

01700035000C PROJECT: NCRDS99 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 8 SENENW
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 630.0 GEOLOGIST: MCCracken DATE COLLECTED: 11 /24/1958
 Drillers Log Coal Test LOGGED (FT.): 122.00
 SOURCE: DONAN TP-9

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.00	PLEISTOCENE		UNCONSOLIDATED	80.00	0.00	
550.00	CARBONDALE	ANNA	BLACK SHALE	1.83	80.00	
548.20	CARBONDALE	ANNA	CLAYSTONE/SILTST	0.50	81.80	BLACK
547.70	CARBONDALE	HERRIN	COAL	0.84	82.30	
546.80	CARBONDALE		UNDERCLAY	3.58	83.20	
543.20	CARBONDALE		LIMESTONE	2.42	86.80	
540.80	CARBONDALE		CLAYSTONE/SILTST	2.00	89.20	
538.80	CARBONDALE		COAL	0.92	91.20	
537.90	CARBONDALE		UNDERCLAY	4.81	92.10	
533.00	CARBONDALE		LIMESTONE	1.67	97.00	
531.30	CARBONDALE		CLAYSTONE/SILTST	1.50	98.70	
529.80	CARBONDALE		SHALE	7.87	100.20	
522.00	CARBONDALE	ST. DAVID	LIMESTONE	7.00	108.00	
515.00	CARBONDALE	TURNER MINE	BLACK SHALE	0.25	115.00	
514.70	CARBONDALE	SPRINGFIELD	COAL	4.08	115.30	
510.60	CARBONDALE		UNDERCLAY	2.63	119.40	

01720116000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 17 SESESESW
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 640.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /20/1972
 Drillers Log Coal Test LOGGED (FT.): 128.00
 SOURCE: COMMONWEALTH EDISON I13 NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.00	PLEISTOCENE		CLAY	105.00	0.00	
535.00	CARBONDALE		LS W/ SH	9.00	105.00	
526.00	CARBONDALE		LIMESTONE	8.00	114.00	
518.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.90	122.00	
516.10	CARBONDALE	SPRINGFIELD	COAL	3.10	123.90	
513.00	CARBONDALE		UNDERCLAY	1.00	127.00	

01720117000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 20 SESESESW
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 640.0 GEOLOGIST: HAMER DATE COLLECTED: 5 /27/1969
 Drillers Log Coal Test LOGGED (FT.): 160.00
 SOURCE: COMMONWEALTH EDISON M463 NO FOOTAGES GIVEN;NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.00	PLEISTOCENE		CLAY	40.00	0.00	SILTY
600.00	PLEISTOCENE		CLAY	34.00	40.00	
566.00	PLEISTOCENE		CLAY & GRAVEL	10.00	74.00	
556.00	PLEISTOCENE		CLAY	9.00	84.00	
547.00	CARBONDALE		LIMESTONE	2.00	93.00	
545.00	CARBONDALE		GRAY SHALE	65.00	95.00	HOLE BOTTOMS IN GRAY SHALE

01720118000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 20 SESE 9N 135E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 640.0 GEOLOGIST: HAMER DATE COLLECTED: 5 /24/1969
 Drillers Log Coal Test LOGGED (FT.): 107.50
 SOURCE: COMMONWEALTH EDISON M467 DAY OF DATA UNCERTAIN

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

640.00	PLEISTOCENE		CLAY	40.00	0.00	SILTY
600.00	PLEISTOCENE		CLAY	34.00	40.00	
566.00	PLEISTOCENE		UNCONSOLIDATED	3.00	74.00	UNSPECIFIED UNCONSOLIDATED MATERIAL
563.00	PLEISTOCENE		CLAY	23.00	77.00	
540.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	100.00	
537.50	CARBONDALE	SPRINGFIELD	COAL	4.90	102.50	
532.60	CARBONDALE		UNDERCLAY	0.10	107.40	

01720119000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 28 NWNWSWN
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 637.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /21/1972
 Drillers Log Coal Test LOGGED (FT.): 123.00
 SOURCE: COMMONWEALTH EDISON M367 NO FOOTAGES RECORDED;NO COAL LOGGED

THICKNESS (FT.)						
ELEVATION	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
TOP (FT.)	-----					
637.00	PLEISTOCENE		CLAY	25.00	0.00	
612.00	PLEISTOCENE		CLAY & GRAVEL	25.00	25.00	
587.00	PLEISTOCENE		CLAY	30.00	50.00	
557.00	CARBONDALE		BLACK SHALE	3.00	80.00	
554.00	CARBONDALE		GRAY SHALE	4.00	83.00	
550.00	CARBONDALE		LIMESTONE	1.00	87.00	
549.00	CARBONDALE		GRAY SHALE	24.00	88.00	
525.00	CARBONDALE		LS W/ SH	11.00	112.00	

01720120000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 33 SWSWSNE
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 632.0 GEOLOGIST: HAMER DATE COLLECTED: 5 /12/1970
 Drillers Log Coal Test LOGGED (FT.): 166.10
 SOURCE: COMMONWEALTH EDISON M121 MO&DAY UNCERTAIN;NO FOOTAGES;NO COAL LOG

THICKNESS (FT.)						
ELEVATION	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
TOP (FT.)	-----					
632.00	PLEISTOCENE		UNKNOWN	10.10	0.00	ILLEGABLE LITHOLOGY
621.90	PLEISTOCENE		UNCONSOLIDATED	81.10	10.10	
540.80	CARBONDALE		SHALE	1.10	91.20	PROBABLY SHALE
539.70	CARBONDALE		GRAY SHALE	16.30	92.30	
523.40	CARBONDALE		UNKNOWN	7.50	108.60	ILLEGABLE LITHOLOGY
515.90	CARBONDALE		GRAY SHALE	25.90	116.10	
490.00	CARBONDALE		GRAY SH & SS	24.10	142.00	

01720121000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 4 SW 15N 66E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 625.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /25/1969
 Drillers Log Coal Test LOGGED (FT.): 130.00
 SOURCE: COMMONWEALTH EDISON I521

THICKNESS (FT.)						
ELEVATION	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
TOP (FT.)	-----					
625.00	PLEISTOCENE		CLAY	70.00	0.00	
555.00	PLEISTOCENE		GRAVEL	1.00	70.00	
554.00	PLEISTOCENE		CLAY	23.00	71.00	
531.00	CARBONDALE		LIMESTONE	4.50	94.00	
526.50	CARBONDALE		GRAY SHALE	22.50	98.50	
504.00	CARBONDALE	ST. DAVID	LIMESTONE	2.00	121.00	
502.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	123.00	
500.50	CARBONDALE	SPRINGFIELD	COAL	5.20	124.50	
495.30	CARBONDALE		UNDERCLAY	0.30	129.70	

01720122000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
 COUNTY: CASS 17N - R 8W SECTION: 4 NE 60S 65E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 620.0 GEOLOGIST: HAMER DATE COLLECTED: 3 / 8/1972

Drillers Log Coal Test I525C LOGGED (FT.): 129.00
 SOURCE: COMMONWEALTH EDISON I525C FOOTAGES UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.00	PLEISTOCENE		CLAY	34.00	0.00	
586.00	PLEISTOCENE		GRAVEL	28.00	34.00	
558.00	PLEISTOCENE		CLAY	24.50	62.00	
533.50	CARBONDALE		LIMESTONE	2.50	86.50	
531.00	CARBONDALE		GRAY SHALE	6.00	89.00	
525.00	CARBONDALE		BLACK SHALE	1.00	95.00	
524.00	CARBONDALE		GRAY SHALE	16.00	96.00	
508.00	CARBONDALE	ST. DAVID	LIMESTONE	6.00	112.00	
502.00	CARBONDALE	TURNER MINE	BLACK SHALE	4.00	118.00	
498.00	CARBONDALE	SPRINGFIELD	COAL	4.10	122.00	
493.90	CARBONDALE		UNDERCLAY	2.90	126.10	

01720123000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 4
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 625.0 GEOLOGIST: HAMER DATE COLLECTED: 5 / 9/1969
 Drillers Log Coal Test I521 LOGGED (FT.): 129.00
 SOURCE: COMMONWEALTH EDISON I521 HOLE IN CENTER OF SECTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
625.00	PLEISTOCENE		CLAY	90.00	0.00	
535.00	PLEISTOCENE		SAND	2.00	90.00	
533.00	PLEISTOCENE		CLAY	11.00	92.00	
522.00	CARBONDALE		LIMESTONE	2.00	103.00	
520.00	CARBONDALE		GRAY SHALE	14.00	105.00	
506.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	119.00	
505.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	120.00	
502.50	CARBONDALE	SPRINGFIELD	COAL	5.50	122.50	
497.00	CARBONDALE		UNDERCLAY	1.00	128.00	

01720124000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 5 SWNW 45S 15E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 630.0 GEOLOGIST: HAMER DATE COLLECTED: 5 / 9/1970
 Drillers Log Coal Test I511 LOGGED (FT.): 141.00
 SOURCE: COMMONWEALTH EDISON I511

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.00	PLEISTOCENE		SOIL	3.00	0.00	
627.00	PLEISTOCENE		CLAY	91.00	3.00	
536.00	CARBONDALE		LIMESTONE	4.00	94.00	
532.00	CARBONDALE		GRAY SHALE	3.00	98.00	
529.00	CARBONDALE	BRERETON	LIMESTONE	4.00	101.00	
525.00	CARBONDALE	HERRIN	COAL	0.20	105.00	
524.80	CARBONDALE		GRAY SHALE	19.30	105.20	
505.50	CARBONDALE		LIMESTONE	0.50	124.50	HARD
505.00	CARBONDALE		SH WITH LS	7.00	125.00	INTERBEDDED LIMESTONE
498.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	132.00	
496.00	CARBONDALE	SPRINGFIELD	COAL	4.00	134.00	
492.00	CARBONDALE		UNDERCLAY	3.00	138.00	

01720125000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 5 SWNW 285N 30W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 623.0 GEOLOGIST: HAMER DATE COLLECTED: 5 /11/1970
 Drillers Log Coal Test I534C LOGGED (FT.): 135.00
 SOURCE: COMMONWEALTH EDISON I534C DEPTHS APPEAR TO BE DECIMAL FT. IN LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
623.00	PLEISTOCENE		SOIL	18.90	0.00	

604.10	PLEISTOCENE		CLY, SAND & GRVL	40.00	18.90	VARIOUS UNCONSOLIDATED SED.-SND,GRVL,CLY
564.10	PLEISTOCENE		CLAY	25.00	58.90	
539.10	CARBONDALE		LIMESTONE	7.00	83.90	
532.10	CARBONDALE		GRAY SHALE	3.00	90.90	
529.10	CARBONDALE		LIMESTONE	1.00	93.90	HARD
528.10	CARBONDALE	HERRIN	COAL	0.30	94.90	
527.80	CARBONDALE		GRAY SHALE	18.80	95.20	
509.00	CARBONDALE		LIMESTONE	9.00	114.00	
500.00	CARBONDALE	SPRINGFIELD	COAL	2.00	123.00	
498.00	CARBONDALE		SHALE	2.00	125.00	
496.00	CARBONDALE		UNDERCLAY	8.00	127.00	

01720126000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 17N - R 8W SECTION: 5 NWNW 204S 12E
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 625.0 GEOLOGIST: HAMER DATE COLLECTED: 5 / 9/1970
Drillers Log Coal Test LOGGED (FT.): 132.00
SOURCE: COMMONWEALTH EDISON 20126

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
625.00	PLEISTOCENE		SOIL	3.00	0.00	
622.00	PLEISTOCENE		CLAY	87.00	3.00	
535.00	CARBONDALE		LIMESTONE	4.00	90.00	
531.00	CARBONDALE		GRAY SHALE	2.00	94.00	
529.00	CARBONDALE	BRERETON	LIMESTONE	5.00	96.00	
524.00	CARBONDALE	HERRIN	COAL	0.20	101.00	
523.80	CARBONDALE		LIMESTONE	16.80	101.20	INTERBEDDED SHALE
507.00	CARBONDALE		LIMESTONE	3.00	118.00	HARD
504.00	CARBONDALE		GRAY SHALE	2.50	121.00	
501.50	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	123.50	
500.00	CARBONDALE	SPRINGFIELD	COAL	5.00	125.00	
495.00	CARBONDALE		UNDERCLAY	2.00	130.00	

01720127000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 17N - R 8W SECTION: 5 SWNW 18S 54W
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 633.0 GEOLOGIST: HAMER DATE COLLECTED: 5 / 3/1970
Drillers Log Coal Test LOGGED (FT.): 130.00
SOURCE: COMMONWEALTH EDISON I509

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
633.00	PLEISTOCENE		SOIL	2.00	0.00	
631.00	PLEISTOCENE		CLAY	13.00	2.00	
618.00	PLEISTOCENE		CLAY & GRAVEL	60.00	15.00	CLAY WITH GRAVEL
558.00	PLEISTOCENE		CLAY	10.00	75.00	
548.00	CARBONDALE		GRAY SHALE	3.00	85.00	
545.00	CARBONDALE	BRERETON	LIMESTONE	4.00	88.00	HARD
541.00	CARBONDALE	HERRIN	COAL	5.20	92.00	
535.80	CARBONDALE		GRAY SHALE	16.30	97.20	
519.50	CARBONDALE	ST. DAVID	LIMESTONE	8.50	113.50	HARD
511.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	122.00	
509.00	CARBONDALE	SPRINGFIELD	COAL	5.00	124.00	
504.00	CARBONDALE		UNDERCLAY	1.00	129.00	

01720128000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
COUNTY: CASS 18N - R 8W SECTION: 5 NWNWNESE
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 585.0 GEOLOGIST: HAMER DATE COLLECTED: 5 /21/1970
Drillers Log Coal Test LOGGED (FT.): 120.00
SOURCE: COMMONWEALTH EDISON A515 NO FOOTAGES;NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.00	PLEISTOCENE		SOIL	4.00	0.00	
581.00	PLEISTOCENE		CLAY	21.00	4.00	
560.00	PLEISTOCENE		CLAY	95.00	25.00	WITH GRAVEL

01720129000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 5 NW 0N 0W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 620.0 GEOLOGIST: HAMER DATE COLLECTED: 5 /28/1969
 Drillers Log Coal Test LOGGED (FT.): 123.00
 SOURCE: COMMONWEALTH EDISON I609 HOLE ON NW CORNER OF SECTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.00	PLEISTOCENE		CLAY	25.00	0.00	
595.00	PLEISTOCENE		GRAVEL	5.00	25.00	
590.00	PLEISTOCENE		CLAY	45.00	30.00	
545.00	PLEISTOCENE		SAND/GRAVEL	6.00	75.00	
539.00	PLEISTOCENE		CLAY	7.00	81.00	
532.00	CARBONDALE		LIMESTONE	3.50	88.00	
528.50	CARBONDALE		GRAY SHALE	6.50	91.50	
522.00	CARBONDALE		LIMESTONE	2.50	98.00	
519.50	CARBONDALE		GRAY SHALE	12.50	100.50	
507.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	113.00	
506.00	CARBONDALE	TURNER MINE	BLACK SHALE	3.00	114.00	
503.00	CARBONDALE	SPRINGFIELD	COAL	5.00	117.00	
498.00	CARBONDALE		UNDERCLAY	1.00	122.00	

01720130000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 5 SE 18N 72E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 625.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /31/1969
 Drillers Log Coal Test LOGGED (FT.): 129.00
 SOURCE: COMMONWEALTH EDISON I517 MONTH OF DATA UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
625.00	PLEISTOCENE		CLAY	68.00	0.00	
557.00	PLEISTOCENE		CLAY & GRAVEL	8.00	68.00	SANDY CLAY & GRAVEL
549.00	PLEISTOCENE		CLAY	10.00	76.00	
539.00	CARBONDALE		LIMESTONE	5.00	86.00	
534.00	CARBONDALE		GRAY SHALE	3.00	91.00	
531.00	CARBONDALE		LIMESTONE	2.50	94.00	
528.50	CARBONDALE		GRAY SHALE	8.50	96.50	
520.00	CARBONDALE		LIMESTONE	2.00	105.00	
518.00	CARBONDALE		GRAY SHALE	13.50	107.00	
504.50	CARBONDALE	ST. DAVID	LIMESTONE	1.50	120.50	
503.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	122.00	
501.00	CARBONDALE	SPRINGFIELD	COAL	2.50	124.00	BROKEN CORE
498.50	CARBONDALE	SPRINGFIELD	PYRITE	0.30	126.50	BROKEN CORE
498.20	CARBONDALE	SPRINGFIELD	COAL	2.00	126.80	BROKEN CORE
496.20	CARBONDALE		UNDERCLAY	0.20	128.80	

01720131000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 5 SESW 576S 189E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 635.0 GEOLOGIST: HAMER DATE COLLECTED: 5 /28/1969
 Drillers Log Coal Test LOGGED (FT.): 135.00
 SOURCE: COMMONWEALTH EDISON I4120C THICKNESS CORRECTED FOR MATH ERRORS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.00	PLEISTOCENE		CLAY	34.00	0.00	
601.00	PLEISTOCENE		CLAY & GRAVEL	4.00	34.00	
597.00	PLEISTOCENE		CLAY	43.00	38.00	
554.00	CARBONDALE	ANNA	BLACK SHALE	2.50	81.00	
551.50	CARBONDALE	HERRIN	COAL	1.50	83.50	
550.00	CARBONDALE		GRAY SHALE	10.00	85.00	
540.00	CARBONDALE		LIMESTONE	7.00	95.00	
533.00	CARBONDALE		GRAY SHALE	8.00	102.00	
525.00	CARBONDALE		LIMESTONE	2.00	110.00	
523.00	CARBONDALE		GRAY SHALE	6.50	112.00	
516.50	CARBONDALE		LIMESTONE	11.50	118.50	W/INTERBEDDED SHALE
505.00	CARBONDALE	TURNER MINE	BLACK SHALE	0.80	130.00	+ BONE
504.20	CARBONDALE	SPRINGFIELD	COAL	3.50	130.80	
500.70	CARBONDALE		UNDERCLAY	0.70	134.30	

01720132000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 6 NWNWSWNE
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 635.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /24/1969
 Drillers Log Coal Test LOGGED (FT.): 141.00
 SOURCE: COMMONWEALTH EDISON I555 DAY OF DATA UNCERTAIN, NO FOOTAGES GIVEN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.00	PLEISTOCENE		CLAY	5.00	0.00	SANDY
630.00	PLEISTOCENE		CLAY	30.00	5.00	
600.00	PLEISTOCENE		CLAY	51.40	35.00	WITH GRAVEL
548.60	CARBONDALE	ANNA	BLACK SHALE	2.70	86.40	
545.90	CARBONDALE	HERRIN	COAL	0.50	89.10	RASHY
545.40	CARBONDALE	HERRIN	COAL	2.40	89.60	
543.00	CARBONDALE		GRAY SHALE	14.00	92.00	W/INTERBEDDED LS
529.00	CARBONDALE		LIMESTONE	2.50	106.00	
526.50	CARBONDALE		GRAY SHALE	23.30	108.50	W/INTERBEDDED LS
503.20	CARBONDALE		LIMESTONE	0.20	131.80	DARK
503.00	CARBONDALE	TURNER MINE	BLACK SHALE	3.50	132.00	
499.50	CARBONDALE	SPRINGFIELD	COAL	4.20	135.50	
495.30	CARBONDALE		UNDERCLAY	1.30	139.70	

01720133000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 7 SESEWNNE
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 632.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /21/1972
 Drillers Log Coal Test LOGGED (FT.): 123.00
 SOURCE: COMMONWEALTH EDISON I355 NO FOOTAGES GIVEN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
632.00	PLEISTOCENE		CLAY	12.00	0.00	
620.00	PLEISTOCENE		CLAY	9.00	12.00	WITH GRAVEL
611.00	PLEISTOCENE		CLAY	42.00	21.00	
569.00	CARBONDALE		GRAVEL	5.00	63.00	
564.00	CARBONDALE		CLAY	7.00	68.00	
557.00	CARBONDALE		LS W/ SH	18.00	75.00	
539.00	CARBONDALE	ANNA	BLACK SHALE	1.00	93.00	THICKNESS CORRECTED
538.00	CARBONDALE	HERRIN	COAL	1.00	94.00	
537.00	CARBONDALE		LIMESTONE	6.00	95.00	
531.00	CARBONDALE		GRAY SHALE	5.00	101.00	
526.00	CARBONDALE		LIMESTONE	11.00	106.00	
515.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.00	117.00	
514.00	CARBONDALE	SPRINGFIELD	COAL	3.00	118.00	
511.00	CARBONDALE		UNDERCLAY	2.00	121.00	

01720134000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 7 SESESESW
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 626.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /22/1972
 Drillers Log Coal Test LOGGED (FT.): 97.00
 SOURCE: COMMONWEALTH EDISON I205 NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
626.00	PLEISTOCENE		CLAY	23.00	0.00	
603.00	PLEISTOCENE		GRAVEL	32.00	23.00	
571.00	PLEISTOCENE		CLAY	32.00	55.00	
539.00	CARBONDALE		GRAY SHALE	5.00	87.00	
534.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.00	92.00	CORRELATION UNCERTAIN
533.00	CARBONDALE	SPRINGFIELD	COAL	3.00	93.00	CORRELATION UNCERTAIN
530.00	CARBONDALE		UNDERCLAY	1.00	96.00	

01720135000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 8 NWNWNWNW
 CONFIDENTIAL: N

SURFACE ELEVATION (FT.): 634.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /20/1972
 Drillers Log Coal Test LOGGED (FT.): 128.00
 SOURCE: COMMONWEALTH EDISON I409 NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
634.00	PLEISTOCENE		CLAY	79.00	0.00	
555.00	CARBONDALE	ANNA	BLACK SHALE	1.00	79.00	
554.00	CARBONDALE	HERRIN	COAL	2.90	80.00	
551.10	CARBONDALE		GRAY SHALE	13.60	82.90	W/LIMESTONE LAMINAE
537.50	CARBONDALE		LIMESTONE	2.50	96.50	THICKNESS ADJUSTED
535.00	CARBONDALE		GRAY SHALE	18.00	99.00	W/LIMESTONE LAMINAE
517.00	CARBONDALE	ST. DAVID	LIMESTONE	4.00	117.00	
513.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.00	121.00	
512.00	CARBONDALE	SPRINGFIELD	COAL	4.30	122.00	
507.70	CARBONDALE		UNDERCLAY	1.70	126.30	

01720136000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 8 NENENESW
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 630.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /22/1972
 Drillers Log Coal Test LOGGED (FT.): 127.00
 SOURCE: COMMONWEALTH EDISON I313 NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.00	PLEISTOCENE		CLAY	20.00	0.00	
610.00	PLEISTOCENE		CLAY	13.00	20.00	WITH GRAVEL
597.00	PLEISTOCENE		CLAY	46.00	33.00	
551.00	CARBONDALE	ANNA	BLACK SHALE	1.00	79.00	
550.00	CARBONDALE	HERRIN	COAL	2.00	80.00	
548.00	CARBONDALE		GRAY SHALE	5.00	82.00	
543.00	CARBONDALE		LS W/ SH	10.00	87.00	
533.00	CARBONDALE		BLACK SHALE	1.00	97.00	
532.00	CARBONDALE		GRAY SHALE	16.00	98.00	
516.00	CARBONDALE	ST. DAVID	LIMESTONE	5.00	114.00	
511.00	CARBONDALE	TURNER MINE	BLACK SHALE	3.00	119.00	
508.00	CARBONDALE	SPRINGFIELD	COAL	4.00	122.00	
504.00	CARBONDALE		UNDERCLAY	1.00	126.00	

01720137000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 8 SWSWSW
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 637.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /20/1972
 Drillers Log Coal Test LOGGED (FT.): 133.00
 SOURCE: COMMONWEALTH EDISON I209 NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
637.00	PLEISTOCENE		CLAY	90.00	0.00	
547.00	CARBONDALE		LIMESTONE	4.00	90.00	
543.00	CARBONDALE		GRAY SHALE	7.00	94.00	
536.00	CARBONDALE	ANNA	BLACK SHALE	1.00	101.00	
535.00	CARBONDALE	HERRIN	COAL	1.00	102.00	
534.00	CARBONDALE		LS W/ SH	16.00	103.00	
518.00	CARBONDALE		GRAY SHALE	7.00	119.00	
511.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.00	126.00	
510.00	CARBONDALE	SPRINGFIELD	COAL	3.50	127.00	
506.50	CARBONDALE		UNDERCLAY	2.50	130.50	

01720138000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 8 SWSWSW
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 636.0 GEOLOGIST: KOROSE DATE COLLECTED: 3 /21/1972
 Drillers Log Coal Test LOGGED (FT.): 131.00
 SOURCE: COMMONWEALTH EDISON I213 NO FOOTAGES RECORDED

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

636.00	PLEISTOCENE		CLAY	82.00	0.00
554.00	PLEISTOCENE		GRAVEL	21.00	82.00
533.00	CARBONDALE		LS W/ SH	22.00	103.00
511.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.00	125.00
510.00	CARBONDALE	SPRINGFIELD	COAL	3.50	126.00
506.50	CARBONDALE		UNDERCLAY	1.50	129.50

01720139000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 9 SWNW 42S 7W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 628.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /25/1969
 Drillers Log Coal Test LOGGED (FT.): 134.50
 SOURCE: COMMONWEALTH EDISON I317 MONTH OF DATA UNCLEAR

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
628.00	PLEISTOCENE		CLAY	84.50	0.00	
543.50	CARBONDALE	ANNA	BLACK SHALE	1.50	84.50	
542.00	CARBONDALE	HERRIN	COAL	1.80	86.00	
540.20	CARBONDALE		GRAY SHALE	9.70	87.80	
530.50	CARBONDALE		LIMESTONE	4.00	97.50	
526.50	CARBONDALE		GRAY SHALE	7.50	101.50	
519.00	CARBONDALE		LIMESTONE	4.00	109.00	
515.00	CARBONDALE		GRAY SHALE	9.00	113.00	
506.00	CARBONDALE	ST. DAVID	LIMESTONE	4.00	122.00	
502.00	CARBONDALE	TURNER MINE	BLACK SHALE	3.00	126.00	
499.00	CARBONDALE	SPRINGFIELD	COAL	4.90	129.00	
494.10	CARBONDALE		UNDERCLAY	0.60	133.90	

01720140000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 9 NWNW 0N 30W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 630.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /20/1969
 Drillers Log Coal Test LOGGED (FT.): 138.50
 SOURCE: COMMONWEALTH EDISON I417

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.00	PLEISTOCENE		CLAY	65.00	0.00	
565.00	PLEISTOCENE		GRAVEL	1.00	65.00	
564.00	PLEISTOCENE		CLAY	19.00	66.00	
545.00	CARBONDALE	ANNA	BLACK SHALE	2.00	85.00	
543.00	CARBONDALE	HERRIN	COAL	1.50	87.00	
541.50	CARBONDALE		GRAY SHALE	7.50	88.50	
534.00	CARBONDALE		LIMESTONE	2.00	96.00	THICKNESS CORRECTED
532.00	CARBONDALE		GRAY SHALE	4.00	98.00	
528.00	CARBONDALE		LIMESTONE	4.00	102.00	
524.00	CARBONDALE		GRAY SHALE	20.00	106.00	
504.00	CARBONDALE	ST. DAVID	LIMESTONE	3.00	126.00	
501.00	CARBONDALE	TURNER MINE	BLACK SHALE	4.50	129.00	DARK SHALE
496.50	CARBONDALE	SPRINGFIELD	COAL	4.00	133.50	
492.50	CARBONDALE		UNDERCLAY	1.00	137.50	

01720141000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 9 NWNW 8N 249W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 635.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /20/1969
 Drillers Log Coal Test LOGGED (FT.): 134.00
 SOURCE: COMMONWEALTH EDISON I427N

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.00	PLEISTOCENE		CLAY	75.00	0.00	
560.00	PLEISTOCENE		SAND/GRAVEL	5.00	75.00	
555.00	PLEISTOCENE		CLAY	12.00	80.00	
543.00	CARBONDALE		LIMESTONE	5.00	92.00	
538.00	CARBONDALE		GRAY SHALE	5.00	97.00	
533.00	CARBONDALE	HERRIN	COAL	0.40	102.00	CORRELATION UNCERTAIN
532.60	CARBONDALE		GRAY SHALE	8.60	102.40	
524.00	CARBONDALE		LIMESTONE	1.50	111.00	

522.50	CARBONDALE		GRAY SHALE	7.50	112.50
515.00	CARBONDALE		LIMESTONE	9.00	120.00
506.00	CARBONDALE	TURNER MINE	BLACK SHALE	0.50	129.00
505.50	CARBONDALE	SPRINGFIELD	COAL	3.30	129.50
502.20	CARBONDALE		UNDERCLAY	1.20	132.80

01720142000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 9 NESW 3N 14E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 634.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /19/1969
 Drillers Log Coal Test LOGGED (FT.): 138.00
 SOURCE: COMMONWEALTH EDISON I321

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
634.00	PLEISTOCENE		CLAY	80.00	0.00	
554.00	PLEISTOCENE		CLAY	7.00	80.00	WITH GRAVEL
547.00	CARBONDALE	ANNA	BLACK SHALE	1.50	87.00	
545.50	CARBONDALE	HERRIN	COAL	1.90	88.50	
543.60	CARBONDALE		GRAY SHALE	5.60	90.40	
538.00	CARBONDALE		LIMESTONE	4.00	96.00	
534.00	CARBONDALE		LIMESTONE	5.00	100.00	W/SHALE LAMINAE
529.00	CARBONDALE		GRAY SHALE	9.00	105.00	
520.00	CARBONDALE		LIMESTONE	1.00	114.00	
519.00	CARBONDALE		GRAY SHALE	7.00	115.00	
512.00	CARBONDALE		LIMESTONE	10.00	122.00	
502.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.00	132.00	
501.00	CARBONDALE	SPRINGFIELD	COAL	3.80	133.00	
497.20	CARBONDALE		UNDERCLAY	1.20	136.80	

01720143000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 17N - R 8W SECTION: 9 SESW 43S 177W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 630.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /17/1969
 Drillers Log Coal Test LOGGED (FT.): 131.00
 SOURCE: COMMONWEALTH EDISON I219N

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.00	PLEISTOCENE		CLAY	65.00	0.00	
565.00	PLEISTOCENE		SAND/GRAVEL	10.00	65.00	
555.00	PLEISTOCENE		CLAY	7.00	75.00	
548.00	PLEISTOCENE		SAND/GRAVEL	4.00	82.00	
	CARBONDALE	HERRIN	COAL	1.00	86.00	TOP ERODED
	CARBONDALE		SHALE	3.00	87.00	
	CARBONDALE		LIMESTONE	10.00	90.00	W/SH LAMINAE
	CARBONDALE		GRAY SHALE	10.00	100.00	
	CARBONDALE		SHALE	13.00	110.00	W/ LS LAMINAE
	CARBONDALE		LIMESTONE	1.00	123.00	DARK
	CARBONDALE		BLACK SHALE	1.00	124.00	
	CARBONDALE		LIMESTONE	0.70	125.00	
	CARBONDALE	SPRINGFIELD	COAL	2.90	125.70	
	CARBONDALE	SPRINGFIELD	PYRITE	0.10	128.60	
	CARBONDALE	SPRINGFIELD	COAL	1.90	128.70	
	CARBONDALE		UNDERCLAY	0.40	130.60	

01720144000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 9W SECTION: 14 SWSWSNW
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 569.0 GEOLOGIST: HAMER DATE COLLECTED: 5 /23/1970
 Drillers Log Coal Test LOGGED (FT.): 100.00
 SOURCE: COMMONWEALTH EDISON AW109 NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
569.00	PLEISTOCENE		CLAY	100.00	0.00	

01720145000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 16 NWSE ON 330W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 603.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /25/1972
 Drillers Log Coal Test LOGGED (FT.): 108.00
 SOURCE: COMMONWEALTH EDISON A1213

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.00	PLEISTOCENE		CLAY	48.00	0.00	
555.00	PLEISTOCENE		CLAY & GRAVEL	7.00	48.00	
548.00	PLEISTOCENE		CLAY	48.00	55.00	
500.00	CARBONDALE	ST. DAVID	LIMESTONE	1.50	103.00	
498.50	CARBONDALE	SPRINGFIELD	COAL	1.50	104.50	
497.00	CARBONDALE		UNDERCLAY	2.00	106.00	

01720146000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 16 NWSE ON 660E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 607.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /25/1972
 Drillers Log Coal Test LOGGED (FT.): 114.00
 SOURCE: COMMONWEALTH EDISON A122

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
607.00	PLEISTOCENE		CLAY	35.00	0.00	
572.00	PLEISTOCENE		CLAY & GRAVEL	10.00	35.00	
562.00	PLEISTOCENE		CLAY	63.00	45.00	
	CARBONDALE	SPRINGFIELD	COAL	5.00	108.00	TOP ERODED
	CARBONDALE		UNDERCLAY	1.00	113.00	

01720147000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 16 SWNW 12S 81E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 585.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /12/1969
 Drillers Log Coal Test LOGGED (FT.): 84.00
 SOURCE: COMMONWEALTH EDISON A119

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.00	PLEISTOCENE		CLAY	16.00	0.00	SANDY
569.00	PLEISTOCENE		CLAY	30.00	16.00	WITH GRAVEL
539.00	PLEISTOCENE		CLAY	27.00	46.00	SANDY
512.00	PLEISTOCENE		CLAY	4.00	73.00	WITH GRAVEL AND FLOAT COAL
508.00	CARBONDALE		SHALE	2.50	77.00	DARK
505.50	CARBONDALE		COAL	0.50	79.50	
505.00	CARBONDALE		UNDERCLAY	4.00	80.00	

01720148000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 16 NESW 25N 0E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): GEOLOGIST: HAMER DATE COLLECTED: 3 /11/1970
 Drillers Log Coal Test LOGGED (FT.): 120.00
 SOURCE: COMMONWEALTH EDISON A21 ELEV. ILLEGABLE;NO SIGNIFICAN COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
	PLEISTOCENE		CLAY	10.00	0.00	
	PLEISTOCENE		CLAY	75.00	10.00	WITH GRAVEL
	PLEISTOCENE		CLAY	13.50	85.00	THICKNESS ADJUSTED
	CARBONDALE		LIMESTONE	1.50	98.50	WEATHERED
	CARBONDALE		BLACK SHALE	1.00	100.00	
	CARBONDALE		COAL	0.20	101.00	LOG REPORTS "COAL & GRAVEL"
	CARBONDALE		GRAY SHALE	18.80	101.20	LS INTERBEDS

01720149000C PROJECT: NCRDS96 QUADRANGLE: OAKFORD
 COUNTY: CASS 18N - R 8W SECTION: 16 NWSE 30N 0E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 613.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /11/1970
 Drillers Log Coal Test LOGGED (FT.): 119.00
 SOURCE: COMMONWEALTH EDISON A123 SURFACE ELEV. RECONSTRUCTED FROM C. ELEV

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
613.00	PLEISTOCENE		CLAY	35.00	0.00	
578.00	PLEISTOCENE		CLAY	76.00	35.00	W/GRAVLE
502.00	CARBONDALE	ST. DAVID	LIMESTONE	1.50	111.00	WEATHERED
500.50	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	112.50	
499.00	CARBONDALE	SPRINGFIELD	COAL	4.50	114.00	
494.50	CARBONDALE		UNDERCLAY	0.50	118.50	

01720150000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 16 SESW 450S 0W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 570.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /29/1972
 Drillers Log Coal Test LOGGED (FT.): 79.00
 SOURCE: COMMONWEALTH EDISON A19D

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.00	PLEISTOCENE		CLAY	58.00	0.00	
512.00	PLEISTOCENE		CLAY & GRAVEL	13.00	58.00	
499.00	CARBONDALE	TURNER MINE	BLACK SHALE	0.50	71.00	
498.50	CARBONDALE	SPRINGFIELD	COAL	6.30	71.50	
492.20	CARBONDALE		UNDERCLAY	1.20	77.80	

01720151000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 16 SENWSESW
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 595.0 GEOLOGIST: HAMER DATE COLLECTED: 6 / 2/1969
 Drillers Log Coal Test LOGGED (FT.): 100.00
 SOURCE: COMMONWEALTH EDISON A44DI NO FOOTAGES RECORDED; HOLE#UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.00	PLEISTOCENE		CLAY	30.00	0.00	
565.00	PLEISTOCENE		SAND/GRAVEL	2.00	30.00	
563.00	PLEISTOCENE		CLAY	43.00	32.00	
520.00	PLEISTOCENE		CLY, SAND & GRVL	15.00	75.00	
505.00	PLEISTOCENE		CLAY	4.00	90.00	
	CARBONDALE	SPRINGFIELD	COAL	5.40	94.00	TOP ERODED
	CARBONDALE		UNDERCLAY	0.60	99.40	

01720152000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 16 NESW 230S 0W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 600.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /28/1972
 Drillers Log Coal Test LOGGED (FT.): 110.00
 SOURCE: COMMONWEALTH EDISON A69C

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.00	PLEISTOCENE		CLAY	103.00	0.00	
497.00	PLEISTOCENE		SAND/GRAVEL	3.00	103.00	
	CARBONDALE	SPRINGFIELD	COAL	3.00	106.00	TOP ERODED
	CARBONDALE		UNDERCLAY	1.00	109.00	

01720153000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 16 NESW OS 660E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 614.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /26/1972
 Drillers Log Coal Test LOGGED (FT.): 119.00
 SOURCE: COMMONWEALTH EDISON A70

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
614.00	PLEISTOCENE		CLAY	89.00	0.00	
525.00	PLEISTOCENE		BOULDER	2.00	89.00	
523.00	PLEISTOCENE		SAND/GRAVEL	17.00	91.00	
506.00	PLEISTOCENE		CLAY	4.00	108.00	
502.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.00	112.00	
501.00	CARBONDALE	SPRINGFIELD	COAL	5.50	113.00	
495.50	CARBONDALE		UNDERCLAY	0.50	118.50	

01720154000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 16 NWNWSWE
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 605.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /24/1972
 Drillers Log Coal Test LOGGED (FT.): 116.00
 SOURCE: COMMONWEALTH EDISON A71 NO FOOTAGES GIVEN; HOLE ON 1/4-LINE INTER

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.00	PLEISTOCENE		CLAY	45.00	0.00	
560.00	PLEISTOCENE		SAND/GRAVEL	10.00	45.00	
550.00	PLEISTOCENE		CLAY	25.00	55.00	
525.00	PLEISTOCENE		CLAY	28.00	80.00	WITH GRAVEL
497.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	108.00	
496.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	109.00	
494.50	CARBONDALE	SPRINGFIELD	COAL	5.00	110.50	
489.50	CARBONDALE		UNDERCLAY	0.50	115.50	DEPTH AJUSTED

01720155000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 16 NWSE 330S 0W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 612.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /25/1972
 Drillers Log Coal Test LOGGED (FT.): 121.00
 SOURCE: COMMONWEALTH EDISON A71C

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.00	PLEISTOCENE		CLAY	40.00	0.00	TOP ERODED
572.00	PLEISTOCENE		CLAY & GRAVEL	5.00	40.00	
567.00	PLEISTOCENE		CLAY	71.00	45.00	
	CARBONDALE	SPRINGFIELD	COAL	4.50	116.00	
	CARBONDALE		UNDERCLAY	0.50	120.50	

01720156000C PROJECT: NCRDS96 QUADRANGLE: OAKFORD
 COUNTY: CASS 18N - R 8W SECTION: 10 NWNWSESE
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 611.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /22/1972
 Drillers Log Coal Test LOGGED (FT.): 122.00
 SOURCE: COMMONWEALTH EDISON A73 HOLE ON 1/4-LINE INTERSECTIONS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
611.00	PLEISTOCENE		CLAY	113.00	0.00	
498.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	113.00	
497.00	CARBONDALE	TURNER MINE	SHALE	2.00	114.00	
495.00	CARBONDALE	SPRINGFIELD	COAL	5.00	116.00	
490.00	CARBONDALE		UNDERCLAY	1.00	121.00	

01720157000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 16 NWSE 660N 0W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 600.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /24/1972
 Drillers Log Coal Test LOGGED (FT.): 120.00
 SOURCE: COMMONWEALTH EDISON A96 NO COAL LOGGED

THICKNESS (FT.)						
ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
600.00	PLEISTOCENE		CLAY	35.00	0.00	
565.00	PLEISTOCENE		CLAY & GRAVEL	5.00	35.00	
560.00	PLEISTOCENE		CLAY	69.00	40.00	
491.00	PLEISTOCENE		BOULDER	1.50	109.00	LOG SAYS "LIMESTONE"
489.50	CARBONDALE		SHALE	4.50	110.50	GRAY & BLACK SHALE
485.00	CARBONDALE		GRAY SHALE	5.00	115.00	STICKY

01720158000C PROJECT: NCRDS96 QUADRANGLE: OAKFORD
 COUNTY: CASS 18N - R 8W SECTION: 16 NESE 660N 0E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 614.0 GEOLOGIST: HAMER DATE COLLECTED: 3 / 3/1972
 Drillers Log Coal Test LOGGED (FT.): 123.00
 SOURCE: COMMONWEALTH EDISON A100

THICKNESS (FT.)						
ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
614.00	PLEISTOCENE		CLAY	27.00	0.00	
587.00	PLEISTOCENE		CLAY & GRAVEL	23.00	27.00	
564.00	PLEISTOCENE		GRAVEL	5.00	50.00	
559.00	PLEISTOCENE		CLAY	62.50	55.00	
496.50	CARBONDALE	TURNER MINE	BLACK SHALE	0.50	117.50	
496.00	CARBONDALE	SPRINGFIELD	COAL	4.00	118.00	
492.00	CARBONDALE		UNDERCLAY	1.00	122.00	

01720159000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 17 SWSW 120S 411W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 603.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /11/1969
 Drillers Log Coal Test LOGGED (FT.): 104.00
 SOURCE: COMMONWEALTH EDISON A9LB

THICKNESS (FT.)						
ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
603.00	PLEISTOCENE		SILTY CLAY	15.00	0.00	
588.00	PLEISTOCENE		CLAY	24.00	15.00	
564.00	PLEISTOCENE		CLAY & GRAVEL	5.00	39.00	
559.00	PLEISTOCENE		CLAY	36.00	44.00	
523.00	PLEISTOCENE		CLAY & GRAVEL	15.50	80.00	
507.50	CARBONDALE	ST. DAVID	LIMESTONE	0.50	95.50	
507.00	CARBONDALE	TURNER MINE	BLACK SHALE	0.50	96.00	
506.50	CARBONDALE	SPRINGFIELD	COAL	5.60	96.50	
500.90	CARBONDALE		UNDERCLAY	1.90	102.10	THICKNESS AND DEPTH ADJUSTED

01720160000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 17 SWSWSENE
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 600.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /12/1969
 Drillers Log Coal Test LOGGED (FT.): 118.00
 SOURCE: COMMONWEALTH EDISON A115 NO FOOTAGES;NO COAL LOGGED

THICKNESS (FT.)						
ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
600.00			CLAY	19.00	0.00	SNDY
581.00			CLAY	22.00	19.00	WITH GRAVEL
559.00			GRAVEL	2.00	41.00	

557.00		CLAY	54.00	43.00	SNDY
503.00		GRAVEL	0.50	97.00	W/LIMESTONE/FLOAT COAL
502.50		GRAY SHALE	20.50	97.50	LIMESTONE LAMINAE

01720161000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 17 SWNW 10S 75W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 609.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /12/1969
 Drillers Log Coal Test LOGGED (FT.): 117.00
 SOURCE: COMMONWEALTH EDISON A109 NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
609.00	PLEISTOCENE		CLAY	20.00	0.00	SANDY
589.00	PLEISTOCENE		CLAY	18.00	20.00	WITH GRAVEL
571.00	PLEISTOCENE		SAND/GRAVEL	1.50	38.00	
569.50	PLEISTOCENE		CLAY	46.50	39.50	
523.00	PLEISTOCENE		CLAY	19.00	86.00	WITH GRAVEL
504.00	PLEISTOCENE		CLAY	12.00	105.00	W/SD,GVL,BLDR,+FLOAT COAL (107'+)

01720162000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 18 SWSE 51S 48W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 605.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /12/1969
 Drillers Log Coal Test LOGGED (FT.): 120.00
 SOURCE: COMMONWEALTH EDISON A5 NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.00	PLEISTOCENE		CLAY	90.00	0.00	
515.00	PLEISTOCENE		BOULDER	0.50	90.00	
514.50	PLEISTOCENE		CLAY	6.50	90.50	
508.00	PLEISTOCENE		BOULDER	5.00	97.00	WEATHERED LIMESTONE
503.00	PLEISTOCENE		CLAY	13.00	102.00	
490.00	CARBONDALE		GRAY SHALE	2.00	115.00	
488.00	CARBONDALE		LIMESTONE	0.50	117.00	
487.50	CARBONDALE		GRAY SHALE	2.50	117.50	

01720163000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 19 NENE 12S 45E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 612.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /31/1970
 Drillers Log Coal Test LOGGED (FT.): 120.00
 SOURCE: COMMONWEALTH EDISON E559

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.00	PLEISTOCENE		CLAY	42.00	0.00	
570.00	PLEISTOCENE		CLAY & GRAVEL	8.00	42.00	
562.00	PLEISTOCENE		CLAY	55.00	50.00	
507.00	PLEISTOCENE		CLAY & GRAVEL	9.00	105.00	
498.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.00	114.00	
497.00	CARBONDALE	SPRINGFIELD	COAL	4.50	115.00	
492.50	CARBONDALE		UNDERCLAY	0.50	119.50	

01720164000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 19 SENE 40S 450E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 605.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /13/1970
 Drillers Log Coal Test LOGGED (FT.): 140.00
 SOURCE: COMMONWEALTH EDISON E508N RECON.-BEDROCK ELEV. NO COAL LOGGED

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

605.00	CLAY	42.00	0.00	
563.00	CLAY & GRAVEL	6.00	42.00	
557.00	CLAY	32.00	48.00	
525.00	CLAY & GRAVEL	23.00	80.00	
502.00	BOULDERS & CLAY	20.00	103.00	
482.00	SHALE	4.00	123.00	
478.00	BLACK SHALE	1.00	127.00	
477.00	SHALE	12.00	128.00	W/LIMESTONE INTERBEDS

01720165000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 19 NWSE 696N 15W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 565.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /12/1968
 Drillers Log Coal Test LOGGED (FT.): 137.00
 SOURCE: COMMONWEALTH EDISON E540 NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
565.00	PLEISTOCENE		CLAY	15.00	0.00	+FILL
550.00	PLEISTOCENE		WOOD	20.00	15.00	SILTY
530.00	PLEISTOCENE		CLAY	17.00	35.00	
513.00	PLEISTOCENE		GRAVEL	9.00	52.00	
504.00	CARBONDALE		GRAY SHALE	4.00	61.00	
500.00	CARBONDALE		BLACK SHALE	1.50	65.00	
498.50	CARBONDALE		GRAY SHALE	3.50	66.50	
495.00	CARBONDALE		SHALE	15.00	70.00	W/LIMESTONE INTERBEDS
480.00	PLEISTOCENE		GRAY SHALE	43.00	85.00	DARK
437.00	CARBONDALE		BLACK SHALE	1.00	128.00	
436.00	CARBONDALE		SANDY SHALE	8.00	129.00	HARD

01720166000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 20 NWSW 120S 660W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 605.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /15/1972
 Drillers Log Coal Test LOGGED (FT.): 140.00
 SOURCE: COMMONWEALTH EDISON E460J NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.00			CLAY	31.00	0.00	SILTY
574.00			CLAY	13.00	31.00	
561.00			CLAY	78.50	44.00	WITH GRAVEL
482.50			LIMESTONE	0.50	122.50	
482.00			BROWN SHALE	4.00	123.00	
478.00			BLACK SHALE	0.50	127.00	
477.50			GRAY SHALE	12.50	127.50	

01720167000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 20 NWSW 35N 10E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 614.0 GEOLOGIST: HAMER DATE COLLECTED: 1 /27/1972
 Drillers Log Coal Test LOGGED (FT.): 125.00
 SOURCE: COMMONWEALTH EDISON E511

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
614.00	PLEISTOCENE		CLAY	26.00	0.00	SILTY
588.00	PLEISTOCENE		CLAY	22.00	26.00	SANDY
566.00	PLEISTOCENE		CLAY	65.50	48.00	WITH GRAVEL
500.50	CARBONDALE		BLACK SHALE	1.50	113.50	
499.00	CARBONDALE		GRAY SHALE	2.50	115.00	
496.50	CARBONDALE	TURNER MINE	BLACK SHALE	0.90	117.50	
495.60	CARBONDALE	SPRINGFIELD	COAL	5.30	118.40	
490.30	CARBONDALE		UNDERCLAY	1.30	123.70	

01720168000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 20 SWNW 660S 12W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 607.0 GEOLOGIST: HAMER DATE COLLECTED: 2 / 1/1972
 Drillers Log Coal Test LOGGED (FT.): 140.00
 SOURCE: COMMONWEALTH EDISON E534 NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
607.00	PLEISTOCENE		UNCONSOLIDATED	14.00	0.00	
593.00	PLEISTOCENE		UNCONSOLIDATED	23.00	14.00	SURFACE + CLAY
570.00	PLEISTOCENE		CLAY	18.00	37.00	WITH GRAVEL
552.00	PLEISTOCENE		CLAY	13.00	55.00	
539.00	PLEISTOCENE		CLAY	37.00	68.00	WITH GRAVEL
502.00	PLEISTOCENE		SAND/GRAVEL	24.00	105.00	W/CLAY BANDS
478.00	CARBONDALE		BLACK SHALE	0.50	129.00	
477.50	CARBONDALE		GRAY SHALE	10.50	129.50	SILTY

01720169000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 20 SWNW 990S 60W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 605.0 GEOLOGIST: HAMER DATE COLLECTED: 2 / 1/1972
 Drillers Log Coal Test LOGGED (FT.): 118.00
 SOURCE: COMMONWEALTH EDISON E534CB

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.00	PLEISTOCENE		CLAY	32.00	0.00	
573.00	PLEISTOCENE		CLAY	73.00	32.00	WITH GRAVEL
500.00	PLEISTOCENE		CLAY	8.00	105.00	SILTY W/GRAVEL
492.00	CARBONDALE	TURNER MINE	BLACK SHALE	0.50	113.00	
491.50	CARBONDALE	SPRINGFIELD	COAL	4.50	113.50	
487.00	CARBONDALE		UNDERCLAY	0.00	118.00	THICKNESS NOT RECORDED

01720170000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 20 NWNW 27S 10E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 619.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /31/1970
 Drillers Log Coal Test LOGGED (FT.): 120.00
 SOURCE: COMMONWEALTH EDISON E561 ELEV RECONSTRUCTED FROM ELV OF COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
619.00	PLEISTOCENE		CLAY	15.00	0.00	
604.00	PLEISTOCENE		SAND	10.00	15.00	
594.00	PLEISTOCENE		CLAY	15.00	25.00	
579.00	PLEISTOCENE		CLAY & GRAVEL	21.00	40.00	
558.00	PLEISTOCENE		CLAY	44.00	61.00	
514.00	PLEISTOCENE		BOULDER	6.00	105.00	
508.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	111.00	
507.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	112.00	
505.00	CARBONDALE	SPRINGFIELD	COAL	5.20	114.00	
499.80	CARBONDALE		UNDERCLAY	0.80	119.20	

01720171000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 20 NENE 0S 20W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 615.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /21/1970
 Drillers Log Coal Test LOGGED (FT.): 120.00
 SOURCE: COMMONWEALTH EDISON E565 ELEV RECONSTRUCTED FROM COAL ELEV

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.00	PLEISTOCENE		CLAY	100.00	0.00	
515.00	PLEISTOCENE		CLAY & GRAVEL	3.50	100.00	
511.50	CARBONDALE		SHALE	7.50	103.50	
504.00	CARBONDALE	TURNER MINE	BLACK SHALE	3.00	111.00	
501.00	CARBONDALE	SPRINGFIELD	COAL	5.40	114.00	

495.60 CARBONDALE UNDERCLAY 0.60 119.40

01720172000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 20 NENE 327N 72E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 602.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /10/1969
 Drillers Log Coal Test LOGGED (FT.): 109.50
 SOURCE: COMMONWEALTH EDISON E617DG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.00	PLEISTOCENE		CLAY	38.00	0.00	
564.00	PLEISTOCENE		GRAVEL	7.00	38.00	SOFT
557.00	PLEISTOCENE		CLAY	58.00	45.00	
	CARBONDALE	SPRINGFIELD	COAL	5.80	103.00	TOP OF COAL ERODED
	CARBONDALE		UNDERCLAY	0.70	108.80	

01720173000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 20 NWNW 50N 20E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 607.0 GEOLOGIST: HAMER DATE COLLECTED: 4 / 1/1970
 Drillers Log Coal Test LOGGED (FT.): 120.00
 SOURCE: COMMONWEALTH EDISON E611

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
607.00			CLAY	15.00	0.00	
592.00			WOOD/CLAY	10.00	15.00	
582.00			CLAY	20.00	25.00	
562.00			SAND/GRAVEL	5.00	45.00	
557.00			CLAY	45.00	50.00	
512.00			CLAY & GRAVEL	13.00	95.00	INCLUDES FLOAT
499.00			COAL	2.00	108.00	
497.00			LIMESTONE	2.50	110.00	
494.50			SHALE	7.50	112.50	W/ LIMESTONE INTERBEDS

01720174000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 20 NWNW 20N 12W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 600.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /21/1970
 Drillers Log Coal Test LOGGED (FT.): 108.00
 SOURCE: COMMONWEALTH EDISON E611 ELEV RECONSTRUCTED FROM COAL ELEV

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.00	PLEISTOCENE		CLAY	95.00	0.00	
505.00	PLEISTOCENE		CLAY & GRAVEL	4.00	95.00	
501.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	99.00	
498.50	CARBONDALE	SPRINGFIELD	COAL	5.20	101.50	
493.30	CARBONDALE		UNDERCLAY	1.30	106.70	

01720175000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 20 SENW 660S 0W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 612.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /14/1972
 Drillers Log Coal Test LOGGED (FT.): 124.00
 SOURCE: COMMONWEALTH EDISON E536

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.00	PLEISTOCENE		CLAY	21.00	0.00	
591.00	PLEISTOCENE		CLAY	5.00	21.00	WITH GRAVEL
586.00	PLEISTOCENE		SAND/GRAVEL	15.00	26.00	W/CLY BANDS

571.00	PLEISTOCENE		CLAY	68.50	41.00	WITH GRAVEL
502.50	CARBONDALE	TURNER MINE	BLACK SHALE	8.30	109.50	
494.20	CARBONDALE	SPRINGFIELD	COAL	5.40	117.80	
488.80	CARBONDALE		UNDERCLAY	0.80	123.20	

01720176000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 20 SENE 810S 51E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 580.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /11/1969
 Drillers Log Coal Test LOGGED (FT.): 97.50
 SOURCE: COMMONWEALTH EDISON E542D

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.00	PLEISTOCENE		CLAY	80.00	0.00	
500.00	CARBONDALE		GRAY SHALE	7.50	80.00	
492.50	CARBONDALE	ST. DAVID	LIMESTONE	0.50	87.50	
492.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	88.00	
490.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.30	90.00	
488.70	CARBONDALE	SPRINGFIELD	COAL	5.80	91.30	
482.90	CARBONDALE		UNDERCLAY	0.40	97.10	

01720177000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 20 SWNW 54S 96W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 592.0 GEOLOGIST: HAMER DATE COLLECTED: 1 /31/1972
 Drillers Log Coal Test LOGGED (FT.): 105.00
 SOURCE: COMMONWEALTH EDISON E508

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
592.00	PLEISTOCENE		CLAY	16.00	0.00	
576.00	PLEISTOCENE		CLAY & GRAVEL	31.00	16.00	
545.00	PLEISTOCENE		CLAY	52.00	47.00	WITH GRAVEL
493.00	CARBONDALE	TURNER MINE	BLACK SHALE	0.50	99.00	
492.50	CARBONDALE	SPRINGFIELD	COAL	4.70	99.50	
487.80	CARBONDALE		UNDERCLAY	0.80	104.20	

01720178000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 20 SWNW 330S 0W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 602.0 GEOLOGIST: HAMER DATE COLLECTED: 1 /25/1972
 Drillers Log Coal Test LOGGED (FT.): 118.00
 SOURCE: COMMONWEALTH EDISON E509C

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.00	PLEISTOCENE		CLAY	17.00	0.00	SILTY
585.00	PLEISTOCENE		CLAY	7.00	17.00	
578.00	PLEISTOCENE		CLAY	27.00	24.00	WITH GRAVEL
551.00	PLEISTOCENE		CLAY	12.00	51.00	
539.00	PLEISTOCENE		CLAY	48.80	63.00	WITH GRAVEL
490.20	CARBONDALE	TURNER MINE	BLACK SHALE	0.50	111.80	
489.70	CARBONDALE	SPRINGFIELD	COAL	4.80	112.30	
484.90	CARBONDALE		UNDERCLAY	0.90	117.10	

01720179000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 20 NWSW 30N 660W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 600.0 GEOLOGIST: HAMER DATE COLLECTED: 1 /31/1972
 Drillers Log Coal Test LOGGED (FT.): 110.00
 SOURCE: COMMONWEALTH EDISON E510

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

TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
600.00	PLEISTOCENE		CLAY	12.00	0.00	SILTY
588.00	PLEISTOCENE		CLAY	15.00	12.00	
573.00	PLEISTOCENE		CLAY & GRAVEL	11.00	27.00	
562.00	PLEISTOCENE		CLAY	54.00	38.00	WITH GRAVEL
508.00	PLEISTOCENE		CLAY & GRAVEL	6.00	92.00	
502.00	CARBONDALE		GRAY SHALE	2.50	98.00	
499.50	CARBONDALE		SANDSTONE	0.50	100.50	POSSIBLY LIMESTONE
499.00	CARBONDALE	TURNER MINE	BLACK SHALE	3.20	101.00	
495.80	CARBONDALE	SPRINGFIELD	COAL	4.80	104.20	
491.00	CARBONDALE		UNDERCLAY	1.00	109.00	

01720180000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 20 NWNWNSE
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 618.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /12/1970
Drillers Log Coal Test LOGGED (FT.): 131.00
SOURCE: COMMONWEALTH EDISON E513

ELEVATION	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
618.00	PLEISTOCENE		CLAY	35.00	0.00	
583.00	PLEISTOCENE		BOULDERS & CLAY	12.00	35.00	
571.00	PLEISTOCENE		CLAY	33.00	47.00	
538.00	PLEISTOCENE		CLAY	35.00	80.00	WITH GRAVEL
503.00	CARBONDALE		SHALE	7.00	115.00	
496.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	122.00	
493.50	CARBONDALE	SPRINGFIELD	COAL	5.70	124.50	
487.80	CARBONDALE		UNDERCLAY	0.80	130.20	

01720181000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 20 NENENWSE
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 606.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /12/1970
Drillers Log Coal Test LOGGED (FT.): 117.00
SOURCE: COMMONWEALTH EDISON E515 ELEV.RECONSTRUCTED FROM COAL ELEV

ELEVATION	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
606.00	PLEISTOCENE		CLAY	35.00	0.00	
571.00	PLEISTOCENE		CLAY & GRAVEL	5.00	35.00	
566.00	PLEISTOCENE		CLAY	35.00	40.00	
531.00	PLEISTOCENE		CLAY	28.00	75.00	WITH GRAVEL
503.00	CARBONDALE		SHALE	5.00	103.00	
498.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	108.00	
497.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	109.00	
495.00	CARBONDALE	SPRINGFIELD	COAL	5.50	111.00	
489.50	CARBONDALE		UNDERCLAY	0.50	116.50	

01720182000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 20 SWNWSW 0N 75W
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 610.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /14/1972
Drillers Log Coal Test LOGGED (FT.): 140.00
SOURCE: COMMONWEALTH EDISON E484 NO COAL LOGGED

ELEVATION	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
610.00	PLEISTOCENE		CLAY	14.00	0.00	SILTY
596.00	PLEISTOCENE		CLAY	24.00	14.00	SANDY WITH GRAVEL
572.00	PLEISTOCENE		CLAY	66.00	38.00	WITH GRAVEL
506.00	PLEISTOCENE		CLAY	23.00	104.00	SANDY WITH GRAVEL
483.00	CARBONDALE		LIMESTONE	0.50	127.00	
482.50	CARBONDALE		BLACK SHALE	1.00	127.50	
481.50	CARBONDALE		GRAY SHALE	11.50	128.50	SOFT

01720183000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 20 NWSW 660N 330W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 612.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /15/1972
 Drillers Log Coal Test LOGGED (FT.): 120.00
 SOURCE: COMMONWEALTH EDISON E484B

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.00	PLEISTOCENE		CLAY	22.00	0.00	SILTY
590.00	PLEISTOCENE		CLAY	12.00	22.00	
578.00	PLEISTOCENE		CLAY	79.00	34.00	WITH GRAVEL
499.00	CARBONDALE		BLACK SHALE	2.00	113.00	
497.00	CARBONDALE		GRAY SHALE	5.00	115.00	

01720184000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 20 NWSW 330N 200W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 608.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /14/1972
 Drillers Log Coal Test LOGGED (FT.): 118.00
 SOURCE: COMMONWEALTH EDISON E484H

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.00	PLEISTOCENE		CLAY	17.00	0.00	SILTY
591.00	PLEISTOCENE		SAND/GRAVEL	4.00	17.00	W/CLY BANDS
587.00	PLEISTOCENE		CLAY	91.20	21.00	WITH GRAVEL
495.80	CARBONDALE	TURNER MINE	BLACK SHALE	0.60	112.20	
495.20	CARBONDALE	SPRINGFIELD	COAL	4.70	112.80	
490.50	CARBONDALE		UNDERCLAY	0.50	117.50	

01720185000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 20 NWSW 660N 660W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 611.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /15/1972
 Drillers Log Coal Test LOGGED (FT.): 120.00
 SOURCE: COMMONWEALTH EDISON E485

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
611.00	PLEISTOCENE		CLAY	26.00	0.00	SILTY
585.00	PLEISTOCENE		SAND/GRAVEL	6.00	26.00	
579.00	PLEISTOCENE		CLAY	77.00	32.00	WITH GRAVEL
502.00	CARBONDALE		LIMESTONE	0.50	109.00	
501.50	CARBONDALE		GRAY SHALE	3.90	109.50	
497.60	CARBONDALE	TURNER MINE	BLACK SHALE	0.50	113.40	
497.10	CARBONDALE	SPRINGFIELD	COAL	5.10	113.90	
492.00	CARBONDALE		UNDERCLAY	1.00	119.00	

01720186000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 20 SWSE 18N 63W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 599.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /12/1979
 Drillers Log Coal Test LOGGED (FT.): 114.00
 SOURCE: COMMONWEALTH EDISON E463

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
599.00	PLEISTOCENE		CLAY	75.00	0.00	
524.00	PLEISTOCENE		CLAY	20.00	75.00	WITH GRAVEL
504.00	CARBONDALE		SHALE	8.00	95.00	
496.00	CARBONDALE	ST. DAVID	LIMESTONE	2.50	103.00	
493.50	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	105.50	
491.00	CARBONDALE	SPRINGFIELD	COAL	5.50	108.00	
485.50	CARBONDALE		UNDERCLAY	0.50	113.50	

01720187000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 20 NWNWSESE
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 607.0 GEOLOGIST: HAMER DATE COLLECTED: 5 /11/1970
 Drillers Log Coal Test LOGGED (FT.): 112.00
 SOURCE: COMMONWEALTH EDISON E465 ELEV RECONSTRUCTED FROM COAL ELEV.

THICKNESS (FT.)						
ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
607.00	PLEISTOCENE		CLAY	100.00	0.00	
507.00	CARBONDALE		SHALE	2.00	100.00	
505.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	102.00	
504.00	CARBONDALE	TURNER MINE	BLACK SHALE	3.00	103.00	
501.00	CARBONDALE	SPRINGFIELD	COAL	5.40	106.00	
495.60	CARBONDALE		UNDERCLAY	0.60	111.40	

01720188000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 20 NWSW 110S 330E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 562.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /16/1972
 Drillers Log Coal Test LOGGED (FT.): 80.00
 SOURCE: COMMONWEALTH EDISON E460L

THICKNESS (FT.)						
ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
562.00	PLEISTOCENE		SANDY CLAY	26.00	0.00	
536.00	PLEISTOCENE		SAND/GRAVEL	6.00	26.00	
530.00	PLEISTOCENE		CLAY	39.50	32.00	WITH GRAVEL
490.50	CARBONDALE		LIMESTONE	0.50	71.50	
490.00	CARBONDALE		GRAY SHALE	1.50	72.00	
488.50	CARBONDALE	ST. DAVID	LIMESTONE	1.00	73.50	
487.50	CARBONDALE	TURNER MINE	BLACK SHALE	0.80	74.50	
486.70	CARBONDALE	SPRINGFIELD	COAL	4.50	75.30	
482.20	CARBONDALE		UNDERCLAY	0.20	79.80	

01720189000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 20 SWSE 66S 8E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 612.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /12/1969
 Drillers Log Coal Test LOGGED (FT.): 128.50
 SOURCE: COMMONWEALTH EDISON E 415

THICKNESS (FT.)						
ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
612.00	PLEISTOCENE		CLAY	80.00	0.00	
532.00	PLEISTOCENE		SAND/GRAVEL	10.00	80.00	
522.00	PLEISTOCENE		CLAY	10.00	90.00	
512.00	PLEISTOCENE		GRAVEL	15.00	100.00	SNDY THICKNESS ADJUSTED
497.00	CARBONDALE		GRAY SHALE	5.50	115.00	
491.50	CARBONDALE	ST. DAVID	LIMESTONE	1.00	120.50	
490.50	CARBONDALE	TURNER MINE	BLACK SHALE	1.30	121.50	
489.20	CARBONDALE	SPRINGFIELD	COAL	0.20	122.80	FISHTAIL
489.00	CARBONDALE	SPRINGFIELD	COAL	5.10	123.00	
483.90	CARBONDALE		UNDERCLAY	0.40	128.10	

01720190000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
 COUNTY: CASS 18N - R 8W SECTION: 21 NESE 45N 33E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 612.0 GEOLOGIST: HAMER DATE COLLECTED: 6 / 9/1969
 Drillers Log Coal Test LOGGED (FT.): 160.00
 SOURCE: COMMONWEALTH EDISON E525 NO COAL LOGGED

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

612.00	PLEISTOCENE		CLAY	30.00	0.00	
582.00	PLEISTOCENE		SAND/GRAVEL	2.00	30.00	
580.00	PLEISTOCENE		CLAY	58.00	32.00	
522.00	PLEISTOCENE		CLAY	40.00	90.00	SILTY
482.00	PLEISTOCENE		CLAY	7.50	130.00	
474.50	PLEISTOCENE		SAND/GRAVEL	2.50	137.50	WITH FLOAT COAL
472.00	CARBONDALE		LIMESTONE	1.00	140.00	
471.00	CARBONDALE		GRAY SHALE	5.00	141.00	
466.00	CARBONDALE		LIMESTONE	1.00	146.00	
465.00	CARBONDALE		GRAY SHALE	13.00	147.00	

01720191000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
COUNTY: CASS 18N - R 8W SECTION: 21 SENE 0S 660E
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 595.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /25/1972
Drillers Log Coal Test LOGGED (FT.): 133.00
SOURCE: COMMONWEALTH EDISON E524 NO COAL LOGGED

THICKNESS (FT.)						
ELEVATION	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
TOP (FT.)	-----					
595.00	PLEISTOCENE		CLAY	23.00	0.00	
572.00	PLEISTOCENE		GRAVEL	2.00	23.00	
570.00	PLEISTOCENE		CLAY	86.50	25.00	
483.50	CARBONDALE		BLACK SHALE	3.50	111.50	
480.00	CARBONDALE		GRAY SHALE	18.00	115.00	

01720192000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
COUNTY: CASS 18N - R 8W SECTION: 21 SENE 0S 330W
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 600.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /25/1972
Drillers Log Coal Test LOGGED (FT.): 113.00
SOURCE: COMMONWEALTH EDISON E523B

THICKNESS (FT.)						
ELEVATION	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
TOP (FT.)	-----					
600.00	PLEISTOCENE		CLAY	85.00	0.00	
515.00	CARBONDALE		GRAY SHALE	18.00	85.00	
497.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	103.00	
496.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	104.00	
494.50	CARBONDALE	TURNER MINE	LIMESTONE	0.50	105.50	CONCRETION
494.00	CARBONDALE	SPRINGFIELD	COAL	6.00	106.00	
488.00	CARBONDALE		UNDERCLAY	1.00	112.00	

01720193000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
COUNTY: CASS 18N - R 8W SECTION: 21 NWNWNESE
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 594.0 GEOLOGIST: HAMER DATE COLLECTED: 6 / 2/1969
Drillers Log Coal Test LOGGED (FT.): 109.00
SOURCE: COMMONWEALTH EDISON E523 NO FOOTAGES RECORDED

THICKNESS (FT.)						
ELEVATION	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
TOP (FT.)	-----					
594.00	PLEISTOCENE		CLAY	20.00	0.00	
574.00	PLEISTOCENE		CLAY & GRAVEL	5.00	20.00	
569.00	PLEISTOCENE		CLAY	65.00	25.00	
504.00	CARBONDALE		SHALE	1.00	90.00	LIMEY
503.00	CARBONDALE		GRAY SHALE	9.00	91.00	
494.00	CARBONDALE	ST. DAVID	LIMESTONE	1.50	100.00	
492.50	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	101.50	
491.00	CARBONDALE	SPRINGFIELD	COAL	5.50	103.00	
485.50	CARBONDALE		UNDERCLAY	0.50	108.50	

01720195000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
COUNTY: CASS 18N - R 8W SECTION: 21 NESE 660S 90E
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 612.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /28/1972

Drillers Log Coal Test LOGGED (FT.): 130.00
 SOURCE: COMMONWEALTH EDISON E500

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.00	PLEISTOCENE		UNCONSOLIDATED	18.00	0.00	
594.00	PLEISTOCENE		CLAY	91.00	18.00	
503.00	CARBONDALE	ST. DAVID	LIMESTONE	7.00	109.00	
496.00	CARBONDALE	TURNER MINE	BLACK SHALE	5.00	116.00	
491.00	CARBONDALE	SPRINGFIELD	COAL	4.00	121.00	
487.00	CARBONDALE		UNDERCLAY	5.00	125.00	

01720196000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
 COUNTY: CASS 18N - R 8W SECTION: 21 NESE 330S 0E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 615.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /28/1973
 Drillers Log Coal Test LOGGED (FT.): 131.00
 SOURCE: COMMONWEALTH EDISON E475C

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.00	PLEISTOCENE		CLAY	17.00	0.00	
598.00	PLEISTOCENE		UNCONSOLIDATED	4.00	17.00	
594.00	PLEISTOCENE		CLAY	34.00	21.00	
560.00	PLEISTOCENE		GRAVEL	5.00	55.00	
555.00	PLEISTOCENE		CLAY	59.00	60.00	
496.00	CARBONDALE	TURNER MINE	BLACK SHALE	3.00	119.00	
493.00	CARBONDALE	SPRINGFIELD	COAL	5.00	122.00	
488.00	CARBONDALE		UNDERCLAY	4.00	127.00	

01720197000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
 COUNTY: CASS 18N - R 8W SECTION: 21 NENESE
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 614.0 GEOLOGIST: HAMER DATE COLLECTED: 5 /12/1970
 Drillers Log Coal Test LOGGED (FT.): 136.00
 SOURCE: COMMONWEALTH EDISON E475

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
614.00	PLEISTOCENE		SOIL	4.00	0.00	
610.00	PLEISTOCENE		CLAY	120.00	4.00	
490.00	CARBONDALE	ST. DAVID	LIMESTONE	0.50	124.00	CORRELATION UNCERTAIN
489.50	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	124.50	CORRELATION UNCERTAIN
487.50	CARBONDALE	SPRINGFIELD	COAL	2.80	126.50	CORRELATION UNCERTAIN
484.70	CARBONDALE		LIMESTONE	1.00	129.30	HARD
483.70	CARBONDALE	SPRINGFIELD	COAL	4.20	130.30	CORRELATION UNCERTAIN
479.50	CARBONDALE		UNDERCLAY	1.50	134.50	

01720198000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
 COUNTY: CASS 18N - R 8W SECTION: 21 SWSWNE
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 617.0 GEOLOGIST: HAMER DATE COLLECTED:
 Drillers Log Coal Test LOGGED (FT.): 138.00
 SOURCE: COMMONWEALTH EDISON E473

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.00	PLEISTOCENE		SOIL	3.00	0.00	
614.00	PLEISTOCENE		CLAY	31.00	3.00	DEPTH AND THICKNESS UNCERTAIN
583.00	PLEISTOCENE		CLAY	65.00	34.00	W/GRAVEL;DEPTH UNCERTAIN
518.00			UNCLASSIFIED	30.00	99.00	LITH. ILLEGABLE;D&T UNCERTAIN
488.00	CARBONDALE	ST. DAVID	LIMESTONE	0.50	129.00	HARD; THICKNESS UNCERTAIN
487.50	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	129.50	
486.00	CARBONDALE	SPRINGFIELD	COAL	5.50	131.00	
480.50	CARBONDALE		UNDERCLAY	1.50	136.50	

01720199000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
 COUNTY: CASS 18N - R 8W SECTION: 21 NENE 0S 660E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 611.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /24/1972
 Drillers Log Coal Test LOGGED (FT.): 143.00
 SOURCE: COMMONWEALTH EDISON E574 NO COAL LOGGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
611.00	PLEISTOCENE		CLAY	23.00	0.00	
588.00	PLEISTOCENE		CLAY & GRAVEL	5.00	23.00	
583.00	PLEISTOCENE		CLAY	107.00	28.00	
476.00	CARBONDALE		GRAY SHALE	8.00	135.00	

01720200000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
 COUNTY: CASS 18N - R 8W SECTION: 21 NENE 0S 330W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 611.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /25/1972
 Drillers Log Coal Test LOGGED (FT.): 126.00
 SOURCE: COMMONWEALTH EDISON E573B

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
611.00	PLEISTOCENE		CLAY	15.00	0.00	
596.00	PLEISTOCENE		GRAVEL	14.00	15.00	
582.00	PLEISTOCENE		CLAY	6.00	29.00	
576.00	PLEISTOCENE		CLAY & GRAVEL	50.00	35.00	
526.00	PLEISTOCENE		CLAY	5.00	85.00	
521.00	CARBONDALE		SH WITH LS	11.00	90.00	
510.00	CARBONDALE		GRAY SHALE	16.00	101.00	
494.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	117.00	
492.00	CARBONDALE	SPRINGFIELD	COAL	5.50	119.00	
486.50	CARBONDALE		UNDERCLAY	1.50	124.50	

01720201000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
 COUNTY: CASS 18N - R 8W SECTION: 21 NE
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 602.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /25/1972
 Drillers Log Coal Test LOGGED (FT.): 117.00
 SOURCE: COMMONWEALTH EDISON E573

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.00	PLEISTOCENE		CLAY	21.00	0.00	
581.00	PLEISTOCENE		GRAVEL	14.00	21.00	WITH FLOAT COAL
567.00	PLEISTOCENE		CLAY	37.00	35.00	
530.00	PLEISTOCENE		GRAVEL	8.00	72.00	
522.00	PLEISTOCENE		CLAY	16.00	80.00	
506.00	CARBONDALE		GRAY SHALE	12.00	96.00	
494.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.60	108.00	
492.40	CARBONDALE	SPRINGFIELD	COAL	5.40	109.60	
487.00	CARBONDALE		UNDERCLAY	2.00	115.00	

01720202000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 21 NWNW 0N 270E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 570.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /29/1972
 Drillers Log Coal Test LOGGED (FT.): 75.00
 SOURCE: COMMONWEALTH EDISON E618B

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.00	PLEISTOCENE		CLAY	68.00	0.00	
502.00	CARBONDALE	TURNER MINE	BLACK SHALE	0.50	68.00	
501.50	CARBONDALE	SPRINGFIELD	COAL	5.20	68.50	

496.30 CARBONDALE UNDERCLAY 1.30 73.70

01720203000C PROJECT: NCRDS96 QUADRANGLE: NEWMANSVILLE
 COUNTY: CASS 18N - R 8W SECTION: 21 NE 0N 2000E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 596.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /12/1970
 Drillers Log Coal Test LOGGED (FT.): 96.00
 SOURCE: COMMONWEALTH EDISON E622

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
596.00	PLEISTOCENE		CLAY	3.00	0.00	
593.00	PLEISTOCENE		CLAY	12.00	3.00	SILTY
581.00	PLEISTOCENE		CLAY	70.00	15.00	WITH GRAVEL
511.00	CARBONDALE	ST. DAVID	LIMESTONE	1.50	85.00	
509.50	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	86.50	
507.00	CARBONDALE	SPRINGFIELD	COAL	6.40	89.00	
500.60	CARBONDALE		UNDERCLAY	0.60	95.40	

01720204000C PROJECT: NCRDS96 QUADRANGLE: OAKFORD
 COUNTY: CASS 18N - R 8W SECTION: 21 NENE 0N 1000E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 611.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /12/1970
 Drillers Log Coal Test LOGGED (FT.): 123.00
 SOURCE: COMMONWEALTH EDISON E623B ELEV RECON. FROM COAL LEVEL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
611.00	PLEISTOCENE		CLAY	15.00	0.00	
596.00	PLEISTOCENE		CLAY	65.00	15.00	WITH GRAVEL
531.00	PLEISTOCENE		CLAY	14.00	80.00	
517.00	CARBONDALE		GRAY SHALE	19.00	94.00	
498.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	113.00	
497.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	114.00	
494.50	CARBONDALE	SPRINGFIELD	COAL	5.70	116.50	
488.80	CARBONDALE		UNDERCLAY	0.80	122.20	

01720205000C PROJECT: NCRDS96 QUADRANGLE: OAKFORD
 COUNTY: CASS 18N - R 8W SECTION: 21 NENENE
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 610.0 GEOLOGIST: HAMER DATE COLLECTED: 5 /14/1969
 Drillers Log Coal Test LOGGED (FT.): 160.00
 SOURCE: COMMONWEALTH EDISON E625 NO FOOTAGES GIVEN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.00	PLEISTOCENE		CLAY	121.50	0.00	
	CARBONDALE	SPRINGFIELD	COAL	2.00	121.50	TOP ERODED
	CARBONDALE		UNDERCLAY	0.50	123.50	
	CARBONDALE		GRAY SHALE	17.00	124.00	
	CARBONDALE		LIMESTONE	0.50	141.00	
	CARBONDALE		GRAY SHALE	12.50	141.50	
	CARBONDALE		LS W/ SH	6.00	154.00	

01720206000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 21 NESW 72N 819E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 610.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /10/1969
 Drillers Log Coal Test LOGGED (FT.): 124.00
 SOURCE: COMMONWEALTH EDISON E519BB

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

610.00	PLEISTOCENE		CLAY	25.00	0.00	
585.00	PLEISTOCENE		CLAY & GRAVEL	5.00	25.00	
580.00	PLEISTOCENE		CLAY	68.00	30.00	
512.00	PLEISTOCENE		GRAVEL	4.00	98.00	
508.00	CARBONDALE		LIMESTONE	4.00	102.00	STREAKS
504.00	CARBONDALE		GRAY SHALE	10.50	106.00	
493.50	CARBONDALE	TURNER MINE	BLACK SHALE	1.00	116.50	
492.50	CARBONDALE	SPRINGFIELD	COAL	5.70	117.50	ANALYSIS AVAILABLE
486.80	CARBONDALE		UNDERCLAY	0.80	123.20	

01720207000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 21 NWSWNWSW
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 582.0 GEOLOGIST: HAMER DATE COLLECTED: 5 / 8/1969
Drillers Log Coal Test LOGGED (FT.): 104.50
SOURCE: COMMONWEALTH EDISON E467D

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
582.00	PLEISTOCENE		SILT	18.00	0.00	
564.00	PLEISTOCENE		GRAVEL	2.00	18.00	
562.00	PLEISTOCENE		CLAY	60.00	20.00	
502.00	PLEISTOCENE		CLAY	10.00	80.00	POSSIBLY GYSH
492.00	CARBONDALE		LIMESTONE	4.00	90.00	
488.00	CARBONDALE		GRAY SHALE	1.00	94.00	
487.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.30	95.00	SOFT
485.70	CARBONDALE	SPRINGFIELD	COAL	6.65	96.30	ANALYSIS AVAILABLE
479.00	CARBONDALE		UNDERCLAY	1.50	103.00	

01720208000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
COUNTY: CASS 18N - R 8W SECTION: 21 SESE 31S 42E
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 610.0 GEOLOGIST: HAMER DATE COLLECTED: 6 / 9/1969
Drillers Log Coal Test LOGGED (FT.): 138.00
SOURCE: COMMONWEALTH EDISON E425

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.00	PLEISTOCENE		CLAY	28.00	0.00	
582.00	PLEISTOCENE		CLAY & GRAVEL	12.00	28.00	
570.00	PLEISTOCENE		CLAY	58.00	40.00	
512.00	PLEISTOCENE		CLAY & GRAVEL	2.00	98.00	
510.00	CARBONDALE		LIMESTONE	2.50	100.00	
507.50	CARBONDALE		SHALE	3.00	102.50	WITH COAL
504.50	CARBONDALE		LIMESTONE	2.50	105.50	
502.00	CARBONDALE		GRAY SHALE	17.00	108.00	
485.00	CARBONDALE	ST. DAVID	LIMESTONE	3.00	125.00	
482.00	CARBONDALE	TURNER MINE	BLACK SHALE	3.80	128.00	
478.20	CARBONDALE	SPRINGFIELD	COAL	5.60	131.80	
472.60	CARBONDALE		UNDERCLAY	0.60	137.40	

01720209000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 28 SWNW 27S 1026E
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 623.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /13/1969
Drillers Log Coal Test LOGGED (FT.): 144.00
SOURCE: COMMONWEALTH EDISON E31811B

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
623.00	PLEISTOCENE		CLAY	40.00	0.00	SANDY6
583.00	PLEISTOCENE		CLAY & GRAVEL	6.00	40.00	
577.00	PLEISTOCENE		CLAY	37.00	46.00	
540.00	PLEISTOCENE		SAND/GRAVEL	2.00	83.00	
538.00	PLEISTOCENE		CLAY	22.00	85.00	
516.00	CARBONDALE	BRERETON	LIMESTONE	6.00	107.00	
510.00	CARBONDALE	ANNA	BLACK SHALE	0.50	113.00	
509.50	CARBONDALE	HERRIN	COAL	0.80	113.50	
508.70	CARBONDALE		GRAY SHALE	3.70	114.30	
505.00	CARBONDALE		LIMESTONE	2.00	118.00	
503.00	CARBONDALE		SHALE	8.00	120.00	W/LIMESTONE LAMINAE

495.00	CARBONDALE		SHALE	7.00	128.00	
488.00	CARBONDALE	ST. DAVID	LIMESTONE	0.50	135.00	
487.50	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	135.50	
485.00	CARBONDALE	SPRINGFIELD	BONE COAL	0.60	138.00	
484.40	CARBONDALE	SPRINGFIELD	COAL	4.90	138.60	
479.50	CARBONDALE		UNDERCLAY	0.50	143.50	

01720210000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 28 NWNWNWNW
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 597.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /13/1970
Drillers Log Coal Test LOGGED (FT.): 119.00
SOURCE: COMMONWEALTH EDISON E417

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
597.00	PLEISTOCENE		CLAY	3.00	0.00	
594.00	PLEISTOCENE		CLAY	22.00	3.00	WITH GRAVEL
572.00	PLEISTOCENE		CLAY	30.00	25.00	
542.00	PLEISTOCENE		CLAY	39.00	55.00	WITH GRAVEL
503.00	CARBONDALE		GRAY SHALE	15.00	94.00	LIMESTONE INTERBEDS
488.00	CARBONDALE	ST. DAVID	LIMESTONE	0.50	109.00	HARD
487.50	CARBONDALE	TURNER MINE	BLACK SHALE	3.50	109.50	
484.00	CARBONDALE	SPRINGFIELD	COAL	5.30	113.00	
478.70	CARBONDALE		UNDERCLAY	0.70	118.30	

01720211000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 28 NENW 25N 47E
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 590.0 GEOLOGIST: HAMER DATE COLLECTED: 4 /15/1970
Drillers Log Coal Test LOGGED (FT.): 117.00
SOURCE: COMMONWEALTH EDISON E419

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.00	PLEISTOCENE		CLAY	78.00	0.00	
512.00	PLEISTOCENE		CLAY & GRAVEL	7.00	78.00	
505.00	CARBONDALE	ANNA	BLACK SHALE	1.00	85.00	WITH COAL
504.00	CARBONDALE		SHALE	4.00	86.00	
500.00	CARBONDALE		LIMESTONE	2.00	90.00	
498.00	CARBONDALE		SHALE	15.50	92.00	
482.50	CARBONDALE	ST. DAVID	LIMESTONE	0.50	107.50	
482.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	108.00	
480.00	CARBONDALE	SPRINGFIELD	COAL	5.70	110.00	
474.30	CARBONDALE		UNDERCLAY	1.30	115.70	

01720212000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 28 NWNE 12N 35W
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 605.0 GEOLOGIST: HAMER DATE COLLECTED: 4 /15/1970
Drillers Log Coal Test LOGGED (FT.): 128.00
SOURCE: COMMONWEALTH EDISON E421

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.00	PLEISTOCENE		CLAY	95.00	0.00	
510.00	PLEISTOCENE		CLAY & GRAVEL	8.00	95.00	
502.00	CARBONDALE		SHALE	13.00	103.00	
489.00	CARBONDALE	ST. DAVID	LIMESTONE	1.50	116.00	
487.50	CARBONDALE	TURNER MINE	BLACK SHALE	3.50	117.50	
484.00	CARBONDALE	SPRINGFIELD	COAL	6.00	121.00	
478.00	CARBONDALE		UNDERCLAY	1.00	127.00	

01720213000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 28 SWNE 66N 615E
CONFIDENTIAL: N

SURFACE ELEVATION (FT.): 600.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /13/1969
 Drillers Log Coal Test LOGGED (FT.): 133.70
 SOURCE: COMMONWEALTH EDISON E322 MONTH OF DATA UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.00	PLEISTOCENE		CLAY	76.00	0.00	
524.00	MODESTO		BLACK SHALE	2.00	76.00	
522.00	CARBONDALE	DANVILLE	COAL	1.00	78.00	
521.00	CARBONDALE		GRAY SHALE	11.00	79.00	
510.00	CARBONDALE		LIMESTONE	4.50	90.00	
505.50	CARBONDALE		GRAY SHALE	7.00	94.50	
498.50	CARBONDALE	HERRIN	COAL	0.50	101.50	
498.00	CARBONDALE		GRAY SHALE	6.00	102.00	
492.00	CARBONDALE		LIMESTONE	3.00	108.00	
489.00	CARBONDALE		GRAY SHALE	13.50	111.00	
475.50	CARBONDALE	ST. DAVID	LIMESTONE	0.50	124.50	
475.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.00	125.00	
474.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	126.00	W/PYRITE & BONE; THICKNESS ADJUSTED
472.00	CARBONDALE	SPRINGFIELD	COAL	5.50	128.00	
466.50	CARBONDALE		UNDERCLAY	0.20	133.50	

01720214000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
 COUNTY: CASS 18N - R 8W SECTION: 28 NWNE 12N 20E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 620.0 GEOLOGIST: HAMER DATE COLLECTED: 4 /15/1970
 Drillers Log Coal Test LOGGED (FT.): 141.00
 SOURCE: COMMONWEALTH EDISON E423

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.00	PLEISTOCENE		CLAY	40.00	0.00	
580.00	PLEISTOCENE		SAND/GRAVEL	20.00	40.00	WITH FLOAT COAL
560.00	PLEISTOCENE		CLAY	55.00	60.00	
505.00	CARBONDALE		LIMESTONE	1.00	115.00	
504.00	CARBONDALE		SHALE	11.00	116.00	
493.00	CARBONDALE	ST. DAVID	LIMESTONE	3.50	127.00	
489.50	CARBONDALE	TURNER MINE	BLACK SHALE	3.00	130.50	
486.50	CARBONDALE	SPRINGFIELD	COAL	6.80	133.50	
479.70	CARBONDALE		UNDERCLAY	0.70	140.30	

01720215000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 28 SWNW 25N 330W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 613.0 GEOLOGIST: HAMER DATE COLLECTED: 4 /16/1970
 Drillers Log Coal Test LOGGED (FT.): 129.00
 SOURCE: COMMONWEALTH EDISON E367B

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
613.00	PLEISTOCENE		SOIL	2.50	0.00	SANDY
610.50	PLEISTOCENE		CLAY	103.50	2.50	
507.00	CARBONDALE		GRAY SHALE	10.00	106.00	
497.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	116.00	HARD
496.00	CARBONDALE	TURNER MINE	BLACK SHALE	4.10	117.00	
491.90	CARBONDALE	SPRINGFIELD	COAL	6.10	121.10	
485.80	CARBONDALE		UNDERCLAY	1.80	127.20	

01720216000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 28 NENW 0S 10W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 613.0 GEOLOGIST: HAMER DATE COLLECTED: 4 /15/1970
 Drillers Log Coal Test LOGGED (FT.): 138.00
 SOURCE: COMMONWEALTH EDISON E36?

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
613.00	PLEISTOCENE		CLAY	95.00	0.00	

518.00	CARBONDALE		LIMESTONE	2.50	95.00	
515.50	CARBONDALE		SHALE	7.50	97.50	
508.00	CARBONDALE	ANNA	BLACK SHALE	1.00	105.00	WITH COAL
507.00	CARBONDALE		SHALE	6.00	106.00	
501.00	CARBONDALE		LIMESTONE	1.00	112.00	
500.00	CARBONDALE		SHALE	14.50	113.00	
485.50	CARBONDALE	ST. DAVID	LIMESTONE	0.50	127.50	
485.00	CARBONDALE	TURNER MINE	BLACK SHALE	4.00	128.00	
481.00	CARBONDALE	SPRINGFIELD	COAL	5.50	132.00	
475.50	CARBONDALE	SPRINGFIELD	COAL	0.50	137.50	

01720217000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
COUNTY: CASS 18N - R 8W SECTION: 28 NWNE 8S 12E
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 616.0 GEOLOGIST: HAMER DATE COLLECTED: 4 /16/1970
Drillers Log Coal Test LOGGED (FT.): 148.00
SOURCE: COMMONWEALTH EDISON E373

THICKNESS (FT.)						
ELEVATION	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
TOP (FT.)	-----					
616.00	PLEISTOCENE		CLAY	98.00	0.00	
518.00	CARBONDALE		SHALE	7.00	98.00	LIMESTONE
511.00	CARBONDALE		LIMESTONE	3.00	105.00	
508.00	CARBONDALE		SHALE	12.00	108.00	
496.00	CARBONDALE		LIMESTONE	2.00	120.00	
494.00	CARBONDALE		SHALE	16.00	122.00	
478.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	138.00	
477.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	139.00	
474.50	CARBONDALE	SPRINGFIELD	COAL	6.10	141.50	
468.40	CARBONDALE		UNDERCLAY	0.40	147.60	

01720218000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 28 SWNW 25S 330W
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 617.0 GEOLOGIST: HAMER DATE COLLECTED: 4 /15/1970
Drillers Log Coal Test LOGGED (FT.): 138.00
SOURCE: COMMONWEALTH EDISON E318B

THICKNESS (FT.)						
ELEVATION	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
TOP (FT.)	-----					
617.00	PLEISTOCENE		SOIL	2.50	0.00	SANDY
614.50	PLEISTOCENE		CLAY	77.50	2.50	
537.00	CARBONDALE		GRAY SHALE	15.00	80.00	
522.00	CARBONDALE	BRERETON	LIMESTONE	2.00	95.00	HARD
520.00	CARBONDALE	HERRIN	COAL	7.00	97.00	LITHOLOGY UNCERTAIN
513.00	CARBONDALE		SHALE	27.00	104.00	LIMESTONE INTERBEDS
486.00	CARBONDALE	SPRINGFIELD	COAL	1.50	131.00	
484.50	CARBONDALE	SPRINGFIELD	LIMESTONE	0.40	132.50	
484.10	CARBONDALE	SPRINGFIELD	COAL	3.10	132.90	
481.00	CARBONDALE		UNDERCLAY	2.00	136.00	

01720219000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 29 SESE 660N 0W
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 620.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /28/1972
Drillers Log Coal Test LOGGED (FT.): 139.00
SOURCE: COMMONWEALTH EDISON E240

THICKNESS (FT.)						
ELEVATION	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
TOP (FT.)	-----					
620.00	PLEISTOCENE		CLAY	17.00	0.00	SILTY
603.00	PLEISTOCENE		CLAY	21.00	17.00	SANDY
582.00	PLEISTOCENE		CLAY	31.00	38.00	WITH GRAVEL
551.00	PLEISTOCENE		CLAY	25.00	69.00	SANDY WITH GRAVEL
526.00	PLEISTOCENE		SAND/GRAVEL	3.50	94.00	W/CLAY BEDS
522.50	CARBONDALE	BRERETON	LIMESTONE	3.00	97.50	
519.50	CARBONDALE	ANNA	BLACK SHALE	0.50	100.50	
519.00	CARBONDALE		GRAY SHALE	15.50	101.00	HARD
503.50	CARBONDALE		LIMESTONE	0.50	116.50	
503.00	CARBONDALE		GRAY SHALE	12.80	117.00	
490.20	CARBONDALE	ST. DAVID	LIMESTONE	0.70	129.80	

489.50 CARBONDALE TURNER MINE BLACK SHALE 2.80 130.50
 486.70 CARBONDALE SPRINGFIELD COAL 5.00 133.30 DEPTH ADJUSTED TO COAL THICKNESS
 481.70 CARBONDALE UNDERCLAY 0.70 138.30

0172022000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
 COUNTY: CASS 18N - R 8W SECTION: 28 NESE 0S 900E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 611.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /24/1972
 Drillers Log Coal Test LOGGED (FT.): 130.00
 SOURCE: COMMONWEALTH EDISON E265B

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
611.00	PLEISTOCENE		CLAY	31.00	0.00	SILTY
580.00	PLEISTOCENE		CLAY	38.00	31.00	WITH GRAVEL
542.00	PLEISTOCENE		CLAY	26.00	69.00	SANDY WITH GRAVEL
516.00	CARBONDALE	BRERETON	LIMESTONE	2.50	95.00	
513.50	CARBONDALE	ANNA	BLACK SHALE	0.50	97.50	
513.00	CARBONDALE		GRAY SHALE	22.20	98.00	
490.80	CARBONDALE	ST. DAVID	LIMESTONE	1.00	120.20	
489.80	CARBONDALE	TURNER MINE	BLACK SHALE	2.90	121.20	
486.90	CARBONDALE	SPRINGFIELD	COAL	5.20	124.10	
481.70	CARBONDALE		UNDERCLAY	0.70	129.30	

01720221000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 NESE 700N 900E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 619.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /25/1972
 Drillers Log Coal Test LOGGED (FT.): 131.00
 SOURCE: COMMONWEALTH EDISON E290B MONTH OF DATA UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
619.00	PLEISTOCENE		CLAY	13.00	0.00	SILTY
606.00	PLEISTOCENE		CLAY	24.00	13.00	SANDY WITH GRAVEL
582.00	PLEISTOCENE		CLAY	21.00	37.00	WITH GRAVEL
561.00	PLEISTOCENE		CLAY	47.50	58.00	SANDY WITH GRAVEL
513.50	CARBONDALE		LIMESTONE	2.00	105.50	
511.50	CARBONDALE		GRAY SHALE	15.80	107.50	
495.70	CARBONDALE	TURNER MINE	BLACK SHALE	1.80	123.30	
493.90	CARBONDALE	SPRINGFIELD	COAL	4.90	125.10	
489.00	CARBONDALE		UNDERCLAY	1.00	130.00	

01720222000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 NESE 250N 110W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 612.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /25/1972
 Drillers Log Coal Test LOGGED (FT.): 128.00
 SOURCE: COMMONWEALTH EDISON E290F

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.00	PLEISTOCENE		CLAY	15.00	0.00	SILTY
597.00	PLEISTOCENE		CLAY	20.50	15.00	SANDY WITH GRAVEL
576.50	PLEISTOCENE		CLAY	21.50	35.50	WITH GRAVEL
555.00	PLEISTOCENE		CLAY	45.00	57.00	SANDY WITH GRAVEL
510.00	CARBONDALE		LIMESTONE	1.50	102.00	
508.50	CARBONDALE		GRAY SHALE	15.50	103.50	
493.00	CARBONDALE	ST. DAVID	LIMESTONE	1.30	119.00	
491.70	CARBONDALE	TURNER MINE	BLACK SHALE	1.80	120.30	
489.90	CARBONDALE	SPRINGFIELD	COAL	5.10	122.10	
484.80	CARBONDALE		UNDERCLAY	0.80	127.20	

01720223000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 NWNW 140N 0W
 CONFIDENTIAL: N

SURFACE ELEVATION (FT.): 609.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /14/1970
 Drillers Log Coal Test LOGGED (FT.): 123.00
 SOURCE: COMMONWEALTH EDISON 20223 ELEV. RECONSTRUCTED FROM COAL ELEV

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
609.00	PLEISTOCENE		CLAY	40.00	0.00	
569.00	PLEISTOCENE		SAND/GRAVEL	3.00	40.00	
566.00	PLEISTOCENE		CLAY	53.00	43.00	WITH GRAVEL
513.00	CARBONDALE		SHALE	18.00	96.00	LIMESTONE INTERBEDS
495.00	CARBONDALE	ST. DAVID	LIMESTONE	0.50	114.00	HARD
494.50	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	114.50	
492.00	CARBONDALE	SPRINGFIELD	COAL	5.70	117.00	
486.30	CARBONDALE		UNDERCLAY	0.30	122.70	

01720224000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 NWNW 500N 0E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 608.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /14/1970
 Drillers Log Coal Test LOGGED (FT.): 129.00
 SOURCE: COMMONWEALTH EDISON E386CJ ELEV. RECONSTRUCTED FROM COAL ELEV.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.00	PLEISTOCENE		CLAY	85.00	0.00	
523.00	PLEISTOCENE		CLAY	24.00	85.00	WITH GRAVEL
499.00	CARBONDALE		SHALE	12.00	109.00	
487.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	121.00	
485.50	CARBONDALE	SPRINGFIELD	COAL	5.50	122.50	
480.00	CARBONDALE		UNDERCLAY	1.00	128.00	

01720225000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 NWNWNWNE
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 607.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /13/1970
 Drillers Log Coal Test LOGGED (FT.): 131.00
 SOURCE: COMMONWEALTH EDISON E413 ELEV. RECONSTRUCTED FROM COAL ELEV.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
607.00	PLEISTOCENE		CLAY	85.00	0.00	
522.00	PLEISTOCENE		CLAY	23.00	85.00	WITH GRAVEL
499.00	CARBONDALE		SHALE	14.00	108.00	
485.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	122.00	
482.50	CARBONDALE	SPRINGFIELD	COAL	5.30	124.50	
477.20	CARBONDALE		UNDERCLAY	1.20	129.80	

01720226000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 NWNWSWNW
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 592.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /15/1970
 Drillers Log Coal Test LOGGED (FT.): 113.00
 SOURCE: COMMONWEALTH EDISON E359 ELEV. RECONSTRUCTED FROM COAL ELEV.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
592.00	PLEISTOCENE		CLAY	3.00	0.00	
589.00	PLEISTOCENE		CLAY	27.00	3.00	SANDY
562.00	PLEISTOCENE		CLAY	56.00	30.00	
506.00	CARBONDALE		GRAY SHALE	18.50	86.00	LIMESTONE INTERBEDS
487.50	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	104.50	
485.50	CARBONDALE	SPRINGFIELD	COAL	5.50	106.50	
480.00	CARBONDALE		UNDERCLAY	1.00	112.00	

01720227000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 NWNW 0S 12E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 602.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /16/1970
 Drillers Log Coal Test LOGGED (FT.): 116.00
 SOURCE: COMMONWEALTH EDISON E361

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.00	PLEISTOCENE		CLAY	25.00	0.00	
577.00	PLEISTOCENE		CLAY	15.00	25.00	WITH GRAVEL
562.00	PLEISTOCENE		CLAY	55.00	40.00	
507.00	PLEISTOCENE		GRAVEL	1.00	95.00	FLOAT COAL
506.00	CARBONDALE		SHALE	10.50	96.00	
495.50	CARBONDALE	ST. DAVID	LIMESTONE	1.00	106.50	
494.50	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	107.50	
492.00	CARBONDALE	SPRINGFIELD	COAL	5.50	110.00	
486.50	CARBONDALE		UNDERCLAY	0.50	115.50	

01720228000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 SENE 0N 330W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 610.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /14/1970
 Drillers Log Coal Test LOGGED (FT.): 130.00
 SOURCE: COMMONWEALTH EDISON E363B

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.00	PLEISTOCENE		CLAY	98.00	0.00	
512.00	PLEISTOCENE		CLAY & GRAVEL	11.00	98.00	
501.00	CARBONDALE		SHALE	13.00	109.00	
488.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	122.00	
486.50	CARBONDALE	SPRINGFIELD	COAL	2.50	123.50	
484.00	CARBONDALE	SPRINGFIELD	LIMESTONE	1.50	126.00	CONCRETION
482.50	CARBONDALE	SPRINGFIELD	COAL	1.30	127.50	
481.20	CARBONDALE		UNDERCLAY	1.20	128.80	

01720229000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 NWNE 0S 570W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 612.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /22/1972
 Drillers Log Coal Test LOGGED (FT.): 121.00
 SOURCE: COMMONWEALTH EDISON E364

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.00	PLEISTOCENE		CLAY	31.00	0.00	SILTY
581.00	PLEISTOCENE		CLAY	35.00	31.00	WITH GRAVEL
546.00	PLEISTOCENE		GLACIAL DRIFT	8.00	66.00	VERY SOFT
538.00	PLEISTOCENE		CLAY	34.00	74.00	SANDY
504.00	CARBONDALE		LIMESTONE	1.50	108.00	
502.50	CARBONDALE		GRAY SHALE	2.70	109.50	
499.80	CARBONDALE	ST. DAVID	LIMESTONE	1.00	112.20	
498.80	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	113.20	
496.30	CARBONDALE	SPRINGFIELD	COAL	5.10	115.70	
491.20	CARBONDALE		UNDERCLAY	0.20	120.80	

01720230000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 SWNE 8N 15W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 600.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /13/1970
 Drillers Log Coal Test LOGGED (FT.): 113.00
 SOURCE: COMMONWEALTH EDISON E356

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.00	PLEISTOCENE		CLAY	85.00	0.00	

515.00	CARBONDALE		SHALE	19.00	85.00
496.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	104.00
495.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.90	105.00
493.10	CARBONDALE	SPRINGFIELD	COAL	4.90	106.90
488.20	CARBONDALE		UNDERCLAY	1.20	111.80

01720231000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 SWSW ON 21E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 620.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /19/1970
 Drillers Log Coal Test LOGGED (FT.): 134.00
 SOURCE: COMMONWEALTH EDISON E261

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.00	PLEISTOCENE		CLAY	3.00	0.00	
617.00	PLEISTOCENE		CLAY & GRAVEL	32.00	3.00	
585.00	PLEISTOCENE		CLAY	37.00	35.00	
548.00	PLEISTOCENE		CLAY	35.00	72.00	WITH GRAVEL
513.00	CARBONDALE		GRAY SHALE	16.00	107.00	LIMESTONE INTERBEDS
497.00	CARBONDALE	ST. DAVID	LIMESTONE	2.00	123.00	
495.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	125.00	
492.50	CARBONDALE	SPRINGFIELD	COAL	5.50	127.50	
487.00	CARBONDALE		UNDERCLAY	1.00	133.00	

01720232000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 30 SWNE OS 12E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 615.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /17/1970
 Drillers Log Coal Test LOGGED (FT.): 129.00
 SOURCE: COMMONWEALTH EDISON E307 ELEV. RECONSTRUCTED FROM COAL ELEV

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.00	PLEISTOCENE		CLAY	35.00	0.00	
580.00	PLEISTOCENE		CLAY & GRAVEL	5.00	35.00	
575.00	PLEISTOCENE		CLAY	35.00	40.00	
540.00	PLEISTOCENE		CLAY & GRAVEL	5.00	75.00	INCLUDING BOULDERS
535.00	PLEISTOCENE		CLAY	15.00	80.00	
520.00	PLEISTOCENE		CLAY & GRAVEL	10.00	95.00	
510.00	CARBONDALE		LIMESTONE	3.00	105.00	
507.00	CARBONDALE		SHALE	8.50	108.00	
498.50	CARBONDALE		LIMESTONE	2.00	116.50	
496.50	CARBONDALE		GRAY SHALE	1.50	118.50	DARK
495.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	120.00	WITH BONE
492.50	CARBONDALE	SPRINGFIELD	COAL	5.80	122.50	
486.70	CARBONDALE		UNDERCLAY	0.70	128.30	

01720233000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 NWSW 30N 20E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 590.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /16/1970
 Drillers Log Coal Test LOGGED (FT.): 104.00
 SOURCE: COMMONWEALTH EDISON E311

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.00	PLEISTOCENE		CLAY	76.00	0.00	
514.00	CARBONDALE		LIMESTONE	3.00	76.00	WEATHERED
511.00	CARBONDALE		GRAY SHALE	14.00	79.00	LIMESTONE INTERBEDS
497.00	CARBONDALE	ST. DAVID	LIMESTONE	1.50	93.00	HARD
495.50	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	94.50	
493.00	CARBONDALE	SPRINGFIELD	COAL	6.00	97.00	
487.00	CARBONDALE		UNDERCLAY	1.00	103.00	

01720234000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND

COUNTY: CASS 18N - R 8W SECTION: 29 SENW 39S 609W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 612.0 GEOLOGIST: HAMER DATE COLLECTED: 6 / 9/1969
 Drillers Log Coal Test LOGGED (FT.): 135.00
 SOURCE: COMMONWEALTH EDISON E312

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.00	PLEISTOCENE		CLAY	40.00	0.00	SANDY
572.00	PLEISTOCENE		CLAY	68.00	40.00	WITH GRAVEL
504.00	PLEISTOCENE		CLAY	18.20	108.00	LIMESTONE RIBS
485.80	CARBONDALE	ST. DAVID	LIMESTONE	0.30	126.20	DARK
485.50	CARBONDALE	TURNER MINE	BLACK SHALE	3.50	126.50	SOFT
482.00	CARBONDALE	TURNER MINE	BLACK SHALE	0.50	130.00	
481.50	CARBONDALE	SPRINGFIELD	COAL	4.20	130.50	
477.30	CARBONDALE		UNDERCLAY	0.30	134.70	

01720235000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 SWNE 450S 550E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 614.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /22/1972
 Drillers Log Coal Test LOGGED (FT.): 135.00
 SOURCE: COMMONWEALTH EDISON E314E

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
614.00	PLEISTOCENE		CLAY	34.00	0.00	SILTY
580.00	PLEISTOCENE		CLAY	37.00	34.00	WITH GRAVEL
543.00	PLEISTOCENE		CLAY	37.00	71.00	SANDY WITH GRAVEL
506.00	CARBONDALE		LIMESTONE	1.50	108.00	
504.50	CARBONDALE		GRAY SHALE	15.00	109.50	
489.50	CARBONDALE	ST. DAVID	LIMESTONE	1.20	124.50	
488.30	CARBONDALE	TURNER MINE	BLACK SHALE	3.10	125.70	
485.20	CARBONDALE	SPRINGFIELD	COAL	4.90	128.80	
480.30	CARBONDALE		UNDERCLAY	1.30	133.70	

01720236000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 SWNE 234S 687E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 617.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /19/1969
 Drillers Log Coal Test LOGGED (FT.): 132.00
 SOURCE: COMMONWEALTH EDISON E314S

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.00	PLEISTOCENE		CLAY	40.00	0.00	SANDY
577.00	PLEISTOCENE		CLAY	69.00	40.00	WITH GRAVEL
508.00	PLEISTOCENE		CLAY	12.00	109.00	
496.00	CARBONDALE	ST. DAVID	LIMESTONE	1.20	121.00	
494.80	CARBONDALE	TURNER MINE	BLACK SHALE	4.10	122.20	
490.70	CARBONDALE	SPRINGFIELD	COAL	4.90	126.30	
485.80	CARBONDALE		UNDERCLAY	0.80	131.20	

01720237000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 NWSE 0N 800W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 600.0 GEOLOGIST: HAMER DATE COLLECTED: 2 /24/1972
 Drillers Log Coal Test LOGGED (FT.): 116.00
 SOURCE: COMMONWEALTH EDISON E314N

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.00	PLEISTOCENE		CLAY	12.00	0.00	SILTY
588.00	PLEISTOCENE		CLAY	79.00	12.00	WITH GRAVEL
509.00	CARBONDALE		LIMESTONE	1.30	91.00	
507.70	CARBONDALE		GRAY SHALE	15.00	92.30	
492.70	CARBONDALE	ST. DAVID	LIMESTONE	1.10	107.30	
491.60	CARBONDALE	TURNER MINE	BLACK SHALE	2.30	108.40	

489.30 CARBONDALE SPRINGFIELD COAL 4.90 110.70
 484.40 CARBONDALE UNDERCLAY 0.40 115.60

01720238000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 SWSW 18S 48W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 628.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /16/1970
 Drillers Log Coal Test LOGGED (FT.): 150.00
 SOURCE: COMMONWEALTH EDISON E209 ELEV. RECONSTRUCTED FROM COAL ELEV

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
628.00	PLEISTOCENE		CLAY	35.00	0.00	
593.00	PLEISTOCENE		CLAY & GRAVEL	10.00	35.00	
583.00	PLEISTOCENE		CLAY	57.00	45.00	
526.00	CARBONDALE		LS & SH	14.00	102.00	
512.00	CARBONDALE	ANNA	BLACK SHALE	1.00	116.00	W/COAL, REPORTED AS #6
511.00	CARBONDALE		SHALE	24.00	117.00	
487.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	141.00	
486.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	142.00	
483.50	CARBONDALE	SPRINGFIELD	COAL	5.00	144.50	
478.50	CARBONDALE		UNDERCLAY	0.50	149.50	

01720239000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 SWSW 132S 330E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 605.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /16/1970
 Drillers Log Coal Test LOGGED (FT.): 129.00
 SOURCE: COMMONWEALTH EDISON E210

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.00	PLEISTOCENE		CLAY	59.00	0.00	
546.00	PLEISTOCENE		CLAY & GRAVEL	4.00	59.00	
542.00	PLEISTOCENE		CLAY	27.00	63.00	
515.00	PLEISTOCENE		GRAVEL	6.00	90.00	W/LIMESTONE BOULDERS
509.00	CARBONDALE	HERRIN	SH/COAL	1.00	96.00	
508.00	CARBONDALE		SHALE	13.00	97.00	LIMESTONE INTERBEDS
495.00	CARBONDALE		SHALE	10.50	110.00	
484.50	CARBONDALE	ST. DAVID	LIMESTONE	1.00	120.50	
483.50	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	121.50	
482.00	CARBONDALE	SPRINGFIELD	COAL	5.40	123.00	
476.60	CARBONDALE		UNDERCLAY	0.60	128.40	

01720240000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 SESE 230S 45W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 616.0 GEOLOGIST: HAMER DATE COLLECTED: 3 / 6/1972
 Drillers Log Coal Test LOGGED (FT.): 138.00
 SOURCE: COMMONWEALTH EDISON E215J

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
616.00	PLEISTOCENE		CLAY	14.00	0.00	SILTY
602.00	PLEISTOCENE		CLAY	22.00	14.00	
580.00	PLEISTOCENE		SAND/GRAVEL	15.00	36.00	
565.00	PLEISTOCENE		CLAY	33.00	51.00	W/GRAVEL, LOST DRILING FLUID
532.00	PLEISTOCENE		CLAY	9.00	84.00	SANDY WITH GRAVEL
523.00	PLEISTOCENE		BOULDER	1.00	93.00	LIKELY BOULDER
522.00	PLEISTOCENE		CLAY	2.50	94.00	
519.50	CARBONDALE		LIMESTONE	5.50	96.50	
514.00	CARBONDALE		GRAY SHALE	14.00	102.00	
500.00	CARBONDALE		GRAY SHALE	12.00	116.00	LIMESTONE INTERBEDS
488.00	CARBONDALE	ST. DAVID	LIMESTONE	1.10	128.00	
486.90	CARBONDALE	TURNER MINE	BLACK SHALE	3.20	129.10	
483.70	CARBONDALE	SPRINGFIELD	COAL	4.80	132.30	
478.90	CARBONDALE		UNDERCLAY	0.90	137.10	

01720241000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 30 NWNWNWSE
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 615.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /17/1971
 Drillers Log Coal Test LOGGED (FT.): 111.00
 SOURCE: COMMONWEALTH EDISON E305

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.00	PLEISTOCENE		CLAY	75.00	0.00	
540.00	PLEISTOCENE		CLAY & GRAVEL	10.00	75.00	
530.00	CARBONDALE		GRAY SHALE	12.00	85.00	
518.00	CARBONDALE	ST. DAVID	LIMESTONE	6.00	97.00	
512.00	CARBONDALE	TURNER MINE	SHALE	2.00	103.00	DARK
510.00	CARBONDALE	SPRINGFIELD	COAL	5.00	105.00	
505.00	CARBONDALE		UNDERCLAY	1.00	110.00	

01720242000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 29 SWNNWWSW
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 610.0 GEOLOGIST: HAMER DATE COLLECTED: 5 / 9/1969
 Drillers Log Coal Test LOGGED (FT.): 128.00
 SOURCE: COMMONWEALTH EDISON E294C NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.00	PLEISTOCENE		CLAY	20.00	0.00	SANDY
590.00	PLEISTOCENE		CLAY	56.00	20.00	
534.00	PLEISTOCENE		SAND/GRAVEL	4.00	76.00	
530.00	PLEISTOCENE		CLAY	19.00	80.00	
511.00	CARBONDALE		SHALE	7.00	99.00	LIMESTONE INTERBEDS
504.00	CARBONDALE		GRAY SHALE	6.00	106.00	
498.00	CARBONDALE		LIMESTONE	6.00	112.00	
492.00	CARBONDALE		GRAY SHALE	1.50	118.00	
490.50	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	119.50	
488.50	CARBONDALE	SPRINGFIELD	COAL	5.50	121.50	
483.00	CARBONDALE		UNDERCLAY	1.00	127.00	

01720243000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 30 NESW 476S 960E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 620.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /23/1969
 Drillers Log Coal Test LOGGED (FT.): 131.00
 SOURCE: COMMONWEALTH EDISON E257MK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.00	PLEISTOCENE		CLAY	10.00	0.00	SANDY
610.00	PLEISTOCENE		CLAY	55.00	10.00	WITH GRAVEL
555.00	PLEISTOCENE		CLAY	16.00	65.00	
539.00	PLEISTOCENE		CLAY	23.00	81.00	WITH LIMESTONE "RIBS"
516.00	PLEISTOCENE		BOULDER	2.50	104.00	BOULDER
513.50	PLEISTOCENE		CLAY	17.00	106.50	WITH LIMESTONE "RIBS"
496.50	CARBONDALE	TURNER MINE	BLACK SHALE	1.20	123.50	
495.30	CARBONDALE	TURNER MINE	LIMESTONE	0.40	124.70	CONCRETION
494.90	CARBONDALE	SPRINGFIELD	COAL	5.30	125.10	
489.60	CARBONDALE		UNDERCLAY	0.60	130.40	

01720244000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 30 SWSWSENW
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 620.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /18/1970
 Drillers Log Coal Test LOGGED (FT.): 160.00
 SOURCE: COMMONWEALTH EDISON E303 ELEV RECONSTRUCTED FROM BEDROCK ELEV

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

ELEVATION	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
620.00	PLEISTOCENE		CLAY	20.00	0.00	
600.00	PLEISTOCENE		CLAY	10.00	20.00	INCLUDES WOOD
590.00	PLEISTOCENE		CLAY	65.00	30.00	
525.00	PLEISTOCENE		CLAY & GRAVEL	7.00	95.00	
518.00	CARBONDALE		LIMESTONE	10.00	102.00	
508.00	CARBONDALE		BLACK SHALE	1.50	112.00	INCLUDES COAL
506.50	CARBONDALE		SHALE	46.50	113.50	LIMESTONE INTERBEDS

01720245000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 30 NENESWSW
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 621.0 GEOLOGIST: HAMER DATE COLLECTED: 3 / 9/1970
 Drillers Log Coal Test LOGGED (FT.): 123.00
 SOURCE: COMMONWEALTH EDISON E253 NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
621.00	PLEISTOCENE		CLAY	15.00	0.00	
606.00	PLEISTOCENE		CLAY	10.00	15.00	WITH WOOD
596.00	PLEISTOCENE		CLAY	60.00	25.00	
536.00	PLEISTOCENE		CLAY & GRAVEL	21.00	85.00	
515.00	CARBONDALE		SHALE	6.50	106.00	
508.50	CARBONDALE	ST. DAVID	LIMESTONE	1.00	112.50	
507.50	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	113.50	
505.00	CARBONDALE	SPRINGFIELD	BONE COAL	0.60	116.00	
504.40	CARBONDALE	SPRINGFIELD	COAL	5.40	116.60	
499.00	CARBONDALE		UNDERCLAY	1.00	122.00	

01720246000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 30 SESE 10N 70E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 622.0 GEOLOGIST: HAMER DATE COLLECTED: 3 / 16/1970
 Drillers Log Coal Test LOGGED (FT.): 138.00
 SOURCE: COMMONWEALTH EDISON E259 ELEV. RECONSTRUCTED FROM COAL ELEV

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
622.00	PLEISTOCENE		CLAY	3.00	0.00	
619.00	PLEISTOCENE		CLAY	22.00	3.00	WITH GRAVEL
597.00	PLEISTOCENE		CLAY	53.00	25.00	
544.00	PLEISTOCENE		CLAY	32.50	78.00	WITH GRAVEL
511.50	CARBONDALE		LIMESTONE	3.50	110.50	WEATHERED
508.00	CARBONDALE		GRAY SHALE	15.50	114.00	THICKNESS ADJUSTED LIMESTONE INTERBEDS
492.50	CARBONDALE	ST. DAVID	LIMESTONE	0.50	129.50	HARD
492.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	130.00	
490.00	CARBONDALE	SPRINGFIELD	COAL	5.00	132.00	
485.00	CARBONDALE		UNDERCLAY	1.00	137.00	

01720247000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 30 SWSW 27S 15W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 620.0 GEOLOGIST: HAMER DATE COLLECTED: 3 / 24/1970
 Drillers Log Coal Test LOGGED (FT.): 130.00
 SOURCE: COMMONWEALTH EDISON E201

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.00	PLEISTOCENE		CLAY	35.00	0.00	
585.00	PLEISTOCENE		CLAY & GRAVEL	35.00	35.00	
550.00	PLEISTOCENE		CLAY	34.00	70.00	
516.00	CARBONDALE		LIMESTONE	5.50	104.00	W/CLAY SEAMS
510.50	CARBONDALE		GRAY SHALE	14.50	109.50	LIMESTONE INTERBEDS
496.00	CARBONDALE	SPRINGFIELD	COAL	5.00	124.00	
491.00	CARBONDALE		UNDERCLAY	1.00	129.00	

01720248000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 30 SWSW 25S 35E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 622.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /30/1970
 Drillers Log Coal Test LOGGED (FT.): 133.00
 SOURCE: COMMONWEALTH EDISON E203 ELEV RECONSTRUCTED FROM COAL ELEV

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
622.00	PLEISTOCENE		CLAY	38.00	0.00	
584.00	PLEISTOCENE		CLAY	34.00	38.00	WITH GRAVEL
550.00	PLEISTOCENE		CLAY	29.00	72.00	
521.00	CARBONDALE		GRAY SHALE	9.00	101.00	
512.00	CARBONDALE		LIMESTONE	2.00	110.00	
510.00	CARBONDALE		GRAY SHALE	14.00	112.00	LIMESTONE INTERBEDS
496.00	CARBONDALE	TURNER MINE	BLACK SHALE	0.50	126.00	
495.50	CARBONDALE	SPRINGFIELD	COAL	5.50	126.50	
490.00	CARBONDALE		UNDERCLAY	1.00	132.00	

01720249000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 30 SESW 30S 0E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 623.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /18/1970
 Drillers Log Coal Test LOGGED (FT.): 141.00
 SOURCE: COMMONWEALTH EDISON E203 ELEV RECONSTRUCTED FROM COAL ELEV

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
623.00	PLEISTOCENE		CLAY	35.00	0.00	
588.00	PLEISTOCENE		CLAY & GRAVEL	15.00	35.00	
573.00	PLEISTOCENE		CLAY	47.00	50.00	
526.00	PLEISTOCENE		CLAY & GRAVEL	8.00	97.00	
518.00	CARBONDALE		LIMESTONE	4.00	105.00	
514.00	CARBONDALE	ANNA	BLACK SHALE	1.00	109.00	INCLUDES COAL
513.00	CARBONDALE		SHALE	11.00	110.00	LIMESTONE INTERBEDS
502.00	CARBONDALE		SHALE	12.00	121.00	
490.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.30	133.00	
488.70	CARBONDALE	SPRINGFIELD	BONE COAL	0.50	134.30	
488.20	CARBONDALE	SPRINGFIELD	COAL	5.70	134.80	
482.50	CARBONDALE		UNDERCLAY	0.50	140.50	

01720250000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 30 SESE 139S 12W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 624.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /27/1969
 Drillers Log Coal Test LOGGED (FT.): 149.50
 SOURCE: COMMONWEALTH EDISON E204

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
624.00	PLEISTOCENE		CLAY	30.00	0.00	
594.00	PLEISTOCENE		CLAY & GRAVEL	5.00	30.00	
589.00	PLEISTOCENE		CLAY	72.00	35.00	
517.00	CARBONDALE		LIMESTONE	5.00	107.00	
512.00	CARBONDALE		GRAY SHALE	5.50	112.00	
506.50	CARBONDALE		LIMESTONE	1.00	117.50	
505.50	CARBONDALE		GRAY SHALE	4.50	118.50	
501.00	CARBONDALE		LIMESTONE	2.00	123.00	
499.00	CARBONDALE		GRAY SHALE	15.50	125.00	
483.50	CARBONDALE	ST. DAVID	LIMESTONE	1.50	140.50	
482.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.00	142.00	
481.00	CARBONDALE	SPRINGFIELD	LIMESTONE	0.10	143.00	BONE
480.90	CARBONDALE	SPRINGFIELD	COAL	5.80	143.10	
475.10	CARBONDALE		UNDERCLAY	0.60	148.90	

01720251000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 31 NESW 432N 50W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 622.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /25/1969
 Drillers Log Coal Test LOGGED (FT.): 145.50
 SOURCE: COMMONWEALTH EDISON E78J

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
622.00	PLEISTOCENE		CLAY	80.00	0.00	
542.00	CARBONDALE		GRAY SHALE	14.00	80.00	
528.00	CARBONDALE	HERRIN	COAL	2.00	94.00	
526.00	CARBONDALE		GRAY SHALE	9.00	96.00	
517.00	CARBONDALE		LIMESTONE	10.00	105.00	
507.00	CARBONDALE		GRAY SHALE	7.00	115.00	
500.00	CARBONDALE		LIMESTONE	4.00	122.00	SHALE LAMINAE
496.00	CARBONDALE		GRAY SHALE	11.50	126.00	
484.50	CARBONDALE	ST. DAVID	LIMESTONE	1.00	137.50	
483.50	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	138.50	
482.00	CARBONDALE	SPRINGFIELD	COAL	5.10	140.00	
476.90	CARBONDALE		UNDERCLAY	0.40	145.10	

01720252000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 31 NWSW 15N 0W
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 627.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /23/1970
Drillers Log Coal Test LOGGED (FT.): 149.00
SOURCE: COMMONWEALTH EDISON E101

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
627.00	PLEISTOCENE		CLAY	20.00	0.00	
607.00	PLEISTOCENE		CLAY	10.00	20.00	WITH WOOD
597.00	PLEISTOCENE		CLAY	50.00	30.00	
547.00	PLEISTOCENE		CLAY & GRAVEL	5.00	80.00	
542.00	PLEISTOCENE		CLAY	19.00	85.00	
523.00	CARBONDALE		LIMESTONE	6.00	104.00	
517.00	CARBONDALE		SHALE	13.00	110.00	
504.00	CARBONDALE		LIMESTONE	2.00	123.00	
502.00	CARBONDALE		SHALE	15.50	125.00	
486.50	CARBONDALE	ST. DAVID	LIMESTONE	1.00	140.50	
485.50	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	141.50	
484.00	CARBONDALE	SPRINGFIELD	COAL	5.50	143.00	
478.50	CARBONDALE		UNDERCLAY	0.50	148.50	

01720253000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 31 SWSW 0N 54W
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 627.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /23/1940
Drillers Log Coal Test LOGGED (FT.): 140.00
SOURCE: COMMONWEALTH EDISON E51

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
627.00	PLEISTOCENE		CLAY	15.00	0.00	
612.00	PLEISTOCENE		CLAY	10.00	15.00	WITH WOOD
602.00	PLEISTOCENE		CLY, SAND & GRVL	20.00	25.00	
582.00	PLEISTOCENE		CLAY	41.00	45.00	
541.00	CARBONDALE	ANNA	BLACK SHALE	2.50	86.00	INCLUDES COAL
538.50	CARBONDALE		SHALE	9.00	88.50	
529.50	CARBONDALE		LIMESTONE	5.50	97.50	
524.00	CARBONDALE		SHALE	28.50	103.00	
495.50	CARBONDALE	ST. DAVID	LIMESTONE	1.00	131.50	
494.50	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	132.50	
492.50	CARBONDALE	SPRINGFIELD	COAL	5.00	134.50	
487.50	CARBONDALE		UNDERCLAY	0.50	139.50	

01720254000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 31 SWSW 0N 35E
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 626.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /23/1970
Drillers Log Coal Test LOGGED (FT.): 140.00
SOURCE: COMMONWEALTH EDISON E53

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

TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
626.00	PLEISTOCENE		CLAY	15.00	0.00	
611.00	PLEISTOCENE		CLAY	10.00	15.00	INCLUDES WOOD
601.00	PLEISTOCENE		CLAY	10.00	25.00	
591.00	PLEISTOCENE		CLY, SAND & GRVL	10.00	35.00	
581.00	PLEISTOCENE		CLAY	41.00	45.00	
540.00	CARBONDALE	ANNA	BLACK SHALE	3.00	86.00	
537.00	CARBONDALE		GRAY SHALE	8.00	89.00	
529.00	CARBONDALE		LIMESTONE	9.00	97.00	
520.00	CARBONDALE		SHALE	10.50	106.00	
509.50	CARBONDALE		LIMESTONE	2.00	116.50	
507.50	CARBONDALE		SHALE	14.00	118.50	
493.50	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	132.50	
491.50	CARBONDALE	SPRINGFIELD	COAL	5.00	134.50	
486.50	CARBONDALE		UNDERCLAY	0.50	139.50	

01720255000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 31 SWSE 18S 25W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 628.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /25/1970
 Drillers Log Coal Test LOGGED (FT.): 138.00
 SOURCE: COMMONWEALTH EDISON E5

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
628.00	PLEISTOCENE		CLAY	10.00	0.00	
618.00	PLEISTOCENE		CLAY	15.00	10.00	INCLUDES WOOD
603.00	PLEISTOCENE		CLAY	8.00	25.00	
595.00	PLEISTOCENE		CLAY & GRAVEL	5.00	33.00	
590.00	PLEISTOCENE		CLAY	42.00	38.00	
548.00	PLEISTOCENE		SAND/GRAVEL	10.00	80.00	
538.00	CARBONDALE		SHALE	5.00	90.00	
533.00	CARBONDALE		LIMESTONE	8.00	95.00	
525.00	CARBONDALE		SHALE	11.00	103.00	
514.00	CARBONDALE		LIMESTONE	1.00	114.00	
513.00	CARBONDALE		SHALE	13.00	115.00	
500.00	CARBONDALE	ST. DAVID	LIMESTONE	1.50	128.00	
498.50	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	129.50	
496.50	CARBONDALE	SPRINGFIELD	COAL	5.80	131.50	
490.70	CARBONDALE		UNDERCLAY	0.70	137.30	

01720256000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 31 SWSWSE
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 625.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /21/1970
 Drillers Log Coal Test LOGGED (FT.): 132.00
 SOURCE: COMMONWEALTH EDISON E-7 NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
625.00	PLEISTOCENE		CLAY	10.00	0.00	
615.00	PLEISTOCENE		CLAY	10.00	10.00	INCLUDES WOOD
605.00	PLEISTOCENE		CLAY	70.00	20.00	
535.00	PLEISTOCENE		CLAY & GRAVEL	4.00	90.00	
531.00	CARBONDALE		LIMESTONE	4.00	94.00	
527.00	CARBONDALE		SHALE	12.00	98.00	LIMESTONE INTERBEDS
515.00	CARBONDALE		SHALE	14.00	110.00	
501.00	CARBONDALE	ST. DAVID	LIMESTONE	0.50	124.00	
500.50	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	124.50	
499.00	CARBONDALE	SPRINGFIELD	COAL	5.50	126.00	
493.50	CARBONDALE		UNDERCLAY	0.50	131.50	

01720257000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 32 SWNE 0S 25W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 612.0 GEOLOGIST: HAMER DATE COLLECTED: 5 / 8/1970
 Drillers Log Coal Test LOGGED (FT.): 128.00
 SOURCE: COMMONWEALTH EDISON E113

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

612.00	PLEISTOCENE		CLAY	98.00	0.00	
514.00	PLEISTOCENE		COAL	1.00	98.00	BOULDER
513.00	PLEISTOCENE		CLAY	4.00	99.00	
509.00	CARBONDALE		LIMESTONE	1.00	103.00	HARD
508.00	CARBONDALE		GRAY SHALE	15.00	104.00	
493.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	119.00	
490.50	CARBONDALE	SPRINGFIELD	COAL	5.00	121.50	
485.50	CARBONDALE		UNDERCLAY	1.50	126.50	

01720258000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 32 SENE 50N 36E
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 623.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /18/1969
Drillers Log Coal Test LOGGED (FT.): 134.00
SOURCE: COMMONWEALTH EDISON E165

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
623.00	PLEISTOCENE		CLAY	14.00	0.00	SANDY
609.00	PLEISTOCENE		SAND/GRAVEL	16.00	14.00	W/CLAY BANDS
593.00	PLEISTOCENE		CLAY	15.00	30.00	
578.00	PLEISTOCENE		CLAY	59.00	45.00	WITH GRAVEL
519.00	CARBONDALE	ANNA	BLACK SHALE	1.00	104.00	RASHY
518.00	CARBONDALE		GRAY SHALE	3.00	105.00	
515.00	CARBONDALE		GRAY SHALE	18.80	108.00	
496.20	CARBONDALE	TURNER MINE	BLACK SHALE	1.70	126.80	RASHY
494.50	CARBONDALE	SPRINGFIELD	COAL	5.30	128.50	
489.20	CARBONDALE		UNDERCLAY	0.20	133.80	

01720259000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 32 NENESWNE
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 621.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /20/1969
Drillers Log Coal Test LOGGED (FT.): 131.00
SOURCE: COMMONWEALTH EDISON E165 NO FOOTAGES GIVEN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
621.00	PLEISTOCENE		CLAY	30.00	0.00	
591.00	PLEISTOCENE		CLAY & GRAVEL	5.00	30.00	
586.00	PLEISTOCENE		CLAY	35.00	35.00	
551.00	PLEISTOCENE		BOULDER	3.00	70.00	BOULDER
548.00	PLEISTOCENE		CLAY	34.00	73.00	
514.00	CARBONDALE		LIMESTONE	1.50	107.00	
512.50	CARBONDALE		GRAY SHALE	14.50	108.50	
498.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	123.00	
497.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	124.00	
495.50	CARBONDALE	SPRINGFIELD	COAL	5.20	125.50	
490.30	CARBONDALE		UNDERCLAY	0.30	130.70	

01720260000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 32 SWNE 35N 18W
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 590.0 GEOLOGIST: HAMER DATE COLLECTED: 4 / 4/1970
Drillers Log Coal Test LOGGED (FT.): 116.00
SOURCE: COMMONWEALTH EDISON E163

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.00	PLEISTOCENE		CLAY	82.00	0.00	
508.00	CARBONDALE	ANNA	BLACK SHALE	1.00	82.00	INCLUDES COAL
507.00	CARBONDALE		LS & SH	7.00	83.00	
500.00	CARBONDALE		SHALE	17.00	90.00	
483.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	107.00	
482.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	108.00	
480.50	CARBONDALE	SPRINGFIELD	COAL	5.50	109.50	
475.00	CARBONDALE		UNDERCLAY	1.00	115.00	

01720261000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 32 SESESWSW
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 610.0 GEOLOGIST: HAMER DATE COLLECTED: 5 / 8/1970
 Drillers Log Coal Test LOGGED (FT.): 129.00
 SOURCE: COMMONWEALTH EDISON E11 NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.00	PLEISTOCENE		SOIL	2.00	0.00	
608.00	PLEISTOCENE		CLAY	89.00	2.00	
519.00	CARBONDALE		LIMESTONE	2.00	91.00	HARD
517.00	CARBONDALE		GRAY SHALE	12.00	93.00	
505.00	CARBONDALE		LIMESTONE	1.00	105.00	HARD
504.00	CARBONDALE		GRAY SHALE	12.00	106.00	LIMESTONE INTERBEDS
492.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	118.00	
489.50	CARBONDALE	SPRINGFIELD	COAL	6.00	120.50	
483.50	CARBONDALE		UNDERCLAY	2.50	126.50	

01720262000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 32 SENW 0N 330E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 593.0 GEOLOGIST: HAMER DATE COLLECTED: 5 / 9/1969
 Drillers Log Coal Test LOGGED (FT.): 119.00
 SOURCE: COMMONWEALTH EDISON E161B SECOND LOCATION MARKED: SENW, 0N, 530W

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
593.00	PLEISTOCENE		CLAY	65.00	0.00	
528.00	PLEISTOCENE		SAND/GRAVEL	3.00	65.00	
525.00	PLEISTOCENE		CLAY	41.00	68.00	DEPTH ADJUSTED
484.00	CARBONDALE	ST. DAVID	LIMESTONE	1.50	109.00	
482.50	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	110.50	
481.00	CARBONDALE	SPRINGFIELD	COAL	6.00	112.00	
475.00	CARBONDALE		UNDERCLAY	1.00	118.00	

01720263000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 32 NESE 40N 350W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 616.0 GEOLOGIST: HAMER DATE COLLECTED: 4 / 5/1972
 Drillers Log Coal Test LOGGED (FT.): 130.00
 SOURCE: COMMONWEALTH EDISON E115B

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
616.00	PLEISTOCENE		CLAY	26.00	0.00	
590.00	PLEISTOCENE		CLAY	14.00	26.00	WITH GRAVEL
576.00	PLEISTOCENE		CLAY	61.00	40.00	
515.00	CARBONDALE		GRAY SHALE	20.50	101.00	
494.50	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	121.50	
493.00	CARBONDALE	SPRINGFIELD	COAL	5.40	123.00	
487.60	CARBONDALE		UNDERCLAY	1.60	128.40	

01720264000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 32 SENE 330N 150W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 616.0 GEOLOGIST: HAMER DATE COLLECTED: 3 / 11/1972
 Drillers Log Coal Test LOGGED (FT.): 131.00
 SOURCE: COMMONWEALTH EDISON E140C

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
616.00	PLEISTOCENE		CLAY	8.00	0.00	SILTY
608.00	PLEISTOCENE		CLAY	20.00	8.00	SANDY WITH GRAVEL
588.00	PLEISTOCENE		CLAY	8.00	28.00	

580.00	PLEISTOCENE		CLAY	33.00	36.00	WITH GRAVEL
547.00	PLEISTOCENE		CLAY	9.50	69.00	SANDY
537.50	PLEISTOCENE		CLAY	28.50	78.50	WITH GRAVEL
509.00	CARBONDALE		LIMESTONE	1.30	107.00	
507.70	CARBONDALE		GRAY SHALE	13.20	108.30	
494.50	CARBONDALE	ST. DAVID	LIMESTONE	2.20	121.50	
492.30	CARBONDALE	TURNER MINE	BLACK SHALE	1.80	123.70	
490.50	CARBONDALE	SPRINGFIELD	COAL	4.80	125.50	
485.70	CARBONDALE		UNDERCLAY	0.70	130.30	

01720265000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 32 NWNE 400S 0W
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 621.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /11/1972
Drillers Log Coal Test LOGGED (FT.): 132.00
SOURCE: COMMONWEALTH EDISON E165C

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
621.00	PLEISTOCENE		CLAY	12.00	0.00	SILTY
609.00	PLEISTOCENE		CLAY	19.00	12.00	SANDY WITH GRAVEL
590.00	PLEISTOCENE		CLAY	18.00	31.00	SILTY
572.00	PLEISTOCENE		CLAY	36.50	49.00	WITH GRAVEL
535.50	PLEISTOCENE		SAND/GRAVEL	0.50	85.50	
535.00	PLEISTOCENE		CLAY	10.50	86.00	WITH GRAVEL
524.50	CARBONDALE	BRERETON	LIMESTONE	1.50	96.50	
523.00	CARBONDALE	ANNA	BLACK SHALE	0.50	98.00	
522.50	CARBONDALE		GRAY SHALE	7.50	98.50	
515.00	CARBONDALE		LS W/ SH	17.50	106.00	
497.50	CARBONDALE	ST. DAVID	LIMESTONE	2.10	123.50	
495.40	CARBONDALE	TURNER MINE	BLACK SHALE	1.40	125.60	
494.00	CARBONDALE	SPRINGFIELD	COAL	4.70	127.00	
489.30	CARBONDALE		UNDERCLAY	0.30	131.70	

01720266000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 32 NWNE 750S 110E
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 621.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /17/1972
Drillers Log Coal Test LOGGED (FT.): 126.00
SOURCE: COMMONWEALTH EDISON E189P

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
621.00	PLEISTOCENE		CLAY	12.00	0.00	SILTY
609.00	PLEISTOCENE		CLAY	20.00	12.00	SANDY WITH GRAVEL
589.00	PLEISTOCENE		CLAY	72.50	32.00	WITH GRAVEL
516.50	CARBONDALE		GRAY SHALE	13.00	104.50	
503.50	CARBONDALE		LIMESTONE	1.00	117.50	
502.50	CARBONDALE		BLACK SHALE	0.80	118.50	
501.70	CARBONDALE	ST. DAVID	LIMESTONE	0.70	119.30	
501.00	CARBONDALE	TURNER MINE	BLACK SHALE	0.50	120.00	
500.50	CARBONDALE	SPRINGFIELD	COAL	4.60	120.50	
495.90	CARBONDALE		UNDERCLAY	0.90	125.10	

01720267000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 32 NENE 330N 100W
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 612.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /10/1972
Drillers Log Coal Test LOGGED (FT.): 130.00
SOURCE: COMMONWEALTH EDISON E190C

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.00	PLEISTOCENE		CLAY	17.00	0.00	SILTY
595.00	PLEISTOCENE		CLAY	14.00	17.00	SANDY WITH GRAVEL
581.00	PLEISTOCENE		CLAY	73.00	31.00	WITH GRAVEL
508.00	CARBONDALE		LIMESTONE	2.00	104.00	
506.00	CARBONDALE		GRAY SHALE	9.00	106.00	LIMESTONE INTERBEDS
497.00	CARBONDALE		GRAY SHALE	7.00	115.00	
490.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	122.00	
489.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	123.00	

487.50 CARBONDALE SPRINGFIELD COAL 4.60 124.50
 482.90 CARBONDALE UNDERCLAY 0.90 129.10

01720268000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 32 NENE 150N 330W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 621.0 GEOLOGIST: HAMER DATE COLLECTED: 3 / 6/1972
 Drillers Log Coal Test LOGGED (FT.): 133.00
 SOURCE: COMMONWEALTH EDISON E190J

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
621.00	PLEISTOCENE		CLAY	37.00	0.00	SILTY
584.00	PLEISTOCENE		GRAVEL	3.50	37.00	
580.50	PLEISTOCENE		CLAY	57.00	40.50	WITH GRAVEL
523.50	CARBONDALE		LIMESTONE	1.50	97.50	
522.00	CARBONDALE		GRAY SHALE	25.50	99.00	LIMESTONE INTERBEDS
496.50	CARBONDALE	ST. DAVID	LIMESTONE	1.00	124.50	
495.50	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	125.50	
493.50	CARBONDALE	SPRINGFIELD	COAL	4.80	127.50	
488.70	CARBONDALE		UNDERCLAY	0.70	132.30	

01720269000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 32 NESE 800S 400W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 620.0 GEOLOGIST: HAMER DATE COLLECTED: 4 / 7/1970
 Drillers Log Coal Test LOGGED (FT.): 130.00
 SOURCE: COMMONWEALTH EDISON E90L

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.00	PLEISTOCENE		CLAY	100.00	0.00	
520.00	PLEISTOCENE		CLAY & GRAVEL	4.00	100.00	
516.00	CARBONDALE		LIMESTONE	2.50	104.00	
513.50	CARBONDALE		SHALE	13.50	106.50	
500.00	CARBONDALE	ST. DAVID	LIMESTONE	1.50	120.00	
498.50	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	121.50	
496.00	CARBONDALE	SPRINGFIELD	COAL	5.40	124.00	
490.60	CARBONDALE		UNDERCLAY	0.60	129.40	

01720270000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 32 NESE 650N 600E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 622.0 GEOLOGIST: HAMER DATE COLLECTED: 4 / 5/1972
 Drillers Log Coal Test LOGGED (FT.): 138.00
 SOURCE: COMMONWEALTH EDISON E91

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
622.00	PLEISTOCENE		CLAY	33.00	0.00	WITH GRAVEL
589.00	PLEISTOCENE		CLAY	47.00	33.00	THICKNESS ADJUSTED
542.00	CARBONDALE		GRAY SHALE	27.00	80.00	
515.00	CARBONDALE	ANNA	BLACK SHALE	2.00	107.00	
513.00	CARBONDALE		GRAY SHALE	4.00	109.00	
509.00	CARBONDALE		LIMESTONE	2.00	113.00	
507.00	CARBONDALE		SHALE	13.00	115.00	
494.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	128.00	
493.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	129.00	
490.50	CARBONDALE	SPRINGFIELD	COAL	5.00	131.50	
485.50	CARBONDALE		UNDERCLAY	1.50	136.50	

01720271000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 32 NESE 150N 18E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 618.0 GEOLOGIST: HAMER DATE COLLECTED: 4 / 7/1970
 Drillers Log Coal Test LOGGED (FT.): 135.00

SOURCE: COMMONWEALTH EDISON E920

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
618.00	PLEISTOCENE		CLAY	30.00	0.00	
588.00	PLEISTOCENE		SAND/GRAVEL	10.00	30.00	
578.00	PLEISTOCENE		CLAY	28.00	40.00	
550.00	PLEISTOCENE		BOULDER	4.00	68.00	
546.00	PLEISTOCENE		CLAY	38.00	72.00	
508.00	CARBONDALE		LIMESTONE	2.50	110.00	
505.50	CARBONDALE		SHALE	13.00	112.50	
492.50	CARBONDALE	ST. DAVID	LIMESTONE	1.00	125.50	
491.50	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	126.50	
489.50	CARBONDALE	SPRINGFIELD	COAL	5.50	128.50	
484.00	CARBONDALE		UNDERCLAY	1.00	134.00	

01720272000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 32 NESE 240S 300E
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 617.0 GEOLOGIST: HAMER DATE COLLECTED: 4 / 5/1972
 Drillers Log Coal Test LOGGED (FT.): 133.00
 SOURCE: COMMONWEALTH EDISON E66A

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.00	PLEISTOCENE		CLAY	26.00	0.00	
591.00	PLEISTOCENE		GRAVEL	4.00	26.00	
587.00	PLEISTOCENE		CLAY	20.00	30.00	
567.00	PLEISTOCENE		CLAY	36.00	50.00	WITH GRAVEL
531.00	CARBONDALE		LIMESTONE	4.00	86.00	
527.00	CARBONDALE		GRAY SHALE	12.00	90.00	
515.00	CARBONDALE		LIMESTONE	7.00	102.00	
508.00	CARBONDALE		GRAY SHALE	14.00	109.00	
494.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	123.00	
493.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.80	124.00	
491.20	CARBONDALE	SPRINGFIELD	COAL	5.50	125.80	
485.70	CARBONDALE		UNDERCLAY	1.70	131.30	

01720273000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 33 SWSWSENW
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 617.0 GEOLOGIST: HAMER DATE COLLECTED: 4 / 4/1970
 Drillers Log Coal Test LOGGED (FT.): 146.00
 SOURCE: COMMONWEALTH EDISON E119 ELEV RECONSTRUCTED FROM COAL ELEVN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.00	PLEISTOCENE		CLAY	40.00	0.00	
577.00	PLEISTOCENE		CLAY	10.00	40.00	INCLUDES WOOD
567.00	PLEISTOCENE		CLAY	35.00	50.00	
532.00	CARBONDALE		SHALE	5.00	85.00	
527.00	CARBONDALE	ANNA	BLACK SHALE	3.00	90.00	
524.00	CARBONDALE	HERRIN	COAL	1.50	93.00	
522.50	CARBONDALE		SHALE	7.50	94.50	
515.00	CARBONDALE		LIMESTONE	6.00	102.00	
509.00	CARBONDALE		SHALE	13.00	108.00	
496.00	CARBONDALE		LIMESTONE	2.00	121.00	
494.00	CARBONDALE		LIMESTONE	14.50	123.00	
479.50	CARBONDALE	ST. DAVID	LIMESTONE	1.00	137.50	
478.50	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	138.50	
477.00	CARBONDALE	SPRINGFIELD	COAL	5.20	140.00	
471.80	CARBONDALE		UNDERCLAY	0.80	145.20	

01720274000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 8W SECTION: 33 NWSE 24N 7W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 628.0 GEOLOGIST: HAMER DATE COLLECTED: 6 / 18/1969
 Drillers Log Coal Test LOGGED (FT.): 148.00
 SOURCE: COMMONWEALTH EDISON E121

THICKNESS (FT.)						
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ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
628.00	PLEISTOCENE		CLAY	40.00	0.00	SANDY
588.00	PLEISTOCENE		CLAY	65.00	40.00	WITH GRAVEL
523.00	CARBONDALE		LIMESTONE	1.50	105.00	
521.50	CARBONDALE		GRAY SHALE	4.00	106.50	W/PIECES OF LIMESTONE
517.50	CARBONDALE		LIMESTONE	3.50	110.50	
514.00	CARBONDALE		GRAY SHALE	23.50	114.00	W/PIECES OF LIMESTONE
490.50	CARBONDALE	ST. DAVID	LIMESTONE	0.50	137.50	DARK
490.00	CARBONDALE	TURNER MINE	BLACK SHALE	4.20	138.00	
485.80	CARBONDALE	SPRINGFIELD	COAL	5.20	142.20	
480.60	CARBONDALE		UNDERCLAY	0.60	147.40	

01720275000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 33 SWSE 100S 0W
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 624.0 GEOLOGIST: HAMER DATE COLLECTED: 6 / 17/1969
Drillers Log Coal Test LOGGED (FT.): 163.00
SOURCE: COMMONWEALTH EDISON E21

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
624.00	PLEISTOCENE		CLAY	65.00	0.00	SANDY
559.00	PLEISTOCENE		CLAY	35.00	65.00	WITH GRAVEL
524.00	PLEISTOCENE		CLAY	10.00	100.00	
514.00	CARBONDALE	ANNA	BLACK SHALE	2.50	110.00	
511.50	CARBONDALE	HERRIN	COAL	2.80	112.50	
508.70	CARBONDALE		GRAY SHALE	6.70	115.30	
502.00	CARBONDALE		GRAY SHALE	2.50	122.00	LIMESTONE INTERBEDS
499.50	CARBONDALE		GRAY SHALE	29.00	124.50	
470.50	CARBONDALE	ST. DAVID	LIMESTONE	0.50	153.50	DARK
470.00	CARBONDALE	TURNER MINE	BLACK SHALE	3.00	154.00	
467.00	CARBONDALE	SPRINGFIELD	COAL	5.10	157.00	
461.90	CARBONDALE		UNDERCLAY	0.90	162.10	

01720276000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 33 NWNW 0N 280E
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 611.0 GEOLOGIST: HAMER DATE COLLECTED: 5 / 7/1970
Drillers Log Coal Test LOGGED (FT.): 136.00
SOURCE: COMMONWEALTH EDISON E218B

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
611.00	PLEISTOCENE		CLAY	92.00	0.00	
519.00	CARBONDALE		LIMESTONE	6.00	92.00	SHALE INTERBEDS
513.00	CARBONDALE	ANNA	SHALE	4.00	98.00	CORRELATION UNCERTAIN
509.00	CARBONDALE	HERRIN	COAL	2.50	102.00	
506.50	CARBONDALE		GRAY SHALE	2.50	104.50	
504.00	CARBONDALE		LIMESTONE	7.00	107.00	SHALE INTERBEDS
497.00	CARBONDALE		GRAY SHALE	11.00	114.00	
486.00	CARBONDALE	ST. DAVID	LIMESTONE	2.00	125.00	HARD
484.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	127.00	
482.00	CARBONDALE	SPRINGFIELD	COAL	6.00	129.00	
476.00	CARBONDALE		UNDERCLAY	1.00	135.00	

01720277000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 33 NWNW 75S 250E
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 628.0 GEOLOGIST: HAMER DATE COLLECTED: 4 / 6/1970
Drillers Log Coal Test LOGGED (FT.): 147.00
SOURCE: COMMONWEALTH EDISON E1168BB

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
628.00	PLEISTOCENE		CLAY	78.00	0.00	
550.00	PLEISTOCENE		CLAY & GRAVEL	2.00	78.00	
548.00	PLEISTOCENE		CLAY	14.00	80.00	
534.00	CARBONDALE	ANNA	BLACK SHALE	3.00	94.00	INCLUDES COAL (HERRIN)

531.00	CARBONDALE		SHALE	8.00	97.00	
523.00	CARBONDALE		LIMESTONE	7.00	105.00	SHALE INTERBEDS
516.00	CARBONDALE		SHALE	9.00	112.00	
507.00	CARBONDALE		LIMESTONE	1.00	121.00	
506.00	CARBONDALE		SHALE	17.00	122.00	
489.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	139.00	
488.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.50	140.00	
486.50	CARBONDALE	SPRINGFIELD	COAL	5.00	141.50	
481.50	CARBONDALE		UNDERCLAY	0.50	146.50	

01720278000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 33 NWNE 50N 30W
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 627.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /18/1969
Drillers Log Coal Test LOGGED (FT.): 157.00
SOURCE: COMMONWEALTH EDISON E221

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
627.00	PLEISTOCENE		SANDY CLAY	16.00	0.00	
611.00	PLEISTOCENE		CLAY	24.00	16.00	WITH GRAVEL
587.00	PLEISTOCENE		CLAY	30.00	40.00	
557.00	PLEISTOCENE		CLAY	27.50	70.00	WITH GRAVEL
529.50	CARBONDALE	ANNA	BLACK SHALE	2.50	97.50	
527.00	CARBONDALE	HERRIN	COAL	2.80	100.00	
524.20	CARBONDALE		GRAY SHALE	32.20	102.80	LIMESTONE INTERBEDS
492.00	CARBONDALE		GRAY SHALE	11.00	135.00	
481.00	CARBONDALE	ST. DAVID	LIMESTONE	2.70	146.00	DARK
478.30	CARBONDALE	TURNER MINE	BLACK SHALE	2.60	148.70	RASHY
475.70	CARBONDALE	SPRINGFIELD	COAL	4.90	151.30	
470.80	CARBONDALE		UNDERCLAY	0.80	156.20	

01720279000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 33 NWSW 122S 18W
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 618.0 GEOLOGIST: HAMER DATE COLLECTED: 4 / 6/1970
Drillers Log Coal Test LOGGED (FT.): 140.00
SOURCE: COMMONWEALTH EDISON E69

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
618.00	PLEISTOCENE		CLAY	65.00	0.00	
553.00	PLEISTOCENE		CLAY	15.00	65.00	WITH GRAVEL
538.00	PLEISTOCENE		CLAY	20.00	80.00	
518.00	CARBONDALE		LIMESTONE	10.00	100.00	SHALE INTERBEDS
508.00	CARBONDALE		SHALE	22.00	110.00	
486.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	132.00	
485.00	CARBONDALE	TURNER MINE	BLACK SHALE	1.00	133.00	
484.00	CARBONDALE	SPRINGFIELD	COAL	5.50	134.00	
478.50	CARBONDALE		UNDERCLAY	0.50	139.50	

01720280000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 8W SECTION: 33 SESENWSW
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 624.0 GEOLOGIST: HAMER DATE COLLECTED: 4 / 7/1970
Drillers Log Coal Test LOGGED (FT.): 151.00
SOURCE: COMMONWEALTH EDISON E68 NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
624.00	PLEISTOCENE		CLAY	95.00	0.00	
529.00	CARBONDALE	ANNA	BLACK SHALE	3.00	95.00	
526.00	CARBONDALE	HERRIN	COAL	1.00	98.00	
525.00	CARBONDALE		SHALE	9.00	99.00	
516.00	CARBONDALE		LIMESTONE	9.00	108.00	SHALE INTERBEDS
507.00	CARBONDALE		SHALE	8.00	117.00	
499.00	CARBONDALE		LIMESTONE	2.00	125.00	
497.00	CARBONDALE		SHALE	15.00	127.00	
482.00	CARBONDALE	ST. DAVID	LIMESTONE	1.50	142.00	
480.50	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	143.50	
478.50	CARBONDALE	SPRINGFIELD	COAL	5.00	145.50	

473.50 CARBONDALE UNDERCLAY 0.50 150.50

01720281000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
COUNTY: CASS 18N - R 8W SECTION: 33 SESEWSE
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 627.0 GEOLOGIST: HAMER DATE COLLECTED: 4 /14/1970
Drillers Log Coal Test LOGGED (FT.): 145.00
SOURCE: COMMONWEALTH EDISON E73 NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
627.00	PLEISTOCENE		SOIL	2.00	0.00	
625.00	PLEISTOCENE		CLAY	78.00	2.00	
547.00	CARBONDALE		GRAY SHALE	14.00	80.00	
533.00	CARBONDALE	ANNA	BLACK SHALE	2.00	94.00	WITH COAL
531.00	CARBONDALE		GRAY SHALE	3.00	96.00	
528.00	CARBONDALE		LIMESTONE	8.00	99.00	SHALE INTERBEDS
520.00	CARBONDALE		LIMESTONE	3.00	107.00	HARD
517.00	CARBONDALE		SHALE	25.00	110.00	LIMESTONE INTERBEDS
492.00	CARBONDALE	TURNER MINE	BLACK SHALE	3.00	135.00	
489.00	CARBONDALE	SPRINGFIELD	COAL	1.80	138.00	
487.20	CARBONDALE	SPRINGFIELD	LIMESTONE	0.30	139.80	
486.90	CARBONDALE	SPRINGFIELD	COAL	3.90	140.10	
483.00	CARBONDALE		UNDERCLAY	1.00	144.00	

01720282000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
COUNTY: CASS 18N - R 8W SECTION: 33 SESEWSE
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 630.0 GEOLOGIST: HAMER DATE COLLECTED: 4 /13/1970
Drillers Log Coal Test LOGGED (FT.): 158.00
SOURCE: COMMONWEALTH EDISON E23 NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.00	PLEISTOCENE		SOIL	2.00	0.00	
628.00	PLEISTOCENE		CLAY	83.00	2.00	
545.00	CARBONDALE		GRAY SHALE	9.50	85.00	THICKNESS ADJUSTED, LIMESTONE INTERBEDS
535.50	CARBONDALE	ANNA	BLACK SHALE	2.00	94.50	
533.50	CARBONDALE	HERRIN	COAL	1.50	96.50	
532.00	CARBONDALE		GRAY SHALE	7.00	98.00	
525.00	CARBONDALE		LS W/ SH	43.00	105.00	
482.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.50	148.00	
479.50	CARBONDALE	SPRINGFIELD	COAL	6.00	150.50	
473.50	CARBONDALE		UNDERCLAY	1.50	156.50	

01720283000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 9W SECTION: 22 SESEWSE
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 600.0 GEOLOGIST: HAMER DATE COLLECTED: 5 /22/1970
Drillers Log Coal Test LOGGED (FT.): 100.00
SOURCE: COMMONWEALTH EDISON EW505 NO COAL LOGGED, NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.00	PLEISTOCENE		SOIL	2.00	0.00	
598.00	PLEISTOCENE		CLAY	98.00	2.00	

01720284000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 9W SECTION: 23 SWSWSE
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 607.0 GEOLOGIST: HAMER DATE COLLECTED: 5 /21/1970
Drillers Log Coal Test LOGGED (FT.): 120.00
SOURCE: COMMONWEALTH EDISON EW515 NO COAL LOGGED;NO FOOTAGES RECORDED

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

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
607.00	PLEISTOCENE		CLAY	120.00	0.00	

01720285000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 9W SECTION: 25 NENENESE
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 617.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /29/1969
 Drillers Log Coal Test LOGGED (FT.): 114.00
 SOURCE: COMMONWEALTH EDISON EW325 NO FOOTAGES RECORDED

THICKNESS (FT.)						
ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
617.00	PLEISTOCENE		CLAY	10.00	0.00	SANDY
607.00	PLEISTOCENE		CLAY	69.50	10.00	WITH GRAVEL
537.50	PLEISTOCENE		BOULDER	1.50	79.50	LIMESTONE
536.00	PLEISTOCENE		CLAY	21.10	81.00	WITH GRAVEL
514.90	CARBONDALE		LIMESTONE	5.40	102.10	
509.50	CARBONDALE		GRAY SHALE	0.60	107.50	
508.90	CARBONDALE	TURNER MINE	BLACK SHALE	0.50	108.10	RASHY
508.40	CARBONDALE	SPRINGFIELD	COAL	3.60	108.60	
504.80	CARBONDALE		UNDERCLAY	1.80	112.20	

01720286000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 9W SECTION: 25 SENE 200N 0W
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 614.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /23/1969
 Drillers Log Coal Test LOGGED (FT.): 118.00
 SOURCE: COMMONWEALTH EDISON EW348D

THICKNESS (FT.)						
ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
614.00	PLEISTOCENE		CLAY	10.00	0.00	SANDY
604.00	PLEISTOCENE		CLAY	75.00	10.00	WITH GRAVEL
529.00	PLEISTOCENE		CLAY	18.50	85.00	WITH LIMESTONE "RIBS"
510.50	CARBONDALE	TURNER MINE	BLACK SHALE	0.50	103.50	RASHY
510.00	CARBONDALE	SPRINGFIELD	COAL	1.60	104.00	
508.40	CARBONDALE		UNDERCLAY	8.40	105.60	COAL, BLACK SHALE, & LIMESTONE INTERBEDS
500.00	CARBONDALE		GRAY SHALE	4.00	114.00	

01720287000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 9W SECTION: 26 SWSWSWNE
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 608.0 GEOLOGIST: HAMER DATE COLLECTED: 5 /23/1970
 Drillers Log Coal Test LOGGED (FT.): 100.00
 SOURCE: COMMONWEALTH EDISON EW365 NO COAL LOGGED; NO FOOTAGES RECORDED

THICKNESS (FT.)						
ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT
608.00	PLEISTOCENE		CLAY	91.00	0.00	
517.00	CARBONDALE	TURNER MINE	BLACK SHALE	2.00	91.00	CORRELATION UNCERTAIN
515.00	CARBONDALE		GRAY SHALE	7.00	93.00	

01720288000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
 COUNTY: CASS 18N - R 9W SECTION: 27 SWSWNWNE
 CONFIDENTIAL: N
 SURFACE ELEVATION (FT.): 612.0 GEOLOGIST: HAMER DATE COLLECTED: 5 /23/1970
 Drillers Log Coal Test LOGGED (FT.): 100.00
 SOURCE: COMMONWEALTH EDISON EW355 NO COAL LOGGED; NO FOOTAGES RECORDED

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

612.00 PLEISTOCENE CLAY 100.00 0.00

01720289000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 18N - R 9W SECTION: 36 SESEWSW
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 620.0 GEOLOGIST: HAMER DATE COLLECTED: 6 /20/1969
Drillers Log Coal Test LOGGED (FT.): 120.00
SOURCE: COMMONWEALTH EDISON EW23 NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.00	PLEISTOCENE		CLAY	10.00	0.00	SANDY
610.00	PLEISTOCENE		CLAY	15.00	10.00	
595.00	PLEISTOCENE		CLAY	42.60	25.00	WITH GRAVEL
552.40	CARBONDALE	ANNA	BLACK SHALE	2.80	67.60	
549.60	CARBONDALE	HERRIN	COAL	2.50	70.40	
547.10	CARBONDALE		CLAYSTONE	8.10	72.90	W/LIMESTONE "RIBS", THICKNESS ADJUSTED
539.00	CARBONDALE		LIMESTONE	2.00	81.00	
537.00	CARBONDALE		CLAYSTONE	28.70	83.00	W/LIMESTONE RIBS
508.30	CARBONDALE	ST. DAVID	LIMESTONE	0.40	111.70	DARK
507.90	CARBONDALE	TURNER MINE	BLACK SHALE	3.30	112.10	
504.60	CARBONDALE	SPRINGFIELD	COAL	4.30	115.40	
500.30	CARBONDALE		UNDERCLAY	0.30	119.70	

01720290000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 17N - R 8W SECTION: 17 SWSSESW
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 639.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /15/1972
Drillers Log Coal Test LOGGED (FT.): 163.00
SOURCE: COMMONWEALTH EDISON I11

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
639.00	PLEISTOCENE		CLAY	163.00	0.00	HOLE BOTTTOMS IN CLAY

01720291000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 17N - R 8W SECTION: 17 NWNWENW
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 633.0 GEOLOGIST: HAMER DATE COLLECTED: 5 /27/1969
Drillers Log Coal Test LOGGED (FT.): 135.00
SOURCE: COMMONWEALTH EDISON I215 NO FOOTAGES RECORDED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
633.00	PLEISTOCENE		CLAY	35.00	0.00	SILTY
598.00	PLEISTOCENE		CLAY	52.00	35.00	
546.00	PLEISTOCENE		GRAVEL	3.00	87.00	
543.00	PLEISTOCENE		CLAY	3.00	90.00	
540.00	CARBONDALE		LIMESTONE	6.00	93.00	
534.00	CARBONDALE		GRAY SHALE	11.00	99.00	W/LIMESTONE INTERBEDS
523.00	CARBONDALE		LIMESTONE	3.00	110.00	
520.00	CARBONDALE		GRAY SHALE	7.00	113.00	
513.00	CARBONDALE		LIMESTONE	9.50	120.00	W/SHALE INTERBEDS
503.50	CARBONDALE	SPRINGFIELD	COAL	4.00	129.50	
499.50	CARBONDALE		UNDERCLAY	1.50	133.50	

01720292000C PROJECT: NCRDS96 QUADRANGLE: ASHLAND
COUNTY: CASS 17N - R 8W SECTION: 16 SWSW 192S 72W
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 639.0 GEOLOGIST: HAMER DATE COLLECTED: 5 /18/1969
Drillers Log Coal Test LOGGED (FT.): 138.00
SOURCE: COMMONWEALTH EDISON I17TB

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

TOP (FT.)						
639.00	PLEISTOCENE		CLAY	90.00	0.00	
549.00	CARBONDALE		LIMESTONE	2.00	90.00	
547.00	CARBONDALE		GRAY SHALE	7.00	92.00	
540.00	CARBONDALE		LIMESTONE	1.00	99.00	
539.00	CARBONDALE		GRAY SHALE	5.00	100.00	
534.00	CARBONDALE		LIMESTONE	2.00	105.00	
532.00	CARBONDALE		GRAY SHALE	7.00	107.00	
525.00	CARBONDALE		LIMESTONE	2.00	114.00	
523.00	CARBONDALE		SHALE	12.00	116.00	
511.00	CARBONDALE	ST. DAVID	LIMESTONE	1.00	128.00	DARK GRAY
510.00	CARBONDALE	TURNER MINE	BLACK SHALE	3.00	129.00	
507.00	CARBONDALE	SPRINGFIELD	COAL	5.30	132.00	
501.70	CARBONDALE		UNDERCLAY	0.70	137.30	

01720293000C PROJECT: NCRDS96 QUADRANGLE: TALLULA
COUNTY: CASS 17N - R 8W SECTION: 16 SESESENE
CONFIDENTIAL: N
SURFACE ELEVATION (FT.): 639.0 GEOLOGIST: HAMER DATE COLLECTED: 3 /10/1972
Drillers Log Coal Test LOGGED (FT.): 131.00
SOURCE: COMMONWEALTH EDISON I125 NO FOOTAGES RECORDED

						THICKNESS (FT.)	
ELEVATION	FORMATION	MEMBER	LITHOLOGY	UNIT	OVERBURDEN	COMMENT	
TOP (FT.)							
639.00	PLEISTOCENE		CLAY	14.00	0.00		
625.00	PLEISTOCENE		UNCONSOLIDATED	5.00	14.00		
620.00	PLEISTOCENE		CLAY	70.00	19.00		
550.00	CARBONDALE		LIMESTONE	4.00	89.00		
546.00	CARBONDALE						