY SHALE
476.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	123.5	INCLUDES BONE
473.5	CARBONDALE	SPRINGFIELD	COAL	5.8	126.5	
467.7	CARBONDALE		UNDERCLAY	0.7	132.3	

MAPID: 12920409000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 300' S line, 400' E line of NW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.953361

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.007743

DATE COLLECTED: 1 / 30 / 1970

SURFACE ELEVATION (FT.): 531.0 LOGGED (FT.): 65.6

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B70A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
531.0	PLEISTOCENE		CLAY	35.0	0.0	
496.0	PLEISTOCENE		SAND & GRAVEL	11.0	35.0	
485.0	CARBONDALE		GRAY SHALE	5.0	46.0	
480.0	CARBONDALE	ST. DAVID	LIMESTONE	4.0	51.0	HARD
476.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	55.0	
472.5	CARBONDALE	SPRINGFIELD	COAL	6.0	58.5	
466.5	CARBONDALE		UNDERCLAY	1.1	64.5	

MAPID: 12920410000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 300' S line, 660' W line of NW SE

QUADRANGLE: OAKFORD LONGITUDE: -89.944895

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.007766

DATE COLLECTED: 1 / 30 / 1970

SURFACE ELEVATION (FT.): 539.0 LOGGED (FT.): 60.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B72C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
539.0	PLEISTOCENE		CLAY	48.0	0.0	
491.0	CARBONDALE	ST. DAVID	LIMESTONE	3.0	48.0	SHALEY
488.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	51.0	
486.0	CARBONDALE	SPRINGFIELD	COAL	6.0	53.0	
480.0	CARBONDALE		UNDERCLAY	1.0	59.0	

MAPID: 12920411000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 400' S line, 400' W line of NE SE

QUADRANGLE: OAKFORD LONGITUDE: -89.941164 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.008051 DATE COLLECTED: 9 / 29 / 1969

SURFACE ELEVATION (FT.): 544.0 LOGGED (FT.): 73.5 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B73AA WELL TYPE: Coal Test

COMMENT: MONTH OF DATA UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
544.0	PLEISTOCENE		CLAY	15.0	0.0	
529.0	PLEISTOCENE		SAND & GRAVEL	5.0	15.0	
524.0	PLEISTOCENE		CLAY	41.0	20.0	
483.0	PLEISTOCENE		GRAVEL	2.0	61.0	
481.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	63.0	
479.5	CARBONDALE	ST. DAVID	LIMESTONE	2.5	64.5	
477.0	CARBONDALE	SPRINGFIELD	COAL	6.0	67.0	FISHTAILED
471.0	CARBONDALE		UNDERCLAY	0.5	73.0	

MAPID: 12920412000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 500' S line, 400' W line of NE SE

QUADRANGLE: OAKFORD LONGITUDE: -89.941159 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.008327 DATE COLLECTED: 9 / 29 / 1969

SURFACE ELEVATION (FT.): 545.0 LOGGED (FT.): 75.5 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B73D WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
545.0	PLEISTOCENE		CLAY	15.0	0.0	
530.0	PLEISTOCENE		CLAY & GRAVEL	5.0	15.0	
525.0	PLEISTOCENE		CLAY	40.0	20.0	
485.0	PLEISTOCENE		CLAY & GRAVEL	6.0	60.0	
479.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	66.0	
475.5	CARBONDALE	SPRINGFIELD	COAL	5.7	69.5	PYRITE MODERATE
469.8	CARBONDALE		UNDERCLAY	0.3	75.2	

MAPID: 12920413000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 450' S line, 400' W line of NE SE

QUADRANGLE: OAKFORD LONGITUDE: -89.941161

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.008189

DATE COLLECTED: 9 / 30 / 1969

SURFACE ELEVATION (FT.): 545.0 LOGGED (FT.): 74.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B73FB

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
545.0	PLEISTOCENE		CLAY	16.0	0.0	
529.0	PLEISTOCENE		GRAVEL	2.0	16.0	AQUIFER
527.0	PLEISTOCENE		CLAY	43.0	18.0	
484.0	PLEISTOCENE		CLAY & GRAVEL	3.0	61.0	
481.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	64.0	
480.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	65.0	
477.5	CARBONDALE	TURNER MINE	LIMESTONE	0.5	67.5	DARK BONEY
477.0	CARBONDALE	SPRINGFIELD	COAL	5.7	68.0	CLAY INJECTONS, SMALL AMOUNTS OF PYRITE
471.3	CARBONDALE		UNDERCLAY	0.3	73.7	

MAPID: 12920414000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 400' N line, 320' W line of NE SW

QUADRANGLE: OAKFORD LONGITUDE: -89.950784

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.00935

DATE COLLECTED: 1 / 30 / 1970

SURFACE ELEVATION (FT.): 528.0 LOGGED (FT.): 63.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B94A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
528.0	PLEISTOCENE		CLAY	38.0	0.0	
490.0	PLEISTOCENE		GRAVEL	1.0	38.0	
489.0	PLEISTOCENE		CLAY	2.0	39.0	
487.0	CARBONDALE		GRAY SHALE	13.0	41.0	
474.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	54.0	DARK
473.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	54.5	
471.0	CARBONDALE	SPRINGFIELD	COAL	5.5	57.0	
465.5	CARBONDALE		UNDERCLAY	0.5	62.5	

MAPID: 12920415000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 243' N line, 225' E line of NW SE

QUADRANGLE: OAKFORD LONGITUDE: -89.943383 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.009823 DATE COLLECTED: 6 / 30 / 1969

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 126.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B87G WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0	PLEISTOCENE		CLAY	65.0	0.0	
530.0	PLEISTOCENE		CLAY & GRAVEL	5.0	65.0	
525.0	PLEISTOCENE		CLAY	15.0	70.0	
510.0	PLEISTOCENE		GRAVEL	10.0	85.0	
500.0	PLEISTOCENE		CLAY	17.0	95.0	
483.0	CARBONDALE		LIMESTONE	4.0	112.0	
479.0	CARBONDALE		GRAY SHALE	2.0	116.0	DARK
477.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.8	118.0	
475.2	CARBONDALE	SPRINGFIELD	COAL	5.0	119.8	
470.2	CARBONDALE		UNDERCLAY	1.2	124.8	

MAPID: 12920416000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 0' N line, 0' W line of NW SE

QUADRANGLE: OAKFORD LONGITUDE: -89.947248 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.010473 DATE COLLECTED: 6 / 27 / 1969

SURFACE ELEVATION (FT.): 593.0 LOGGED (FT.): 129.9 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B42D WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
593.0	PLEISTOCENE		CLAY	97.0	0.0	SANDY
496.0	CARBONDALE		GRAY SHALE	24.0	97.0	W/LIMESTONE RIBS
472.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	121.0	HARD,DARK
471.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.2	122.0	SOFT
469.8	CARBONDALE	SPRINGFIELD	COAL	0.3	123.2	BONEY
469.5	CARBONDALE	SPRINGFIELD	COAL	5.9	123.5	
463.6	CARBONDALE		LIMESTONE	0.1	129.4	DARK
463.5	CARBONDALE		UNDERCLAY	0.4	129.5	

MAPID: 12920417000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 100' N line, 150' E line of SE SW

QUADRANGLE: OAKFORD LONGITUDE: -89.947809

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.006654

DATE COLLECTED: 1 / 31 / 1970

SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 74.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B45M

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
533.0	PLEISTOCENE		CLAY	41.0	0.0
492.0	CARBONDALE		GRAY SHALE	21.0	41.0
471.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	62.0
470.5	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	62.5
466.5	CARBONDALE	SPRINGFIELD	COAL	6.5	66.5
460.0	CARBONDALE		UNDERCLAY	1.0	73.0

MAPID: 12920419000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 130' S line, 425' W line of SW SE

QUADRANGLE: OAKFORD LONGITUDE: -89.945759

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.003748

DATE COLLECTED: 1 / 31 / 1970

SURFACE ELEVATION (FT.): 555.0 LOGGED (FT.): 81.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B21BB

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
555.0	PLEISTOCENE		CLAY	50.0	0.0
505.0	CARBONDALE		GRAY SHALE	19.0	50.0
486.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	69.0
484.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	70.5
482.5	CARBONDALE	SPRINGFIELD	BONE COAL	1.0	72.5
481.5	CARBONDALE	SPRINGFIELD	COAL	6.5	73.5
475.0	CARBONDALE		UNDERCLAY	1.0	80.0

MAPID: 1292042000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 1011' N line, 9' E line of NE NW

QUADRANGLE: OAKFORD LONGITUDE: -89.947262 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.014767 DATE COLLECTED: 7 / 17 / 1969

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 121.5 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B171J WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	70.0	0.0	
530.0	PLEISTOCENE		CLAY & GRAVEL	2.0	70.0	
528.0	PLEISTOCENE		CLAY	18.0	72.0	
510.0	PLEISTOCENE		CLAY & GRAVEL	25.5	90.0	THICKNESS ADJUSTED
484.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	115.5	
483.0	CARBONDALE	SPRINGFIELD	COAL	4.0	117.0	
479.0	CARBONDALE		UNDERCLAY	0.5	121.0	

MAPID: 12990003000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 1' S line, 1' W line of SW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.95653 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.003392 DATE COLLECTED: 5 / 9 / 1966

SURFACE ELEVATION (FT.): 605.5 LOGGED (FT.): 147.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE U17 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.5	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	
584.5	PLEISTOCENE		SAND & GRAVEL	86.0	21.0	
498.5	CARBONDALE		LIMESTONE	5.0	107.0	HARD
493.5	CARBONDALE		GRAY SHALE	22.0	112.0	SOFT
471.5	CARBONDALE	ST. DAVID	LIMESTONE	1.0	134.0	HARD
470.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	135.0	SOFT
467.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	138.0	HARD
466.5	CARBONDALE	SPRINGFIELD	COAL	6.2	139.0	HARD
460.3	CARBONDALE		UNDERCLAY	1.8	145.2	

MAPID: 12990004000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 1' S line, 25' E line of SW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.952001 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.00339 DATE COLLECTED: 5 / 10 / 1966

SURFACE ELEVATION (FT.): 547.3 LOGGED (FT.): 87.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE U19 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
547.3	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
531.3	PLEISTOCENE		SAND & GRAVEL	35.0	16.0	
496.3	CARBONDALE		LIMESTONE	4.0	51.0	SOFT
492.3	CARBONDALE		SHALE	19.0	55.0	
473.3	CARBONDALE	ST. DAVID	LIMESTONE	2.0	74.0	HARD
471.3	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	76.0	SOFT
468.3	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	79.0	
467.3	CARBONDALE	SPRINGFIELD	COAL	5.5	80.0	HARD
461.8	CARBONDALE		UNDERCLAY	1.5	85.5	

MAPID: 12990005000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 120' S line, 1' E line of SE SW

QUADRANGLE: OAKFORD LONGITUDE: -89.947288 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.00372 DATE COLLECTED: 5 / 19 / 1966

SURFACE ELEVATION (FT.): 535.7 LOGGED (FT.): 76.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE U21 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
535.7	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0	
510.7	PLEISTOCENE		SAND & GRAVEL	31.0	25.0	
479.7	CARBONDALE		GRAY SHALE	5.0	56.0	
474.7	CARBONDALE	ST. DAVID	LIMESTONE	1.6	61.0	
473.1	CARBONDALE	TURNER MINE	BLACK SHALE	6.4	62.6	
466.7	CARBONDALE	SPRINGFIELD	COAL	5.3	69.0	GOOD
461.4	CARBONDALE		UNDERCLAY	1.7	74.3	

MAPID: 12990006000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 26' S line, 22' E line of SW SE

QUADRANGLE: OAKFORD LONGITUDE: -89.942739 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.003461 DATE COLLECTED: 5 / 19 / 1966

SURFACE ELEVATION (FT.): 566.6 LOGGED (FT.): 99.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE U23 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
566.6	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
559.6	PLEISTOCENE		CLAY	24.0	7.0	
535.6	PLEISTOCENE		CLAY	41.0	31.0	
494.6	PLEISTOCENE		SAND & GRAVEL	18.0	72.0	
476.6	PLEISTOCENE		ROCK	1.0	90.0	
475.6	CARBONDALE		GRAY SHALE	1.0	91.0	SOFT
474.6	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	92.0	HARD
473.6	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	93.0	HARD
472.6	CARBONDALE	SPRINGFIELD	COAL	3.1	94.0	
469.5	CARBONDALE		UNDERCLAY	1.9	97.1	

MAPID: 12990009000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 1' N line, 1' E line of SW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.951927 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.006915 DATE COLLECTED: 5 / 10 / 1966

SURFACE ELEVATION (FT.): 598.8 LOGGED (FT.): 134.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE U69 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
598.8	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
591.8	PLEISTOCENE		CLAY	14.0	7.0	
577.8	PLEISTOCENE		CLAY	82.0	21.0	
495.8	CARBONDALE		GRAY SHALE	20.0	103.0	
475.8	CARBONDALE	ST. DAVID	LIMESTONE	0.5	123.0	HARD CAPROCK
475.3	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	123.5	SOFT
472.8	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	126.0	HARD
471.8	CARBONDALE	SPRINGFIELD	BONE COAL	5.7	127.0	HARD
466.1	CARBONDALE		UNDERCLAY	1.3	132.7	

MAPID: 12990010000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 1' N line, 1' E line of SE SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.947272 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.00693 DATE COLLECTED: 5 / 19 / 1966
 SURFACE ELEVATION (FT.): 533.3 LOGGED (FT.): 67.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U71 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
533.3	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
527.3	PLEISTOCENE		CLAY	9.0	6.0	
518.3	PLEISTOCENE		CLAY	25.0	15.0	
493.3	CARBONDALE		GRAY SHALE	16.0	40.0	SOFT
477.3	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	56.0	SOFT
476.3	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	57.0	
474.3	CARBONDALE	SPRINGFIELD	COAL	6.1	59.0	HARD
468.2	CARBONDALE		UNDERCLAY	1.9	65.1	

MAPID: 12990011000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 330' S line, 272' E line of NW SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.943578 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.007851 DATE COLLECTED: 6 / 14 / 1966
 SURFACE ELEVATION (FT.): 539.4 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U72A WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
539.4	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
520.4	PLEISTOCENE		SAND & GRAVEL	38.0	19.0	
482.4	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	57.0	SOFT
480.4	CARBONDALE	SPRINGFIELD	COAL	4.5	59.0	
475.9	CARBONDALE		UNDERCLAY	1.5	63.5	

MAPID: 12990012000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 1' S line, 1' E line of NW SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.942618 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.006947 DATE COLLECTED: 5 / 19 / 1966
 SURFACE ELEVATION (FT.): 572.0 LOGGED (FT.): 104.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U73 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
572.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
560.0	PLEISTOCENE		CLAY	73.0	12.0	
487.0	CARBONDALE		GRAY SHALE	10.0	85.0	
477.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	95.0	
476.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	95.5	
474.0	CARBONDALE	SPRINGFIELD	COAL	4.5	98.0	
469.5	CARBONDALE		UNDERCLAY	1.5	102.5	

MAPID: 12990015000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 1' N line, 1' W line of NW SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.956616 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.010421 DATE COLLECTED: 5 / 9 / 1966
 SURFACE ELEVATION (FT.): 602.5 LOGGED (FT.): 137.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U117 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.5	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
595.5	PLEISTOCENE		CLAY	15.0	7.0	
580.5	PLEISTOCENE		CLAY	95.0	22.0	
485.5	CARBONDALE		GRAY SHALE	8.0	117.0	SOFT
477.5	CARBONDALE	ST. DAVID	LIMESTONE	1.0	125.0	
476.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	126.0	SOFT
474.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	128.0	HARD
473.5	CARBONDALE	SPRINGFIELD	COAL	6.3	129.0	HARD
467.2	CARBONDALE		UNDERCLAY	1.8	135.3	

MAPID: 12990016000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 1' N line, 1' E line of NW SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.951939 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.010447 DATE COLLECTED: 5 / 10 / 1966
 SURFACE ELEVATION (FT.): 537.9 LOGGED (FT.): 128.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U119 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
537.9	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0
520.9	PLEISTOCENE		SAND & GRAVEL	59.0	17.0
461.9	CARBONDALE		GRAY SHALE	52.0	76.0

MAPID: 12990017000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 1' S line, 96' W line of SW NE
 QUADRANGLE: OAKFORD LONGITUDE: -89.946904 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.010477 DATE COLLECTED: 5 / 17 / 1966
 SURFACE ELEVATION (FT.): 589.5 LOGGED (FT.): 119.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U121Y WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
589.5	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0
564.5	PLEISTOCENE		CLAY	83.0	25.0
481.5	CARBONDALE		BLACK SHALE	5.0	108.0
476.5	CARBONDALE	ST. DAVID	LIMESTONE	1.0	113.0
475.5	CARBONDALE	SPRINGFIELD	COAL	3.7	114.0
471.8	CARBONDALE		UNDERCLAY	1.3	117.7

MAPID: 12990018000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 12' N line, 27' E line of NW SE

QUADRANGLE: OAKFORD LONGITUDE: -89.942662 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.010466 DATE COLLECTED: 6 / 14 / 1966

SURFACE ELEVATION (FT.): 581.2 LOGGED (FT.): 108.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE U123-1 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
581.2	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
566.2	PLEISTOCENE		CLAY	65.0	15.0	
501.2	CARBONDALE		GRAY SHALE	17.0	80.0	
484.2	CARBONDALE	ST. DAVID	LIMESTONE	0.5	97.0	HARD
483.7	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	97.5	SOFT
480.2	CARBONDALE	SPRINGFIELD	COAL	3.8	101.0	HARD
476.4	CARBONDALE		ROCK	0.4	104.8	
475.9	CARBONDALE	SPRINGFIELD	COAL	1.8	105.3	HARD
474.2	CARBONDALE		UNDERCLAY	1.0	107.0	

MAPID: 12990019000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 1' N line, 1' E line of NW SE

QUADRANGLE: OAKFORD LONGITUDE: -89.942568 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.010496 DATE COLLECTED: 5 / 17 / 1966

SURFACE ELEVATION (FT.): 580.4 LOGGED (FT.): 108.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE U123 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.4	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
574.4	PLEISTOCENE		CLAY	9.0	6.0	
565.4	PLEISTOCENE		CLAY	64.0	15.0	
501.4	CARBONDALE		GRAY SHALE	18.0	79.0	
483.4	CARBONDALE		ROCK	0.5	97.0	
482.9	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	97.5	SOFT
479.9	CARBONDALE	TURNER MINE	BLACK SHALE	0.5	100.5	HARD
479.4	CARBONDALE	SPRINGFIELD	COAL	5.8	101.0	HARD
473.6	CARBONDALE		UNDERCLAY	1.2	106.8	

MAPID: 1299002000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 150' N line, 1' W line of SW NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.956654 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.013528 DATE COLLECTED: 6 / 13 / 1966
 SURFACE ELEVATION (FT.): 529.2 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U167-1 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
529.2	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
522.2	PLEISTOCENE		CLAY	15.0	7.0	
507.2	PLEISTOCENE		CLAY	16.0	22.0	
491.2	PLEISTOCENE		SAND & GRAVEL	8.0	38.0	
483.2	CARBONDALE		BLACK SHALE	2.0	46.0	
481.2	CARBONDALE	ST. DAVID	LIMESTONE	1.0	48.0	CAPROCK
480.2	CARBONDALE	SPRINGFIELD	COAL	5.5	49.0	GOOD
474.7	CARBONDALE		UNDERCLAY	1.5	54.5	

MAPID: 12990022000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 1' S line, 1' E line of NW NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.951951 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.013982 DATE COLLECTED: 5 / 18 / 1966
 SURFACE ELEVATION (FT.): 599.0 LOGGED (FT.): 128.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U169 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
599.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
592.0	PLEISTOCENE		CLAY	14.0	7.0	
578.0	PLEISTOCENE		SAND & GRAVEL	92.0	21.0	
486.0	CARBONDALE		SANDSTONE	4.0	113.0	HARD
482.0	CARBONDALE		GRAY SHALE	1.0	117.0	
481.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	118.0	
478.0	CARBONDALE	SPRINGFIELD	BONE COAL	5.0	121.0	HARD
473.0	CARBONDALE		UNDERCLAY	2.0	126.0	

MAPID: 12990023000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 1' S line, 1' E line of NE NW

QUADRANGLE: OAKFORD LONGITUDE: -89.947235 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.01402 DATE COLLECTED: 5 / 18 / 1966

SURFACE ELEVATION (FT.): 600.6 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE U171 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.6	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
593.6	PLEISTOCENE		CLAY	14.0	7.0	
579.6	PLEISTOCENE		CLAY	80.0	21.0	
499.6	PLEISTOCENE		SAND & GRAVEL	13.0	101.0	1
486.6	CARBONDALE		ROCK	1.0	114.0	HARD
485.6	CARBONDALE		BLACK SHALE	4.0	115.0	
481.6	CARBONDALE		UNDERCLAY	3.0	119.0	NO COAL
478.6	CARBONDALE		GRAY SHALE	26.0	122.0	

MAPID: 12990026000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 12' N line, 75' W line of NW NW

QUADRANGLE: OAKFORD LONGITUDE: -89.956432 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.017429 DATE COLLECTED: 6 / 15 / 1966

SURFACE ELEVATION (FT.): 526.1 LOGGED (FT.): 55.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE U217 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
526.1	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
521.1	PLEISTOCENE		CLAY	9.0	5.0	
512.1	PLEISTOCENE		CLAY	30.5	14.0	
481.6	CARBONDALE	ST. DAVID	LIMESTONE	0.5	44.5	CAPROCK
481.1	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	45.0	
480.1	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	46.0	
478.1	CARBONDALE	SPRINGFIELD	COAL	3.3	48.0	
474.8	CARBONDALE		ROCK	0.3	51.3	
474.5	CARBONDALE	SPRINGFIELD	COAL/CLAYSTONE	2.5	51.6	
472.0	CARBONDALE		UNDERCLAY	0.9	54.1	

MAPID: 12990027000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 1' N line, 1' W line of NW NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.956698 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.017458 DATE COLLECTED: 5 / 6 / 1966
 SURFACE ELEVATION (FT.): 524.8 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U217-1 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
524.8	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0
519.8	PLEISTOCENE		CLAY	9.0	5.0
510.8	PLEISTOCENE		CLAY	27.5	14.0
483.3	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	41.5
480.8	CARBONDALE	SPRINGFIELD	BONE COAL	6.1	44.0
474.7	CARBONDALE		UNDERCLAY	1.9	50.1

MAPID: 12990028000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 100' N line, 1' W line of NE NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.951954 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.017233 DATE COLLECTED: 5 / 18 / 1966
 SURFACE ELEVATION (FT.): 582.1 LOGGED (FT.): 107.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U219 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
582.1	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
562.1	PLEISTOCENE		SAND	4.0	20.0
558.1	PLEISTOCENE		SAND & GRAVEL	74.0	24.0
484.1	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	98.0
483.1	CARBONDALE	SPRINGFIELD	COAL W/ BLACK SHALE	1.0	99.0
482.1	CARBONDALE	SPRINGFIELD	COAL	5.4	100.0 HARD
476.7	CARBONDALE		UNDERCLAY	1.6	105.4

MAPID: 12990029000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 13 QUARTERS/FOOTAGES: 1' N line, 1' E line of NE NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.947219 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.017555 DATE COLLECTED: 5 / 18 / 1966
 SURFACE ELEVATION (FT.): 602.5 LOGGED (FT.): 132.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U221 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.5	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0	
572.5	PLEISTOCENE		CLAY	90.0	30.0	
482.5	CARBONDALE	ST. DAVID	LIMESTONE	1.5	120.0	
481.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	121.5	
479.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	123.0	
478.5	CARBONDALE	SPRINGFIELD	COAL W/ BLACK SHALE	1.0	124.0	
477.5	CARBONDALE	SPRINGFIELD	COAL	5.2	125.0	HARD
472.3	CARBONDALE		UNDERCLAY	1.8	130.2	

MAPID: 12920421000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 84' N line, 6' W line of SW NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.975636 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.013892 DATE COLLECTED: 7 / 15 / 1969
 SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 152.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B159 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0	PLEISTOCENE		CLAY	40.0	0.0	
575.0	PLEISTOCENE		GRAVEL	1.0	40.0	AQUIFER
574.0	PLEISTOCENE		CLAY	102.0	41.0	
472.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.2	143.0	LIMESTONE CONCRETION IN LOWER 2
468.8	CARBONDALE	SPRINGFIELD	COAL	3.0	146.2	CRUSHED,INCLUDES UNDERCLAY
465.8	CARBONDALE	SPRINGFIELD	COAL	1.8	149.2	FISHTAIL
464.0	CARBONDALE		UNDERCLAY	1.0	151.0	

MAPID: 12920422000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 7' N line, 258' W line of SE NW

QUADRANGLE: OAKFORD LONGITUDE: -89.969988

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.01405

DATE COLLECTED: 7 / 16 / 1969

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 149.5

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B161B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		CLAY	123.0	0.0	
487.0	CARBONDALE		LIMESTONE	2.0	123.0	
485.0	CARBONDALE		GRAY SHALE	15.5	125.0	
469.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	140.5	WITH BONE
466.5	CARBONDALE	SPRINGFIELD	COAL	5.6	143.5	HARD,BRITTLE
460.9	CARBONDALE		UNDERCLAY	0.4	149.1	

MAPID: 12920423000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 36' N line, 120' W line of SW NE

QUADRANGLE: OAKFORD LONGITUDE: -89.96573

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.013929

DATE COLLECTED: 7 / 15 / 1969

SURFACE ELEVATION (FT.): 606.0 LOGGED (FT.): 137.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B163N

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
606.0	PLEISTOCENE		CLAY	35.0	0.0	
571.0	PLEISTOCENE		CLAY & GRAVEL	5.0	35.0	
566.0	PLEISTOCENE		CLAY	50.0	40.0	
516.0	PLEISTOCENE		CLAY & GRAVEL	32.0	90.0	
484.0	CARBONDALE		GRAY SHALE	6.0	122.0	
478.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	128.0	
477.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	128.5	
476.0	CARBONDALE	TURNER MINE	BONE COAL	1.7	130.0	
474.3	CARBONDALE	SPRINGFIELD	COAL	5.1	131.7	
469.2	CARBONDALE		UNDERCLAY	0.2	136.8	

MAPID: 12920424000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 150' S line, 1100' W line of NW NW

QUADRANGLE: OAKFORD LONGITUDE: -89.971728 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.014498 DATE COLLECTED: 2 / 28 / 1970

SURFACE ELEVATION (FT.): 604.0 LOGGED (FT.): 139.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B185G WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
604.0	PLEISTOCENE		CLAY	27.0	0.0	
577.0	PLEISTOCENE		CLAY	77.0	27.0	WITH GRAVEL
500.0	PLEISTOCENE		CLAY	14.0	104.0	
486.0	CARBONDALE		GRAY SHALE	11.5	118.0	
474.5	CARBONDALE	ST. DAVID	LIMESTONE	1.0	129.5	
473.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	130.5	
471.0	CARBONDALE	SPRINGFIELD	COAL	5.4	133.0	
465.6	CARBONDALE		UNDERCLAY	0.6	138.4	

MAPID: 12920425000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 27' N line, 590' E line of NE NW

QUADRANGLE: OAKFORD LONGITUDE: -89.968357 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.017537 DATE COLLECTED: 2 / 28 / 1970

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 125.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B212 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0	PLEISTOCENE		CLAY	3.0	0.0	
592.0	PLEISTOCENE		CLAY & GRAVEL	11.0	3.0	SANDY
581.0	PLEISTOCENE		CLAY	61.0	14.0	WITH GRAVEL
520.0	PLEISTOCENE		CLAY	20.0	75.0	
500.0	CARBONDALE		GRAY SHALE	20.5	95.0	THICKNESS ADJUSTED
479.5	CARBONDALE	ST. DAVID	LIMESTONE	0.5	115.5	HARD
479.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	116.0	
476.5	CARBONDALE	SPRINGFIELD	COAL	5.5	118.5	
471.0	CARBONDALE		UNDERCLAY	1.0	124.0	

MAPID: 12920426000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 380' N line, 620' W line of SE NE

QUADRANGLE: OAKFORD LONGITUDE: -89.95917 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.012917 DATE COLLECTED: 2 / 25 / 1970

SURFACE ELEVATION (FT.): 578.0 LOGGED (FT.): 107.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B141JC WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
578.0	PLEISTOCENE		CLAY	3.0	0.0	
575.0	PLEISTOCENE		CLAY	67.0	3.0	WITH GRAVEL
508.0	PLEISTOCENE		CLAY	14.0	70.0	
494.0	CARBONDALE		GRAY SHALE	12.0	84.0	
482.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	96.0	HARD
481.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	96.5	
479.0	CARBONDALE	TURNER MINE	BONE COAL	1.0	99.0	
478.0	CARBONDALE	SPRINGFIELD	COAL	6.0	100.0	
472.0	CARBONDALE		UNDERCLAY	1.0	106.0	

MAPID: 12920427000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 246' N line, 25' E line of SE NE

QUADRANGLE: OAKFORD LONGITUDE: -89.956742 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.013263 DATE COLLECTED: 5 / 30 / 1969

SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 57.5 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B142CC WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
535.0	PLEISTOCENE		CLAY	20.0	0.0	SILTY
515.0	PLEISTOCENE		SAND & GRAVEL	20.0	20.0	
495.0	PLEISTOCENE		CLAY	10.0	40.0	
485.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	50.0	
483.5	CARBONDALE	SPRINGFIELD	COAL	6.0	51.5	

MAPID: 12920428000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 54' N line, 0' E line of NW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.970814 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.010362 DATE COLLECTED: 3 / 10 / 1970

SURFACE ELEVATION (FT.): 608.0 LOGGED (FT.): 138.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B111 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.0	PLEISTOCENE		CLAY	14.0	0.0	
594.0	PLEISTOCENE		CLAY	9.0	14.0	SILTY
585.0	PLEISTOCENE		CLAY	71.0	23.0	
514.0	PLEISTOCENE		CLAY	19.0	94.0	WITH GRAVEL
495.0	CARBONDALE		GRAY SHALE	15.0	113.0	
480.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	128.0	HARD
479.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.2	129.0	
476.8	CARBONDALE	SPRINGFIELD	COAL	6.1	131.2	
470.7	CARBONDALE		UNDERCLAY	0.7	137.3	

MAPID: 12920429000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: NE NE NE SW

QUADRANGLE: OAKFORD LONGITUDE: -89.966666 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.010042 DATE COLLECTED: 3 / 11 / 1970

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B113 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0	PLEISTOCENE		CLAY	12.0	0.0	
600.0	PLEISTOCENE		CLAY	10.0	12.0	SILTY
590.0	PLEISTOCENE		CLAY	95.0	22.0	WITH GRAVEL
495.0	CARBONDALE		GRAY SHALE	14.5	117.0	
480.5	CARBONDALE	ST. DAVID	LIMESTONE	0.5	131.5	HARD
480.0	CARBONDALE	TURNER MINE	BLACK SHALE	0.5	132.0	
479.5	CARBONDALE	TURNER MINE	LIMESTONE	1.5	132.5	BLACK
478.0	CARBONDALE	SPRINGFIELD	COAL	5.5	134.0	
472.5	CARBONDALE		UNDERCLAY	0.5	139.5	

MAPID: 12920430000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 500' S line, 210' E line of SW NE

QUADRANGLE: OAKFORD LONGITUDE: -89.962131

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.011837

DATE COLLECTED: 2 / 25 / 1970

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 80.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B114G

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		CLAY	3.0	0.0	
547.0	PLEISTOCENE		CLAY & GRAVEL	13.0	3.0	
534.0	PLEISTOCENE		CLAY	29.0	16.0	WITH GRAVEL
505.0	PLEISTOCENE		CLAY	17.0	45.0	
488.0	CARBONDALE		GRAY SHALE	6.0	62.0	
482.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	68.0	HARD
481.5	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	68.5	
477.5	CARBONDALE	SPRINGFIELD	COAL	5.0	72.5	
472.5	CARBONDALE		UNDERCLAY	2.5	77.5	

MAPID: 12920431000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 116' S line, 52' W line of NW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.975261

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.007276

DATE COLLECTED: 3 / 9 / 1970

SURFACE ELEVATION (FT.): 608.0 LOGGED (FT.): 132.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B59

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.0	PLEISTOCENE		CLAY	12.0	0.0	
596.0	PLEISTOCENE		CLAY	25.0	12.0	WITH GRAVEL
571.0	PLEISTOCENE		CLAY	59.0	37.0	
512.0	CARBONDALE		GRAY SHALE	25.0	96.0	
487.0	CARBONDALE	ST. DAVID	LIMESTONE	1.3	121.0	HARD
485.7	CARBONDALE	TURNER MINE	BLACK SHALE	2.2	122.3	
483.5	CARBONDALE	SPRINGFIELD	COAL	6.3	124.5	
477.2	CARBONDALE		UNDERCLAY	1.2	130.8	

MAPID: 12920432000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 35' S line, 200' E line of NW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.971444 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.007043 DATE COLLECTED: 3 / 9 / 1970

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 145.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B60P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	40.0	0.0	
565.0	PLEISTOCENE		CLAY	50.0	40.0	WITH GRAVEL
515.0	PLEISTOCENE		CLAY	22.0	90.0	
493.0	CARBONDALE	ST. DAVID	LIMESTONE	24.5	112.0	LIMESTONE INTERBEDS
468.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	136.5	
466.0	CARBONDALE	SPRINGFIELD	COAL	4.0	139.0	
462.0	CARBONDALE		UNDERCLAY	2.0	143.0	

MAPID: 12920433000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 123' S line, 360' E line of NE SW

QUADRANGLE: OAKFORD LONGITUDE: -89.967308 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.007274 DATE COLLECTED: 3 / 10 / 1970

SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 144.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B62L WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.0	PLEISTOCENE		CLAY	37.0	0.0	
565.0	PLEISTOCENE		CLAY	78.0	37.0	WITH GRAVEL
487.0	CARBONDALE		GRAY SHALE	19.0	115.0	
468.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	134.0	HARD
467.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	135.0	LIMESTONE INTERBEDS
464.0	CARBONDALE	SPRINGFIELD	COAL	5.5	138.0	
458.5	CARBONDALE		UNDERCLAY	0.5	143.5	

MAPID: 12920434000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 264' S line, 366' W line of SW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.974034 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.004101 DATE COLLECTED: 5 / 29 / 1969

SURFACE ELEVATION (FT.): 619.0 LOGGED (FT.): 153.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B9LC WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
619.0	PLEISTOCENE		CLAY & GRAVEL	45.0	0.0	SILTY
574.0	PLEISTOCENE		CLAY	60.0	45.0	
514.0	PLEISTOCENE		CLAY & GRAVEL	10.0	105.0	
504.0	PLEISTOCENE		CLAY	5.0	115.0	
499.0	CARBONDALE		LIMESTONE	1.0	120.0	
498.0	CARBONDALE		GRAY SHALE	20.0	121.0	
478.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	141.0	DARK
477.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.7	142.0	
473.3	CARBONDALE	SPRINGFIELD	COAL	6.3	145.7	
467.0	CARBONDALE		UNDERCLAY	1.0	152.0	

MAPID: 12990001000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 1' S line, 1' W line of SW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.975324 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.003376 DATE COLLECTED: 6 / 9 / 1966

SURFACE ELEVATION (FT.): 611.0 LOGGED (FT.): 138.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE U9 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
611.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
602.0	PLEISTOCENE		CLAY	20.0	9.0	
582.0	PLEISTOCENE		CLAY	71.0	29.0	
511.0	CARBONDALE		SANDSTONE	7.0	100.0	
504.0	CARBONDALE		GRAY SHALE	20.0	107.0	
484.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	127.0	HARD
483.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	128.0	SOFT
482.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	129.0	
481.0	CARBONDALE	SPRINGFIELD	COAL	6.2	130.0	GOOD
474.8	CARBONDALE		UNDERCLAY	1.8	136.2	

MAPID: 12990002000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 1' S line, 1' W line of SE SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.961231 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.003387 DATE COLLECTED: 5 / 10 / 1966
 SURFACE ELEVATION (FT.): 575.2 LOGGED (FT.): 119.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U15 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.2	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
565.2	PLEISTOCENE		SAND & GRAVEL	50.0	10.0	HARDPAN
515.2	PLEISTOCENE		SAND & GRAVEL	3.0	60.0	
512.2	PLEISTOCENE		CLAY	19.0	63.0	
493.2	CARBONDALE		LIMESTONE	3.7	82.0	HARD
489.5	CARBONDALE		GRAY SHALE	25.4	85.7	
464.2	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	111.0	HARD
463.2	CARBONDALE	SPRINGFIELD	COAL	6.0	112.0	HARD
457.2	CARBONDALE		UNDERCLAY	1.0	118.0	

MAPID: 12990007000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 25' S line, 25' W line of NE SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.961205 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.006986 DATE COLLECTED: 5 / 10 / 1966
 SURFACE ELEVATION (FT.): 538.2 LOGGED (FT.): 76.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U65 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
538.2	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
532.2	PLEISTOCENE		CLAY	9.0	6.0	
523.2	PLEISTOCENE		CLAY	20.0	15.0	
503.2	PLEISTOCENE		SAND & GRAVEL	10.0	35.0	
493.2	CARBONDALE		GRAY SHALE	18.0	45.0	SOFT
475.2	CARBONDALE		SANDSTONE	1.0	63.0	HARD
474.2	CARBONDALE		BLACK SHALE	2.0	64.0	SOFT
472.2	CARBONDALE	ST. DAVID	LIMESTONE	1.0	66.0	
471.2	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	67.0	HARD
470.2	CARBONDALE	SPRINGFIELD	COAL	6.0	68.0	HARD
464.2	CARBONDALE		UNDERCLAY	2.0	74.0	

MAPID: 12990008000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 84' N line, 1' E line of SE SE

QUADRANGLE: OAKFORD LONGITUDE: -89.956577 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.006673 DATE COLLECTED: 5 / 11 / 1966

SURFACE ELEVATION (FT.): 590.7 LOGGED (FT.): 132.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE U67 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.7	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
583.7	PLEISTOCENE		CLAY	15.0	7.0	
568.7	PLEISTOCENE		CLAY	73.0	22.0	
495.7	CARBONDALE		GRAY SHALE	25.0	95.0	
470.7	CARBONDALE		ROCK	1.0	120.0	
469.7	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	121.0	
467.7	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	123.0	HARD
466.7	CARBONDALE	SPRINGFIELD	COAL	6.0	124.0	HARD
460.7	CARBONDALE		UNDERCLAY	2.0	130.0	

MAPID: 12990013000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 660' N line, 1' E line of NE SE

QUADRANGLE: OAKFORD LONGITUDE: -89.9566 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.008602 DATE COLLECTED: 5 / 12 / 1966

SURFACE ELEVATION (FT.): 600.4 LOGGED (FT.): 139.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE U92 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.4	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
593.4	PLEISTOCENE		CLAY	15.0	7.0	
578.4	PLEISTOCENE		CLAY	81.0	22.0	
497.4	CARBONDALE		GRAY SHALE	24.0	103.0	SOFT
473.4	CARBONDALE		ROCK	1.0	127.0	HARD
472.4	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	128.0	SOFT
470.4	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	130.0	HARD
469.4	CARBONDALE	SPRINGFIELD	COAL	6.0	131.0	HARD
463.4	CARBONDALE		UNDERCLAY	2.0	137.0	

MAPID: 12990014000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 1' N line, 1' W line of NE SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.96135 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.010449 DATE COLLECTED: 5 / 11 / 1966
 SURFACE ELEVATION (FT.): 590.5 LOGGED (FT.): 126.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U115 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.5	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
570.5	PLEISTOCENE		SAND & GRAVEL	6.0	20.0	
564.5	PLEISTOCENE		SAND & GRAVEL	75.0	26.0	HARDPAN
489.5	CARBONDALE		GRAY SHALE	11.0	101.0	
478.5	CARBONDALE	ST. DAVID	LIMESTONE	0.8	112.0	HARD
477.7	CARBONDALE	TURNER MINE	BLACK SHALE	4.2	112.8	
473.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	117.0	
472.5	CARBONDALE	SPRINGFIELD	COAL W/ BLACK SHALE	6.3	118.0	
466.2	CARBONDALE		UNDERCLAY	1.8	124.3	

MAPID: 12990021000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 14 QUARTERS/FOOTAGES: 80' N line, 1' E line of SE NE
 QUADRANGLE: OAKFORD LONGITUDE: -89.956662 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.013721 DATE COLLECTED: 5 / 6 / 1966
 SURFACE ELEVATION (FT.): 529.8 LOGGED (FT.): 59.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE U167 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
529.8	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
524.8	PLEISTOCENE		CLAY	9.0	5.0	
515.8	PLEISTOCENE		CLAY	21.0	14.0	
494.8	PLEISTOCENE		SAND & GRAVEL	10.0	35.0	
484.8	CARBONDALE		ROCK	2.0	45.0	
482.8	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	47.0	
479.8	CARBONDALE	SPRINGFIELD	COAL	5.3	50.0	
474.5	CARBONDALE		BLACK SHALE	2.0	55.3	SOFT
472.5	CARBONDALE		UNDERCLAY	1.8	57.3	

MAPID: 12920435000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 570' N line, 543' W line of NW NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.992298 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.016043 DATE COLLECTED: 6 / 13 / 1969
 SURFACE ELEVATION (FT.): 609.0 LOGGED (FT.): 138.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B183K WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
609.0	PLEISTOCENE		CLAY	16.0	0.0	SANDY
593.0	PLEISTOCENE		CLAY	69.0	16.0	WITH GRAVEL
524.0	PLEISTOCENE		CLAY	34.0	85.0	SANDY W/OCCASIONAL GVL
490.0	PLEISTOCENE		SAND & GRAVEL	6.0	119.0	
484.0	CARBONDALE		GRAY SHALE	13.0	125.0	W/LIMESTONE RIBS

MAPID: 12920436000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 660' N line, 0' W line of NW SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.984828 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.008661 DATE COLLECTED: 2 / 16 / 1972
 SURFACE ELEVATION (FT.): 613.0 LOGGED (FT.): 132.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B80 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
613.0	PLEISTOCENE		CLAY	122.0	0.0	
491.0	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	122.0	
487.0	CARBONDALE	SPRINGFIELD	COAL	5.0	126.0	
482.0	CARBONDALE		UNDERCLAY	1.0	131.0	

MAPID: 12920437000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 660' S line, 500' W line of NW NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.992451 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.015849 DATE COLLECTED: 2 / 27 / 1970
 SURFACE ELEVATION (FT.): 596.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B176P WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
596.0	PLEISTOCENE		CLAY	122.0	0.0	
474.0	CARBONDALE		SHALE	18.0	122.0	

MAPID: 12920438000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 660' S line, 1130' W line of NW NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.99019 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.015861 DATE COLLECTED: 2 / 27 / 1970
 SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 155.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B177P WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.0	PLEISTOCENE		CLAY	130.0	0.0	
472.0	CARBONDALE		SAND	10.0	130.0	
462.0	CARBONDALE		CLAY	10.0	140.0	
452.0			GRAY SHALE	5.0	150.0	

MAPID: 12920439000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 81' N line, 10' E line of NW NE
 QUADRANGLE: OAKFORD LONGITUDE: -89.980431 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.017458 DATE COLLECTED: 2 / 24 / 1970
 SURFACE ELEVATION (FT.): 609.0 LOGGED (FT.): 136.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B102DC WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
609.0	PLEISTOCENE		CLAY	126.0	0.0	
483.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	126.0	
482.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	126.5	
480.5	CARBONDALE	SPRINGFIELD	BONE COAL	0.5	128.5	
480.0	CARBONDALE	SPRINGFIELD	COAL	6.5	129.0	
473.5	CARBONDALE		UNDERCLAY	0.5	135.5	

MAPID: 12920440000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 800' N line, 580' W line of NE NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.987528 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.015436 DATE COLLECTED: 2 / 28 / 1970
 SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B153G WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	35.0	0.0	
570.0	PLEISTOCENE		CLAY & GRAVEL	5.0	35.0	
565.0	PLEISTOCENE		CLAY	95.0	40.0	
470.0	PLEISTOCENE		SAND	20.0	135.0	INCLUDES WOOD
450.0	CARBONDALE		SHALE	5.0	155.0	

MAPID: 12920441000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 800' N line, 20' E line of NE NW

QUADRANGLE: OAKFORD LONGITUDE: -89.985047 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.015449 DATE COLLECTED: 2 / 28 / 1970

SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 129.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B155D WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
602.0	PLEISTOCENE		CLAY	60.0	0.0
542.0	PLEISTOCENE		CLAY & GRAVEL	5.0	60.0
537.0	PLEISTOCENE		CLAY	53.0	65.0
484.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	118.0
482.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	119.5
480.5	CARBONDALE	SPRINGFIELD	COAL	6.5	121.5
474.0	CARBONDALE		UNDERCLAY	1.0	128.0

MAPID: 12920442000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 0' S line, 12' E line of NW NE

QUADRANGLE: OAKFORD LONGITUDE: -89.980347 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.014097 DATE COLLECTED: 2 / 24 / 1970

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 136.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B157 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		CLAY	58.0	0.0
542.0	PLEISTOCENE		CLAY & GRAVEL	5.0	58.0
537.0	PLEISTOCENE		CLAY	55.0	63.0
482.0	CARBONDALE		SHALE	7.0	118.0
475.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	125.0
473.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	127.0
471.0	CARBONDALE	SPRINGFIELD	COAL	6.0	129.0
465.0	CARBONDALE		UNDERCLAY	1.0	135.0

MAPID: 12920443000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 72' N line, 135' W line of NW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.993697

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.01023

DATE COLLECTED: 6 / 3 / 1969

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 128.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B101

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0	PLEISTOCENE		CLAY	105.0	0.0	
510.0	PLEISTOCENE		SAND & GRAVEL	10.0	105.0	
500.0	CARBONDALE		GRAY SHALE	4.5	115.0	
495.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	119.5	
494.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	120.5	BONEY
493.5	CARBONDALE	SPRINGFIELD	COAL	5.5	121.5	
488.0	CARBONDALE		UNDERCLAY	1.0	127.0	

MAPID: 12920444000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 70' S line, 990' W line of SW NW

QUADRANGLE: OAKFORD LONGITUDE: -89.990631

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.010641

DATE COLLECTED: 2 / 28 / 1970

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 150.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B102B

WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	140.0	0.0	
465.0	PLEISTOCENE		CLAY & GRAVEL	8.0	140.0	
457.0	CARBONDALE		GRAY SHALE	2.0	148.0	

MAPID: 12920445000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 30' S line, 1000' E line of SE NW

QUADRANGLE: OAKFORD LONGITUDE: -89.988459

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.010545

DATE COLLECTED: 2 / 25 / 1970

SURFACE ELEVATION (FT.): 611.0 LOGGED (FT.): 164.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B103B

WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
611.0	PLEISTOCENE		CLAY	130.0	0.0	
481.0	PLEISTOCENE		SAND & GRAVEL	25.0	130.0	INCLUDES WOOD & COAL
456.0	PLEISTOCENE		CLAY & GRAVEL	8.0	155.0	
448.0	CARBONDALE		SHALE	1.0	163.0	

MAPID: 12920446000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 51' N line, 25' E line of NE SW

QUADRANGLE: OAKFORD LONGITUDE: -89.984954 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.010341 DATE COLLECTED: 3 / 9 / 1970

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 131.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B103B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0	PLEISTOCENE		CLAY	50.0	0.0
560.0	PLEISTOCENE		GRAVEL	2.0	50.0
558.0	PLEISTOCENE		CLAY	48.0	52.0
510.0	PLEISTOCENE		CLAY & GRAVEL	5.0	100.0
505.0	PLEISTOCENE		CLAY	16.0	105.0
489.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	121.0
488.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	122.0
485.5	CARBONDALE	SPRINGFIELD	COAL	5.8	124.5
479.7	CARBONDALE		UNDERCLAY	0.7	130.3

MAPID: 12920447000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 40' S line, 8' E line of SW NE

QUADRANGLE: OAKFORD LONGITUDE: -89.98024 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.010623 DATE COLLECTED: 2 / 25 / 1970

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 141.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B107 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0	PLEISTOCENE		CLAY	130.0	0.0
480.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	130.0
479.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	131.0
476.0	CARBONDALE	SPRINGFIELD	COAL	6.4	134.0
469.6	CARBONDALE		UNDERCLAY	0.6	140.4

MAPID: 12920448000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 72' N line, 15' E line of NE SE

QUADRANGLE: OAKFORD LONGITUDE: -89.975601 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.01034 DATE COLLECTED: 6 / 2 / 1969

SURFACE ELEVATION (FT.): 616.0 LOGGED (FT.): 143.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B109 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
616.0	PLEISTOCENE		CLAY	110.0	0.0	
506.0	PLEISTOCENE		SAND & GRAVEL	5.0	110.0	
501.0	CARBONDALE		GRAY SHALE	17.0	115.0	
484.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	132.0	
483.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	133.0	
480.0	CARBONDALE	TURNER MINE	LIMESTONE	1.0	136.0	CONCRETION?
479.0	CARBONDALE	SPRINGFIELD	COAL	5.8	137.0	
473.2	CARBONDALE		UNDERCLAY	0.2	142.8	

MAPID: 12920449000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 9' S line, 54' W line of NW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.993946 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.006862 DATE COLLECTED: 3 / 9 / 1970

SURFACE ELEVATION (FT.): 609.0 LOGGED (FT.): 128.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B51 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
609.0	PLEISTOCENE		CLAY	40.0	0.0	
569.0	PLEISTOCENE		GRAVEL	1.0	40.0	
568.0	PLEISTOCENE		CLAY	77.0	41.0	
491.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	118.0	
490.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	119.0	
488.5	CARBONDALE	SPRINGFIELD	COAL	6.5	120.5	
482.0	CARBONDALE		UNDERCLAY	1.0	127.0	

MAPID: 1292045000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 12' N line, 0' E line of SE SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.975438 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.006922 DATE COLLECTED: 3 / 9 / 1970
 SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B53 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0	PLEISTOCENE		CLAY	137.0	0.0	
475.0	PLEISTOCENE		GRAVEL	1.0	137.0	INCLUDES COAL
474.0	CARBONDALE		GRAY SHALE	2.0	138.0	

MAPID: 12920451000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 12' N line, 0' W line of SE SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.980114 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.006892 DATE COLLECTED: 3 / 10 / 1970
 SURFACE ELEVATION (FT.): 616.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B57 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
616.0	PLEISTOCENE		CLAY	142.0	0.0	
474.0	PLEISTOCENE		GRAVEL	3.0	142.0	INCLUDES COAL
471.0	CARBONDALE		GRAY SHALE	15.0	145.0	

MAPID: 12920452000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 15' N line, 0' W line of SW SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.98479 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.006853 DATE COLLECTED: 3 / 10 / 1970
 SURFACE ELEVATION (FT.): 616.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B55 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
616.0	PLEISTOCENE		CLAY	138.0	0.0	
478.0	PLEISTOCENE		SAND & GRAVEL	9.0	138.0	INCLUDES WOOD
469.0	CARBONDALE		GRAY SHALE	13.0	147.0	

MAPID: 12920453000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 330' S line, 0' W line of NW SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.984808 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.007805 DATE COLLECTED: 2 / 16 / 1972
 SURFACE ELEVATION (FT.): 613.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B55C WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
613.0	PLEISTOCENE		CLAY	160.0	0.0	

MAPID: 12920454000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 0' S line, 330' W line of NE SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.97893 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.006932 DATE COLLECTED: 2 / 12 / 1972
 SURFACE ELEVATION (FT.): 617.0 LOGGED (FT.): 146.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B57B WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.0	PLEISTOCENE		CLAY	42.0	0.0	
575.0	PLEISTOCENE		CLAY & GRAVEL	8.0	42.0	
567.0	PLEISTOCENE		CLAY	78.0	50.0	
489.0	CARBONDALE		GRAY SHALE	6.0	128.0	
483.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	134.0	
482.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	135.0	
478.5	CARBONDALE	SPRINGFIELD	COAL	7.0	138.5	
471.5	CARBONDALE		UNDERCLAY	0.5	145.5	

MAPID: 12920455000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 0' S line, 660' W line of NE SE

QUADRANGLE: OAKFORD LONGITUDE: -89.977746 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.00694 DATE COLLECTED: 2 / 16 / 1972

SURFACE ELEVATION (FT.): 617.0 LOGGED (FT.): 143.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B58 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.0	PLEISTOCENE		CLAY	65.0	0.0	
552.0	PLEISTOCENE		CLAY & GRAVEL	5.0	65.0	
547.0	PLEISTOCENE		CLAY	53.0	70.0	W/SMALL GRAVEL
494.0	CARBONDALE		SHALE	8.0	123.0	
486.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	131.0	
484.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	133.0	
480.5	CARBONDALE	SPRINGFIELD	COAL	5.5	136.5	
475.0	CARBONDALE		UNDERCLAY	1.0	142.0	DEPTH ADJUSTED

MAPID: 12920456000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 0' S line, 330' W line of SW SW

QUADRANGLE: OAKFORD LONGITUDE: -89.992912 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.003254 DATE COLLECTED: 3 / 3 / 1972

SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 120.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON B1B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.0	PLEISTOCENE		CLAY	27.0	0.0	
575.0	PLEISTOCENE		GRAVEL	4.0	27.0	
571.0	PLEISTOCENE		CLAY	79.8	31.0	
491.2	CARBONDALE	TURNER MINE	BLACK SHALE	1.2	110.8	
490.0	CARBONDALE	SPRINGFIELD	COAL	4.5	112.0	
485.5	CARBONDALE		UNDERCLAY	3.5	116.5	

MAPID: 12920457000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 0' S line, 660' W line of SW SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.991731 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.003262 DATE COLLECTED: 3 / 3 / 1972
 SURFACE ELEVATION (FT.): 606.0 LOGGED (FT.): 143.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B2 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
606.0	PLEISTOCENE		CLAY	122.0	0.0	
484.0	CARBONDALE		LIMESTONE	1.5	122.0	
482.5	CARBONDALE		GRAY SHALE	9.5	123.5	
473.0	CARBONDALE		BLACK SHALE	1.0	133.0	
472.0	CARBONDALE		UNDERCLAY	9.0	134.0	

MAPID: 12920458000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 10' S line, 0' E line of SE SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.975328 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.003401 DATE COLLECTED: 3 / 11 / 1970
 SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B3 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		CLAY	65.0	0.0	
545.0	PLEISTOCENE		GRAVEL	2.0	65.0	
543.0	PLEISTOCENE		CLAY	73.0	67.0	
470.0	PLEISTOCENE		SAND & GRAVEL	3.0	140.0	
467.0	CARBONDALE		GRAY SHALE	7.0	143.0	

MAPID: 12920459000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 0' S line, 660' E line of SE SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.98708 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.003292 DATE COLLECTED: 2 / 21 / 1972
 SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B4 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		CLAY	141.0	0.0	
469.0	CARBONDALE		BLACK SHALE	1.0	141.0	
468.0	CARBONDALE		SHALE	8.0	142.0	LIMEY

MAPID: 12920460000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 0' S line, 330' W line of SE SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.988221 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.003285 DATE COLLECTED: 2 / 22 / 1972
 SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B4B WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	132.0	0.0	
473.0	PLEISTOCENE		CLAY & GRAVEL	9.0	132.0	
464.0	PLEISTOCENE		CLAY	9.0	141.0	WITH FLOAT COAL

MAPID: 12920461000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 9' S line, 0' E line of SE SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.984712 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.003335 DATE COLLECTED: 3 / 11 / 1970
 SURFACE ELEVATION (FT.): 608.0 LOGGED (FT.): 131.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B5 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.0	PLEISTOCENE		CLAY	65.0	0.0	
543.0	PLEISTOCENE		GRAVEL	3.0	65.0	THICKNESS ADJUSTED
540.0	PLEISTOCENE		CLAY	47.0	68.0	
493.0	CARBONDALE		GRAY SHALE	6.0	115.0	
487.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	121.0	
484.5	CARBONDALE	SPRINGFIELD	COAL	6.3	123.5	
478.2	CARBONDALE		UNDERCLAY	1.2	129.8	

MAPID: 12920462000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 0' S line, 485' W line of NW NW
 QUADRANGLE: OAKFORD LONGITUDE: -89.992485 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.014027 DATE COLLECTED: 2 / 27 / 1970
 SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 125.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B151P WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	111.0	0.0	
494.0	CARBONDALE		SHALE	3.0	111.0	
491.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	114.0	
490.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	115.0	
487.0	CARBONDALE	SPRINGFIELD	COAL	6.0	118.0	
481.0	CARBONDALE		UNDERCLAY	1.0	124.0	

MAPID: 12920463000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 15 QUARTERS/FOOTAGES: 15' N line, 6' E line of NE NE
 QUADRANGLE: OAKFORD LONGITUDE: -89.975798 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.017664 DATE COLLECTED: 2 / 26 / 1970
 SURFACE ELEVATION (FT.): 611.0 LOGGED (FT.): 146.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON B209 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
611.0	PLEISTOCENE		CLAY	21.0	0.0	
590.0	PLEISTOCENE		CLAY	101.0	21.0	WITH GRAVEL
489.0	CARBONDALE		GRAY SHALE	13.0	122.0	
476.0	CARBONDALE	ST. DAVID	LIMESTONE	1.7	135.0	HARD
474.3	CARBONDALE	TURNER MINE	BLACK SHALE	2.8	136.7	
471.5	CARBONDALE	SPRINGFIELD	COAL	5.5	139.5	
466.0	CARBONDALE		UNDERCLAY	1.0	145.0	

MAPID: 12920464000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: 0' N line, 330' W line of SW SW
 QUADRANGLE: TALLULA LONGITUDE: -89.993356 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.9925 DATE COLLECTED: 2 / 22 / 1972
 SURFACE ELEVATION (FT.): 613.0 LOGGED (FT.): 146.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON F451B WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
613.0	PLEISTOCENE		CLAY	14.0	0.0	
599.0	PLEISTOCENE		UNCONSOLIDATED	4.0	14.0	
595.0	PLEISTOCENE		CLAY	29.0	18.0	
566.0	PLEISTOCENE		GRAVEL	2.0	47.0	INCLUDES FLOAT COAL
564.0	PLEISTOCENE		CLAY	26.0	49.0	
538.0	PLEISTOCENE		CLAY & GRAVEL	69.0	75.0	INCLUDES WOOD
469.0	CARBONDALE		GRAY SHALE	2.0	144.0	

MAPID: 12920465000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: 0' N line, 330' E line of NW SW
 QUADRANGLE: TALLULA LONGITUDE: -89.990873 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.996092 DATE COLLECTED: 2 / 21 / 1972
 SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 135.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON F502B WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0	PLEISTOCENE		CLAY	101.0	0.0	
502.0	CARBONDALE		LIMESTONE	1.0	101.0	
501.0	CARBONDALE		GRAY SHALE	20.0	102.0	
481.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	122.0	
478.0	CARBONDALE	SPRINGFIELD	COAL	7.5	125.0	
470.5	CARBONDALE		UNDERCLAY	2.5	132.5	

MAPID: 12920467000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: SE SE NE SW

QUADRANGLE: TALLULA LONGITUDE: -89.985695 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.992962 DATE COLLECTED: 2 / 11 / 1972

SURFACE ELEVATION (FT.): 617.0 LOGGED (FT.): 134.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F455 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
617.0	PLEISTOCENE		CLAY	41.0	0.0
576.0	PLEISTOCENE		CLAY & GRAVEL	64.6	41.0
511.4	CARBONDALE		LIMESTONE	0.9	105.6
510.5	CARBONDALE		GRAY SHALE	16.9	106.5
493.6	CARBONDALE	ST. DAVID	LIMESTONE	0.2	123.4
493.4	CARBONDALE	TURNER MINE	BLACK SHALE	3.2	123.6
490.2	CARBONDALE	SPRINGFIELD	COAL	5.7	126.8
484.5	CARBONDALE		UNDERCLAY	1.5	132.5

MAPID: 12920468000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: 0' S line, 660' E line of SW SW

QUADRANGLE: TALLULA LONGITUDE: -89.99234 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.988916 DATE COLLECTED: 2 / 22 / 1972

SURFACE ELEVATION (FT.): 616.0 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F402 WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
616.0	PLEISTOCENE		CLAY	15.0	0.0
601.0	PLEISTOCENE		UNCONSOLIDATED	6.0	15.0
595.0	PLEISTOCENE		CLAY	122.0	21.0
473.0	CARBONDALE		GRAY SHALE	7.0	143.0

MAPID: 12920469000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: 0' S line, 0' W line of SE SW

QUADRANGLE: TALLULA LONGITUDE: -89.989972 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.988915 DATE COLLECTED: 2 / 9 / 1972

SURFACE ELEVATION (FT.): 617.0 LOGGED (FT.): 165.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F403 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.0	PLEISTOCENE		SOIL	4.0	0.0	
613.0	PLEISTOCENE		CLAY	43.0	4.0	
570.0	PLEISTOCENE		CLAY & GRAVEL	95.0	47.0	
475.0	CARBONDALE		GRAY SHALE	23.0	142.0	

MAPID: 12920470000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: 0' S line, 660' E line of SE SW

QUADRANGLE: TALLULA LONGITUDE: -89.987626 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.988913 DATE COLLECTED: 2 / 9 / 1972

SURFACE ELEVATION (FT.): 618.0 LOGGED (FT.): 155.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F404 WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
618.0	PLEISTOCENE		CLAY	50.0	0.0	
568.0	PLEISTOCENE		CLAY & GRAVEL	90.0	50.0	
478.0	CARBONDALE		GRAY SHALE	9.0	140.0	
469.0	CARBONDALE		BLACK SHALE	1.0	149.0	
468.0	CARBONDALE		GRAY SHALE	5.0	150.0	

MAPID: 12920471000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: 0' S line, 330' E line of SE SW

QUADRANGLE: TALLULA LONGITUDE: -89.986442 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.988913 DATE COLLECTED: 2 / 10 / 1972

SURFACE ELEVATION (FT.): 619.0 LOGGED (FT.): 138.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F404B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
619.0	PLEISTOCENE		CLAY	12.0	0.0	
607.0	PLEISTOCENE		CLAY	18.0	12.0	INCLUDES WOOD
589.0	PLEISTOCENE		CLAY & GRAVEL	27.0	30.0	
562.0	PLEISTOCENE		GRAVEL	4.0	57.0	INCLUDES FLOAT COAL
558.0	PLEISTOCENE		CLAY & GRAVEL	59.0	61.0	
499.0	CARBONDALE		GRAY SHALE	4.0	120.0	
495.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	124.0	
493.0	CARBONDALE	TURNER MINE	BLACK SHALE	4.5	126.0	THICKNESS ADJUSTED
488.5	CARBONDALE	SPRINGFIELD	COAL	6.0	130.5	
482.5	CARBONDALE		UNDERCLAY	1.5	136.5	

MAPID: 12920472000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: 75' S line, 15' E line of SE SW

QUADRANGLE: TALLULA LONGITUDE: -89.985306 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.989122 DATE COLLECTED: 7 / 11 / 1969

SURFACE ELEVATION (FT.): 621.0 LOGGED (FT.): 139.5 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F405 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
621.0	PLEISTOCENE		CLAY	106.0	0.0	
515.0	CARBONDALE		LIMESTONE	4.0	106.0	
511.0	CARBONDALE		GRAY SHALE	15.0	110.0	
496.0	CARBONDALE	ST. DAVID	LIMESTONE	5.0	125.0	
491.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	130.0	
488.5	CARBONDALE	SPRINGFIELD	BONE COAL	2.5	132.5	
486.0	CARBONDALE	SPRINGFIELD	COAL	4.0	135.0	BONEY
482.0	CARBONDALE		UNDERCLAY	0.5	139.0	

MAPID: 12920473000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: 0' N line, 660' W line of NW NE

QUADRANGLE: OAKFORD LONGITUDE: -89.982343 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.003325 DATE COLLECTED: 2 / 16 / 1972

SURFACE ELEVATION (FT.): 613.0 LOGGED (FT.): 136.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F606 WELL TYPE: Coal Test

COMMENT: FOOT NS ESTIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
613.0	PLEISTOCENE		CLAY	14.0	0.0	
599.0	PLEISTOCENE		GRAVEL	4.0	14.0	
595.0	PLEISTOCENE		CLAY	73.0	18.0	WITH GRAVEL
522.0	PLEISTOCENE		CLAY	33.0	91.0	
489.0	CARBONDALE		GRAY SHALE	0.5	124.0	
488.5	CARBONDALE	ST. DAVID	LIMESTONE	0.5	124.5	
488.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	125.0	
484.5	CARBONDALE	SPRINGFIELD	COAL	6.0	128.5	
478.5	CARBONDALE		UNDERCLAY	1.5	134.5	

MAPID: 12920474000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: 0' N line, 0' E line of NW NE

QUADRANGLE: OAKFORD LONGITUDE: -89.980018 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.00334 DATE COLLECTED: 2 / 17 / 1972

SURFACE ELEVATION (FT.): 614.0 LOGGED (FT.): 139.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F607 WELL TYPE: Coal Test

COMMENT: FOOTAGES ESTIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
614.0	PLEISTOCENE		CLAY	30.0	0.0	
584.0	PLEISTOCENE		CLAY & GRAVEL	18.0	30.0	
566.0	PLEISTOCENE		CLAY	37.0	48.0	
529.0	PLEISTOCENE		CLAY & GRAVEL	30.0	85.0	
499.0	CARBONDALE		GRAY SHALE	17.0	115.0	
482.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	132.0	
481.0	CARBONDALE	SPRINGFIELD	COAL	4.5	133.0	
476.5	CARBONDALE		UNDERCLAY	1.5	137.5	

MAPID: 12920475000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: 0' N line, 660' E line of NE NE

QUADRANGLE: OAKFORD LONGITUDE: -89.977696 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.003355 DATE COLLECTED: 2 / 18 / 1972

SURFACE ELEVATION (FT.): 616.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F608 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
616.0	PLEISTOCENE		CLAY	21.0	0.0	
595.0	PLEISTOCENE		GRAVEL	17.0	21.0	
578.0	PLEISTOCENE		CLAY	2.0	38.0	
576.0	PLEISTOCENE		CLAY	55.0	40.0	WITH GRAVEL
521.0	PLEISTOCENE		CLAY	13.0	95.0	
508.0	PLEISTOCENE		CLAY & GRAVEL	8.0	108.0	
500.0	CARBONDALE		GRAY SHALE	15.0	116.0	
485.0	CARBONDALE	ST. DAVID	LIMESTONE	0.6	131.0	
484.4	CARBONDALE	TURNER MINE	BLACK SHALE	3.2	131.6	
481.2	CARBONDALE	SPRINGFIELD	COAL	4.2	134.8	
477.0	CARBONDALE		UNDERCLAY	1.0	139.0	

MAPID: 12920476000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: SW SW NW NE

QUADRANGLE: OAKFORD LONGITUDE: -89.984245 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.000163 DATE COLLECTED: 2 / 15 / 1972

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 135.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F555 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		CLAY	48.0	0.0	
562.0	PLEISTOCENE		CLAY	69.0	48.0	WITH GRAVEL
493.0	CARBONDALE		GRAY SHALE	4.0	117.0	
489.0	CARBONDALE	ST. DAVID	LIMESTONE	3.0	121.0	
486.0	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	124.0	
482.0	CARBONDALE	SPRINGFIELD	COAL	5.5	128.0	
476.5	CARBONDALE		UNDERCLAY	1.5	133.5	

MAPID: 12920477000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: 660' S line, 0' W line of SW NE
 QUADRANGLE: TALLULA LONGITUDE: -89.984915 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.997933 DATE COLLECTED: 2 / 15 / 1972
 SURFACE ELEVATION (FT.): 609.0 LOGGED (FT.): 139.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON F530 WELL TYPE: Coal Test
 COMMENT: FOOT EW ESTIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
609.0	PLEISTOCENE		CLAY	42.5	0.0	
566.5	PLEISTOCENE		CLAY & GRAVEL	52.5	42.5	
514.0	PLEISTOCENE		CLAY	4.0	95.0	
510.0	PLEISTOCENE		GRAVEL	10.0	99.0	INCLUDES FLOAT COAL
500.0	CARBONDALE		GRAY SHALE	19.0	109.0	
481.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	128.0	
479.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	129.5	
477.5	CARBONDALE	SPRINGFIELD	COAL	5.5	131.5	
472.0	CARBONDALE		UNDERCLAY	2.0	137.0	

MAPID: 12920478000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: 0' N line, 660' W line of NW SW
 QUADRANGLE: TALLULA LONGITUDE: -89.992025 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.996088 DATE COLLECTED: 2 / 21 / 1972
 SURFACE ELEVATION (FT.): 606.0 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON F502 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
606.0	PLEISTOCENE		CLAY	132.0	0.0	
474.0	CARBONDALE		BLACK SHALE	1.0	132.0	
473.0	CARBONDALE		GRAY SHALE	17.0	133.0	

MAPID: 12920479000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: NE NE NW SW

QUADRANGLE: TALLULA LONGITUDE: -89.990296 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.995645 DATE COLLECTED: 2 / 19 / 1972

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F503 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0	PLEISTOCENE		CLAY	113.0	0.0	
490.0	CARBONDALE		GRAY SHALE	2.0	113.0	
488.0	CARBONDALE		LIMESTONE	2.0	115.0	
486.0	CARBONDALE		BLACK SHALE & LIMESTONE	4.0	117.0	
482.0	CARBONDALE	SPRINGFIELD	COAL	7.0	121.0	
475.0	CARBONDALE		UNDERCLAY	12.0	128.0	

MAPID: 12920480000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: 0' N line, 660' E line of NE SW

QUADRANGLE: TALLULA LONGITUDE: -89.987353 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.996104 DATE COLLECTED: 2 / 18 / 1972

SURFACE ELEVATION (FT.): 611.0 LOGGED (FT.): 139.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F504 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
611.0	PLEISTOCENE		CLAY	30.0	0.0	
581.0	PLEISTOCENE		CLAY	18.0	30.0	WITH GRAVEL
563.0	PLEISTOCENE		CLAY	32.0	48.0	
531.0	PLEISTOCENE		CLAY	29.5	80.0	WITH GRAVEL
501.5	CARBONDALE		GRAY SHALE	20.0	109.5	
481.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	129.5	
479.0	CARBONDALE	SPRINGFIELD	COAL	5.0	132.0	
474.0	CARBONDALE		UNDERCLAY	2.0	137.0	

MAPID: 12920481000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: SW SW SW NE

QUADRANGLE: TALLULA LONGITUDE: -89.984382 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.996563 DATE COLLECTED: 2 / 14 / 1972

SURFACE ELEVATION (FT.): 608.0 LOGGED (FT.): 139.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F505 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.0	PLEISTOCENE		CLAY	39.0	0.0	
569.0	PLEISTOCENE		CLAY	46.0	39.0	WITH GRAVEL
523.0	PLEISTOCENE		CLAY	20.0	85.0	
503.0	CARBONDALE		GRAY SHALE	8.0	105.0	
495.0	CARBONDALE		LIMESTONE	17.0	113.0	
478.0	CARBONDALE		GRAY SHALE	2.0	130.0	DARK
476.0	CARBONDALE	SPRINGFIELD	COAL	5.2	132.0	
470.8	CARBONDALE		UNDERCLAY	1.8	137.2	

MAPID: 12920482000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: SE SE SE NE

QUADRANGLE: TALLULA LONGITUDE: -89.97615 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.996591 DATE COLLECTED: 2 / 29 / 1972

SURFACE ELEVATION (FT.): 617.0 LOGGED (FT.): 136.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F509 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.0	PLEISTOCENE		CLAY	15.0	0.0	
602.0	PLEISTOCENE		UNCONSOLIDATED	20.0	15.0	
582.0	PLEISTOCENE		CLAY	56.0	35.0	
526.0	PLEISTOCENE		GRAVEL	6.0	91.0	
520.0	PLEISTOCENE		CLAY	7.0	97.0	
513.0	CARBONDALE		GRAY SHALE	19.4	104.0	
493.6	CARBONDALE	ST. DAVID	LIMESTONE	2.6	123.4	
491.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	126.0	
489.0	CARBONDALE	SPRINGFIELD	COAL	6.5	128.0	
482.5	CARBONDALE		UNDERCLAY	1.5	134.5	

MAPID: 12920487000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: 660' N line, 0' W line of NW NE

QUADRANGLE: OAKFORD LONGITUDE: -89.984782 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.001485 DATE COLLECTED: 2 / 16 / 1972

SURFACE ELEVATION (FT.): 607.0 LOGGED (FT.): 136.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F580 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
607.0	PLEISTOCENE		CLAY	13.0	0.0	
594.0	PLEISTOCENE		CLAY & GRAVEL	35.0	13.0	
559.0	PLEISTOCENE		CLAY	53.0	48.0	
506.0	PLEISTOCENE		CLAY	16.0	101.0	WITH GRAVEL
490.0	CARBONDALE		LIMESTONE	4.0	117.0	
486.0	CARBONDALE		GRAY SHALE	2.0	121.0	
484.0	CARBONDALE	TURNER MINE	BLACK SHALE	6.0	123.0	
478.0	CARBONDALE	SPRINGFIELD	COAL	5.5	129.0	
472.5	CARBONDALE		UNDERCLAY	1.5	134.5	

MAPID: 12990104000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 22 QUARTERS/FOOTAGES: 1' S line, 1' E line of SE SE

QUADRANGLE: TALLULA LONGITUDE: -89.975836 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 39.988915 DATE COLLECTED: 6 / 9 / 1966

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE O409 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0	
589.0	PLEISTOCENE		SAND & GRAVEL	81.0	23.0	
508.0	CARBONDALE		SHALE WITH LIMESTONE	4.0	104.0	
504.0	CARBONDALE		SHALE	15.0	108.0	
489.0	CARBONDALE		GRAY SHALE	5.0	123.0	SOFT
484.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	128.0	HARD
483.0	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	129.0	SOFT
479.0	CARBONDALE	SPRINGFIELD	COAL	6.0	133.0	HARD
473.0	CARBONDALE		UNDERCLAY	1.0	139.0	

MAPID: 1292046600C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 23 QUARTERS/FOOTAGES: 0' S line, 330' W line of SW SW

QUADRANGLE: TALLULA LONGITUDE: -89.974648 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.988906 DATE COLLECTED: 2 / 20 / 1972

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 133.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F401 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0	PLEISTOCENE		CLAY	8.0	0.0	
607.0	PLEISTOCENE		UNCONSOLIDATED	13.0	8.0	
594.0	PLEISTOCENE		CLAY	14.0	21.0	
580.0	PLEISTOCENE		GRAVEL	10.0	35.0	
570.0	PLEISTOCENE		CLAY	59.0	45.0	
511.0	CARBONDALE		LIMESTONE	0.5	104.0	
510.5	CARBONDALE		GRAY SHALE	13.5	104.5	
497.0	CARBONDALE	ST. DAVID	LIMESTONE	3.0	118.0	
494.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	121.0	
491.0	CARBONDALE	SPRINGFIELD	COAL	6.5	124.0	
484.5	CARBONDALE		UNDERCLAY	2.5	130.5	THICKNESS ADJUSTED

MAPID: 1292048300C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 23 QUARTERS/FOOTAGES: 660' N line, 0' W line of SW SW

QUADRANGLE: TALLULA LONGITUDE: -89.975769 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.990703 DATE COLLECTED: 3 / 4 / 1972

SURFACE ELEVATION (FT.): 608.0 LOGGED (FT.): 135.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F434 WELL TYPE: Coal Test

COMMENT: FOOT EW ESTIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.0	PLEISTOCENE		CLAY	99.0	0.0	
509.0	CARBONDALE		SHALE	24.5	99.0	WHITE
484.5	CARBONDALE	ST. DAVID	LIMESTONE	0.5	123.5	
484.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	124.0	
481.0	CARBONDALE	SPRINGFIELD	COAL	5.4	127.0	
475.6	CARBONDALE		UNDERCLAY	2.6	132.4	

MAPID: 12920484000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 23 QUARTERS/FOOTAGES:

QUADRANGLE: TALLULA LONGITUDE: -89.966186

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.996129

DATE COLLECTED: 5 / 30 / 1969

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 142.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F488B

WELL TYPE: Coal Test

COMMENT: LOCATION NOT SPECIFIED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0	PLEISTOCENE		CLAY	35.0	0.0	
580.0	PLEISTOCENE		CLAY & GRAVEL	10.0	35.0	
570.0	PLEISTOCENE		CLAY	61.0	45.0	
509.0	CARBONDALE		LIMESTONE	3.0	106.0	
506.0	CARBONDALE		GRAY SHALE	9.0	109.0	
497.0	CARBONDALE		LIMESTONE	2.0	118.0	
495.0	CARBONDALE	ST. DAVID	LIMESTONE	12.0	120.0	
483.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	132.0	
481.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.3	133.5	SOME BONE
479.2	CARBONDALE	SPRINGFIELD	COAL	5.4	135.8	
473.8	CARBONDALE		UNDERCLAY	0.8	141.2	

MAPID: 12920485000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 23 QUARTERS/FOOTAGES: 0' N line, 0' W line of SW SW

QUADRANGLE: TALLULA LONGITUDE: -89.975706

GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.992525

DATE COLLECTED: 5 / 13 / 1969

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 138.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F459

WELL TYPE: Coal Test

COMMENT: FOOTAGES ESTIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		CLAY	93.0	0.0	
517.0	PLEISTOCENE		CLAY	5.0	93.0	WITH GRAVEL
512.0	PLEISTOCENE		CLAY	29.5	98.0	POSSIBLY GRAY SHALE
482.5	CARBONDALE	ST. DAVID	LIMESTONE	0.8	127.5	
481.7	CARBONDALE	TURNER MINE	BLACK SHALE	2.9	128.3	INCLUDES PYRITE
478.8	CARBONDALE	SPRINGFIELD	COAL	5.9	131.2	ANALYSIS AVAILABLE
472.9	CARBONDALE		UNDERCLAY	0.9	137.1	

MAPID: 12920486000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 23 QUARTERS/FOOTAGES: 519' S line, 0' E line of NE NE

QUADRANGLE: OAKFORD LONGITUDE: -89.956613 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.001186 DATE COLLECTED: 6 / 11 / 1969

SURFACE ELEVATION (FT.): 613.0 LOGGED (FT.): 157.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F567D WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
613.0	PLEISTOCENE		CLAY	114.0	0.0	
499.0	PLEISTOCENE		GRAVEL	2.0	114.0	
497.0	CARBONDALE		GRAY SHALE	5.0	116.0	
492.0	CARBONDALE		LIMESTONE	9.0	121.0	SHALE INTERBEDS
483.0	CARBONDALE		GRAY SHALE	17.0	130.0	
466.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	147.0	
465.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	147.5	
462.5	CARBONDALE	SPRINGFIELD	COAL	0.5	150.5	
462.0	CARBONDALE	SPRINGFIELD	BONE COAL	0.6	151.0	W/PYRITE
461.4	CARBONDALE	SPRINGFIELD	COAL	4.9	151.6	
456.5	CARBONDALE		UNDERCLAY	0.5	156.5	

MAPID: 12990107000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 23 QUARTERS/FOOTAGES: 1' N line, 25' W line of NE NE

QUADRANGLE: OAKFORD LONGITUDE: -89.961145 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.003382 DATE COLLECTED: 5 / 27 / 1966

SURFACE ELEVATION (FT.): 591.6 LOGGED (FT.): 123.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 0423 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
591.6	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
584.6	PLEISTOCENE		CLAY	19.0	7.0	
565.6	PLEISTOCENE		CLAY	60.0	26.0	
505.6	CARBONDALE		GRAY SHALE	27.0	86.0	
478.6	CARBONDALE	ST. DAVID	LIMESTONE	1.0	113.0	HARD
477.6	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	114.0	
475.6	CARBONDALE	SPRINGFIELD	COAL	5.5	116.0	GOOD
470.1	CARBONDALE		UNDERCLAY	1.5	121.5	

MAPID: 12990115000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 23 QUARTERS/FOOTAGES: 1' N line, 1' W line of NW SW
 QUADRANGLE: TALLULA LONGITUDE: -89.975576 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.996138 DATE COLLECTED: 6 / 9 / 1966
 SURFACE ELEVATION (FT.): 617.0 LOGGED (FT.): 142.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O509 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
602.0	PLEISTOCENE		CLAY	15.0	15.0	
587.0	PLEISTOCENE		CLAY	60.0	30.0	
527.0	PLEISTOCENE		SAND & GRAVEL	4.0	90.0	
523.0	PLEISTOCENE		CLAY	13.0	94.0	
510.0	CARBONDALE		SANDSTONE	1.5	107.0	
508.5	CARBONDALE		SANDY SHALE	21.5	108.5	HARD
487.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	130.0	
485.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	131.5	SOFT
482.5	CARBONDALE	SPRINGFIELD	COAL W/ BLACK SHALE	1.5	134.5	
481.0	CARBONDALE	SPRINGFIELD	COAL	4.7	136.0	GOOD
476.3	CARBONDALE		UNDERCLAY	1.3	140.7	

MAPID: 12990118000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 23 QUARTERS/FOOTAGES: 252' S line, 42' E line of NW NE
 QUADRANGLE: OAKFORD LONGITUDE: -89.961488 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.00045 DATE COLLECTED: 6 / 13 / 1966
 SURFACE ELEVATION (FT.): 605.3 LOGGED (FT.): 142.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O565C WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.3	PLEISTOCENE		UNCONSOLIDATED	26.0	0.0	
579.3	PLEISTOCENE		CLAY	80.0	26.0	
499.3	CARBONDALE		GRAY SHALE	25.0	106.0	
474.3	CARBONDALE	ST. DAVID	LIMESTONE	1.0	131.0	HARD
473.3	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	132.0	SOFT
469.3	CARBONDALE	SPRINGFIELD	COAL	5.3	136.0	GOOD
464.0	CARBONDALE		UNDERCLAY	0.8	141.3	

MAPID: 12920488000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 10' S line, 45' E line of NE SE

QUADRANGLE: TALLULA LONGITUDE: -89.938274 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.992535 DATE COLLECTED: 1 / 28 / 1970

SURFACE ELEVATION (FT.): 601.0 LOGGED (FT.): 131.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F475 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
601.0	PLEISTOCENE		SILT & CLAY	60.0	0.0	
541.0	PLEISTOCENE		CLAY	5.0	60.0	WITH GRAVEL
536.0	PLEISTOCENE		CLAY	15.0	65.0	
521.0	PLEISTOCENE		CLAY	15.0	80.0	SANDY
506.0	CARBONDALE		GRAY SHALE	26.0	95.0	
480.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	121.0	
479.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	122.0	
477.0	CARBONDALE	SPRINGFIELD	BONE COAL	0.5	124.0	
476.5	CARBONDALE	SPRINGFIELD	COAL	3.0	124.5	
473.5	CARBONDALE	SPRINGFIELD	SHALE	1.5	127.5	CLAYDIKE
472.0	CARBONDALE	SPRINGFIELD	COAL	0.8	129.0	
471.2	CARBONDALE		UNDERCLAY	1.2	129.8	

MAPID: 12920489000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 250' S line, 950' W line of NW SE

QUADRANGLE: TALLULA LONGITUDE: -89.944095 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.993189 DATE COLLECTED: 4 / 23 / 1970

SURFACE ELEVATION (FT.): 539.0 LOGGED (FT.): 75.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F472L WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
539.0	PLEISTOCENE		CLAY	38.0	0.0	
501.0	CARBONDALE		GRAY SHALE	25.0	38.0	LIMESTONE INTERBEDS
476.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	63.0	HARD
474.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	65.0	THICKNESS ADJUSTED
470.5	CARBONDALE	SPRINGFIELD	COAL	5.5	68.5	
465.0	CARBONDALE		UNDERCLAY	1.0	74.0	

MAPID: 1292049000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 1038' N line, 0' W line of NW SW

QUADRANGLE: TALLULA LONGITUDE: -89.956894 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.993253 DATE COLLECTED: 6 / 29 / 1969

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 148.9 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F467C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0	PLEISTOCENE		CLAY	20.0	0.0	SANDY
595.0	PLEISTOCENE		CLAY	45.0	20.0	
550.0	PLEISTOCENE		CLAY	42.5	65.0	WITH GRAVEL
507.5	CARBONDALE		LIMESTONE	3.5	107.5	
504.0	CARBONDALE		GRAY SHALE	20.0	111.0	LIMESTONE INTERBEDS
484.0	CARBONDALE		GRAY SHALE	8.6	131.0	SOFT
475.4	CARBONDALE	ST. DAVID	LIMESTONE	0.6	139.6	HARD
474.8	CARBONDALE	TURNER MINE	BLACK SHALE	2.1	140.2	SOFT
472.7	CARBONDALE	SPRINGFIELD	BONE COAL	0.3	142.3	
472.4	CARBONDALE	SPRINGFIELD	COAL	6.0	142.6	
466.4	CARBONDALE		UNDERCLAY	0.3	148.6	

MAPID: 12920491000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 110' S line, 0' W line of SW SW

QUADRANGLE: TALLULA LONGITUDE: -89.95704 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.989152 DATE COLLECTED: 4 / 24 / 1970

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F417 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		CLAY	97.0	0.0	
513.0	CARBONDALE		LIMESTONE	4.0	97.0	HARD
509.0	CARBONDALE		GRAY SHALE	6.0	101.0	
503.0	CARBONDALE	HERRIN	COAL	0.3	107.0	
502.7	CARBONDALE		GRAY SHALE	5.7	107.3	SOFT
497.0	CARBONDALE		LIMESTONE	2.5	113.0	HARD
494.5	CARBONDALE		GRAY SHALE	24.5	115.5	THICKNESS ADJUSTED.LIMESTONE
470.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.8	140.0	
468.2	CARBONDALE	SPRINGFIELD	COAL	5.0	141.8	
463.2	CARBONDALE		UNDERCLAY	1.2	146.8	

MAPID: 12920492000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 264' N line, 279' E line of NE NE

QUADRANGLE: OAKFORD LONGITUDE: -89.939041 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 40.002661 DATE COLLECTED: 5 / 31 / 1969

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F599G WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	103.0	0.0	
497.0	CARBONDALE		LIMESTONE	2.0	103.0	
495.0	CARBONDALE		GRAY SHALE	15.0	105.0	
480.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	120.0	
479.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.3	120.5	
477.2	CARBONDALE	SPRINGFIELD	COAL	2.2	122.8	
475.0	CARBONDALE	SPRINGFIELD	LIMESTONE	1.4	125.0	
473.6	CARBONDALE	SPRINGFIELD	COAL	2.7	126.4	
470.9	CARBONDALE		UNDERCLAY	0.9	129.1	

MAPID: 12920493000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 400' N line, 105' W line of SW NE

QUADRANGLE: TALLULA LONGITUDE: -89.947011 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.998654 DATE COLLECTED: 4 / 23 / 1970

SURFACE ELEVATION (FT.): 534.0 LOGGED (FT.): 77.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F546J WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
534.0	PLEISTOCENE		CLAY	40.0	0.0	
494.0	CARBONDALE		GRAY SHALE	16.0	40.0	LIMESTONE LAMINAE
478.0	CARBONDALE		GRAY SHALE	9.0	56.0	SOFT
469.0	CARBONDALE	ST. DAVID	LIMESTONE	3.0	65.0	HARD
466.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	68.0	
464.0	CARBONDALE	SPRINGFIELD	COAL	5.5	70.0	
458.5	CARBONDALE		UNDERCLAY	1.5	75.5	

MAPID: 12920494000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 46' N line, 14' W line of NW SW

QUADRANGLE: TALLULA LONGITUDE: -89.956747 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.995992 DATE COLLECTED: 6 / 1 / 1969

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 133.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F517 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		CLAY	20.0	0.0	
570.0	CARBONDALE		GRAVEL	1.0	20.0	
569.0	CARBONDALE		CLAY	73.0	21.0	
496.0	CARBONDALE		LIMESTONE	2.0	94.0	
494.0	CARBONDALE		GRAY SHALE	25.0	96.0	LIMESTONE LAMINAE
469.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	121.0	
468.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.4	122.0	
464.6	CARBONDALE	SPRINGFIELD	COAL	6.4	125.4	
458.2	CARBONDALE		UNDERCLAY	1.2	131.8	

MAPID: 12920495000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 0' S line, 520' W line of SW NE

QUADRANGLE: TALLULA LONGITUDE: -89.945574 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.996128 DATE COLLECTED: 4 / 23 / 1970

SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 73.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F521P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.0	PLEISTOCENE		SOIL	22.0	0.0	
518.0	PLEISTOCENE		CLAY	18.0	22.0	
500.0	CARBONDALE		GRAY SHALE	23.0	40.0	
477.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	63.0	HARD
476.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	64.0	
474.0	CARBONDALE	SPRINGFIELD	COAL	5.7	66.0	
468.3	CARBONDALE		UNDERCLAY	1.3	71.7	

MAPID: 12990105000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 330' S line, 1' W line of SE SW
 QUADRANGLE: TALLULA LONGITUDE: -89.952293 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.989766 DATE COLLECTED: 5 / 26 / 1966
 SURFACE ELEVATION (FT.): 608.5 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O419C WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.5	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
601.5	PLEISTOCENE		CLAY	15.0	7.0	
586.5	PLEISTOCENE		CLAY	73.0	22.0	
513.5	CARBONDALE		LIMESTONE	2.0	95.0	HARD
511.5	CARBONDALE		GRAY SHALE	51.0	97.0	

MAPID: 12990106000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 27' S line, 54' W line of SW SE
 QUADRANGLE: TALLULA LONGITUDE: -89.947398 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.98894 DATE COLLECTED: 5 / 27 / 1966
 SURFACE ELEVATION (FT.): 590.7 LOGGED (FT.): 124.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O421 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.7	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0	
567.7	PLEISTOCENE		CLAY	55.0	23.0	
512.7	CARBONDALE		LIMESTONE	3.0	78.0	
509.7	CARBONDALE		GRAY SHALE	5.0	81.0	
504.7	CARBONDALE		SANDSTONE	4.7	86.0	
500.0	CARBONDALE		SANDY SHALE	23.3	90.7	HARD
476.7	CARBONDALE	ST. DAVID	LIMESTONE	0.6	114.0	
476.1	CARBONDALE	TURNER MINE	BLACK SHALE	2.4	114.6	
473.7	CARBONDALE	SPRINGFIELD	COAL	5.9	117.0	GOOD
467.8	CARBONDALE		UNDERCLAY	1.1	122.9	

MAPID: 12990108000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 100' S line, 1' E line of SE SE

QUADRANGLE: TALLULA LONGITUDE: -89.938138 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 39.989157 DATE COLLECTED: 5 / 25 / 1966

SURFACE ELEVATION (FT.): 575.1 LOGGED (FT.): 101.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE O425Z WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.1	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
555.1	PLEISTOCENE		SAND & GRAVEL	55.0	20.0	
500.1	CARBONDALE		GRAY SHALE	17.0	75.0	
483.1	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	92.0	
481.1	CARBONDALE	SPRINGFIELD	COAL	5.7	94.0	HARD
475.4	CARBONDALE		UNDERCLAY	1.3	99.7	

MAPID: 12990109000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 660' N line, 660' E line of SE SE

QUADRANGLE: TALLULA LONGITUDE: -89.940491 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 39.990683 DATE COLLECTED: 6 / 8 / 1966

SURFACE ELEVATION (FT.): 577.0 LOGGED (FT.): 98.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE O449 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
577.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
562.0	PLEISTOCENE		CLAY	53.0	15.0	
509.0	PLEISTOCENE		SAND & GRAVEL	3.0	68.0	
506.0	PLEISTOCENE		SAND & GRAVEL	7.0	71.0	HARDPAN
499.0	CARBONDALE		GRAY SHALE	1.0	78.0	
498.0	CARBONDALE		LIMESTONE	1.0	79.0	
497.0	CARBONDALE		GRAY SHALE	18.0	80.0	

MAPID: 1299011000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 650' N line, 1' E line of SE SE

QUADRANGLE: TALLULA LONGITUDE: -89.940488 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 39.992485 DATE COLLECTED: 6 / 8 / 1966

SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 69.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE O450 WELL TYPE: Coal Test

COMMENT: BOX 44 (BAD LOCATION INFO)

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
565.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
551.0	PLEISTOCENE		SAND & GRAVEL	22.0	14.0	
529.0	CARBONDALE		GRAY SHALE	21.0	36.0	SOFT
508.0	CARBONDALE		LIMESTONE	0.5	57.0	HARD
507.5	CARBONDALE		BLACK SHALE	3.5	57.5	SOFT
504.0	CARBONDALE		BLACK SHALE	1.0	61.0	
503.0	CARBONDALE		COAL	5.4	62.0	PROBABLY #5 COAL
497.6	CARBONDALE		UNDERCLAY	1.6	67.4	

MAPID: 12990111000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 30' N line, 25' W line of SE SW

QUADRANGLE: TALLULA LONGITUDE: -89.952131 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 39.992408 DATE COLLECTED: 5 / 26 / 1966

SURFACE ELEVATION (FT.): 601.5 LOGGED (FT.): 137.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE O469 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
601.5	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
593.5	PLEISTOCENE		CLAY	15.0	8.0	
578.5	PLEISTOCENE		CLAY	62.0	23.0	
516.5	CARBONDALE		LIMESTONE	2.0	85.0	HARD
514.5	CARBONDALE		BLACK SHALE	2.0	87.0	SOFT
512.5	CARBONDALE		GRAY SHALE	48.0	89.0	

MAPID: 12990112000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 1' N line, 1' E line of SE SW
 QUADRANGLE: TALLULA LONGITUDE: -89.947521 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.992492 DATE COLLECTED: 5 / 26 / 1966
 SURFACE ELEVATION (FT.): 601.3 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O471 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
601.3	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0	
576.3	PLEISTOCENE		CLAY	72.0	25.0	
504.3	CARBONDALE		SANDSTONE	1.3	97.0	
503.0	CARBONDALE		GRAY SHALE	2.8	98.3	
500.3	CARBONDALE		SANDSTONE	1.3	101.0	
499.0	CARBONDALE		GRAY SHALE	26.8	102.3	
472.3	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	129.0	
468.8	CARBONDALE	SPRINGFIELD	COAL	5.8	132.5	HARD
463.0	CARBONDALE		UNDERCLAY	1.8	138.3	

MAPID: 12990113000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 1' N line, 1' E line of SW SE
 QUADRANGLE: TALLULA LONGITUDE: -89.942817 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.992498 DATE COLLECTED: 5 / 25 / 1966
 SURFACE ELEVATION (FT.): 568.2 LOGGED (FT.): 127.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O473 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
568.2	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
561.2	PLEISTOCENE		CLAY	16.0	7.0	
545.2	PLEISTOCENE		CLAY	80.0	23.0	
465.2	CARBONDALE		BLACK SHALE	3.0	103.0	SOFT
462.2	CARBONDALE		GRAY SHALE	21.0	106.0	

MAPID: 12990114000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 1' N line, 20' E line of SE SE
 QUADRANGLE: TALLULA LONGITUDE: -89.938184 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.992505 DATE COLLECTED: 5 / 24 / 1966
 SURFACE ELEVATION (FT.): 601.2 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE P475 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
601.2	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
594.2	PLEISTOCENE		CLAY	20.0	7.0	
574.2	PLEISTOCENE		CLAY	76.0	27.0	
498.2	CARBONDALE		SANDSTONE	3.0	103.0	HARD
495.2	CARBONDALE		GRAY SHALE	13.0	106.0	
482.2	CARBONDALE	ST. DAVID	LIMESTONE	1.0	119.0	HARD
481.2	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	120.0	SOFT
479.2	CARBONDALE		LIMESTONE	0.5	122.0	CAPROCK
478.7	CARBONDALE	SPRINGFIELD	COAL	5.8	122.5	HARD
472.9	CARBONDALE		UNDERCLAY	1.7	128.3	

MAPID: 12990116000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 1' N line, 1' W line of NE SW
 QUADRANGLE: TALLULA LONGITUDE: -89.952112 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.99612 DATE COLLECTED: 8 / 1 / 1966
 SURFACE ELEVATION (FT.): 606.3 LOGGED (FT.): 152.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O519 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
606.3	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
599.3	PLEISTOCENE		CLAY	19.0	7.0	
580.3	PLEISTOCENE		SAND & GRAVEL	91.0	26.0	
489.3	CARBONDALE		GRAY SHALE	23.0	117.0	
466.3	CARBONDALE	ST. DAVID	LIMESTONE	2.0	140.0	HARD CAPROCK
464.3	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	142.0	
461.3	CARBONDALE	SPRINGFIELD	COAL	5.3	145.0	HARD
456.0	CARBONDALE		UNDERCLAY	1.8	150.3	

MAPID: 12990117000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 1' N line, 1050' W line of NE SW
 QUADRANGLE: TALLULA LONGITUDE: -89.948351 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.996123 DATE COLLECTED: 8 / 1 / 1966
 SURFACE ELEVATION (FT.): 566.8 LOGGED (FT.): 107.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O520B WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
566.8	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0	
541.8	PLEISTOCENE		SAND & GRAVEL	45.0	25.0	
496.8	CARBONDALE		GRAY SHALE	1.0	70.0	
495.8	CARBONDALE		SANDSTONE	2.0	71.0	
493.8	CARBONDALE		SANDY SHALE	23.0	73.0	
470.8	CARBONDALE	ST. DAVID	LIMESTONE	0.5	96.0	CAPROCK
470.3	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	96.5	
467.8	CARBONDALE	SPRINGFIELD	COAL	6.6	99.0	HARD
461.2	CARBONDALE		UNDERCLAY	1.4	105.6	

MAPID: 12990119000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 1' S line, 1' W line of NW NW
 QUADRANGLE: TALLULA LONGITUDE: -89.956661 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.999757 DATE COLLECTED: 5 / 11 / 1966
 SURFACE ELEVATION (FT.): 612.8 LOGGED (FT.): 154.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O567 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.8	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
590.8	PLEISTOCENE		SAND & GRAVEL	90.0	22.0	
500.8	CARBONDALE		GRAY SHALE	5.0	112.0	
495.8	CARBONDALE		GRAY SHALE	26.0	117.0	
469.8	CARBONDALE	ST. DAVID	LIMESTONE	1.0	143.0	HARD
468.8	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	144.0	SOFT
466.8	CARBONDALE	SPRINGFIELD	COAL	6.2	146.0	
460.6	CARBONDALE		UNDERCLAY	1.8	152.2	

MAPID: 1299012000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 30' S line, 45' E line of NW NW
 QUADRANGLE: TALLULA LONGITUDE: -89.952172 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.999837 DATE COLLECTED: 5 / 9 / 1966
 SURFACE ELEVATION (FT.): 592.1 LOGGED (FT.): 108.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O569 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
592.1	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
585.1	PLEISTOCENE		CLAY	9.0	7.0	
576.1	PLEISTOCENE		CLAY	74.0	16.0	
502.1	CARBONDALE		ROCK	1.0	90.0	HARD
501.1	CARBONDALE		COAL	2.0	91.0	SOFT (PROBABLY NOT #5)
499.1	CARBONDALE		UNDERCLAY	3.0	93.0	
496.1	CARBONDALE		GRAY SHALE	12.0	96.0	

MAPID: 1299012100C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 24 QUARTERS/FOOTAGES: 650' N line, 1' W line of NW NW
 QUADRANGLE: TALLULA LONGITUDE: -89.954294 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.003367 DATE COLLECTED: 5 / 11 / 1966
 SURFACE ELEVATION (FT.): 612.5 LOGGED (FT.): 156.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O592 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.5	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
592.5	PLEISTOCENE		CLAY	13.0	20.0	
579.5	PLEISTOCENE		SAND & GRAVEL	80.0	33.0	
499.5	CARBONDALE		LIMESTONE	1.1	113.0	
498.4	CARBONDALE		GRAY SHALE	1.9	114.1	
496.5	CARBONDALE		BLACK SHALE	0.3	116.0	
496.2	CARBONDALE		GRAY SHALE	3.7	116.3	
492.5	CARBONDALE		SANDSTONE	1.5	120.0	
491.0	CARBONDALE		LIMESTONE	0.5	121.5	
490.5	CARBONDALE		GRAY SHALE	22.0	122.0	
468.5	CARBONDALE	ST. DAVID	LIMESTONE	0.7	144.0	
467.8	CARBONDALE	TURNER MINE	BLACK SHALE	3.3	144.7	
464.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	148.0	
463.5	CARBONDALE	SPRINGFIELD	COAL	6.0	149.0	HARD
457.5	CARBONDALE		UNDERCLAY	1.0	155.0	

MAPID: 12920496000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 0' N line, 22' E line of SE NE

QUADRANGLE: TALLULA LONGITUDE: -89.938229 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.985276 DATE COLLECTED: 4 / 17 / 1970

SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 181.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F373 WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.0	PLEISTOCENE		SOIL	3.0	0.0	SANDY
599.0	PLEISTOCENE		CLAY	97.0	3.0	
502.0	CARBONDALE		GRAY SHALE	36.0	100.0	LIMESTONE INTERBEDS
466.0	CARBONDALE		LIMESTONE	1.0	136.0	HARD
465.0	CARBONDALE		LIMESTONE W/ SHALE	4.0	137.0	INTERBEDDED
461.0	CARBONDALE		BLACK SHALE	1.0	141.0	
460.0	CARBONDALE		LIMESTONE	1.0	142.0	HARD
459.0	CARBONDALE		GRAY SHALE	5.0	143.0	
454.0	CARBONDALE		GRAY SHALE	13.5	148.0	LIMESTONE INTERBED
440.5	CARBONDALE		GRAY SHALE	19.5	161.5	

MAPID: 12920497000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 0' S line, 100' E line of NW NE

QUADRANGLE: TALLULA LONGITUDE: -89.943234 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.985266 DATE COLLECTED: 4 / 22 / 1970

SURFACE ELEVATION (FT.): 604.0 LOGGED (FT.): 137.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F372P8 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
604.0	PLEISTOCENE		SOIL	22.0	0.0	SANDY
582.0	PLEISTOCENE		CLAY	43.0	22.0	W/BOULDERS
539.0	CARBONDALE		GRAY SHALE	62.0	65.0	LIMESTONE INTERBEDS
477.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	127.0	HARD
475.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	129.0	
473.0	CARBONDALE	SPRINGFIELD	COAL	4.0	131.0	
469.0	CARBONDALE		UNDERCLAY	2.0	135.0	

MAPID: 12920498000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 0' N line, 160' W line of NW NE

QUADRANGLE: TALLULA LONGITUDE: -89.94702 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.988864 DATE COLLECTED: 4 / 21 / 1970

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 137.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F421N WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		SOIL	2.0	0.0	
603.0	PLEISTOCENE		CLAY	58.0	2.0	
545.0	PLEISTOCENE		BOULDER	1.0	60.0	HARD LIMESTONE
544.0	PLEISTOCENE		CLAY	17.0	61.0	WITH GRAVEL
527.0	PLEISTOCENE		CLAY	11.0	78.0	
516.0	CARBONDALE		LIMESTONE	2.0	89.0	HARD
514.0	CARBONDALE		GRAY SHALE	7.0	91.0	
507.0	CARBONDALE		LIMESTONE	2.0	98.0	HARD
505.0	CARBONDALE		GRAY SHALE	25.0	100.0	LIMESTONE INTERBEDS
480.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	125.0	HARD
478.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	127.0	
476.0	CARBONDALE	SPRINGFIELD	COAL	6.0	129.0	
470.0	CARBONDALE		UNDERCLAY	2.0	135.0	

MAPID: 12920499000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 0' S line, 15' W line of SW SE

QUADRANGLE: TALLULA LONGITUDE: -89.947541 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.974442 DATE COLLECTED: 3 / 24 / 1970

SURFACE ELEVATION (FT.): 592.0 LOGGED (FT.): 133.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F221 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
592.0	PLEISTOCENE		CLAY	82.0	0.0	
510.0	CARBONDALE		LIMESTONE	6.0	82.0	
504.0	CARBONDALE		LIMESTONE	15.0	88.0	SHALE INTERBEDS
489.0	CARBONDALE		SHALE	19.0	103.0	
470.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	122.0	
468.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	124.0	
466.5	CARBONDALE	SPRINGFIELD	BONE COAL	0.7	125.5	
465.8	CARBONDALE	SPRINGFIELD	COAL	6.0	126.2	
459.8	CARBONDALE		UNDERCLAY	0.8	132.2	

MAPID: 1292050000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 1260' N line, 15' E line of SE SE

QUADRANGLE: TALLULA LONGITUDE: -89.938241 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.974595 DATE COLLECTED: 12 / 2 / 1969

SURFACE ELEVATION (FT.): 553.0 LOGGED (FT.): 88.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F225J WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
553.0	PLEISTOCENE		CLAY	52.0	0.0	
501.0	PLEISTOCENE		BOULDER	2.0	52.0	LIMESTONE
499.0	PLEISTOCENE		CLAY	8.0	54.0	
491.0	CARBONDALE		GRAY SHALE	16.0	62.0	
475.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	78.0	
471.5	CARBONDALE	SPRINGFIELD	COAL	5.4	81.5	UNDERCLAY INTERBEDDED
466.1	CARBONDALE		UNDERCLAY	1.1	86.9	

MAPID: 12920502000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: SW SW NW NW

QUADRANGLE: TALLULA LONGITUDE: -89.95645 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.985693 DATE COLLECTED: 4 / 25 / 1970

SURFACE ELEVATION (FT.): 613.0 LOGGED (FT.): 143.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F367 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
613.0	PLEISTOCENE		CLAY	60.0	0.0	
553.0	PLEISTOCENE		CLAY	15.0	60.0	WITH GRAVEL
538.0	PLEISTOCENE		CLAY	26.0	75.0	
512.0	CARBONDALE		LIMESTONE	3.0	101.0	HARD
509.0	CARBONDALE		GRAY SHALE	31.0	104.0	LIMESTONE INTERBEDS
478.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	135.0	
476.0	CARBONDALE	SPRINGFIELD	COAL	5.0	137.0	
471.0	CARBONDALE		UNDERCLAY	1.0	142.0	THICKNESS ADJUSTED

MAPID: 12920503000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD

TWP/RNG: 18N 8W

SECTION: 25

QUARTERS/FOOTAGES: NW NW SW NE

QUADRANGLE: TALLULA

LONGITUDE: -89.947005

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 39.98481

DATE COLLECTED: 4 / 21 / 1970

SURFACE ELEVATION (FT.): 605.0

LOGGED (FT.): 137.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F371

WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	24.0	0.0	
581.0	PLEISTOCENE		CLAY	16.0	24.0	W/BOULDERS
565.0	PLEISTOCENE		CLAY	45.0	40.0	
520.0	CARBONDALE		GRAY SHALE	11.0	85.0	
509.0	CARBONDALE		LIMESTONE	2.0	96.0	HARD
507.0	CARBONDALE		GRAY SHALE	30.0	98.0	LS INTERBEDS
477.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	128.0	
475.0	CARBONDALE	SPRINGFIELD	COAL	6.0	130.0	
469.0	CARBONDALE		UNDERCLAY	1.0	136.0	

MAPID: 12920504000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD

TWP/RNG: 18N 8W

SECTION: 25

QUARTERS/FOOTAGES: 120' S line, 200' W line of SE NE

QUADRANGLE: TALLULA

LONGITUDE: -89.942162

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 39.981997

DATE COLLECTED: 4 / 16 / 1970

SURFACE ELEVATION (FT.): 560.0

LOGGED (FT.): 90.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F323NC

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.0	PLEISTOCENE		SOIL	20.0	0.0	SANDY
540.0	PLEISTOCENE		CLAY	40.0	20.0	W/BOULDERS
500.0	CARBONDALE		GRAY SHALE	19.0	60.0	
481.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	79.0	HARD
479.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	81.0	
477.0	CARBONDALE	SPRINGFIELD	COAL	5.8	83.0	
471.2	CARBONDALE		UNDERCLAY	1.2	88.8	

MAPID: 12920505000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 17' S line, 50' E line of SE NE

QUADRANGLE: TALLULA LONGITUDE: -89.938343 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.981721 DATE COLLECTED: 11 / 22 / 1969

SURFACE ELEVATION (FT.): 547.0 LOGGED (FT.): 81.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F325 WELL TYPE: Coal Test

COMMENT: MONTH OF DATA UNCLEAR

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
547.0	PLEISTOCENE		CLAY	20.0	0.0	SANDY
527.0	PLEISTOCENE		SAND	15.0	20.0	INCLUDES WOOD
512.0	PLEISTOCENE		CLAY	10.0	35.0	
502.0	CARBONDALE		LIMESTONE	5.0	45.0	
497.0	CARBONDALE		GRAY SHALE	20.0	50.0	
477.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	70.0	
476.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	71.0	WITH BONE
473.0	CARBONDALE	SPRINGFIELD	COAL	6.0	74.0	BRIGHT, BRITTLE
467.0	CARBONDALE		UNDERCLAY	1.0	80.0	

MAPID: 12920506000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 80' S line, 30' W line of SW NE

QUADRANGLE: TALLULA LONGITUDE: -89.947489 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.981875 DATE COLLECTED: 4 / 22 / 1970

SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 95.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F321 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0	PLEISTOCENE		BOULDERS & CLAY	60.0	0.0	
510.0	CARBONDALE		GRAY SHALE	25.0	60.0	LIMESTONE INTERBEDS
485.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	85.0	HARD
483.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	87.0	
481.0	CARBONDALE	SPRINGFIELD	COAL	4.0	89.0	
477.0	CARBONDALE		UNDERCLAY	2.0	93.0	

MAPID: 12920507000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 0' S line, 45' W line of NW SE

QUADRANGLE: TALLULA LONGITUDE: -89.947435 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.978049 DATE COLLECTED: 1 / 17 / 1969

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 141.5 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F271 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0	PLEISTOCENE		CLAY	50.0	0.0	
562.0	PLEISTOCENE		CLAY & GRAVEL	15.0	50.0	
547.0	PLEISTOCENE		CLAY	21.0	65.0	
526.0	PLEISTOCENE		SAND & GRAVEL	4.0	86.0	
522.0	PLEISTOCENE		CLAY	15.0	90.0	
507.0	CARBONDALE		SHALE	10.0	105.0	LIMESTONE LAMINAE
497.0	CARBONDALE		GRAY SHALE	17.5	115.0	
479.5	CARBONDALE	ST. DAVID	LIMESTONE	0.5	132.5	
479.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.7	133.0	
477.3	CARBONDALE	SPRINGFIELD	COAL	6.3	134.7	ANALYSIS AVAILABLE
471.0	CARBONDALE		UNDERCLAY	0.5	141.0	

MAPID: 12920508000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 105' S line, 21' W line of NE SE

QUADRANGLE: TALLULA LONGITUDE: -89.942809 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.978348 DATE COLLECTED: 3 / 24 / 1970

SURFACE ELEVATION (FT.): 607.0 LOGGED (FT.): 143.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F273 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
607.0	PLEISTOCENE		CLAY	58.0	0.0	
549.0	PLEISTOCENE		SAND & GRAVEL	7.0	58.0	AQUIFER
542.0	PLEISTOCENE		CLAY & GRAVEL	15.0	65.0	AQUIFER
527.0	PLEISTOCENE		SAND & GRAVEL	26.0	80.0	AQUIFER CAVING IN HOLE
501.0	CARBONDALE		LIMESTONE	6.0	106.0	
495.0	CARBONDALE		SHALE	20.0	112.0	
475.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	132.0	
473.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	134.0	
470.5	CARBONDALE	SPRINGFIELD	COAL	6.0	136.5	
464.5	CARBONDALE		UNDERCLAY	0.5	142.5	

MAPID: 12990000000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 100' S line, 165' W line of SE NE
 QUADRANGLE: TALLULA LONGITUDE: -89.942287 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.981941 DATE COLLECTED: 5 / 30 / 1966
 SURFACE ELEVATION (FT.): 557.8 LOGGED (FT.): 98.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O323NC WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
557.8	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
540.8	PLEISTOCENE		SAND & GRAVEL	35.0	17.0	
505.8	CARBONDALE		SANDY SHALE	6.0	52.0	HARD
499.8	CARBONDALE		SANDY SHALE	20.0	58.0	
479.8	CARBONDALE		LIMESTONE	2.0	78.0	HARD
477.8	CARBONDALE		BLACK SHALE	2.0	80.0	
475.8	CARBONDALE	ST. DAVID	LIMESTONE	2.0	82.0	HARD
473.8	CARBONDALE	SPRINGFIELD	COAL	2.5	84.0	HARD
471.3	CARBONDALE		ROCK	1.0	86.5	
470.3	CARBONDALE	SPRINGFIELD	COAL	1.2	87.5	HARD
469.1	CARBONDALE		UNDERCLAY	1.3	88.7	
467.8	CARBONDALE		MICACEOUS SHALE	8.0	90.0	HARD

MAPID: 12990087000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 1' S line, 1' W line of NW SE
 QUADRANGLE: TALLULA LONGITUDE: -89.947593 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.978052 DATE COLLECTED: 7 / 27 / 1966
 SURFACE ELEVATION (FT.): 610.8 LOGGED (FT.): 141.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O271 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.8	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
603.8	PLEISTOCENE		CLAY	15.0	7.0	
588.8	PLEISTOCENE		CLAY	82.0	22.0	
506.8	CARBONDALE		SHALE WITH LIMESTONE	4.0	104.0	HARD
502.8	CARBONDALE		GRAY SHALE	23.0	108.0	HARD
479.8	CARBONDALE	ST. DAVID	LIMESTONE	0.5	131.0	HARD CAPROCK
479.3	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	131.5	
476.8	CARBONDALE	SPRINGFIELD	COAL	5.5	134.0	HARD
471.3	CARBONDALE		UNDERCLAY	1.5	139.5	

MAPID: 12990088000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 1' S line, 1' E line of NW SE
 QUADRANGLE: TALLULA LONGITUDE: -89.94289 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.978061 DATE COLLECTED: 8 / 4 / 1966
 SURFACE ELEVATION (FT.): 605.3 LOGGED (FT.): 144.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O273 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.3	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
595.3	PLEISTOCENE		CLAY	20.0	10.0	
575.3	PLEISTOCENE		SAND & GRAVEL	77.0	30.0	
498.3	CARBONDALE		LIMESTONE	1.0	107.0	
497.3	CARBONDALE		SANDY SHALE	7.0	108.0	
490.3	CARBONDALE		LIMESTONE	1.0	115.0	
489.3	CARBONDALE		GRAY SHALE	17.0	116.0	
472.3	CARBONDALE	ST. DAVID	LIMESTONE	1.0	133.0	
471.3	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	134.0	
469.3	CARBONDALE		LIMESTONE	0.4	136.0	
468.9	CARBONDALE	SPRINGFIELD	COAL	6.5	136.4	
462.4	CARBONDALE		UNDERCLAY	1.1	142.9	

MAPID: 12990090000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 1' S line, 1' E line of SE NW
 QUADRANGLE: TALLULA LONGITUDE: -89.947598 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.981656 DATE COLLECTED: 8 / 4 / 1966
 SURFACE ELEVATION (FT.): 573.6 LOGGED (FT.): 99.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O321 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
573.6	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
563.6	PLEISTOCENE		CLAY	44.0	10.0	
519.6	PLEISTOCENE		SAND & GRAVEL	2.0	54.0	
517.6	PLEISTOCENE		SAND & GRAVEL	4.0	56.0	HARDPAN
513.6	CARBONDALE		SANDY SHALE	28.0	60.0	
485.6	CARBONDALE	ST. DAVID	LIMESTONE	1.5	88.0	
484.1	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	89.5	HARD
481.6	CARBONDALE	SPRINGFIELD	COAL	5.7	92.0	HARD
475.9	CARBONDALE		UNDERCLAY	1.3	97.7	

MAPID: 12990091000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 1' S line, 660' E line of SE NE

QUADRANGLE: TALLULA LONGITUDE: -89.940531 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 39.981672 DATE COLLECTED: 6 / 7 / 1966

SURFACE ELEVATION (FT.): 553.0 LOGGED (FT.): 90.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE O324 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
553.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
540.0	PLEISTOCENE		SAND & GRAVEL	45.0	13.0	
495.0	CARBONDALE		GRAY SHALE	20.0	58.0	SOFT
475.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	78.0	HARD
473.0	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	80.0	SOFT
469.0	CARBONDALE	SPRINGFIELD	COAL	4.0	84.0	
465.0	CARBONDALE		UNDERCLAY	2.0	88.0	

MAPID: 12990092000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 1' S line, 40' E line of SE NE

QUADRANGLE: TALLULA LONGITUDE: -89.938307 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 39.981672 DATE COLLECTED: 6 / 14 / 1966

SURFACE ELEVATION (FT.): 546.7 LOGGED (FT.): 81.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE O325 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
546.7	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
539.7	PLEISTOCENE		CLAY	15.0	7.0	
524.7	PLEISTOCENE		SAND & GRAVEL	26.0	22.0	
498.7	CARBONDALE		SANDSTONE	10.0	48.0	
488.7	CARBONDALE		GRAY SHALE	12.0	58.0	
476.7	CARBONDALE	ST. DAVID	LIMESTONE	1.0	70.0	
475.7	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	71.0	
474.7	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	72.0	CORD
473.2	CARBONDALE	SPRINGFIELD	COAL	6.0	73.5	
467.2	CARBONDALE		UNDERCLAY	1.5	79.5	

MAPID: 12990093000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 1' S line, 1' E line of SE NE
 QUADRANGLE: TALLULA LONGITUDE: -89.938167 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.981678 DATE COLLECTED: 5 / 21 / 1966
 SURFACE ELEVATION (FT.): 547.5 LOGGED (FT.): 82.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O325 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
547.5	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0
530.5	PLEISTOCENE		SAND	12.0	17.0
518.5	PLEISTOCENE		SAND & GRAVEL	17.0	29.0
501.5	CARBONDALE		LIMESTONE	2.0	46.0
499.5	CARBONDALE		GRAY SHALE	25.0	48.0
474.5	CARBONDALE	ST. DAVID	LIMESTONE	1.0	73.0
473.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	74.0
472.5	CARBONDALE	SPRINGFIELD	COAL W/ BLACK SHALE	1.0	75.0
471.5	CARBONDALE	SPRINGFIELD	COAL	4.3	76.0
467.2	CARBONDALE		UNDERCLAY	1.7	80.3

MAPID: 12990094000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 660' S line, 48' W line of SE NE
 QUADRANGLE: TALLULA LONGITUDE: -89.942706 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.983485 DATE COLLECTED: 6 / 7 / 1966
 SURFACE ELEVATION (FT.): 583.3 LOGGED (FT.): 118.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O348YY WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
583.3	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
573.3	PLEISTOCENE		SAND & GRAVEL	70.0	10.0
503.3	CARBONDALE		LIMESTONE	1.0	80.0
502.3	CARBONDALE		SANDY SHALE	27.0	81.0
475.3	CARBONDALE	ST. DAVID	LIMESTONE	1.0	108.0 HARD
474.3	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	109.0
472.3	CARBONDALE	SPRINGFIELD	COAL	6.0	111.0 HARD
466.3	CARBONDALE		UNDERCLAY	1.0	117.0

MAPID: 12990095000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 660' S line, 660' W line of SE NE

QUADRANGLE: TALLULA LONGITUDE: -89.94051 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 39.98349 DATE COLLECTED: 6 / 7 / 1966

SURFACE ELEVATION (FT.): 600.1 LOGGED (FT.): 136.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE O349 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.1	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
593.1	PLEISTOCENE		CLAY	20.0	7.0	
573.1	PLEISTOCENE		CLAY	70.0	27.0	
503.1	CARBONDALE		SANDY SHALE	5.0	97.0	
498.1	CARBONDALE		GRAY SHALE	22.0	102.0	
476.1	CARBONDALE	ST. DAVID	LIMESTONE	2.0	124.0	HARD
474.1	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	126.0	HARD
472.1	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	128.0	HARD
471.1	CARBONDALE	SPRINGFIELD	COAL	5.5	129.0	HARD, DRILLER REPORTS #2 COAL
465.6	CARBONDALE		UNDERCLAY	1.5	134.5	

MAPID: 12990096000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 660' S line, 1' E line of SE NE

QUADRANGLE: TALLULA LONGITUDE: -89.93816 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 39.983494 DATE COLLECTED: 6 / 7 / 1966

SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 99.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE O350 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
565.0	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
549.0	PLEISTOCENE		SAND & GRAVEL	52.0	16.0	
497.0	CARBONDALE		GRAY SHALE	10.0	68.0	SOFT
487.0	CARBONDALE		LIMESTONE	10.0	78.0	HARD
477.0	CARBONDALE		BLACK SHALE	3.0	88.0	SOFT
474.0	CARBONDALE	SPRINGFIELD	COAL	6.1	91.0	HARD
467.9	CARBONDALE		UNDERCLAY	1.9	97.1	

MAPID: 12990097000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 45' S line, 630' E line of NE NW
 QUADRANGLE: TALLULA LONGITUDE: -89.949854 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.985379 DATE COLLECTED: 8 / 5 / 1966
 SURFACE ELEVATION (FT.): 598.3 LOGGED (FT.): 129.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O370 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
598.3	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	
577.3	PLEISTOCENE		SAND & GRAVEL	70.0	21.0	
507.3	CARBONDALE		GRAY SHALE	28.0	91.0	HARD
479.3	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	119.0	SOFT
477.3	CARBONDALE	SPRINGFIELD	COAL	6.3	121.0	
471.0	CARBONDALE		UNDERCLAY	1.8	127.3	

MAPID: 12990098000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 1' S line, 1' E line of NE NW
 QUADRANGLE: TALLULA LONGITUDE: -89.9476 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.98526 DATE COLLECTED: 8 / 4 / 1966
 SURFACE ELEVATION (FT.): 605.4 LOGGED (FT.): 138.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O371 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.4	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0	
576.4	PLEISTOCENE		SAND & GRAVEL	72.0	29.0	
504.4	CARBONDALE		GRAY SHALE	27.0	101.0	HARD
477.4	CARBONDALE	ST. DAVID	LIMESTONE	1.0	128.0	HARD
476.4	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	129.0	SOFT
474.4	CARBONDALE	SPRINGFIELD	COAL	5.8	131.0	HARD
468.6	CARBONDALE		UNDERCLAY	1.3	136.8	

MAPID: 12990099000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 1' S line, 1' W line of NE NE

QUADRANGLE: TALLULA LONGITUDE: -89.942871 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 39.98527 DATE COLLECTED: 5 / 30 / 1966

SURFACE ELEVATION (FT.): 604.5 LOGGED (FT.): 135.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE O373 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
604.5	PLEISTOCENE		UNCONSOLIDATED	33.0	0.0	
571.5	PLEISTOCENE		SAND & GRAVEL	87.0	33.0	
484.5	CARBONDALE		GRAY SHALE	5.0	120.0	
479.5	CARBONDALE	ST. DAVID	LIMESTONE	1.0	125.0	
478.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	126.0	
476.5	CARBONDALE	SPRINGFIELD	COAL	6.3	128.0	HARD
470.2	CARBONDALE		UNDERCLAY	0.7	134.3	

MAPID: 12990100000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 40' S line, 660' W line of NE NE

QUADRANGLE: TALLULA LONGITUDE: -89.940504 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.985384 DATE COLLECTED: 6 / 8 / 1966

SURFACE ELEVATION (FT.): 583.4 LOGGED (FT.): 113.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE O374 WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
583.4	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
571.4	PLEISTOCENE		CLAY	80.0	12.0	
491.4	CARBONDALE		GRAY SHALE	9.0	92.0	
482.4	CARBONDALE	ST. DAVID	LIMESTONE	1.8	101.0	
480.6	CARBONDALE	TURNER MINE	BLACK SHALE	2.2	102.8	
478.4	CARBONDALE	SPRINGFIELD	COAL	6.3	105.0	FAIR
472.1	CARBONDALE		UNDERCLAY	1.8	111.3	

MAPID: 12990101000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 1' N line, 165' E line of SE NE

QUADRANGLE: TALLULA LONGITUDE: -89.938742 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 39.985272 DATE COLLECTED: 5 / 30 / 1966

SURFACE ELEVATION (FT.): 587.3 LOGGED (FT.): 117.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE O374P WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
587.3	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
580.3	PLEISTOCENE		CLAY	15.0	7.0	
565.3	PLEISTOCENE		SAND	15.0	22.0	
550.3	PLEISTOCENE		CLAY	41.0	37.0	
509.3	CARBONDALE		GRAY SHALE	28.0	78.0	
481.3	CARBONDALE	ST. DAVID	LIMESTONE	2.0	106.0	HARD
479.3	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	108.0	HARD
477.3	CARBONDALE	SPRINGFIELD	COAL	5.8	110.0	HARD
471.5	CARBONDALE		UNDERCLAY	1.3	115.8	

MAPID: 12990102000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 25 QUARTERS/FOOTAGES: 760' S line, 510' W line of NE NE

QUADRANGLE: TALLULA LONGITUDE: -89.941041 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 39.987369 DATE COLLECTED: 6 / 8 / 1966

SURFACE ELEVATION (FT.): 549.0 LOGGED (FT.): 77.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE O398M WELL TYPE: Coal Test

COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
549.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
535.0	PLEISTOCENE		SAND & GRAVEL	26.0	14.0	
509.0	CARBONDALE		GRAY SHALE	27.0	40.0	SOFT
482.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	67.0	HARD
480.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	69.0	
479.0	CARBONDALE	SPRINGFIELD	COAL	5.5	70.0	
473.5	CARBONDALE		UNDERCLAY	1.5	75.5	

MAPID: 1292051000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 26 QUARTERS/FOOTAGES: NW NW NW SW

QUADRANGLE: TALLULA LONGITUDE: -89.975245 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.981231 DATE COLLECTED: 6 / 16 / 1969

SURFACE ELEVATION (FT.): 618.0 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F309 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
618.0	PLEISTOCENE		CLAY	20.0	0.0	SANDY
598.0	PLEISTOCENE		CLAY	105.0	20.0	WITH GRAVEL
493.0	CARBONDALE		GRAY SHALE	12.3	125.0	W/LIMESTONE RIBS
480.7	CARBONDALE	ST. DAVID	LIMESTONE	1.4	137.3	THICKNESS ADJUSTED
479.3	CARBONDALE	TURNER MINE	BLACK SHALE	2.8	138.7	
476.5	CARBONDALE	SPRINGFIELD	COAL	0.5	141.5	RASHY
476.0	CARBONDALE	SPRINGFIELD	COAL	5.4	142.0	
470.6	CARBONDALE		UNDERCLAY	0.6	147.4	

MAPID: 12920511000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 26 QUARTERS/FOOTAGES: 42' N line, 30' E line of NW SW

QUADRANGLE: TALLULA LONGITUDE: -89.97124 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.981556 DATE COLLECTED: 4 / 29 / 1970

SURFACE ELEVATION (FT.): 608.0 LOGGED (FT.): 142.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F311 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.0	PLEISTOCENE		SOIL	3.0	0.0	
605.0	PLEISTOCENE		CLAY	83.0	3.0	
522.0	CARBONDALE		LIMESTONE	2.0	86.0	HARD
520.0	CARBONDALE		GRAY SHALE	7.0	88.0	
513.0	CARBONDALE		LIMESTONE	1.0	95.0	HARD
512.0	CARBONDALE		GRAY SHALE	9.0	96.0	
503.0	CARBONDALE		GRAY SHALE	28.0	105.0	LIMESTONE INTERBEDS
475.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	133.0	
473.0	CARBONDALE	SPRINGFIELD	COAL	5.5	135.0	
467.5	CARBONDALE		UNDERCLAY	1.5	140.5	

MAPID: 12920512000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 26 QUARTERS/FOOTAGES: 136' N line, 24' E line of NE SW

QUADRANGLE: TALLULA LONGITUDE: -89.966517 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.981282 DATE COLLECTED: 6 / 16 / 1969

SURFACE ELEVATION (FT.): 618.0 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F288D WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
618.0	PLEISTOCENE		CLAY	97.0	0.0	
521.0	CARBONDALE		LIMESTONE	0.5	97.0	
520.5	CARBONDALE		GRAY SHALE	2.5	97.5	
518.0	CARBONDALE		LIMESTONE	3.0	100.0	
515.0	CARBONDALE		GRAY SHALE	9.0	103.0	
506.0	CARBONDALE		SHALE	9.0	112.0	LIMESTONE LAMINAE
497.0	CARBONDALE		GRAY SHALE	18.0	121.0	
479.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	139.0	
478.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.7	139.5	
476.8	CARBONDALE	SPRINGFIELD	COAL	1.6	141.2	
475.2	CARBONDALE	SPRINGFIELD	PYRITE	0.1	142.8	
475.1	CARBONDALE	SPRINGFIELD	COAL	4.1	142.9	ANALYSIS AVAILABLE
471.0	CARBONDALE		UNDERCLAY	1.0	147.0	

MAPID: 12920513000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 26 QUARTERS/FOOTAGES: NE NE SW SW

QUADRANGLE: TALLULA LONGITUDE: -89.971716 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.97761 DATE COLLECTED: 4 / 29 / 1970

SURFACE ELEVATION (FT.): 613.0 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F261 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
613.0	PLEISTOCENE		SOIL	3.0	0.0	
610.0	PLEISTOCENE		CLAY	17.0	3.0	
593.0	PLEISTOCENE		CLAY & GRAVEL	60.0	20.0	
533.0	PLEISTOCENE		CLAY	36.0	80.0	
497.0	CARBONDALE		LIMESTONE	2.0	116.0	HARD
495.0	CARBONDALE		SHALE	12.0	118.0	LIMESTONE INTERBEDS
483.0	CARBONDALE		GRAY SHALE	8.0	130.0	
475.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	138.0	HARD
473.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	140.0	
471.0	CARBONDALE	SPRINGFIELD	COAL	6.0	142.0	
465.0	CARBONDALE		UNDERCLAY	2.0	148.0	

MAPID: 12920514000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 26 QUARTERS/FOOTAGES: SE SE NE SW
 QUADRANGLE: TALLULA LONGITUDE: -89.967011 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.978501 DATE COLLECTED: 4 / 13 / 1970
 SURFACE ELEVATION (FT.): 614.5 LOGGED (FT.): 152.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON F263 WELL TYPE: Coal Test
 COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
614.5	PLEISTOCENE		CLAY	118.5	0.0	
496.0	CARBONDALE		LIMESTONE	4.5	118.5	
491.5	CARBONDALE		SHALE	20.0	123.0	
471.5	CARBONDALE	ST. DAVID	LIMESTONE	0.5	143.0	
471.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	143.5	
469.0	CARBONDALE	SPRINGFIELD	COAL	6.0	145.5	
463.0	CARBONDALE		UNDERCLAY	0.5	151.5	

MAPID: 12920515000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 27 QUARTERS/FOOTAGES: SW SW NW NW
 QUADRANGLE: TALLULA LONGITUDE: -89.994116 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.98576 DATE COLLECTED: 5 / 6 / 1970
 SURFACE ELEVATION (FT.): 623.0 LOGGED (FT.): 147.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON F351P WELL TYPE: Coal Test
 COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
623.0	PLEISTOCENE		CLAY	60.0	0.0	
563.0	PLEISTOCENE		CLAY	30.0	60.0	WITH GRAVEL
533.0	PLEISTOCENE		CLAY	10.0	90.0	
523.0	CARBONDALE		LIMESTONE	12.0	100.0	SHALE INTERBEDS
511.0	CARBONDALE		BLACK SHALE	2.0	112.0	INCLUDES COAL
509.0	CARBONDALE		GRAY SHALE	3.0	114.0	
506.0	CARBONDALE		LIMESTONE	3.0	117.0	HARD
503.0	CARBONDALE		GRAY SHALE	17.0	120.0	LIMESTONE INTERBEDS
486.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	137.0	
483.5	CARBONDALE	SPRINGFIELD	COAL	6.0	139.5	
477.5	CARBONDALE		UNDERCLAY	1.5	145.5	

MAPID: 12920516000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 27 QUARTERS/FOOTAGES: 600' N line, 495' W line of SE NW
 QUADRANGLE: TALLULA LONGITUDE: -89.98822 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.983651 DATE COLLECTED: 4 / 11 / 1972
 SURFACE ELEVATION (FT.): 621.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON F328N1 WELL TYPE: Coal Test
 COMMENT: FOOT NS ESTIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
621.0	PLEISTOCENE		CLAY	15.0	0.0
606.0	PLEISTOCENE		UNCONSOLIDATED	6.0	15.0
600.0	PLEISTOCENE		CLAY & GRAVEL	74.0	21.0
526.0	PLEISTOCENE		CLAY	14.0	95.0
512.0	CARBONDALE		GRAY SHALE	22.0	109.0
490.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	131.0
488.5	CARBONDALE	SPRINGFIELD	COAL	5.4	132.5
483.1	CARBONDALE		UNDERCLAY	2.1	137.9

MAPID: 12920517000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 27 QUARTERS/FOOTAGES: 750' S line, 330' W line of SE NW
 QUADRANGLE: TALLULA LONGITUDE: -89.988813 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.983767 DATE COLLECTED: 4 / 8 / 1972
 SURFACE ELEVATION (FT.): 623.0 LOGGED (FT.): 142.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON F329L WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
623.0	PLEISTOCENE		CLAY	35.0	0.0
588.0	PLEISTOCENE		CLAY & GRAVEL	10.0	35.0
578.0	PLEISTOCENE		CLAY	52.0	45.0
526.0	CARBONDALE		SHALE	5.0	97.0 GRAY AND RED
521.0	CARBONDALE		GRAY SHALE	8.0	102.0
513.0	CARBONDALE		LIMESTONE	1.0	110.0
512.0	CARBONDALE		GRAY SHALE	22.0	111.0
490.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	133.0
488.5	CARBONDALE	SPRINGFIELD	COAL	5.5	134.5
483.0	CARBONDALE		UNDERCLAY	2.0	140.0

MAPID: 12920518000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 27 QUARTERS/FOOTAGES: 780' S line, 100' W line of SW NE

QUADRANGLE: TALLULA LONGITUDE: -89.984918 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.983846 DATE COLLECTED: 4 / 7 / 1972

SURFACE ELEVATION (FT.): 626.0 LOGGED (FT.): 142.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F330J WELL TYPE: Coal Test

COMMENT: FOOT EW ESTIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
626.0	PLEISTOCENE		CLAY	35.0	0.0	
591.0	PLEISTOCENE		CLAY & GRAVEL	22.0	35.0	
569.0	PLEISTOCENE		CLAY	77.0	57.0	
492.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	134.0	
490.5	CARBONDALE	SPRINGFIELD	COAL	4.8	135.5	
485.7	CARBONDALE		UNDERCLAY	1.7	140.3	

MAPID: 12920519000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 27 QUARTERS/FOOTAGES: 660' S line, 660' W line of SW NE

QUADRANGLE: TALLULA LONGITUDE: -89.982906 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.983512 DATE COLLECTED: 4 / 11 / 1972

SURFACE ELEVATION (FT.): 622.0 LOGGED (FT.): 143.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F331 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
622.0	PLEISTOCENE		CLAY	45.0	0.0	
577.0	PLEISTOCENE		CLAY & GRAVEL	35.0	45.0	
542.0	PLEISTOCENE		CLAY	7.0	80.0	
535.0	PLEISTOCENE		GRAVEL	33.0	87.0	INCLUDES WOOD
502.0	PLEISTOCENE		CLAY	8.0	120.0	
494.0	CARBONDALE		GRAY SHALE	6.5	128.0	
487.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	134.5	
486.5	CARBONDALE	SPRINGFIELD	COAL	5.5	135.5	
481.0	CARBONDALE		UNDERCLAY	2.0	141.0	

MAPID: 12920520000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 27 QUARTERS/FOOTAGES: 0' S line, 330' E line of NW NW

QUADRANGLE: TALLULA LONGITUDE: -89.991174 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.985308 DATE COLLECTED: 4 / 7 / 1972

SURFACE ELEVATION (FT.): 622.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F352B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
622.0	PLEISTOCENE		CLAY	21.0	0.0	
601.0	PLEISTOCENE		CLAY	40.0	21.0	WITH GRAVEL
561.0	PLEISTOCENE		CLAY	36.0	61.0	
525.0	CARBONDALE		LIMESTONE	8.0	97.0	THICKNESS ADJUSTED
517.0	CARBONDALE		SHALE	6.0	105.0	LIMESTONE LAMINAE
511.0	CARBONDALE		GRAY SHALE	21.0	111.0	
490.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.9	132.0	
487.1	CARBONDALE	SPRINGFIELD	COAL	4.6	134.9	
482.5	CARBONDALE		UNDERCLAY	0.5	139.5	

MAPID: 12920521000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 27 QUARTERS/FOOTAGES: 0' S line, 0' E line of NW NW

QUADRANGLE: TALLULA LONGITUDE: -89.98999 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.985308 DATE COLLECTED: 4 / 7 / 1972

SURFACE ELEVATION (FT.): 622.0 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F353 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
622.0	PLEISTOCENE		CLAY	21.0	0.0	
601.0	PLEISTOCENE		CLAY	16.0	21.0	WITH GRAVEL
585.0	PLEISTOCENE		CLAY	38.0	37.0	
547.0	PLEISTOCENE		CLAY & GRAVEL	42.0	75.0	
505.0	CARBONDALE		GRAY SHALE	20.0	117.0	LIMESTONE LAMINAE
485.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	137.0	
483.0	CARBONDALE	SPRINGFIELD	COAL	2.0	139.0	
481.0	CARBONDALE	SPRINGFIELD	LIMESTONE	1.5	141.0	
479.5	CARBONDALE	SPRINGFIELD	COAL	0.5	142.5	
479.0	CARBONDALE		UNDERCLAY	7.0	143.0	

MAPID: 12920522000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 27 QUARTERS/FOOTAGES: NW NW SW NE

QUADRANGLE: TALLULA LONGITUDE: -89.984681 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.984852 DATE COLLECTED: 4 / 10 / 1972

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 158.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F355 WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED, NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0	PLEISTOCENE		CLAY	27.0	0.0	
585.0	PLEISTOCENE		CLAY	13.0	27.0	WITH GRAVEL
572.0	PLEISTOCENE		CLAY	47.0	40.0	
525.0	PLEISTOCENE		CLAY	59.0	87.0	WITH GRAVEL
466.0	CARBONDALE		SHALE WITH LIMESTONE	5.0	146.0	
461.0	CARBONDALE		BLACK SHALE	2.0	151.0	
459.0	CARBONDALE		SHALE	5.0	153.0	

MAPID: 12920523000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 27 QUARTERS/FOOTAGES: 0' S line, 330' W line of NW NE

QUADRANGLE: TALLULA LONGITUDE: -89.984088 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.985301 DATE COLLECTED: 4 / 10 / 1972

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 142.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F355B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		CLAY	22.0	0.0	
598.0	PLEISTOCENE		CLAY & GRAVEL	105.0	22.0	
493.0	CARBONDALE		GRAY SHALE	3.0	127.0	
490.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	130.0	
489.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	130.5	
486.0	CARBONDALE	SPRINGFIELD	COAL	6.5	134.0	
479.5	CARBONDALE		UNDERCLAY	1.5	140.5	DEPTH ADJUSTED

MAPID: 12920524000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 27 QUARTERS/FOOTAGES: 0' S line, 660' E line of NW NE

QUADRANGLE: TALLULA LONGITUDE: -89.982918 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.985301 DATE COLLECTED: 4 / 10 / 1972

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 141.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F356 WELL TYPE: Coal Test

COMMENT: FOOTAGES ESTIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		CLAY	39.0	0.0	
581.0	PLEISTOCENE		CLAY & GRAVEL	51.0	39.0	
530.0	CARBONDALE		LIMESTONE W/ SHALE	13.0	90.0	
517.0	CARBONDALE		GRAY SHALE	4.0	103.0	
513.0	CARBONDALE		LIMESTONE	2.0	107.0	
511.0	CARBONDALE		GRAY SHALE	22.0	109.0	
489.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	131.0	
488.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.8	132.0	
486.2	CARBONDALE	SPRINGFIELD	COAL	5.7	133.8	
480.5	CARBONDALE		UNDERCLAY	1.5	139.5	

MAPID: 12920525000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 27 QUARTERS/FOOTAGES: 132' S line, 258' W line of SW NW

QUADRANGLE: TALLULA LONGITUDE: -89.993802 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.982065 DATE COLLECTED: 6 / 13 / 1969

SURFACE ELEVATION (FT.): 617.0 LOGGED (FT.): 161.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F301K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.0	PLEISTOCENE		CLAY	18.0	0.0	SANDY
599.0	PLEISTOCENE		CLAY	67.0	18.0	WITH GRAVEL
532.0	PLEISTOCENE		CLAY	26.0	85.0	SANDY
506.0	CARBONDALE		BROWN SHALE	7.5	111.0	LIMESTONE LAMINAE
498.5	CARBONDALE		LIMESTONE	1.5	118.5	
497.0	CARBONDALE		SHALE	6.0	120.0	
491.0	CARBONDALE	HERRIN	COAL	1.5	126.0	DRILLER'S #6 UNCERTAIN CORRELATION
489.5	CARBONDALE		GRAY SHALE	6.5	127.5	
483.0	CARBONDALE		LIMESTONE	1.0	134.0	
482.0	CARBONDALE		GRAY SHALE	17.0	135.0	
465.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	152.0	
464.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	153.0	
462.0	CARBONDALE	SPRINGFIELD	COAL	5.7	155.0	
456.3	CARBONDALE		UNDERCLAY	0.3	160.7	

MAPID: 12920526000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD

TWP/RNG: 18N 8W

SECTION: 27

QUARTERS/FOOTAGES: NE NE NW SW

QUADRANGLE: TALLULA

LONGITUDE: -89.990597

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 39.981248

DATE COLLECTED: 5 / 6 / 1970

SURFACE ELEVATION (FT.): 621.0

LOGGED (FT.): 142.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F303

WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
621.0	PLEISTOCENE		SOIL	2.0	0.0	
619.0	PLEISTOCENE		CLAY	58.0	2.0	
561.0	PLEISTOCENE		CLAY	25.0	60.0	W/SAND & GRAVEL
536.0	PLEISTOCENE		CLAY	10.0	85.0	
526.0	CARBONDALE		LIMESTONE	3.0	95.0	HARD
523.0	CARBONDALE		LIMESTONE	6.0	98.0	SHALE INTERBEDS
517.0	CARBONDALE		COAL	0.3	104.0	
516.7	CARBONDALE		GRAY SHALE	5.7	104.3	
511.0	CARBONDALE		GRAY SHALE	6.0	110.0	LIMESTONE INTERBEDS
505.0	CARBONDALE		GRAY SHALE	16.0	116.0	
489.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	132.0	
488.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	133.0	
486.0	CARBONDALE	SPRINGFIELD	COAL	5.5	135.0	
480.5	CARBONDALE		UNDERCLAY	1.5	140.5	

MAPID: 12920527000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD

TWP/RNG: 18N 8W

SECTION: 27

QUARTERS/FOOTAGES: 60' N line, 3' E line of NW SE

QUADRANGLE: TALLULA

LONGITUDE: -89.980568

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 39.981524

DATE COLLECTED: 6 / 16 / 1969

SURFACE ELEVATION (FT.): 621.0

LOGGED (FT.): 142.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F305

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
621.0	PLEISTOCENE		CLAY	115.0	0.0	
506.0	PLEISTOCENE		CLAY & GRAVEL	5.0	115.0	
501.0	CARBONDALE		GRAY SHALE	14.2	120.0	
486.8	CARBONDALE	TURNER MINE	BLACK SHALE	1.8	134.2	
485.0	CARBONDALE	SPRINGFIELD	COAL	2.4	136.0	
482.6	CARBONDALE	SPRINGFIELD	LIMESTONE	0.4	138.4	
482.2	CARBONDALE	SPRINGFIELD	COAL	2.6	138.8	
479.6	CARBONDALE		UNDERCLAY	0.6	141.4	

MAPID: 12920528000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 27 QUARTERS/FOOTAGES: 150' N line, 180' E line of NW SE

QUADRANGLE: TALLULA LONGITUDE: -89.981204 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.981276 DATE COLLECTED: 3 / 1 / 1972

SURFACE ELEVATION (FT.): 621.0 LOGGED (FT.): 147.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F281G WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
621.0	PLEISTOCENE		CLAY	15.0	0.0
606.0	PLEISTOCENE		UNCONSOLIDATED	6.0	15.0
600.0	PLEISTOCENE		CLAY	65.0	21.0
535.0	CARBONDALE	ANNA	BLACK SHALE	3.5	86.0
531.5	CARBONDALE	HERRIN	COAL	0.5	89.5
531.0	CARBONDALE		UNDERCLAY	3.0	90.0
528.0	CARBONDALE		GRAY SHALE	8.5	93.0
519.5	CARBONDALE		LIMESTONE	2.5	101.5
517.0	CARBONDALE		GRAY SHALE	29.5	104.0
487.5	CARBONDALE	ST. DAVID	LIMESTONE	2.1	133.5
485.4	CARBONDALE	TURNER MINE	BLACK SHALE	3.2	135.6
482.2	CARBONDALE	SPRINGFIELD	COAL	6.5	138.8
475.7	CARBONDALE		UNDERCLAY	1.7	145.3

MAPID: 12920529000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 27 QUARTERS/FOOTAGES: 0' N line, 0' W line of SW SW

QUADRANGLE: TALLULA LONGITUDE: -89.99475 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.978095 DATE COLLECTED: 4 / 29 / 1970

SURFACE ELEVATION (FT.): 618.0 LOGGED (FT.): 145.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F251 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
618.0	PLEISTOCENE		SOIL	3.0	0.0
615.0	PLEISTOCENE		CLAY	78.0	3.0
537.0	CARBONDALE		GRAY SHALE	14.0	81.0
523.0	CARBONDALE	ANNA	BLACK SHALE	2.0	95.0
521.0	CARBONDALE	HERRIN	COAL	1.0	97.0
520.0	CARBONDALE		UNDERCLAY	1.0	98.0
519.0	CARBONDALE		GRAY SHALE	10.0	99.0
509.0	CARBONDALE		COAL	1.0	109.0
508.0	CARBONDALE		GRAY SHALE	26.0	110.0
482.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	136.0
481.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	136.5
480.0	CARBONDALE	SPRINGFIELD	COAL	5.8	138.0
474.2	CARBONDALE		UNDERCLAY	1.2	143.8

MAPID: 12990103000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 27 QUARTERS/FOOTAGES: 1' N line, 330' W line of NW NW
 QUADRANGLE: TALLULA LONGITUDE: -89.993503 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 39.988914 DATE COLLECTED: 6 / 10 / 1966
 SURFACE ELEVATION (FT.): 616.0 LOGGED (FT.): 138.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE O401B WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
616.0	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
597.0	PLEISTOCENE		SAND & GRAVEL	108.0	19.0	
489.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	127.0	HARD
488.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	128.0	SOFT
485.0	CARBONDALE	SPRINGFIELD	COAL	5.5	131.0	GOOD
479.5	CARBONDALE		UNDERCLAY	1.5	136.5	

MAPID: 12920530000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 34 QUARTERS/FOOTAGES: 6' S line, 42' E line of NE SE
 QUADRANGLE: TALLULA LONGITUDE: -89.975986 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.963625 DATE COLLECTED: 2 / 19 / 1969
 SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 139.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON E59 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0	PLEISTOCENE		CLAY	20.0	0.0	
592.0	PLEISTOCENE		CLAY & GRAVEL	1.0	20.0	
591.0	PLEISTOCENE		CLAY	39.0	21.0	
552.0	PLEISTOCENE		BOULDER	2.0	60.0	
550.0	CARBONDALE		SHALE	31.0	62.0	
519.0	CARBONDALE		LIMESTONE W/ SHALE	4.0	93.0	
515.0	CARBONDALE		SHALE	11.0	97.0	
504.0	CARBONDALE		LIMESTONE	2.0	108.0	
502.0	CARBONDALE		SHALE	10.0	110.0	LIMESTONE LAMINAE
492.0	CARBONDALE		SHALE	10.0	120.0	
482.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	130.0	
481.0	CARBONDALE	SPRINGFIELD	BONE COAL	1.0	131.0	
480.0	CARBONDALE	SPRINGFIELD	COAL	5.8	132.0	HARD
474.2	CARBONDALE		UNDERCLAY	1.5	137.8	

MAPID: 12920531000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 34 QUARTERS/FOOTAGES: NW NW NE SW

QUADRANGLE: TALLULA LONGITUDE: -89.989416 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.981247 DATE COLLECTED: 4 / 25 / 1970

SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F103 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
625.0	PLEISTOCENE		SOIL	3.0	0.0	
622.0	PLEISTOCENE		CLAY	37.0	3.0	
585.0			GRAY SHALE	56.0	40.0	
529.0	CARBONDALE		SHALE	2.0	96.0	SMUTTY
527.0	CARBONDALE		UNDERCLAY	3.0	98.0	SOFT
524.0	CARBONDALE		LIMESTONE	4.0	101.0	HARD
520.0	CARBONDALE		GRAY SHALE	12.0	105.0	
508.0	CARBONDALE		BLACK SHALE	0.5	117.0	
507.5	CARBONDALE		GRAY SHALE	21.5	117.5	LIMESTONE INTERBEDS
486.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	139.0	HARD
484.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	141.0	
482.0	CARBONDALE	SPRINGFIELD	COAL	6.0	143.0	
476.0	CARBONDALE		UNDERCLAY	1.0	149.0	

MAPID: 12920532000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 34 QUARTERS/FOOTAGES: 24' S line, 66' E line of NW NW

QUADRANGLE: TALLULA LONGITUDE: -89.990273 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.970924 DATE COLLECTED: 4 / 28 / 1970

SURFACE ELEVATION (FT.): 623.0 LOGGED (FT.): 143.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F153 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
623.0	PLEISTOCENE		SOIL	4.0	0.0	
619.0	PLEISTOCENE		CLAY	58.0	4.0	
561.0	PLEISTOCENE		CLAY	23.0	62.0	WITH GRAVEL
538.0	CARBONDALE		GRAY SHALE	2.0	85.0	
536.0	CARBONDALE	ANNA	BLACK SHALE	2.0	87.0	
534.0	CARBONDALE	HERRIN	COAL	2.0	89.0	
532.0	CARBONDALE		UNDERCLAY	7.0	91.0	
525.0	CARBONDALE		LIMESTONE	3.0	98.0	HARD
522.0	CARBONDALE		GRAY SHALE	8.0	101.0	LIMESTONE INTERBEDS
514.0	CARBONDALE		COAL	0.5	109.0	
513.5	CARBONDALE		GRAY SHALE	7.5	109.5	
506.0	CARBONDALE		LIMESTONE	3.0	117.0	HARD
503.0	CARBONDALE		GRAY SHALE	14.0	120.0	
489.0	CARBONDALE	ST. DAVID	LIMESTONE	0.7	134.0	HARD
488.3	CARBONDALE	TURNER MINE	BLACK SHALE	3.3	134.7	
485.0	CARBONDALE	SPRINGFIELD	COAL	4.0	138.0	
481.0	CARBONDALE		UNDERCLAY	1.0	142.0	

MAPID: 12920533000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 34 QUARTERS/FOOTAGES: SW SW NW NW

QUADRANGLE: TALLULA LONGITUDE: -89.994175 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.971317 DATE COLLECTED: 5 / 15 / 1969

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F151 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		CLAY	37.0	0.0	INCLUDES SOIL
593.0	PLEISTOCENE		GRAVEL	3.0	37.0	
590.0	PLEISTOCENE		GLACIAL DRIFT	65.0	40.0	
525.0	CARBONDALE	ANNA	BLACK SHALE	1.0	105.0	STICKY
524.0	CARBONDALE	ANNA	SHALE	0.9	106.0	RASHY
523.1	CARBONDALE	HERRIN	COAL	0.6	106.9	
522.5	CARBONDALE		GRAY SHALE	7.5	107.5	INCLUDES UNDERCLAY
515.0	CARBONDALE		GRAY SHALE	2.0	115.0	
513.0	CARBONDALE		LIMESTONE	5.0	117.0	
508.0	CARBONDALE		UNDERCLAY	3.0	122.0	
505.0	CARBONDALE		LIMESTONE	2.0	125.0	
503.0	CARBONDALE		GRAY SHALE	5.0	127.0	
498.0	CARBONDALE		LIMESTONE	3.0	132.0	
495.0	CARBONDALE		GRAY SHALE	15.0	135.0	
480.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	150.0	
478.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	152.0	STICKY
476.0	CARBONDALE	SPRINGFIELD	COAL	5.6	154.0	ANALYSIS AVAILABLE
470.4	CARBONDALE		UNDERCLAY	0.4	159.6	

MAPID: 12920534000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 34 QUARTERS/FOOTAGES: NW NW SE NE

QUADRANGLE: TALLULA LONGITUDE: -89.979978 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.970393 DATE COLLECTED: 4 / 17 / 1970

SURFACE ELEVATION (FT.): 623.0 LOGGED (FT.): 155.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F157 WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
623.0	PLEISTOCENE		CLAY	15.0	0.0	
608.0	PLEISTOCENE		CLAY	10.0	15.0	INCLUDES WOOD
598.0	PLEISTOCENE		CLAY	103.0	25.0	
495.0	CARBONDALE		SHALE	7.0	128.0	LIMESTONE INTERBEDS
488.0	CARBONDALE		SHALE	12.5	135.0	
475.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	147.5	
474.0	CARBONDALE	SPRINGFIELD	COAL	5.6	149.0	
468.4	CARBONDALE		UNDERCLAY	0.4	154.6	THICKNESS ADJUSTED

MAPID: 12920535000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 34 QUARTERS/FOOTAGES: 10' N line, 30' W line of SE SW

QUADRANGLE: TALLULA LONGITUDE: -89.98992 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.963582 DATE COLLECTED: 6 / 18 / 1969

SURFACE ELEVATION (FT.): 632.0 LOGGED (FT.): 145.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F53 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
632.0	PLEISTOCENE		CLAY	16.0	0.0	SANDY
616.0	PLEISTOCENE		CLAY	44.0	16.0	WITH GRAVEL
572.0	PLEISTOCENE		CLAY	14.0	60.0	SANDY WITH GRAVEL
558.0	CARBONDALE		GRAY SHALE	32.0	74.0	OCCASIONAL LIMESTONE "RIBS"
526.0	CARBONDALE		LIMESTONE	3.5	106.0	SHALE INTERBEDS
522.5	CARBONDALE		GRAY SHALE	9.5	109.5	SANDY, LIMESTONE "RIBS"
513.0	CARBONDALE		LIMESTONE	2.0	119.0	
511.0	CARBONDALE		GRAY SHALE	14.5	121.0	SANDY
496.5	CARBONDALE		LIMESTONE	1.0	135.5	
495.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.8	136.5	RASHY TOWARDS BOTTOM
492.7	CARBONDALE	SPRINGFIELD	COAL	4.4	139.3	BONEY, "VERY POOR FLOAT"
488.3	CARBONDALE		UNDERCLAY	1.3	143.7	

MAPID: 12920536000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 34 QUARTERS/FOOTAGES: 6' N line, 45' E line of SW SE

QUADRANGLE: TALLULA LONGITUDE: -89.980728 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.963592 DATE COLLECTED: 6 / 18 / 1969

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 144.3 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F57 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		CLAY	20.0	0.0	SANDY
600.0	PLEISTOCENE		CLAY	79.0	20.0	
521.0	PLEISTOCENE		GRAVEL	1.0	99.0	
520.0	CARBONDALE		LIMESTONE	2.5	100.0	
517.5	CARBONDALE		GRAY SHALE	2.5	102.5	
515.0	CARBONDALE		LIMESTONE	2.0	105.0	
513.0	CARBONDALE		GRAY SHALE	7.0	107.0	
506.0	CARBONDALE		LIMESTONE	1.5	114.0	
504.5	CARBONDALE		GRAY SHALE	20.5	115.5	
484.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.7	136.0	
482.3	CARBONDALE	SPRINGFIELD	COAL	6.2	137.7	ANALYSIS AVAILABLE
476.1	CARBONDALE		UNDERCLAY	0.4	143.9	

MAPID: 12920537000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD

TWP/RNG: 18N 8W

SECTION: 35

QUARTERS/FOOTAGES: SE SE SE NW

QUADRANGLE: TALLULA

LONGITUDE: -89.966975

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 39.967657

DATE COLLECTED: 1 / 16 / 1970

SURFACE ELEVATION (FT.): 623.0

LOGGED (FT.): 159.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F113

WELL TYPE: Coal Test

COMMENT: NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
623.0	PLEISTOCENE		CLAY	44.0	0.0	
579.0	PLEISTOCENE		GRAVEL	1.0	44.0	
578.0	PLEISTOCENE		CLAY	62.0	45.0	
516.0	PLEISTOCENE		CLAY & GRAVEL	5.0	107.0	
511.0	PLEISTOCENE		CLAY	15.0	112.0	
496.0	CARBONDALE		LIMESTONE	2.0	127.0	SHALEY
494.0	CARBONDALE		SHALE	20.0	129.0	
474.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	149.0	
473.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	149.5	
470.5	CARBONDALE	SPRINGFIELD	COAL	6.3	152.5	
464.2	CARBONDALE		UNDERCLAY	0.2	158.8	

MAPID: 12920538000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD

TWP/RNG: 18N 8W

SECTION: 35

QUARTERS/FOOTAGES: 384' S line, 30' E line of NW SE

QUADRANGLE: TALLULA

LONGITUDE: -89.961747

GEOLOGIST: HAMER

CONFIDENTIAL: N

LATITUDE: 39.964634

DATE COLLECTED: 3 / 2 / 1972

SURFACE ELEVATION (FT.): 610.0

LOGGED (FT.): 133.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F65C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		CLAY	61.0	0.0	
549.0	PLEISTOCENE		GRAVEL	4.0	61.0	
545.0	PLEISTOCENE		CLAY	42.0	65.0	THICKNESS ADJUSTED
503.0	CARBONDALE		GRAY SHALE	16.4	107.0	
486.6	CARBONDALE	ST. DAVID	LIMESTONE	0.4	123.4	
486.2	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	123.8	
484.2	CARBONDALE	SPRINGFIELD	COAL	4.8	125.8	
479.4	CARBONDALE		UNDERCLAY	2.4	130.6	

MAPID: 12920539000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 35 QUARTERS/FOOTAGES: 33' S line, 555' E line of NE SW
 QUADRANGLE: TALLULA LONGITUDE: -89.968358 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.963683 DATE COLLECTED: 12 / 9 / 1969
 SURFACE ELEVATION (FT.): 619.0 LOGGED (FT.): 149.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON F620B WELL TYPE: Coal Test
 COMMENT: DAY OF DATA UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
619.0	PLEISTOCENE		CLAY	118.0	0.0	
501.0	CARBONDALE		LIMESTONE W/ SHALE	4.0	118.0	
497.0	CARBONDALE		SHALE	16.0	122.0	
481.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	138.0	
480.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	138.5	
477.5	CARBONDALE	SPRINGFIELD	COAL	6.8	141.5	
470.7	CARBONDALE		UNDERCLAY	0.7	148.3	

MAPID: 12920540000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 35 QUARTERS/FOOTAGES: 20' N line, 16' E line of NE NW
 QUADRANGLE: TALLULA LONGITUDE: -89.966474 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.974382 DATE COLLECTED: 4 / 14 / 1970
 SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 144.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON F213 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0	PLEISTOCENE		CLAY	90.0	0.0	
522.0	PLEISTOCENE		CLAY & GRAVEL	3.0	90.0	
519.0	PLEISTOCENE		CLAY	17.0	93.0	
502.0	CARBONDALE		SHALE	10.0	110.0	LIMESTONE INTERBEDS
492.0	CARBONDALE		SHALE	12.5	120.0	
479.5	CARBONDALE	ST. DAVID	LIMESTONE	1.5	132.5	
478.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	134.0	
475.0	CARBONDALE	SPRINGFIELD	COAL	6.2	137.0	
468.8	CARBONDALE		UNDERCLAY	0.8	143.2	

MAPID: 12920541000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 35 QUARTERS/FOOTAGES: 20' N line, 10' W line of NW NW

QUADRANGLE: TALLULA LONGITUDE: -89.975798 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.9744 DATE COLLECTED: 6 / 16 / 1969

SURFACE ELEVATION (FT.): 621.0 LOGGED (FT.): 149.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F209 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
621.0	PLEISTOCENE		CLAY	19.0	0.0	SANDY
602.0	PLEISTOCENE		CLAY	82.0	19.0	WITH GRAVEL
520.0			COAL	0.1	101.0	
520.0	CARBONDALE		GRAY SHALE	4.9	101.0	
515.0	CARBONDALE	BRERETON	LIMESTONE	4.0	106.0	
511.0	CARBONDALE	HERRIN	COAL	0.5	110.0	
510.5	CARBONDALE		GRAY SHALE	24.5	110.5	SANDY
486.0	CARBONDALE	ST. DAVID	LIMESTONE	5.5	135.0	
480.5	CARBONDALE	TURNER MINE	SHALE	0.5	140.5	GRAY GRADING TO BLACK AT BOTTOM
480.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	141.0	
478.0	CARBONDALE	SPRINGFIELD	COAL	5.6	143.0	
472.4	CARBONDALE		UNDERCLAY	0.4	148.6	

MAPID: 12920542000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 35 QUARTERS/FOOTAGES: 201' S line, 21' E line of NE NW

QUADRANGLE: TALLULA LONGITUDE: -89.966479 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.971377 DATE COLLECTED: 4 / 14 / 1970

SURFACE ELEVATION (FT.): 616.0 LOGGED (FT.): 142.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F163C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
616.0	PLEISTOCENE		CLAY	98.0	0.0	
518.0	PLEISTOCENE		CLAY & GRAVEL	12.0	98.0	
506.0	CARBONDALE		LIMESTONE	5.0	110.0	
501.0	CARBONDALE		SHALE	15.0	115.0	
486.0	CARBONDALE	ST. DAVID	LIMESTONE	2.5	130.0	
483.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	132.5	
480.5	CARBONDALE	SPRINGFIELD	COAL	5.5	135.5	
475.0	CARBONDALE		UNDERCLAY	1.0	141.0	

MAPID: 12920543000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 35 QUARTERS/FOOTAGES: 224' S line, 20' W line of NE NW

QUADRANGLE: TALLULA LONGITUDE: -89.971046 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.97145 DATE COLLECTED: 4 / 14 / 1970

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 129.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F161J WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
603.0	PLEISTOCENE		CLAY	60.0	0.0
543.0	PLEISTOCENE		CLAY & GRAVEL	5.0	60.0
538.0	PLEISTOCENE		CLAY	30.0	65.0
508.0	PLEISTOCENE		GRAVEL	1.0	95.0
507.0	CARBONDALE		LIMESTONE	3.0	96.0
504.0	CARBONDALE		SHALE	19.0	99.0
485.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	118.0
484.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	118.5
481.5	CARBONDALE	SPRINGFIELD	COAL	6.5	121.5
475.0	CARBONDALE		UNDERCLAY	1.0	128.0

MAPID: 12920544000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 35 QUARTERS/FOOTAGES: 9' N line, 369' E line of SW SE

QUADRANGLE: TALLULA LONGITUDE: -89.962955 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.963552 DATE COLLECTED: 5 / 21 / 1969

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 128.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F64B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		CLAY & GRAVEL	65.0	0.0
535.0	PLEISTOCENE		CLAY	20.0	65.0
515.0	CARBONDALE		LIMESTONE	1.0	85.0
514.0	CARBONDALE		GRAY SHALE	34.0	86.0
480.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	120.0
478.0	CARBONDALE	TURNER MINE	LIMESTONE	0.7	122.0
477.3	CARBONDALE	SPRINGFIELD	COAL	4.0	122.7
473.3	CARBONDALE		UNDERCLAY	1.3	126.7

MAPID: 12920545000C **VERSION:** 1 **PROJECT:** NCRDS96
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 35 **QUARTERS/FOOTAGES:** SE SE SW SE
QUADRANGLE: TALLULA **LONGITUDE:** -89.962199 **GEOLOGIST:** HAMER
CONFIDENTIAL: N **LATITUDE:** 39.960412 **DATE COLLECTED:** 3 / 6 / 1972
SURFACE ELEVATION (FT.): 612.0 **LOGGED (FT.):** 160.0 **LOG TYPE:** Drillers Log
SOURCE: COMMONWEALTH EDISON F15 **WELL TYPE:** Coal Test
COMMENT: NO COAL LOGGED, NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0	PLEISTOCENE		CLAY	15.0	0.0	
597.0	PLEISTOCENE		CLAY	8.0	15.0	W/DRIFT
589.0	PLEISTOCENE		CLAY	52.0	23.0	
537.0	PLEISTOCENE		SAND & GRAVEL	26.0	75.0	
511.0	CARBONDALE		GRAY SHALE	59.0	101.0	

MAPID: 12920546000C **VERSION:** 1 **PROJECT:** NCRDS96
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 36 **QUARTERS/FOOTAGES:** 1140' N line, 15' E line of NE NE
QUADRANGLE: TALLULA **LONGITUDE:** -89.938217 **GEOLOGIST:** HAMER
CONFIDENTIAL: N **LATITUDE:** 39.971322 **DATE COLLECTED:** 12 / 2 / 1969
SURFACE ELEVATION (FT.): 558.0 **LOGGED (FT.):** 140.0 **LOG TYPE:** Drillers Log
SOURCE: COMMONWEALTH EDISON F175J **WELL TYPE:** Coal Test
COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
558.0	PLEISTOCENE		CLAY	114.0	0.0	
444.0	PLEISTOCENE		GRAVEL	1.0	114.0	
443.0	CARBONDALE		GRAY SHALE	19.0	115.0	
424.0	CARBONDALE		LIMESTONE W/ SHALE	6.0	134.0	

MAPID: 12920547000C **VERSION:** 1 **PROJECT:** NCRDS96
COUNTY: MENARD **TWP/RNG:** 18N 8W **SECTION:** 36 **QUARTERS/FOOTAGES:** 260' S line, 39' E line of NE NW
QUADRANGLE: TALLULA **LONGITUDE:** -89.947709 **GEOLOGIST:** HAMER
CONFIDENTIAL: N **LATITUDE:** 39.971538 **DATE COLLECTED:** 12 / 12 / 1969
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 172.0 **LOG TYPE:** Drillers Log
SOURCE: COMMONWEALTH EDISON F171C **WELL TYPE:** Coal Test
COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	65.0	0.0	
535.0	PLEISTOCENE		SAND & GRAVEL	5.0	65.0	
530.0	PLEISTOCENE		CLAY	28.0	70.0	
502.0	PLEISTOCENE		CLAY & GRAVEL	2.0	98.0	
500.0	PLEISTOCENE		CLAY	50.0	100.0	
450.0	CARBONDALE		GRAY SHALE	22.0	150.0	

MAPID: 12920548000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 36 QUARTERS/FOOTAGES: 30' S line, 84' W line of NE NW

QUADRANGLE: TALLULA LONGITUDE: -89.951963 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.970895 DATE COLLECTED: 12 / 15 / 1969

SURFACE ELEVATION (FT.): 601.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F169B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
601.0	PLEISTOCENE		CLAY	85.0	0.0	
516.0	PLEISTOCENE		SAND	5.0	85.0	
511.0	PLEISTOCENE		CLAY	25.0	90.0	
486.0	PLEISTOCENE		SAND & GRAVEL	5.0	115.0	
481.0	CARBONDALE		GRAY SHALE	11.0	120.0	
470.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	131.0	
468.0	CARBONDALE	SPRINGFIELD	COAL	6.0	133.0	
462.0	CARBONDALE		UNDERCLAY	1.0	139.0	

MAPID: 12920549000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 36 QUARTERS/FOOTAGES: 6' S line, 15' W line of SE NW

QUADRANGLE: TALLULA LONGITUDE: -89.952176 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.967207 DATE COLLECTED: 12 / 12 / 1969

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 180.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F119 WELL TYPE: Coal Test

COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		CLAY	88.0	0.0	
522.0	PLEISTOCENE		BOULDER	1.0	88.0	LIMESTONE, LITHOLOGY UNCERTAIN
521.0	PLEISTOCENE		CLAY	76.0	89.0	
445.0	PLEISTOCENE		GRAVEL	1.0	165.0	
444.0	CARBONDALE		GRAY SHALE	14.0	166.0	

MAPID: 12920550000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 36 QUARTERS/FOOTAGES: SW SW SW NW
 QUADRANGLE: TALLULA LONGITUDE: -89.956347 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.967635 DATE COLLECTED: 3 / 2 / 1972
 SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON F117 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		CLAY	149.0	0.0	
471.0	CARBONDALE		GRAY SHALE	0.5	149.0	
470.5	CARBONDALE		BLACK SHALE	3.5	149.5	
467.0	CARBONDALE		SHALE	7.0	153.0	INCLUDES FIRECLAY

MAPID: 12920551000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 36 QUARTERS/FOOTAGES: 0' N line, 25' E line of NE NW
 QUADRANGLE: TALLULA LONGITUDE: -89.947685 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.974444 DATE COLLECTED: 12 / 13 / 1969
 SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON F219 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		CLAY	114.0	0.0	
496.0	CARBONDALE		LIMESTONE	1.0	114.0	
495.0	CARBONDALE		GRAY SHALE	21.0	115.0	
474.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	136.0	
473.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	137.0	
471.0	CARBONDALE	SPRINGFIELD	BONE COAL	1.2	139.0	
469.8	CARBONDALE	SPRINGFIELD	COAL	6.8	140.2	BRIGHT
463.0	CARBONDALE		UNDERCLAY	1.0	147.0	

MAPID: 12920552000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 36 QUARTERS/FOOTAGES: 136' N line, 24' E line of NW NE

QUADRANGLE: TALLULA LONGITUDE: -89.942976 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.974081 DATE COLLECTED: 3 / 24 / 1970

SURFACE ELEVATION (FT.): 552.0 LOGGED (FT.): 91.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F198D WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
552.0	PLEISTOCENE		CLAY	10.0	0.0	INCLUDES WOOD
542.0	PLEISTOCENE		SAND & GRAVEL	15.0	10.0	
527.0	PLEISTOCENE		CLAY	32.0	25.0	
495.0	CARBONDALE		SHALE	8.0	57.0	LIMESTONE INTERBEDS
487.0	CARBONDALE		SHALE	14.0	65.0	
473.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	79.0	
471.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	81.0	
467.5	CARBONDALE	SPRINGFIELD	COAL	6.0	84.5	
461.5	CARBONDALE		UNDERCLAY	0.5	90.5	

MAPID: 12920553000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 36 QUARTERS/FOOTAGES: 126' N line, 15' W line of SW NW

QUADRANGLE: TALLULA LONGITUDE: -89.956907 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.970451 DATE COLLECTED: 5 / 20 / 1969

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 129.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F167 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0	PLEISTOCENE		CLAY	59.0	0.0	
536.0	PLEISTOCENE		BOULDER	0.5	59.0	LIMESTONE
535.5	PLEISTOCENE		CLAY	32.5	59.5	
503.0	CARBONDALE	ANNA	BLACK SHALE	1.0	92.0	
502.0	CARBONDALE		GRAY SHALE	4.0	93.0	
498.0	CARBONDALE		LIMESTONE	2.0	97.0	
496.0	CARBONDALE		GRAY SHALE	22.0	99.0	
474.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	121.0	
472.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	122.5	
470.0	CARBONDALE	SPRINGFIELD	COAL	3.0	125.0	
467.0	CARBONDALE		UNDERCLAY	1.0	128.0	

MAPID: 12920554000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 36 QUARTERS/FOOTAGES: 350' S line, 720' E line of NE SW

QUADRANGLE: TALLULA LONGITUDE: -89.950085 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.964538 DATE COLLECTED: 12 / 10 / 1969

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 142.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F78 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0	PLEISTOCENE		CLAY	55.0	0.0	
557.0	PLEISTOCENE		CLAY & GRAVEL	7.0	55.0	
550.0	PLEISTOCENE		CLAY	18.0	62.0	
532.0	PLEISTOCENE		GRAVEL	5.0	80.0	
527.0	PLEISTOCENE		CLAY	21.0	85.0	
506.0	PLEISTOCENE		CLAY & GRAVEL	4.0	106.0	
502.0	CARBONDALE		GRAY SHALE	9.0	110.0	
493.0	CARBONDALE		BROWN SHALE	1.0	119.0	
492.0	CARBONDALE		GRAY SHALE	13.0	120.0	
479.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	133.0	
478.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	133.5	
477.5	CARBONDALE	SPRINGFIELD	BONE COAL	0.5	134.5	BLACK
477.0	CARBONDALE	SPRINGFIELD	COAL	6.2	135.0	HARD
470.8	CARBONDALE		UNDERCLAY	0.8	141.2	

MAPID: 12920555000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 36 QUARTERS/FOOTAGES: 286' S line, 0' W line of SW SW

QUADRANGLE: TALLULA LONGITUDE: -89.956868 GEOLOGIST: HAMER

CONFIDENTIAL: N LATITUDE: 39.960733 DATE COLLECTED: 5 / 19 / 1969

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 180.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON F17C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		CLAY	85.0	0.0	
525.0	CARBONDALE		LIMESTONE	2.0	85.0	
523.0	CARBONDALE		GRAY SHALE	43.0	87.0	
480.0	CARBONDALE		SHALE	10.0	130.0	SANDY
470.0	CARBONDALE		GRAY SHALE	10.0	140.0	
460.0	CARBONDALE		BLACK SHALE	1.5	150.0	
458.5	CARBONDALE		GRAY SHALE	3.5	151.5	
455.0	CARBONDALE		LIMESTONE	5.0	155.0	FRACTURED
450.0	CARBONDALE		GRAY SHALE	20.0	160.0	

MAPID: 12920556000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 18N 8W SECTION: 36 QUARTERS/FOOTAGES: 171' S line, 0' W line of SW SW
 QUADRANGLE: TALLULA LONGITUDE: -89.956862 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 39.960416 DATE COLLECTED: 5 / 19 / 1969
 SURFACE ELEVATION (FT.): 616.0 LOGGED (FT.): 161.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON F17J WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
616.0	PLEISTOCENE		CLAY	60.0	0.0	
556.0	PLEISTOCENE		SAND & GRAVEL	5.0	60.0	
551.0	PLEISTOCENE		CLAY	26.0	65.0	
525.0	CARBONDALE		GRAY SHALE	2.0	91.0	LIMESTONE INTERBEDS
523.0	CARBONDALE		GRAY SHALE	58.5	93.0	
464.5	CARBONDALE		BLACK SHALE	0.5	151.5	
464.0	CARBONDALE		SHALE WITH LIMESTONE	9.0	152.0	

MAPID: 12920971000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 4W SECTION: 19 QUARTERS/FOOTAGES: 2620' S line, 2568' W line
 QUADRANGLE: MIDDLETOWN LONGITUDE: -89.591454 GEOLOGIST: SROKA
 CONFIDENTIAL: N LATITUDE: 40.08482 DATE COLLECTED: 6 / 1 / 1977
 SURFACE ELEVATION (FT.): 613.0 LOGGED (FT.): 250.0 LOG TYPE: Multiple log types
 SOURCE: MOBIL OIL WELL TYPE: Coal Test
 COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
613.0			CLAY	140.0	0.0	
473.0			SILT	46.0	140.0	
478.0	CARBONDALE	DANVILLE	COAL	0.0	135.0	
453.0	CARBONDALE	HERRIN	COAL	0.0	160.0	
427.0	CARBONDALE		SHALE	33.7	186.0	
393.3	CARBONDALE	ST. DAVID	LIMESTONE	0.2	219.7	
393.1	CARBONDALE	TURNER MINE	BLACK SHALE	2.1	219.9	
391.0	CARBONDALE	SPRINGFIELD	COAL	5.8	222.0	
385.2	CARBONDALE		UNDERCLAY	1.6	227.8	
383.6	CARBONDALE		CORE LOSS	1.4	229.4	
382.3	CARBONDALE		SHALE	6.3	230.7	
376.0	CARBONDALE	EXCELLO	BLACK SHALE	1.0	237.0	
375.0	CARBONDALE		SHALE	12.0	238.0	

MAPID: 12920853000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 4W SECTION: 30 QUARTERS/FOOTAGES: 2613' N line, 1872' E line

QUADRANGLE: MIDDLETOWN LONGITUDE: -89.585407 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.070417 DATE COLLECTED: 7 / 27 / 1979

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 240.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0			CLAY	10.0	0.0
600.0			SILT & CLAY	10.0	10.0
590.0			CLAY, SAND & GRAVEL	20.0	20.0
570.0			CLAY	20.0	40.0
550.0			CLAY, SAND & GRAVEL	45.0	60.0
505.0	MODESTO		SHALE	1.0	105.0
504.0	MODESTO		SILTSTONE	1.0	106.0
503.0	MODESTO		SHALE	22.0	107.0
481.0	MODESTO		BLACK SHALE	2.5	129.0
478.5	CARBONDALE	DANVILLE	COAL	1.5	131.5
477.0	CARBONDALE		SHALE	4.5	133.0
472.5	CARBONDALE		LIMESTONE	1.5	137.5
471.0	CARBONDALE		SHALE	9.0	139.0
462.0	CARBONDALE		SHALE	8.0	148.0
454.0	CARBONDALE	HERRIN	COAL	3.0	156.0
451.0	CARBONDALE		SHALE	4.5	159.0
446.5	CARBONDALE		SHALE	6.0	163.5
440.5	CARBONDALE		SANDSTONE	1.0	169.5
439.5	CARBONDALE		SHALE	42.0	170.5
397.5	CARBONDALE	ST. DAVID	LIMESTONE	3.5	212.5
394.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.3	216.0
391.7	CARBONDALE	SPRINGFIELD	COAL	5.7	218.3
386.0	CARBONDALE		UNDERCLAY	0.9	224.0
385.1	CARBONDALE		CORE LOSS	0.1	224.9
385.0	CARBONDALE		SHALE	8.0	225.0
377.0	CARBONDALE	EXCELLO	BLACK SHALE	3.5	233.0
373.5	CARBONDALE		SHALE	3.5	236.5

MAPID: 12900113000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: MENARD **TWP/RNG:** 19N 5W **SECTION:** 3 **QUARTERS/FOOTAGES:** 50' S line, 75' W line of SW
QUADRANGLE: GREENVIEW **LONGITUDE:** -89.657827 **GEOLOGIST:** HINDMAN
CONFIDENTIAL: N **LATITUDE:** 40.120668 **DATE COLLECTED:** 7 / 23 / 1970
SURFACE ELEVATION (FT.): 523.0 **LOGGED (FT.):** 229.0 **LOG TYPE:** Electric Log
SOURCE: CENTRAL ILLINOIS LIGHT **WELL TYPE:** Dry Hole
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
523.0			UNCONSOLIDATED	160.0	0.0
363.0	CARBONDALE		UNCLASSIFIED	66.0	160.0
297.0	CARBONDALE	COLCHESTER	COAL	3.0	226.0

MAPID: 12900076000C **VERSION:** 1 **PROJECT:** NCRDS96
COUNTY: MENARD **TWP/RNG:** 19N 5W **SECTION:** 4 **QUARTERS/FOOTAGES:** 500' N line, 500' E line of NE NE NE
QUADRANGLE: MASON CITY **LONGITUDE:** -89.660355 **GEOLOGIST:** MCCRACKEN
CONFIDENTIAL: N **LATITUDE:** 40.133841 **DATE COLLECTED:** 2 / 16 / 1957
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 40.0 **LOG TYPE:** Drillers Log
SOURCE: DONAN PE-3 **WELL TYPE:** Coal Test
COMMENT: HOLE PE-3A ALSO AT THIS LOCATION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0
-	PLEISTOCENE		SAND	35.0	5.0

MAPID: 12920640000C **VERSION:** 1 **PROJECT:** ISGS88
COUNTY: MENARD **TWP/RNG:** 19N 5W **SECTION:** 9 **QUARTERS/FOOTAGES:** 1715' S line, 30' W line
QUADRANGLE: GREENVIEW **LONGITUDE:** -89.676677 **GEOLOGIST:** SROKA
CONFIDENTIAL: N **LATITUDE:** 40.110579 **DATE COLLECTED:** 10 / 14 / 1975
SURFACE ELEVATION (FT.): 530.0 **LOGGED (FT.):** 160.0 **LOG TYPE:** Multiple log types
SOURCE: MOBIL OIL **WELL TYPE:** Coal Test
COMMENT: GAMMA, RESISTIVITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
530.0			CLAY	12.0	0.0
518.0			SAND & GRAVEL	142.5	12.0
453.0	CARBONDALE	DANVILLE	COAL	0.0	77.0
431.0	CARBONDALE	HERRIN	COAL	0.0	99.0
375.5	CARBONDALE	ST. DAVID	LIMESTONE	2.5	154.5
373.0	CARBONDALE	SPRINGFIELD	BLACK SHALE	2.0	157.0
371.0	CARBONDALE		UNDERCLAY	1.0	159.0

MAPID: 12920641000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 11 QUARTERS/FOOTAGES: 2580' S line, 2590' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.629861 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.113601 DATE COLLECTED: 10 / 14 / 1975

SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 160.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESISTIVITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
530.0			CLAY	3.0	0.0
527.0			SAND/CLAY	9.0	3.0
518.0			SAND & GRAVEL	148.0	12.0
484.0	CARBONDALE	DANVILLE	COAL	0.0	46.0
462.0	CARBONDALE	HERRIN	COAL	0.0	68.0
404.0	CARBONDALE	SPRINGFIELD	COAL	0.0	126.0

MAPID: 12921181000C VERSION: 1

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 11 QUARTERS/FOOTAGES: 10' N line, 2500' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.630367 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.12106 DATE COLLECTED: 6 / 25 / 1968

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 340.0 LOG TYPE: Gamma Ray Density

SOURCE: HYDROCARBON SURVEY WELL TYPE: Coal Test

COMMENT: POOR QUALITY LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
550.0			UNCONSOLIDATED	171.0	0.0
379.0	CARBONDALE		UNCLASSIFIED	22.5	171.0
356.5	CARBONDALE	SURVANT - UPPER	COAL	2.0	193.5
354.5	CARBONDALE		UNCLASSIFIED	21.5	195.5
333.0	CARBONDALE	SURVANT - LOWER	COAL	0.0	217.0
333.0	CARBONDALE		UNCLASSIFIED	28.0	217.0
305.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.5	245.0
301.5	CARBONDALE	COLCHESTER	COAL	0.0	248.5
301.5	SPOON		UNCLASSIFIED	28.5	248.5
273.0	SPOON		COAL	1.5	277.0
271.5	SPOON		UNCLASSIFIED	19.0	278.5
252.5	SPOON		BLACK SHALE	2.5	297.5
250.0	SPOON		UNCLASSIFIED	20.0	300.0
230.0	SPOON		BLACK SHALE	3.0	320.0
227.0	SPOON		UNCLASSIFIED	17.0	323.0

MAPID: 12920642000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 15 QUARTERS/FOOTAGES: 370' N line, 1220' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.643359 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.105265 DATE COLLECTED: 11 / 14 / 1975

SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 140.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESISTIVITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
530.0			CLAY	2.0	0.0	
528.0			SAND & GRAVEL	124.0	2.0	
484.0	CARBONDALE	DANVILLE	COAL	0.0	46.0	
462.0	CARBONDALE	HERRIN	COAL	0.0	68.0	
404.0	CARBONDALE	SPRINGFIELD	COAL	3.5	126.0	
400.5	CARBONDALE		UNDERCLAY	4.5	129.5	
396.0	CARBONDALE		SHALE	6.0	134.0	

MAPID: 12920728000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 15 QUARTERS/FOOTAGES: 775' S line, 50' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.638919 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.094049 DATE COLLECTED: 8 / 31 / 1978

SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 145.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.0			CLAY, SAND & GRAVEL	34.0	0.0	
526.0			SANDY CLAY	81.0	34.0	
445.0			CLAY, SAND & GRAVEL	2.5	115.0	
518.0	CARBONDALE	DANVILLE	COAL	0.0	42.0	
496.0	CARBONDALE	HERRIN	COAL	0.0	64.0	
442.5	CARBONDALE		SHALE	1.5	117.5	
441.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.1	119.0	
437.9	CARBONDALE	SPRINGFIELD	COAL	6.1	122.1	
431.8	CARBONDALE		UNDERCLAY	0.2	128.2	
431.6	CARBONDALE		CORE LOSS	0.6	128.4	
431.0	CARBONDALE		SHALE	16.0	129.0	

MAPID: 12921182000C VERSION: 1

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 15 QUARTERS/FOOTAGES: 20' N line, 100' E line
 QUADRANGLE: GREENVIEW LONGITUDE: -89.639353 GEOLOGIST: C TREWORGY
 CONFIDENTIAL: N LATITUDE: 40.106296 DATE COLLECTED: 6 / 10 / 1968
 SURFACE ELEVATION (FT.): 529.0 LOGGED (FT.): 295.0 LOG TYPE: Gamma Ray Density
 SOURCE: HYDROCARBON SURVEY WELL TYPE: Coal Test
 COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
529.0			UNCONSOLIDATED	143.0	0.0	
386.0	CARBONDALE		UNCLASSIFIED	53.0	143.0	
333.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.0	196.0	
330.0	CARBONDALE		SHALE	2.0	199.0	
328.0	CARBONDALE	COLCHESTER	COAL	3.0	201.0	
325.0	SPOON		UNCLASSIFIED	32.0	204.0	
293.0	SPOON		COAL	3.0	236.0	UNCERTAIN CORRELATION
290.0	SPOON		UNCLASSIFIED	56.0	239.0	

MAPID: 12920643000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 16 QUARTERS/FOOTAGES: 55' S line, 50' E line
 QUADRANGLE: GREENVIEW LONGITUDE: -89.65761 GEOLOGIST: SROKA
 CONFIDENTIAL: N LATITUDE: 40.091885 DATE COLLECTED: 11 / 3 / 1975
 SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 154.0 LOG TYPE: Multiple log types
 SOURCE: MOBIL OIL WELL TYPE: Coal Test
 COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
565.0			CLAY	2.0	0.0	
563.0			CLAY, SAND & GRAVEL	38.0	2.0	
525.0			CLAY	44.0	40.0	
481.0			SILT & CLAY	10.0	84.0	
505.0	CARBONDALE	DANVILLE	COAL	0.0	60.0	
483.0	CARBONDALE	HERRIN	COAL	0.0	82.0	
471.0	CARBONDALE		SHALE	13.0	94.0	
458.0	CARBONDALE		DARK SHALE & SANDSTONE	3.5	107.0	
454.5	CARBONDALE		SHALE	28.5	110.5	
426.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	139.0	
425.0	CARBONDALE	SPRINGFIELD	COAL	6.0	140.0	
419.0	CARBONDALE		UNDERCLAY	2.5	146.0	
416.5	CARBONDALE		LIMESTONE	1.0	148.5	
415.5	CARBONDALE		SHALE	4.5	149.5	

MAPID: 12921183000C VERSION: 1

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 16 QUARTERS/FOOTAGES: 110' S line, 20' E line
 QUADRANGLE: GREENVIEW LONGITUDE: -89.657506 GEOLOGIST: C TREWORY
 CONFIDENTIAL: N LATITUDE: 40.092039 DATE COLLECTED: 6 / 26 / 1968
 SURFACE ELEVATION (FT.): 563.0 LOGGED (FT.): 355.0 LOG TYPE: Gamma Ray Density
 SOURCE: HYDROCARBON SURVEY WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
563.0			UNCONSOLIDATED	82.0	0.0
481.0	CARBONDALE		UNCLASSIFIED	51.5	82.0
429.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	133.5
427.5	CARBONDALE	SPRINGFIELD	COAL	5.0	135.5
422.5	CARBONDALE		UNCLASSIFIED	11.0	140.5
411.5	CARBONDALE	EXCELLO	BLACK SHALE	2.0	151.5
409.5	CARBONDALE		UNCLASSIFIED	56.0	153.5
353.5	CARBONDALE	SURVANT	COAL	3.0	209.5
350.5	CARBONDALE		UNCLASSIFIED	46.5	212.5
304.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	4.7	259.0
299.3	CARBONDALE	COLCHESTER	COAL	2.5	263.7
296.8	SPOON		UNCLASSIFIED	85.3	266.2
211.5	SPOON		COAL	2.0	351.5
209.5	SPOON		UNCLASSIFIED	1.5	353.5

MAPID: 12920644000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 17 QUARTERS/FOOTAGES: 1355' N line, 55' W line
 QUADRANGLE: GREENVIEW LONGITUDE: -89.695346 GEOLOGIST: SROKA
 CONFIDENTIAL: N LATITUDE: 40.101956 DATE COLLECTED: 11 / 13 / 1975
 SURFACE ELEVATION (FT.): 523.0 LOGGED (FT.): 118.0 LOG TYPE: Multiple log types
 SOURCE: MOBIL OIL WELL TYPE: Coal Test
 COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
523.0			CLAY	2.0	0.0
521.0			SAND/CLAY	13.0	2.0
508.0			SAND & GRAVEL	97.0	15.0
-	CARBONDALE	DANVILLE	COAL	0.0	
-	CARBONDALE	HERRIN	COAL	0.0	
-	CARBONDALE	SPRINGFIELD	COAL	0.0	
411.0	CARBONDALE		SHALE	5.0	112.0

MAPID: 12920589000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 18 QUARTERS/FOOTAGES: 790' S line, 2800' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.705418 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.093105 DATE COLLECTED: 11 / 5 / 1975

SURFACE ELEVATION (FT.): 542.0 LOGGED (FT.): 112.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
542.0			UNCONSOLIDATED	99.0	0.0
522.0	CARBONDALE	DANVILLE	COAL	0.0	20.0
500.0	CARBONDALE	HERRIN	COAL	0.0	42.0
443.0	CARBONDALE	ST. DAVID	SHALY LIMESTONE	1.3	99.0
441.7	CARBONDALE		CARBONACEOUS SHALE	0.1	100.3
441.6	CARBONDALE	SPRINGFIELD	COAL	6.9	100.4
434.7	CARBONDALE		CLAYSTONE	3.7	107.3
431.0	CARBONDALE		CORE LOSS	1.0	111.0

MAPID: 12920645000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 18 QUARTERS/FOOTAGES: 800' S line, 2800' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.705418 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.093133 DATE COLLECTED: 10 / 10 / 1975

SURFACE ELEVATION (FT.): 542.0 LOGGED (FT.): 260.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
542.0			SAND & GRAVEL	45.0	0.0
519.0	CARBONDALE	DANVILLE	COAL	0.0	23.0
497.0	CARBONDALE	HERRIN	COAL	0.0	45.0
443.0	CARBONDALE		LIMESTONE	3.0	99.0
440.0	CARBONDALE		SHALE	1.0	102.0
439.0	CARBONDALE	SPRINGFIELD	COAL	5.0	103.0
434.0	CARBONDALE		SHALE	62.0	108.0
372.0	CARBONDALE		COAL	2.0	170.0
370.0	CARBONDALE		CLAYSTONE & SILTSTONE	49.0	172.0
321.0	CARBONDALE	EXCELLO	BLACK SHALE	3.5	221.0
317.5	CARBONDALE	HOUCHIN CREEK	COAL	2.5	224.5
315.0	CARBONDALE		CLAYSTONE & SILTSTONE	27.0	227.0
288.0	CARBONDALE	COLCHESTER	COAL	2.0	254.0
286.0	CARBONDALE		SHALE	4.0	256.0

MAPID: 12920646000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 18 QUARTERS/FOOTAGES: 2560' N line, 2595' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.704798 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.098604 DATE COLLECTED: 11 / 13 / 1975

SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 140.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
535.0			UNCONSOLIDATED	127.0	0.0
-	CARBONDALE	DANVILLE	COAL	0.0	
-	CARBONDALE	HERRIN	COAL	0.0	
-	CARBONDALE	SPRINGFIELD	COAL	0.0	
408.0	CARBONDALE		SHALY LIMESTONE	1.0	127.0
407.0	CARBONDALE		SHALE	12.0	128.0

MAPID: 12920729000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 22 QUARTERS/FOOTAGES: 2615' S line, 1345' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.652542 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.084272 DATE COLLECTED: 9 / 13 / 1978

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 216.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.0			CLAY	8.0	0.0
597.0			SAND & GRAVEL	4.0	8.0
593.0			SANDY CLAY	6.0	12.0
587.0			CLAY, SAND & GRAVEL	43.0	18.0
544.0			SAND & GRAVEL	3.0	61.0
541.0			CLAY, SAND & GRAVEL	32.0	64.0
509.0			CLAY	44.0	96.0
491.0	CARBONDALE	DANVILLE	COAL	0.0	114.0
469.0	CARBONDALE	HERRIN	COAL	0.0	136.0
465.0	CARBONDALE		SHALE	50.0	140.0
415.0	CARBONDALE		SHALE	2.0	190.0
413.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	192.0
411.0	CARBONDALE	SPRINGFIELD	COAL	6.3	194.0
404.7	CARBONDALE		SHALE	0.3	200.3
404.4	CARBONDALE		CORE LOSS	0.4	200.6
404.0	CARBONDALE		SHALE	8.5	201.0
395.5	CARBONDALE	EXCELLO	BLACK SHALE	1.5	209.5
394.0	CARBONDALE		SHALE	5.0	211.0

MAPID: 12900070000C VERSION: 1

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 23 QUARTERS/FOOTAGES: 330' S line, 464' E line of NE SE

QUADRANGLE: MIDDLETOWN LONGITUDE: -89.621506 GEOLOGIST: HINDMAN

CONFIDENTIAL: N LATITUDE: 40.08194 DATE COLLECTED: 11 / 30 / 1965

SURFACE ELEVATION (FT.): 562.0 LOGGED (FT.): 150.0 LOG TYPE: Company Sample Study

SOURCE: E.V. RICHARDSON WELL TYPE: Dry Hole

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
562.0			UNCONSOLIDATED	100.0	0.0
462.0	CARBONDALE		UNCLASSIFIED	43.0	100.0
419.0	CARBONDALE	SPRINGFIELD	COAL	7.0	143.0

MAPID: 12900059000C VERSION: 1

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 24 QUARTERS/FOOTAGES: 330' N line, 332' E line of SW SW

QUADRANGLE: MIDDLETOWN LONGITUDE: -89.616197 GEOLOGIST: HINDMAN

CONFIDENTIAL: N LATITUDE: 40.080146 DATE COLLECTED: 11 / 28 / 1950

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 394.0 LOG TYPE: Electric Log

SOURCE: CANTINE & HALEY WELL TYPE: Dry Hole

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.0			UNCONSOLIDATED	130.0	0.0
475.0	CARBONDALE		UNCLASSIFIED	72.0	130.0
403.0	CARBONDALE	SPRINGFIELD	COAL	6.0	202.0
397.0	CARBONDALE		UNCLASSIFIED	70.0	208.0
327.0	CARBONDALE	SURVANT - UPPER	COAL	1.5	278.0
325.5	CARBONDALE		UNCLASSIFIED	18.5	279.5
307.0	CARBONDALE	SURVANT - LOWER	COAL	1.5	298.0
305.5	CARBONDALE		UNCLASSIFIED	31.5	299.5
274.0	CARBONDALE	COLCHESTER	COAL	3.0	331.0
271.0	SPOON		UNCLASSIFIED	56.0	334.0
215.0	SPOON		COAL	4.0	390.0

MAPID: 12920590000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 24 QUARTERS/FOOTAGES: 485' N line, 1550' W line

QUADRANGLE: MIDDLETOWN LONGITUDE: -89.614486 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.090593 DATE COLLECTED: 10 / 16 / 1975

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 216.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.0			CLAY, SAND & SILTSTONE	20.0	0.0
585.0			SAND/CLAY	20.0	20.0
565.0			SANDY CLAY	120.0	40.0
445.0			CLAY	19.0	160.0
480.0	CARBONDALE	DANVILLE	COAL	0.0	125.0
458.0	CARBONDALE	HERRIN	COAL	0.0	147.0
426.0	CARBONDALE		SHALE	7.0	179.0
419.0	CARBONDALE		SHALE	7.2	186.0
411.8	CARBONDALE		CLAYSTONE & SILTSTONE	0.8	193.2
411.0	CARBONDALE		CORE LOSS	2.0	194.0
409.0	CARBONDALE		SHALE	3.5	196.0
405.5	CARBONDALE		BLACK SHALE	0.6	199.5
404.9	CARBONDALE	ST. DAVID	FOSSILIFEROUS LIMESTONE	2.0	200.1
402.9	CARBONDALE	TURNER MINE	BLACK SHALE	2.8	202.1
400.1	CARBONDALE	SPRINGFIELD	COAL	6.0	204.9
394.1	CARBONDALE		UNDERCLAY	4.1	210.9
390.0	CARBONDALE		CORE LOSS	1.0	215.0

MAPID: 12920730000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 24 QUARTERS/FOOTAGES: 70' N line, 415' W line

QUADRANGLE: MIDDLETOWN LONGITUDE: -89.618595 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.0918 DATE COLLECTED: 9 / 1 / 1978

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 230.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0			CLAY	178.5	0.0
471.0	CARBONDALE	DANVILLE	COAL	0.0	129.0
449.0	CARBONDALE	HERRIN	COAL	0.0	151.0
422.0	CARBONDALE		SHALE	27.0	178.0
395.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	205.0
393.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.4	206.5
391.1	CARBONDALE	SPRINGFIELD	COAL	5.8	208.9
385.3	CARBONDALE		UNDERCLAY	0.5	214.7
384.8	CARBONDALE		CORE LOSS	0.8	215.2
384.0	CARBONDALE		SHALE	14.0	216.0

MAPID: 12920731000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 24 QUARTERS/FOOTAGES: 2080' S line, 1245' E line

QUADRANGLE: MIDDLETOWN LONGITUDE: -89.605136 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.083239 DATE COLLECTED: 9 / 6 / 1978

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 250.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0			CLAY	8.0	0.0
602.0			SAND & GRAVEL	1.5	8.0
600.5			CLAY	190.5	9.5
463.0	CARBONDALE	DANVILLE	COAL	0.0	147.0
441.0	CARBONDALE	HERRIN	COAL	0.0	169.0
410.0	CARBONDALE		SHALE	21.0	200.0
389.0	CARBONDALE		LIMESTONE	1.5	221.0
387.5	CARBONDALE		CALCAREOUS SHALE	2.0	222.5
385.5	CARBONDALE	ST. DAVID	LIMESTONE	1.5	224.5
384.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	226.0
382.5	CARBONDALE	SPRINGFIELD	COAL	6.0	227.5
376.5	CARBONDALE		SHALE	2.0	233.5
374.5	CARBONDALE		LIMESTONE	0.5	235.5
374.0	CARBONDALE		SHALE	7.0	236.0
367.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	243.0
365.0	CARBONDALE		SHALE	5.0	245.0

MAPID: 12900029000C VERSION: 1

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 25 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW

QUADRANGLE: MIDDLETOWN

LONGITUDE: -89.611254

GEOLOGIST: HINDMAN

CONFIDENTIAL: N

LATITUDE: 40.071124

DATE COLLECTED: 11 / 11 / 1956

SURFACE ELEVATION (FT.): 576.0

LOGGED (FT.): 295.0

LOG TYPE: Electric Log

SOURCE: MARVIN T. PRICHETT

WELL TYPE: Dry Hole

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
576.0			UNCONSOLIDATED	76.0	0.0
500.0	CARBONDALE		UNCLASSIFIED	92.0	76.0
408.0	CARBONDALE	SPRINGFIELD	COAL	5.8	168.0
402.2	CARBONDALE		UNCLASSIFIED	66.3	173.8
336.0	CARBONDALE	SURVANT	COAL	0.0	240.0
336.0	CARBONDALE		UNCLASSIFIED	52.0	240.0
284.0	CARBONDALE	COLCHESTER	COAL	3.0	292.0

MAPID: 12920855000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 25 QUARTERS/FOOTAGES: 2550' N line, 1800' E line

QUADRANGLE: MIDDLETOWN LONGITUDE: -89.606981 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.070449 DATE COLLECTED: 8 / 9 / 1979

SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 180.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
560.0			CLAY	8.0	0.0
552.0			SILT	43.0	8.0
509.0			SAND & GRAVEL	3.0	51.0
506.0	MODESTO		SHALE	5.0	54.0
501.0	MODESTO		SHALE	6.0	59.0
495.0	MODESTO		SHALE	5.5	65.0
489.5	MODESTO		SHALE	4.5	70.5
485.0	CARBONDALE		BLACK SHALE	1.5	75.0
483.5	CARBONDALE	DANVILLE	COAL	1.5	76.5
482.0	CARBONDALE		SHALE	9.0	78.0
473.0	CARBONDALE		LIMESTONE	2.0	87.0
471.0	CARBONDALE		SANDY SHALE	7.0	89.0
464.0	CARBONDALE		SHALE	2.5	96.0
461.5	CARBONDALE	HERRIN	COAL	0.0	98.5
461.5	CARBONDALE		SHALE	3.5	98.5
458.0	CARBONDALE		SANDY SHALE	42.0	102.0
416.0	CARBONDALE		SHALE	7.0	144.0
409.0	CARBONDALE		SHALE	1.5	151.0
407.5	CARBONDALE	ST. DAVID	LIMESTONE	2.0	152.5
405.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.4	154.5
403.1	CARBONDALE	SPRINGFIELD	COAL	5.8	156.9
397.3	CARBONDALE		SHALE	1.0	162.7
396.2	CARBONDALE		CORE LOSS	0.3	163.8
396.0	CARBONDALE		SHALE	6.5	164.0
389.5	CARBONDALE		LIMESTONE	0.5	170.5
389.0	CARBONDALE		SHALE	9.0	171.0

MAPID: 12920647000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 26 QUARTERS/FOOTAGES: 1390' S line, 10' E line

QUADRANGLE: MIDDLETOWN LONGITUDE: -89.619569 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.066733 DATE COLLECTED: 10 / 21 / 1975

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 212.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0			CLAY	15.0	0.0
595.0			CLAY, SAND & GRAVEL	25.0	15.0
570.0			CLAY	100.0	40.0
497.0	CARBONDALE	DANVILLE	COAL	0.0	113.0
475.0	CARBONDALE	HERRIN	COAL	0.0	135.0
470.0	CARBONDALE		SHALE	20.0	140.0
450.0	CARBONDALE		SANDSTONE	8.0	160.0
442.0	CARBONDALE		SHALE	21.0	168.0
421.0	CARBONDALE		SHALE	4.0	189.0
417.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	193.0
415.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	195.0
412.0	CARBONDALE	SPRINGFIELD	COAL	6.0	198.0
406.0	CARBONDALE		UNDERCLAY	6.0	204.0
400.0	CARBONDALE		SHALE	2.0	210.0

MAPID: 12921186000C VERSION: 1

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 26 QUARTERS/FOOTAGES: 420' S line, 1470' E line

QUADRANGLE: MIDDLETOWN LONGITUDE: -89.624765 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.064007 DATE COLLECTED: 6 / 28 / 1968

SURFACE ELEVATION (FT.): 626.0 LOGGED (FT.): 432.0 LOG TYPE: Gamma Ray Density

SOURCE: HYDROCARBON SURVEY WELL TYPE: Coal Test

COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
626.0			UNCONSOLIDATED	95.0	0.0
531.0	MODESTO		UNCLASSIFIED	35.0	95.0
496.0	CARBONDALE	DANVILLE	COAL	1.5	130.0
494.5	CARBONDALE		UNCLASSIFIED	10.5	131.5
484.0	CARBONDALE	BRERETON	LIMESTONE	3.5	142.0
480.5	CARBONDALE		UNCLASSIFIED	3.0	145.5
477.5	CARBONDALE	ANNA	BLACK SHALE	3.5	148.5
474.0	CARBONDALE	HERRIN	COAL	0.0	152.0
474.0	CARBONDALE		UNCLASSIFIED	57.0	152.0
417.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	209.0
414.0	CARBONDALE	SPRINGFIELD	COAL	5.7	212.0
408.3	CARBONDALE		UNCLASSIFIED	9.3	217.7
399.0	CARBONDALE	EXCELLO	BLACK SHALE	2.5	227.0
396.5	CARBONDALE	HOUCHIN CREEK	COAL	0.0	229.5
396.5	CARBONDALE		UNCLASSIFIED	57.5	229.5
339.0	CARBONDALE	SURVANT	COAL	2.0	287.0
337.0	CARBONDALE		UNCLASSIFIED	44.0	289.0
293.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.0	333.0
290.0	CARBONDALE	COLCHESTER	COAL	2.3	336.0
287.7	SPOON		UNCLASSIFIED	55.7	338.3
232.0	SPOON		BLACK SHALE	2.5	394.0
229.5	SPOON		UNCLASSIFIED	35.5	396.5

MAPID: 12900116000C VERSION: 1

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 27 QUARTERS/FOOTAGES: 70' S line, 75' W line of NW NW

QUADRANGLE: GREENVIEW LONGITUDE: -89.657008 GEOLOGIST: HINDMAN

CONFIDENTIAL: N LATITUDE: 40.073575 DATE COLLECTED: 7 / 10 / 1970

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 343.0 LOG TYPE: Electric Log

SOURCE: CENTRAL ILLINOIS LIGHT WELL TYPE: Stratigraphic Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
615.0			UNCONSOLIDATED	50.0	0.0
565.0	CARBONDALE		UNCLASSIFIED	102.0	50.0
463.0	CARBONDALE	HERRIN	COAL	2.0	152.0
461.0	CARBONDALE		UNCLASSIFIED	57.0	154.0
404.0	CARBONDALE	SPRINGFIELD	COAL	6.3	211.0
397.7	CARBONDALE		UNCLASSIFIED	70.8	217.3
327.0	CARBONDALE	SURVANT	COAL	2.5	288.0
324.5	CARBONDALE		UNCLASSIFIED	49.5	290.5
275.0	CARBONDALE	COLCHESTER	COAL	3.0	340.0

MAPID: 12920648000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 27 QUARTERS/FOOTAGES: 318' N line, 685' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.640892 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.076236 DATE COLLECTED: 10 / 16 / 1975

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 220.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
615.0			SILTY CLAY	20.0	0.0
595.0			CLAY, SAND & GRAVEL	33.0	20.0
563.0	MODESTO		LIMESTONE	6.0	52.0
557.0	MODESTO		SHALE	3.0	58.0
554.0	MODESTO		BLACK SHALE	1.5	61.0
552.5	MODESTO		SHALE	11.5	62.5
541.0	MODESTO		LIMESTONE	1.0	74.0
540.0	MODESTO		SHALE	9.5	75.0
530.5	MODESTO		SHALE	3.5	84.5
527.0	MODESTO		SHALE	4.0	88.0
523.0	MODESTO		SHALE	6.0	92.0
517.0	MODESTO		SHALE	31.0	98.0
486.0	MODESTO		BLACK SHALE	2.0	129.0
484.0	CARBONDALE	DANVILLE	COAL	1.0	131.0
483.0	CARBONDALE		SHALE	12.5	132.0
470.5	CARBONDALE	BRERETON	LIMESTONE	2.5	144.5
468.0	CARBONDALE	ANNA	BLACK SHALE	4.0	147.0
464.0	CARBONDALE	HERRIN	COAL	0.0	151.0
464.0	CARBONDALE		SHALE	8.0	151.0
456.0	CARBONDALE		SHALE	4.0	159.0
452.0	CARBONDALE		SHALE	18.0	163.0
434.0	CARBONDALE		SHALE	21.0	181.0
413.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	202.0
411.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	204.0
409.0	CARBONDALE	SPRINGFIELD	COAL	6.0	206.0
403.0	CARBONDALE		UNDERCLAY	2.0	212.0
401.0	CARBONDALE		SHALE	4.5	214.0
396.5	CARBONDALE		LIMESTONE	1.5	218.5

MAPID: 12920732000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 27 QUARTERS/FOOTAGES: 330' N line, 60' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.657097 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.076122 DATE COLLECTED: 8 / 31 / 1978

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 215.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0			CLAY	39.0	0.0
561.0			SAND & GRAVEL	2.0	39.0
559.0			CLAY	23.0	41.0
536.0	MODESTO		SHALE	45.0	64.0
491.0	MODESTO		SHALE	2.0	109.0
489.0	MODESTO		BLACK SHALE	1.8	111.0
487.2	CARBONDALE	DANVILLE	COAL	1.7	112.8
485.5	CARBONDALE		SHALE	8.5	114.5
477.0	CARBONDALE		SHALE	2.0	123.0
475.0	CARBONDALE	BRERETON	LIMESTONE	6.0	125.0
469.0	CARBONDALE	HERRIN	COAL	0.0	131.0
469.0	CARBONDALE		SHALE	7.0	131.0
462.0	CARBONDALE		SHALE	32.0	138.0
430.0	CARBONDALE		SHALE	14.5	170.0
415.5	CARBONDALE	ST. DAVID	LIMESTONE	1.5	184.5
414.0	CARBONDALE		SHALE	1.5	186.0
412.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.8	187.5
408.7	CARBONDALE	SPRINGFIELD	COAL	6.0	191.3
402.7	CARBONDALE		SHALE	0.2	197.3
402.6	CARBONDALE		CORE LOSS	0.6	197.4
402.0	CARBONDALE		LIMESTONE	1.0	198.0
401.0	CARBONDALE		SHALE	6.0	199.0
395.0	CARBONDALE		BLACK SHALE	2.0	205.0
393.0	CARBONDALE		SHALE	8.0	207.0

MAPID: 12920733000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 27 QUARTERS/FOOTAGES: 66' S line, 15' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.638203 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.062899 DATE COLLECTED: 9 / 12 / 1978

SURFACE ELEVATION (FT.): 643.0 LOGGED (FT.): 240.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
643.0			CLAY	3.0	0.0
640.0			SAND	8.0	3.0
632.0			CLAY, SAND & GRAVEL	75.0	11.0
557.0	MODESTO		LIMESTONE	5.0	86.0
552.0	MODESTO		SHALE	22.0	91.0
530.0	MODESTO		SHALE	5.0	113.0
525.0	MODESTO		SHALE	8.0	118.0
517.0	MODESTO		SHALE	6.0	126.0
511.0	MODESTO		SHALE	6.0	132.0
505.0	MODESTO		BLACK SHALE	1.5	138.0
503.5	CARBONDALE	DANVILLE	COAL	1.0	139.5
502.5	CARBONDALE		SHALE	11.5	140.5
491.0	CARBONDALE		LIMESTONE	2.0	152.0
489.0	CARBONDALE		SHALE	3.0	154.0
486.0	CARBONDALE	ANNA	BLACK SHALE	2.5	157.0
483.5	CARBONDALE	HERRIN	COAL	0.0	159.5
483.5	CARBONDALE		SHALE	5.5	159.5
478.0	CARBONDALE		SHALE	2.0	165.0
476.0	CARBONDALE		SHALE	4.0	167.0
472.0	CARBONDALE		SHALE	9.0	171.0
463.0	CARBONDALE		SHALE	34.3	180.0
428.7	CARBONDALE	ST. DAVID	LIMESTONE	0.2	214.3
428.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.4	214.5
426.1	CARBONDALE	SPRINGFIELD	COAL	5.8	216.9
420.3	CARBONDALE		SHALE	0.8	222.7
419.5	CARBONDALE		SHALE	5.5	223.5
414.0	CARBONDALE		LIMESTONE	2.0	229.0
412.0	CARBONDALE		BLACK SHALE	1.0	231.0
411.0	CARBONDALE		SHALE	8.0	232.0

MAPID: 12921187000C VERSION: 1

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 27 QUARTERS/FOOTAGES: 10' N line, 500' E line
 QUADRANGLE: GREENVIEW LONGITUDE: -89.640243 GEOLOGIST: C TREWORGY
 CONFIDENTIAL: N LATITUDE: 40.07709 DATE COLLECTED: 6 / 27 / 1968
 SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 424.0 LOG TYPE: Gamma Ray Density
 SOURCE: HYDROCARBON SURVEY WELL TYPE: Coal Test
 COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0			UNCONSOLIDATED	65.0	0.0	
545.0	MODESTO		UNCLASSIFIED	56.0	65.0	
489.0	CARBONDALE	DANVILLE	COAL	0.0	121.0	
489.0	CARBONDALE		UNCLASSIFIED	14.0	121.0	
475.0	CARBONDALE	BRERETON	LIMESTONE	3.0	135.0	
472.0	CARBONDALE	ANNA	BLACK SHALE	3.0	138.0	
469.0	CARBONDALE	HERRIN	COAL	0.0	141.0	
469.0	CARBONDALE		UNCLASSIFIED	47.0	141.0	
422.0	CARBONDALE	ST. DAVID	LIMESTONE	2.5	188.0	
419.5	CARBONDALE	TURNER MINE	BLACK SHALE	4.5	190.5	
415.0	CARBONDALE	SPRINGFIELD	COAL	6.0	195.0	
409.0	CARBONDALE		UNCLASSIFIED	13.0	201.0	
396.0	CARBONDALE	EXCELLO	BLACK SHALE	2.5	214.0	
393.5	CARBONDALE		UNCLASSIFIED	45.0	216.5	
348.5	CARBONDALE	SURVANT	COAL	2.7	261.5	
345.8	CARBONDALE		UNCLASSIFIED	59.8	264.2	
286.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.5	324.0	
282.5	CARBONDALE	COLCHESTER	COAL	2.5	327.5	
280.0	SPOON		UNCLASSIFIED	27.0	330.0	
253.0	SPOON		COAL	2.0	357.0	UNCERTAIN CORRELATION
251.0	SPOON		UNCLASSIFIED	65.0	359.0	

MAPID: 12920734000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 28 QUARTERS/FOOTAGES: 45' N line, 345' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.675132 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.076797 DATE COLLECTED: 8 / 30 / 1978

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 204.0 WELL TYPE: Coal Test

SOURCE: MOBIL OIL

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.0			SANDY CLAY	10.0	0.0
580.0			SAND & GRAVEL	4.0	10.0
576.0			CLAY	25.0	14.0
551.0			SAND & GRAVEL	1.0	39.0
550.0			CLAY	70.0	40.0
484.0	CARBONDALE	DANVILLE	COAL	0.0	106.0
462.0	CARBONDALE	HERRIN	COAL	0.0	128.0
478.5	CARBONDALE		LIMESTONE	1.0	111.5
477.5	CARBONDALE		SHALE	69.0	112.5
408.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	181.5
406.5	CARBONDALE	SPRINGFIELD	COAL	4.6	183.5
401.9	CARBONDALE		SHALE	0.2	188.1
401.7	CARBONDALE		CORE LOSS	0.7	188.3
401.0	CARBONDALE		SHALE	15.0	189.0

MAPID: 12921188000C VERSION: 1

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 28 QUARTERS/FOOTAGES: 2540' N line, 20' E line
 QUADRANGLE: GREENVIEW LONGITUDE: -89.657302 GEOLOGIST: C TREWORGY
 CONFIDENTIAL: N LATITUDE: 40.070023 DATE COLLECTED: 6 / 29 / 1968
 SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 414.0 LOG TYPE: Gamma Ray Density
 SOURCE: HYDROCARBON SURVEY WELL TYPE: Coal Test
 COMMENT: POOR LOG, NO DENSITY CURVE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
625.0			UNCONSOLIDATED	55.0	0.0	
570.0	MODESTO		UNCLASSIFIED	34.0	55.0	
536.0	MODESTO	WEST FRANKLIN	LIMESTONE	3.0	89.0	
533.0	MODESTO		UNCLASSIFIED	37.0	92.0	
496.0	CARBONDALE	DANVILLE	COAL	2.3	129.0	UNCERTAIN CORRELATION
493.7	CARBONDALE		UNCLASSIFIED	12.2	131.3	
481.5	CARBONDALE	BRERETON	LIMESTONE	3.5	143.5	
478.0	CARBONDALE	ANNA	BLACK SHALE	3.7	147.0	
474.3	CARBONDALE	HERRIN	COAL	0.0	150.7	
474.3	CARBONDALE		UNCLASSIFIED	53.8	150.7	
420.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	204.5	
417.0	CARBONDALE	SPRINGFIELD	COAL	5.8	208.0	
411.2	CARBONDALE		UNCLASSIFIED	8.2	213.8	
403.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	222.0	
401.0	CARBONDALE		UNCLASSIFIED	53.0	224.0	
348.0	CARBONDALE	SURVANT	COAL	2.5	277.0	
345.5	CARBONDALE		UNCLASSIFIED	49.0	279.5	
296.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.8	328.5	
293.7	CARBONDALE	COLCHESTER	COAL	2.0	331.3	
291.7	SPOON		UNCLASSIFIED	7.7	333.3	
284.0	SPOON		BLACK SHALE	2.0	341.0	
282.0	SPOON		UNCLASSIFIED	71.0	343.0	

MAPID: 12920649000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 30 QUARTERS/FOOTAGES: 250' S line, 800' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.697959 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.062891 DATE COLLECTED: 10 / 22 / 1975

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 175.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0			CLAY	122.0	0.0	
515.0	CARBONDALE	DANVILLE	COAL	0.0	85.0	
493.0	CARBONDALE	HERRIN	COAL	0.0	107.0	
478.0	CARBONDALE		SHALE	2.0	122.0	
476.0	CARBONDALE		SHALE	8.0	124.0	
468.0	CARBONDALE		SHALE	25.0	132.0	
443.0	CARBONDALE		SHALE	3.0	157.0	
440.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	160.0	
439.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	161.0	
437.5	CARBONDALE	SPRINGFIELD	COAL	5.5	162.5	
432.0	CARBONDALE		UNDERCLAY	4.0	168.0	
428.0	CARBONDALE		SHALE	3.0	172.0	

MAPID: 12920591000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 31 QUARTERS/FOOTAGES: 155' N line, 575' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.713328 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.061741 DATE COLLECTED: 10 / 23 / 1975

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 187.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0			UNCONSOLIDATED	145.0	0.0	
502.0	CARBONDALE	DANVILLE	COAL	0.0	98.0	
480.0	CARBONDALE	HERRIN	COAL	0.0	120.0	
455.0	CARBONDALE		SHALE	9.0	145.0	
446.0	CARBONDALE		SHALE	4.0	154.0	
442.0	CARBONDALE		SHALE	4.5	158.0	
437.5	CARBONDALE		SHALE	10.1	162.5	
427.4	CARBONDALE	ST. DAVID	LIMESTONE	0.3	172.6	
427.1	CARBONDALE	TURNER MINE	BLACK SHALE	1.7	172.9	
425.4	CARBONDALE		UNCLASSIFIED	0.8	174.6	
424.6	CARBONDALE	SPRINGFIELD	COAL	6.6	175.4	
418.0	CARBONDALE		CLAYSTONE & SILTSTONE	1.6	182.0	
416.4	CARBONDALE		CLAYSTONE & SILTSTONE	3.4	183.6	

MAPID: 12920735000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 31 QUARTERS/FOOTAGES: 35' S line, 215' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.695765 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.047937 DATE COLLECTED: 8 / 30 / 1978

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 240.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0			CLAY	30.0	0.0	
580.0			SAND/CLAY	78.0	30.0	
502.0			SILT & CLAY	63.0	108.0	
517.0	CARBONDALE	DANVILLE	COAL	0.0	93.0	
495.0	CARBONDALE	HERRIN	COAL	0.0	115.0	
440.0	CARBONDALE	SPRINGFIELD	COAL	0.0	170.0	
439.0	CARBONDALE		LIMESTONE	1.5	171.0	
437.5	CARBONDALE		SHALE	4.5	172.5	
433.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	177.0	UNCERTAIN CORRELATION
431.0	CARBONDALE		SHALE	6.0	179.0	
425.0	CARBONDALE		LIMESTONE	3.0	185.0	
422.0	CARBONDALE		SHALE	3.5	188.0	
418.5	CARBONDALE		SHALE	2.5	191.5	
416.0	CARBONDALE		SHALE	7.0	194.0	
409.0	CARBONDALE		SHALE	28.5	201.0	
380.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	229.5	
379.5	CARBONDALE		SHALE	4.5	230.5	
375.0	CARBONDALE		SHALE	5.0	235.0	

MAPID: 12920736000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 31 QUARTERS/FOOTAGES: 1750' N line, 1850' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.70866 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.057348 DATE COLLECTED: 8 / 30 / 1978

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 180.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA-DENS-RESIST,DRILL LOG,CORE #10982

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0			CLAY	38.0	0.0
562.0			SAND & GRAVEL	3.0	38.0
559.0			CLAY	58.0	41.0
517.0	CARBONDALE	DANVILLE	COAL	0.0	83.0
500.0	CARBONDALE		LIMESTONE	3.0	100.0
497.0	CARBONDALE		BLACK SHALE	2.0	103.0
495.0	CARBONDALE	HERRIN	COAL	0.0	105.0
495.0	CARBONDALE		SHALE	5.0	105.0
490.0	CARBONDALE		SHALE	26.0	110.0
464.0	CARBONDALE		SHALE	21.0	136.0
443.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	157.0
442.0	CARBONDALE	SPRINGFIELD	COAL	5.6	158.0
436.4	CARBONDALE		UNDERCLAY	1.4	163.6
435.0	CARBONDALE		SHALE	4.5	165.0
430.5	CARBONDALE		LIMESTONE	1.0	169.5
429.5	CARBONDALE	EXCELLO	BLACK SHALE	2.0	170.5
427.5	CARBONDALE		SHALE	2.5	172.5
425.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	0.5	175.0
424.5	CARBONDALE		SHALE	4.5	175.5

MAPID: 12920737000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 32 QUARTERS/FOOTAGES: 1420' N line, 1850' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.688414 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.058328 DATE COLLECTED: 8 / 29 / 1978

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 210.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0			CLAY	137.0	0.0	
502.0	CARBONDALE	DANVILLE	COAL	0.0	113.0	
480.0	CARBONDALE	HERRIN	COAL	0.0	135.0	
478.0	CARBONDALE		CALCAREOUS SHALE	35.0	137.0	
443.0	CARBONDALE		SHALE	13.0	172.0	
430.0	CARBONDALE		SHALE	2.7	185.0	
427.3	CARBONDALE	ST. DAVID	LIMESTONE	0.8	187.7	
426.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	188.5	
424.5	CARBONDALE	SPRINGFIELD	COAL	5.5	190.5	
419.0	CARBONDALE		SHALE	6.0	196.0	
413.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	202.0	
411.0	CARBONDALE		SHALE	5.0	204.0	
406.0	CARBONDALE		LIMESTONE	1.0	209.0	

MAPID: 12920181000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 33 QUARTERS/FOOTAGES: 1' N line, 1' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.657131 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.06242 DATE COLLECTED: 4 / 10 / 1968

SURFACE ELEVATION (FT.): 629.0 LOGGED (FT.): 253.0 LOG TYPE: Multiple log types

SOURCE: CARTER OIL WELL TYPE: Coal Test

COMMENT: LARRY MCKEE FARM; CORE, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
629.0			UNCONSOLIDATED	175.0	0.0	
454.0			LIMESTONE	3.0	175.0	GRAY
451.0			SHALE	12.0	178.0	
439.0			DARK SHALE & SANDSTONE	21.0	190.0	SILTY SHALE
418.0	CARBONDALE		SILTY SHALE	7.8	211.0	ISGS DESCRIPTION TO 251.3
410.2	CARBONDALE		SILTY SHALE	19.9	218.8	SIDERITE NODULES
390.3	CARBONDALE		CALCAREOUS SHALE	1.3	238.7	PYRITIC AT BASE
389.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.3	240.0	BRACHS AND CLAMS; PYRITIC
387.7	CARBONDALE	SPRINGFIELD	COAL	5.8	241.3	
381.9	CARBONDALE		CLAYSTONE & SILTSTONE	2.3	247.1	PYRITIC, CARBONACEOUS PLANT MATERIAL
379.6	CARBONDALE		CLAYSTONE	3.6	249.4	WITH CALCAREOUS NODULES

MAPID: 12920181000C VERSION: 2

PROJECT: AVAIL

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 33 QUARTERS/FOOTAGES: 1' N line, 1' E line
QUADRANGLE: GREENVIEW LONGITUDE: -89.657131 GEOLOGIST: C.TREWORY
CONFIDENTIAL: N LATITUDE: 40.06242 DATE COLLECTED: 4 / 10 / 1968
SURFACE ELEVATION (FT.): 629.0 LOGGED (FT.): 251.3 LOG TYPE: Multiple log types
SOURCE: CARTER OIL COMPANY WELL TYPE: Coal Test
COMMENT: DRILL LOG & CORE; LOC. FROM CON. COAL CO

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
629.0			UNCONSOLIDATED	8.0	0.0
621.0			UNCONSOLIDATED	167.0	8.0
454.0	CARBONDALE	BRERETON	LIMESTONE	3.0	175.0
451.0	CARBONDALE		VARRIGATED SHALE	12.0	178.0
439.0	CARBONDALE		SILTY SHALE	21.0	190.0
418.0	CARBONDALE		GRAY SHALE	5.0	211.0
413.0	CARBONDALE		SILTY SHALE	2.8	216.0
410.2	CARBONDALE		GRAY SHALE	15.0	218.8
395.2	CARBONDALE		GRAY SHALE	4.9	233.8
390.3	CARBONDALE	ST. DAVID	CALCAREOUS SHALE	1.3	238.7
389.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.3	240.0
387.7	CARBONDALE	SPRINGFIELD	COAL	5.8	241.3
381.9	CARBONDALE		CLAYSTONE	4.2	247.1

MAPID: 12920738000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 33 QUARTERS/FOOTAGES: 2570' N line, 1140' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.661165 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.055308 DATE COLLECTED: 8 / 28 / 1978

SURFACE ELEVATION (FT.): 633.0 LOGGED (FT.): 260.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL CO. WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
633.0			CLAY	174.0	0.0
474.0	CARBONDALE	DANVILLE	COAL	0.0	159.0
458.0	CARBONDALE	BRERETON	LIMESTONE	3.5	175.0
454.5	CARBONDALE	ANNA	BLACK SHALE	2.0	178.5
452.5	CARBONDALE	HERRIN	COAL	1.0	180.5
451.5	CARBONDALE		SHALE	5.5	181.5
446.0	CARBONDALE		SANDY SHALE	27.5	187.0
418.5	CARBONDALE		SHALE	18.5	214.5
400.0	CARBONDALE		SHALE	2.0	233.0
398.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	235.0
397.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.4	236.0
395.6	CARBONDALE	SPRINGFIELD	COAL	5.5	237.4
390.1	CARBONDALE		UNDERCLAY	0.6	242.9
389.5	CARBONDALE		CORE LOSS	0.5	243.5
389.0	CARBONDALE		SHALE	6.0	244.0
383.0	CARBONDALE		LIMESTONE	1.0	250.0
382.0	CARBONDALE	EXCELLO	BLACK SHALE	3.5	251.0
378.5	CARBONDALE		SHALE	5.5	254.5

MAPID: 12920857000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 33 QUARTERS/FOOTAGES: 90' N line, 2580' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.666393 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.062123 DATE COLLECTED: 8 / 22 / 1979

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 280.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0			CLAY	141.0	0.0
479.0			SILTY CLAY	86.0	141.0
475.0	CARBONDALE	DANVILLE	COAL	0.0	145.0
453.0	CARBONDALE	HERRIN	COAL	0.0	167.0
396.0	CARBONDALE	SPRINGFIELD	COAL	0.0	224.0
393.0	CARBONDALE		DARK SHALE & SANDSTONE	43.0	227.0
350.0	CARBONDALE		SHALE	10.0	270.0

MAPID: 12920739000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 34 QUARTERS/FOOTAGES: 20' S line, 1245' E line
QUADRANGLE: GREENVIEW LONGITUDE: -89.642433 GEOLOGIST: SROKA
CONFIDENTIAL: N LATITUDE: 40.048402 DATE COLLECTED: 8 / 25 / 1978
SURFACE ELEVATION (FT.): 643.0 LOGGED (FT.): 240.0 LOG TYPE: Multiple log types
SOURCE: MOBIL OIL WELL TYPE: Coal Test
COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
643.0			CLAY	26.0	0.0
617.0			CLAY	43.0	26.0
574.0			CLAY	79.5	69.0
504.5	CARBONDALE	DANVILLE	COAL	0.0	138.5
494.5	CARBONDALE		LIMESTONE	3.0	148.5
491.5	CARBONDALE		SHALE	13.5	151.5
478.0	CARBONDALE	HERRIN	COAL	0.0	165.0
478.0	CARBONDALE		SANDY SHALE	31.0	165.0
447.0	CARBONDALE		SHALE	16.5	196.0
430.5	CARBONDALE		SHALE	1.5	212.5
429.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	214.0
428.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	214.5
427.5	CARBONDALE	SPRINGFIELD	COAL	5.5	215.5
422.0	CARBONDALE		SHALE	7.0	221.0
415.0	CARBONDALE	EXCELLO	BLACK SHALE	2.5	228.0
412.5	CARBONDALE		SHALE	9.5	230.5

MAPID: 12920592000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 35 QUARTERS/FOOTAGES: 675' N line, 30' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.638016 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.060857 DATE COLLECTED: 11 / 6 / 1975

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 226.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
640.0			UNCONSOLIDATED	86.0	0.0
554.0	MODESTO		LIMESTONE	3.0	86.0
551.0	MODESTO		SHALE	48.5	89.0
502.5	MODESTO		BLACK SHALE	1.0	137.5
501.5	CARBONDALE	DANVILLE	COAL	1.5	138.5
500.0	CARBONDALE		SHALE	11.0	140.0
489.0	CARBONDALE	BRERETON	LIMESTONE	2.0	151.0
487.0	CARBONDALE	ANNA	BLACK SHALE	2.0	153.0
485.0	CARBONDALE	HERRIN	COAL	0.0	155.0
485.0	CARBONDALE		SHALE	7.0	155.0
478.0	CARBONDALE		SANDY SHALE	7.0	162.0
471.0	CARBONDALE		CALCAREOUS SHALE	8.0	169.0
463.0	CARBONDALE		LIMESTONE	2.5	177.0
460.5	CARBONDALE		CALCAREOUS SHALE	5.5	179.5
455.0	CARBONDALE		SHALE	1.9	185.0
453.1	CARBONDALE		SHALE	1.4	186.9
451.7	CARBONDALE		SILTY SHALE	3.7	188.3
448.0	CARBONDALE		SILTY SHALE	8.2	192.0
439.8	CARBONDALE		CORE LOSS	0.8	200.2
439.0	CARBONDALE		CLAYSTONE & SILTSTONE	2.0	201.0
437.0	CARBONDALE		SHALE	11.9	203.0
425.1	CARBONDALE		CALCAREOUS SHALE	0.2	214.9
425.0	CARBONDALE		CORE LOSS	0.6	215.0
424.4	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	215.6
423.4	CARBONDALE	SPRINGFIELD	COAL	6.0	216.6
417.4	CARBONDALE		CLAYSTONE	3.5	222.6

MAPID: 12920651000C VERSION: 1

PROJECT: ISGS88

COUNTY: MENARD TWP/RNG: 19N 5W SECTION: 35 QUARTERS/FOOTAGES: 665' N line, 45' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.637962 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.060884 DATE COLLECTED: 10 / 22 / 1975

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 232.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
640.0			CLAY	2.0	0.0
638.0			SILT & CLAY	16.0	2.0
622.0			CLAY, SAND & GRAVEL	67.5	18.0
554.0	MODESTO		LIMESTONE	3.0	86.0
551.0	MODESTO		SHALE	19.0	89.0
532.0	MODESTO		SHALE	8.0	108.0
524.0	MODESTO		SHALE	4.0	116.0
520.0	MODESTO		SHALE	17.5	120.0
502.5	MODESTO		BLACK SHALE	1.0	137.5
501.5	CARBONDALE	DANVILLE	COAL	1.5	138.5
500.0	CARBONDALE		SHALE	12.0	140.0
488.0	CARBONDALE		LIMESTONE	2.0	152.0
486.0	CARBONDALE		BLACK SHALE	1.5	154.0
484.5	CARBONDALE	HERRIN	COAL	0.0	155.5
484.5	CARBONDALE		SHALE	6.5	155.5
478.0	CARBONDALE		SANDY SHALE	15.0	162.0
463.0	CARBONDALE		SANDY LIMESTONE	3.0	177.0
460.0	CARBONDALE		SHALE	33.0	180.0
427.0	CARBONDALE		SHALE	2.0	213.0
425.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	215.0
423.0	CARBONDALE	SPRINGFIELD	COAL	5.5	217.0
417.5	CARBONDALE		UNDERCLAY	4.5	222.5
413.0	CARBONDALE		SHALE	2.0	227.0
411.0	CARBONDALE		LIMESTONE	0.5	229.0
410.5	CARBONDALE	EXCELLO	BLACK SHALE	2.5	229.5

MAPID: 12920652000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 19N 6W SECTION: 13 QUARTERS/FOOTAGES: 25' N line, 1400' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.730411 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.105685 DATE COLLECTED: 10 / 10 / 1975

SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 140.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-90 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
510.0			UNCONSOLIDATED	70.0	0.0	
-	CARBONDALE	HERRIN	COAL	0.0		
-	CARBONDALE	SPRINGFIELD	COAL	0.0		
440.0	CARBONDALE		UNCLASSIFIED	70.0	70.0	UNCERTAIN CORRELATION

MAPID: 12900075000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 19N 6W SECTION: 21 QUARTERS/FOOTAGES: 500' S line, 500' E line of SE SE

QUADRANGLE: PETERSBURG LONGITUDE: -89.774028 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 40.078384 DATE COLLECTED: 2 / 15 / 1957

SURFACE ELEVATION (FT.): LOGGED (FT.): 135.0 LOG TYPE: Drillers Log

SOURCE: DONAN PE-2 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	72.7	0.0	
-	PLEISTOCENE		CLAY	50.8	72.7	
-			BLACK SHALE	0.3	123.4	
-			COAL	0.7	123.8	
-			UNDERCLAY	3.2	124.4	
-			SHALE	5.7	127.6	
-			SANDSTONE	1.8	133.2	

MAPID: 12920653000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 19N 6W SECTION: 21 QUARTERS/FOOTAGES: 50' S line, 2430' E line
 QUADRANGLE: PETERSBURG LONGITUDE: -89.780949 GEOLOGIST: SROKA
 CONFIDENTIAL: N LATITUDE: 40.077093 DATE COLLECTED: 10 / 15 / 1975
 SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 180.0 LOG TYPE: Multiple log types
 SOURCE: MOBIL OIL SI-41 WELL TYPE: Coal Test
 COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
535.0			UNCONSOLIDATED	137.0	0.0	
-	CARBONDALE	HERRIN	COAL	0.0		
-	CARBONDALE	SPRINGFIELD	COAL	0.0		
398.0	CARBONDALE		GRAY SHALE	5.5	137.0	
392.5	CARBONDALE	SURVANT	COAL	2.0	142.5	
390.5	CARBONDALE		GRAY SHALE	35.5	144.5	

MAPID: 12920654000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 19N 6W SECTION: 22 QUARTERS/FOOTAGES: 2700' N line, 2700' E line
 QUADRANGLE: PETERSBURG LONGITUDE: -89.763207 GEOLOGIST: SROKA
 CONFIDENTIAL: N LATITUDE: 40.08406 DATE COLLECTED: 10 / 11 / 1975
 SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 160.0 LOG TYPE: Multiple log types
 SOURCE: MOBIL OIL SI-91 WELL TYPE: Coal Test
 COMMENT: GAMMA RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.0			UNCONSOLIDATED	180.0	0.0	
-	CARBONDALE	HERRIN	COAL	0.0		
-	CARBONDALE	SPRINGFIELD	COAL	0.0		

MAPID: 12920593000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 19N 6W SECTION: 24 QUARTERS/FOOTAGES: 2583' S line, 855' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.731952 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.083839 DATE COLLECTED: 10 / 20 / 1975

SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 100.5 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-100C WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
530.0			UNCONSOLIDATED	81.0	0.0
-	CARBONDALE	HERRIN	COAL	0.0	
449.0	CARBONDALE		GRAY SHALE	5.7	81.0
443.3	CARBONDALE	ST. DAVID	LIMESTONE	0.5	86.7
442.8	CARBONDALE	TURNER MINE	BLACK SHALE	2.2	87.2
440.6	CARBONDALE	SPRINGFIELD	COAL	8.0	89.4
432.7	CARBONDALE		CLAYSTONE	0.7	97.3
432.0	CARBONDALE		CORE LOSS	2.5	98.0

MAPID: 12920655000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 19N 6W SECTION: 24 QUARTERS/FOOTAGES: 2583' S line, 880' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.731862 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.083836 DATE COLLECTED: 10 / 20 / 1975

SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 185.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-100 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
530.0			UNCONSOLIDATED	75.0	0.0
-	CARBONDALE	HERRIN	COAL	0.0	
455.0	CARBONDALE		GRAY SHALE	15.5	75.0
439.5	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	90.5
435.5	CARBONDALE	SPRINGFIELD	COAL	5.3	94.5
430.2	CARBONDALE		CLAYSTONE	8.2	99.8
422.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	108.0
420.0	CARBONDALE		CLAYSTONE	10.0	110.0
410.0	CARBONDALE		SANDSTONE	15.0	120.0
395.0	CARBONDALE		SANDY SHALE	32.5	135.0
362.5	CARBONDALE	SURVANT	COAL	1.5	167.5
361.0	CARBONDALE		GRAY SHALE	16.0	169.0

MAPID: 12920656000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 19N 6W SECTION: 26 QUARTERS/FOOTAGES: 33' S line, 1288' W line

QUADRANGLE: GREENVIEW LONGITUDE: -89.748529 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.062638 DATE COLLECTED: 10 / 21 / 1975

SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 165.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-101 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0			UNCONSOLIDATED	108.0	0.0	
-	CARBONDALE	HERRIN	COAL	0.0		
477.0	CARBONDALE		GRAY SHALE	25.0	108.0	
452.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	133.0	
449.0	CARBONDALE	SPRINGFIELD	COAL	3.0	136.0	
446.0	CARBONDALE		CLAYSTONE	10.0	139.0	
436.0	CARBONDALE	EXCELLO	BLACK SHALE	2.5	149.0	
433.5	CARBONDALE		SHALE	13.5	151.5	

MAPID: 129GV000001Z VERSION: 1

PROJECT: NCRDS91

COUNTY: MENARD TWP/RNG: 19N 6W SECTION: 26 QUARTERS/FOOTAGES: 1450' S line, 200' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.735402 GEOLOGIST: C.TREWORGY

CONFIDENTIAL: N LATITUDE: 40.066142 DATE COLLECTED: 1 / 17 / 1932

SURFACE ELEVATION (FT.): 599.0 LOGGED (FT.): 177.0 LOG TYPE: Company map

SOURCE: GREENVIEW COAL CO. NO. 1; SEE COMMENTS WELL TYPE: Coal Test

COMMENT: ISGS MAP LIBRARY 4103, M 41 I5.1-4

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
599.0			UNCLASSIFIED	171.0	0.0	NO RECORD
428.0	CARBONDALE	SPRINGFIELD	COAL	6.0	171.0	HOLE MAY BE MISLOCATED- SEE MAP

MAPID: 12920657000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 19N 6W SECTION: 27 QUARTERS/FOOTAGES: 1320' S line, 2580' E line

QUADRANGLE: PETERSBURG LONGITUDE: -89.76245 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.066221 DATE COLLECTED: 11 / 13 / 1975

SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 140.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-144 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.0			UNCONSOLIDATED	98.0	0.0	
-	CARBONDALE	HERRIN	COAL	0.0		
477.0	CARBONDALE		SHALE	15.5	98.0	
461.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.9	113.5	
458.6	CARBONDALE	SPRINGFIELD	COAL	6.0	116.4	
452.6	CARBONDALE		CLAYSTONE	6.6	122.4	
446.0	CARBONDALE	EXCELLO	BLACK SHALE	2.5	129.0	
443.5	CARBONDALE		GRAY SHALE	8.5	131.5	

MAPID: 12900078000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 19N 6W SECTION: 30 QUARTERS/FOOTAGES: 2400' S line, 800' E line of NW NE SE

QUADRANGLE: PETERSBURG LONGITUDE: -89.814778 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 40.074405 DATE COLLECTED: 2 / 13 / 1957

SURFACE ELEVATION (FT.): LOGGED (FT.): 90.0 LOG TYPE: Drillers Log

SOURCE: DONAN PE-5 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	75.0	0.0	
-	PLEISTOCENE		GRAVEL	15.0	75.0	

MAPID: 12920658000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 19N 6W SECTION: 32 QUARTERS/FOOTAGES: 18' S line, 210' W line

QUADRANGLE: PETERSBURG LONGITUDE: -89.80884 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.047831 DATE COLLECTED: 10 / 2 / 1975

SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 180.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-42 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.0			UNCONSOLIDATED	148.0	0.0	
-	CARBONDALE	HERRIN	COAL	0.0		
-	CARBONDALE	SPRINGFIELD	COAL	0.0		
427.0	CARBONDALE		GRAY SHALE	16.5	148.0	
410.5	CARBONDALE	SURVANT	COAL	1.5	164.5	
409.0	CARBONDALE		SILTY SHALE	14.0	166.0	

MAPID: 12920659000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 19N 6W SECTION: 34 QUARTERS/FOOTAGES: 60' S line, 890' E line

QUADRANGLE: PETERSBURG LONGITUDE: -89.756003 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.047885 DATE COLLECTED: 10 / 16 / 1975

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 200.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-43 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0			UNCONSOLIDATED	160.0	0.0	
-	CARBONDALE	HERRIN	COAL	0.0		
-	CARBONDALE	SPRINGFIELD	COAL	0.0		
430.0	CARBONDALE		GRAY SHALE	9.0	160.0	
421.0	CARBONDALE	SURVANT	COAL	1.5	169.0	
419.5	CARBONDALE		GRAY SHALE	29.5	170.5	

MAPID: 12920660000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 19N 6W SECTION: 34 QUARTERS/FOOTAGES: 51' N line, 12' W line
 QUADRANGLE: PETERSBURG LONGITUDE: -89.772054 GEOLOGIST: SROKA
 CONFIDENTIAL: N LATITUDE: 40.062321 DATE COLLECTED: 10 / 21 / 1975
 SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 225.0 LOG TYPE: Multiple log types
 SOURCE: MOBIL OIL SI-102 WELL TYPE: Coal Test
 COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0			UNCONSOLIDATED	135.0	0.0	
-	CARBONDALE	HERRIN	COAL	0.0		
-	CARBONDALE	SPRINGFIELD	COAL	0.0		
415.0	CARBONDALE		GRAY SHALE	40.5	135.0	
374.5	CARBONDALE		BLACK SHALE	3.5	175.5	
371.0	CARBONDALE	SURVANT	COAL	1.5	179.0	
369.5	CARBONDALE		GRAY SHALE	44.5	180.5	

MAPID: 129GV000005Z VERSION: 1

PROJECT: NCRDS91

COUNTY: MENARD TWP/RNG: 19N 6W SECTION: 35 QUARTERS/FOOTAGES: 1637' N line, 525' E line
 QUADRANGLE: GREENVIEW LONGITUDE: -89.736412 GEOLOGIST: C.TREWORYG
 CONFIDENTIAL: N LATITUDE: 40.057657 DATE COLLECTED: 1 / 17 / 1932
 SURFACE ELEVATION (FT.): 601.7 LOGGED (FT.): 167.3 LOG TYPE: Company map
 SOURCE: GREENVIEW COAL CO. NO.5; SEE COMMENTS WELL TYPE: Coal Test
 COMMENT: ISGS MAP LIBRARY 4103,M41:5.1-4

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
601.7			UNCLASSIFIED	162.3	0.0	NO RECORD
439.4	CARBONDALE	SPRINGFIELD	COAL	5.0	162.3	

MAPID: 12920740000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 19N 6W SECTION: 36 QUARTERS/FOOTAGES: 120' S line, 2550' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.724271 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 40.048157 DATE COLLECTED: 8 / 29 / 1978

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 190.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-78-47 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0			UNCONSOLIDATED	64.0	0.0	
531.0	CARBONDALE		GRAY SHALE	31.5	64.0	
499.5	CARBONDALE	ANNA	BLACK SHALE	1.5	95.5	
498.0	CARBONDALE	HERRIN	COAL	1.5	97.0	
496.5	CARBONDALE		GRAY SHALE	13.5	98.5	
483.0	CARBONDALE		LIMESTONE	3.0	112.0	
480.0	CARBONDALE		GRAY SHALE	6.5	115.0	
473.5	CARBONDALE		SHALY SANDSTONE	16.0	121.5	
457.5	CARBONDALE		GRAY SHALE	7.5	137.5	
450.0	CARBONDALE		GRAY SHALE	4.0	145.0	
446.0	CARBONDALE		SHALE	8.5	149.0	
437.5	CARBONDALE		SHALY LIMESTONE	2.0	157.5	
435.5	CARBONDALE		SHALE	3.0	159.5	
432.5	CARBONDALE	ST. DAVID	SHALY LIMESTONE	4.0	162.5	
428.5	CARBONDALE	SPRINGFIELD	COAL	6.2	166.5	
422.3	CARBONDALE		CLAYSTONE	4.8	172.7	
417.5	CARBONDALE		LIMESTONE	1.0	177.5	
416.5	CARBONDALE	EXCELLO	BLACK SHALE	2.5	178.5	
414.0	CARBONDALE		GRAY SHALE	9.0	181.0	

MAPID: 129GV000004Z VERSION: 1

PROJECT: NCRDS91

COUNTY: MENARD TWP/RNG: 19N 6W SECTION: 36 QUARTERS/FOOTAGES: 2500' N line, 2500' E line

QUADRANGLE: GREENVIEW LONGITUDE: -89.72424 GEOLOGIST: C.TREWORYG

CONFIDENTIAL: N LATITUDE: 40.055244 DATE COLLECTED: 1 / 17 / 1932

SURFACE ELEVATION (FT.): 606.6 LOGGED (FT.): 0.0 LOG TYPE: Company map

SOURCE: GREENVIEW COAL CO. NO.4; SEE COMMENTS WELL TYPE: Coal Test

COMMENT: ISGS MAP LIBRARY 4103 M41: 5.1-4

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
606.6			UNCLASSIFIED	166.3	0.0	NO RECORD
440.3	CARBONDALE	SPRINGFIELD	COAL	6.2	166.3	

MAPID: 129GV000002Z VERSION: 1

PROJECT: NCRDS91

COUNTY: MENARD TWP/RNG: 19N 6W SECTION: 36 QUARTERS/FOOTAGES: 790' N line, 210' W line
 QUADRANGLE: GREENVIEW LONGITUDE: -89.733826 GEOLOGIST: C.TREWORGY
 CONFIDENTIAL: N LATITUDE: 40.059942 DATE COLLECTED: 1 / 17 / 1932
 SURFACE ELEVATION (FT.): 600.7 LOGGED (FT.): 197.2 LOG TYPE: Company map
 SOURCE: GREENVIEW COAL CO. NO. 2; SEE COMMENTS WELL TYPE: Coal Test
 COMMENT: ISGS MAP LIBRARY 4103, M41 I5.1-4

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.7			UNCLASSIFIED	190.9	0.0	NO RECORD
409.8	CARBONDALE	SPRINGFIELD	COAL	6.3	190.9	HOLE MAY BE MISLOCATED, SEE MAP

MAPID: 129GV000003Z VERSION: 1

PROJECT: NCRDS91

COUNTY: MENARD TWP/RNG: 19N 6W SECTION: 36 QUARTERS/FOOTAGES: 2450' N line, 900' W line
 QUADRANGLE: GREENVIEW LONGITUDE: -89.731239 GEOLOGIST: C.TREWORGY
 CONFIDENTIAL: N LATITUDE: 40.055366 DATE COLLECTED: 1 / 17 / 1932
 SURFACE ELEVATION (FT.): 605.7 LOGGED (FT.): 202.3 LOG TYPE: Company map
 SOURCE: GREENVIEW COAL CO. NO.3; SEE COMMENTS WELL TYPE: Coal Test
 COMMENT: ISGS MAP LIBRARY 4103.M41 I5.1-4

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.7			UNCLASSIFIED	195.6	0.0	NO RECORD
410.1	CARBONDALE	SPRINGFIELD	COAL	6.7	195.6	

MAPID: 12900074000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 19N 7W SECTION: 14 QUARTERS/FOOTAGES: 500' N line, 2400' E line of NW NW NE
 QUADRANGLE: PETERSBURG LONGITUDE: -89.862985 GEOLOGIST: MCCRACKEN
 CONFIDENTIAL: N LATITUDE: 40.104309 DATE COLLECTED: 2 / 13 / 1957
 SURFACE ELEVATION (FT.): LOGGED (FT.): 80.0 LOG TYPE: Drillers Log
 SOURCE: DONAN PE-1 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	80.0	0.0	

MAPID: 12920661000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 19N 7W SECTION: 25 QUARTERS/FOOTAGES: 1250' N line, 1400' E line
 QUADRANGLE: PETERSBURG LONGITUDE: -89.832601 GEOLOGIST: SROKA
 CONFIDENTIAL: N LATITUDE: 40.073247 DATE COLLECTED: 10 / 9 / 1975
 SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 110.0 LOG TYPE: Drillers Log
 SOURCE: MOBIL OIL SI-86 WELL TYPE: Coal Test
 COMMENT: DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
495.0			UNCONSOLIDATED	110.0	0.0
-	CARBONDALE	HERRIN	COAL	0.0	
-	CARBONDALE	SPRINGFIELD	COAL	0.0	

MAPID: 12920662000C VERSION: 1

PROJECT: NCRDS89

COUNTY: MENARD TWP/RNG: 19N 7W SECTION: 26 QUARTERS/FOOTAGES: 414' S line, 108' W line
 QUADRANGLE: PETERSBURG LONGITUDE: -89.865252 GEOLOGIST: SROKA
 CONFIDENTIAL: N LATITUDE: 40.063136 DATE COLLECTED: 10 / 1 / 1975
 SURFACE ELEVATION (FT.): 582.0 LOGGED (FT.): 180.0 LOG TYPE: Multiple log types
 SOURCE: MOBIL OIL SI-44 WELL TYPE: Coal Test
 COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
582.0			UNCONSOLIDATED	180.0	0.0
-	CARBONDALE	HERRIN	COAL	0.0	
-	CARBONDALE	SPRINGFIELD	COAL	0.0	

MAPID: 12920557000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 19N 7W SECTION: 31 QUARTERS/FOOTAGES: 0' S line, 0' W line of NE SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.936343 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.05039 DATE COLLECTED: 5 / 18 / 1970
 SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON CN53 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		SOIL	2.0	0.0
598.0	PLEISTOCENE		CLAY	16.0	2.0
582.0	PLEISTOCENE		CLAY & GRAVEL	142.0	18.0

MAPID: 12920509000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 19N 8W SECTION: 26 QUARTERS/FOOTAGES: 0' N line, 0' E line of SW SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.970758 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.064904 DATE COLLECTED: 5 / 19 / 1970
 SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON BN261 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		SOIL	4.0	0.0	
596.0	PLEISTOCENE		CLAY	66.0	4.0	
530.0	PLEISTOCENE		GRAVEL	25.0	70.0	
505.0	PLEISTOCENE		CLAY	65.0	95.0	WITH GRAVEL

MAPID: 12920558000C VERSION: 1

PROJECT: NCRDS96

COUNTY: MENARD TWP/RNG: 19N 8W SECTION: 27 QUARTERS/FOOTAGES: 660' N line, 660' E line of SW NE
 QUADRANGLE: OAKFORD LONGITUDE: -89.98237 GEOLOGIST: HAMER
 CONFIDENTIAL: N LATITUDE: 40.070101 DATE COLLECTED: 5 / 19 / 1970
 SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
 SOURCE: COMMONWEALTH EDISON BN331 WELL TYPE: Coal Test
 COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
490.0	PLEISTOCENE		SOIL	4.0	0.0	
486.0	PLEISTOCENE		CLAY	26.0	4.0	
460.0	PLEISTOCENE		SAND & GRAVEL	70.0	30.0	
390.0	PLEISTOCENE		CLAY & GRAVEL	20.0	100.0	
370.0	PLEISTOCENE		SAND	40.0	120.0	FINE

MAPID: 12990062000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 19N 8W SECTION: 35 QUARTERS/FOOTAGES: 1' N line, 1' W line of SW SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.96626 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.050188 DATE COLLECTED: 9 / 23 / 1966
 SURFACE ELEVATION (FT.): 609.9 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE AA63 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
609.9	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0	
580.9	PLEISTOCENE		SAND & GRAVEL	119.0	29.0	

MAPID: 12990064000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 19N 8W **SECTION:** 35 **QUARTERS/FOOTAGES:** 855' S line, 1' E line of SE SW
QUADRANGLE: OAKFORD **LONGITUDE:** -89.966276 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.048824 **DATE COLLECTED:** 9 / 22 / 1966
SURFACE ELEVATION (FT.): 597.0 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE AA42J **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
597.0	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0
567.0	PLEISTOCENE		SAND & GRAVEL	118.0	30.0

MAPID: 12990065000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 19N 8W **SECTION:** 35 **QUARTERS/FOOTAGES:** 1' S line, 246' E line of SW SE
QUADRANGLE: OAKFORD **LONGITUDE:** -89.962497 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.046469 **DATE COLLECTED:** 9 / 22 / 1966
SURFACE ELEVATION (FT.): 610.1 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE AA15 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.1	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0
582.1	PLEISTOCENE		SAND & GRAVEL	120.0	28.0

MAPID: 12990066000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 19N 8W **SECTION:** 35 **QUARTERS/FOOTAGES:** 1' S line, 1' W line of SW SE
QUADRANGLE: OAKFORD **LONGITUDE:** -89.966278 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.046468 **DATE COLLECTED:** 9 / 22 / 1966
SURFACE ELEVATION (FT.): 614.2 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE AA13 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
614.2	PLEISTOCENE		UNCONSOLIDATED	35.0	0.0
579.2	PLEISTOCENE		SAND & GRAVEL	113.0	35.0

MAPID: 12990079000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 19N 8W **SECTION:** 35 **QUARTERS/FOOTAGES:** 1' N line, 1' W line of SE SE
QUADRANGLE: OAKFORD **LONGITUDE:** -89.961605 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.05019 **DATE COLLECTED:** 9 / 22 / 1966
SURFACE ELEVATION (FT.): 606.4 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE AA65 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
606.4	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0
588.4	PLEISTOCENE		CLAY	17.0	18.0
571.4	PLEISTOCENE		SAND & GRAVEL	113.0	35.0

MAPID: 12990081000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: MENARD **TWP/RNG:** 19N 8W **SECTION:** 35 **QUARTERS/FOOTAGES:** 1' N line, 1' W line of NW SE
QUADRANGLE: OAKFORD **LONGITUDE:** -89.966241 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.053911 **DATE COLLECTED:** 9 / 23 / 1966
SURFACE ELEVATION (FT.): 616.0 **LOGGED (FT.):** 148.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE AA113 **WELL TYPE:** Coal Test
COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
616.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
596.0	PLEISTOCENE		SAND & GRAVEL	128.0	20.0

MAPID: 12920559000C **VERSION:** 1 **PROJECT:** NCRDS96
COUNTY: MENARD **TWP/RNG:** 19N 8W **SECTION:** 36 **QUARTERS/FOOTAGES:** 0' S line, 0' W line of NE NE
QUADRANGLE: OAKFORD **LONGITUDE:** -89.942513 **GEOLOGIST:** HAMER
CONFIDENTIAL: N **LATITUDE:** 40.057786 **DATE COLLECTED:** 5 / 18 / 1970
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 160.0 **LOG TYPE:** Drillers Log
SOURCE: COMMONWEALTH EDISON BN173 **WELL TYPE:** Coal Test
COMMENT: NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		SOIL	3.0	0.0
597.0	PLEISTOCENE		CLAY	137.0	3.0
460.0	PLEISTOCENE		SANDY CLAY	20.0	140.0

MAPID: 12990063000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 19N 8W SECTION: 36 QUARTERS/FOOTAGES: 660' S line, 1' W line of SE SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.952095 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.048333 DATE COLLECTED: 9 / 22 / 1966
 SURFACE ELEVATION (FT.): 528.0 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE AA44 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
528.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
520.0	PLEISTOCENE		CLAY	14.0	8.0	
506.0	PLEISTOCENE		CLAY	88.0	22.0	
418.0	PLEISTOCENE		SAND & GRAVEL	18.0	110.0	
400.0	CARBONDALE		GRAY SHALE	5.0	128.0	SOFT
395.0	CARBONDALE		SHALE WITH LIMESTONE	15.0	133.0	

MAPID: 12990080000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 19N 8W SECTION: 36 QUARTERS/FOOTAGES: 330' S line, 1' W line of NW SE
 QUADRANGLE: OAKFORD LONGITUDE: -89.947269 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.0512 DATE COLLECTED: 9 / 21 / 1966
 SURFACE ELEVATION (FT.): 603.3 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE AA71C WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.3	PLEISTOCENE		UNCONSOLIDATED	39.0	0.0	
564.3	PLEISTOCENE		SAND & GRAVEL	109.0	39.0	

MAPID: 12990082000C VERSION: 1

PROJECT: NCRDS02

COUNTY: MENARD TWP/RNG: 19N 8W SECTION: 36 QUARTERS/FOOTAGES: 1' N line, 1' W line of NE SW
 QUADRANGLE: OAKFORD LONGITUDE: -89.952124 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.053971 DATE COLLECTED: 9 / 22 / 1966
 SURFACE ELEVATION (FT.): 610.2 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE AA119 WELL TYPE: Coal Test
 COMMENT: BOX 44

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.2	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
603.2	PLEISTOCENE		CLAY	12.0	7.0	
591.2	PLEISTOCENE		CLAY	129.0	19.0	