

Status Report

Total Records: 1679

Top 3 County Records		Top 3 Log Type Records		Top 3 Coal Records		Top 3 Member Records	
Jackson	1679	Drillers Log	798	HERRIN	933	HERRIN COAL	933
		Measured section	153	MURPHYSBORO	291	MURPHYSBORO COAL	291
		Survey Core Study	136	SPRINGFIELD	152	BRERETON LIMESTONE	159

Data Summary

Cross-tabulation of all selected logs, individual logs will vary.
 Tabulation of logged intervals only, individual logs will vary.

Depth and Thickness measurements in feet

Member	Lithology	Avg. Depth	Min. Depth	Max. Depth	Avg. Thk	Min. Thk	Max. Thk
DEGRAFF	COAL	89.8	26.8	191.0	0.5	0.1	1.5
PIASA	LIMESTONE	97.9	15.0	233.0	7.6	1.0	18.0
DANVILLE	COAL	109.6	20.0	250.0	2.1	0.3	5.0
GALUM	LIMESTONE	240.5	240.5	240.5	3.0	3.0	3.0
ALLENBY	COAL	85.2	9.0	243.5	1.7	0.1	6.5
BANKSTON FORK	LIMESTONE	108.5	14.5	281.2	11.9	2.0	20.0
ANVIL ROCK	SANDSTONE	44.0	10.0	220.0	66.0	15.0	119.0
LAWSON	SHALE	38.0	2.5	90.7	60.6	14.9	127.0
CONANT	LIMESTONE	202.2	60.7	289.0	3.6	1.5	5.5
JAMESTOWN	COAL	181.3	62.2	294.0	0.9	0.2	2.0
BRERETON	LIMESTONE	102.4	18.0	296.2	4.5	0.5	13.5
ANNA	SHALE	107.1	14.0	340.5	4.5	1.0	31.0
ENERGY	SHALE	128.5	22.0	308.0	24.5	1.0	190.3
HERRIN	COAL	88.7	11.0	410.0	7.4	0.5	47.1
HIGGINSVILLE	LIMESTONE	173.5	102.5	343.0	7.0	1.6	13.0
VERMILIONVILLE	SANDSTONE	143.0	143.0	143.0	11.0	11.0	11.0
BRIAR HILL	COAL	108.5	108.5	108.5	2.6	2.6	2.6
ST. DAVID	LIMESTONE	152.8	31.0	338.0	2.2	0.3	7.0
TURNER MINE	SHALE	160.6	32.1	324.8	3.4	0.5	5.5
DYKERSBURG	SHALE	184.2	118.5	287.5	8.5	1.5	40.0
SPRINGFIELD	COAL	133.6	33.0	341.0	4.2	1.0	11.4
EXCELLO	SHALE	214.2	157.5	250.0	2.8	2.0	3.5
HOUCHIN CREEK	COAL	189.5	129.5	253.5	1.9	1.0	3.0
SURVANT	COAL	192.7	140.4	219.5	2.3	1.8	2.8
OAK GROVE	LIMESTONE	156.0	156.0	156.0	2.0	2.0	2.0
MECCA QUARRY	SHALE	215.0	158.0	272.0	3.8	2.5	5.0
COLCHESTER	COAL	235.9	125.0	342.0	3.4	0.2	7.3
DEKOVEN	COAL	234.2	198.3	270.0	1.4	1.0	1.8
DAVIS	COAL	304.3	190.0	422.0	1.5	1.0	1.9
MT. RORAH	COAL	97.0	97.0	97.0	3.0	3.0	3.0

MURPHYSBORO	COAL	95.9	2.3	342.3	4.8	0.3	9.7
GENTRY	COAL	43.0	28.5	50.8	1.8	1.0	2.5
KINKAID	LIMESTONE	81.3	81.3	81.3	54.1	54.1	54.1
DEGONIA	SANDSTONE	135.4	135.4	135.4	100.6	100.6	100.6
				Net Coal	39.4		

Coal Logs

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

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

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

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

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

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

MAPID: 07725270000C VERSION: 1 PROJECT: NCRDS16
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: QUARTERS/FOOTAGES: SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.261371 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.866633 DATE COLLECTED:
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 73.0 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES E-17 WELL TYPE: Coal Test
COMMENT: RAZORBACK MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		CLAY	24.0	
396.0	SHELBURN		GRAY SHALE	23.0	24.0
373.0	SHELBURN	BRERETON	LIMESTONE	1.0	47.0
372.0	CARBONDALE	ANNA	BLACK SHALE	5.8	48.0
366.2	CARBONDALE	ENERGY	GRAY SHALE	10.0	53.8
356.2	CARBONDALE	HERRIN	COAL	7.1	63.8
349.1	CARBONDALE		UNDERCLAY	2.1	70.9

MAPID: 07725275000C VERSION: 1 PROJECT: NCRDS16

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.261213 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.864473 DATE COLLECTED:

SURFACE ELEVATION (FT.): 414.0 LOGGED (FT.): 66.0 LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES E-22` WELL TYPE: Coal Test

COMMENT: RAZORBACK MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		CLAY	17.0	
397.0	SHELBURN	BANKSTON FORK	LIMESTONE	6.0	17.0
391.0	SHELBURN		GRAY SHALE	17.0	23.0
374.0	SHELBURN	BRERETON	LIMESTONE	0.6	40.0
373.4	CARBONDALE	ANNA	BLACK SHALE	5.4	40.6
368.0	CARBONDALE	ENERGY	GRAY SHALE	11.6	46.0
356.4	CARBONDALE	HERRIN	COAL	7.0	57.6
349.4	CARBONDALE		UNDERCLAY	1.4	64.6

MAPID: 07700017000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 3 QUARTERS/FOOTAGES: SE NE SW

QUADRANGLE: ELKVILLE LONGITUDE: -89.198015 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.940051 DATE COLLECTED: 0 / 0 / 1981

SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 347.0 LOG TYPE:

SOURCE: HALLIDAY 0019 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
103.0	CARBONDALE	HERRIN	COAL	16.8	287.0
49.0	CARBONDALE	SPRINGFIELD	COAL	5.1	341.0

MAPID: 07700017000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 3 QUARTERS/FOOTAGES: SE NE SW

QUADRANGLE: ELKVILLE LONGITUDE: -89.198015 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.940051 DATE COLLECTED:

SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 302.8 LOG TYPE: Survey Core Study

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
215.7	MODESTO	PIASA	LIMESTONE	6.0	174.3
209.7	MODESTO		BLACK SHALE	1.0	180.3
208.7	CARBONDALE	DANVILLE	COAL	1.5	181.3
207.2	CARBONDALE		SILTY SHALE	22.5	182.8
184.7	CARBONDALE	BANKSTON FORK	LIMESTONE	8.0	205.3
176.7	CARBONDALE		SILTY SHALE	10.0	213.3
166.7	CARBONDALE	BRERETON	LIMESTONE	1.0	223.3
165.7	CARBONDALE	ENERGY	UNKNOWN	61.8	224.3
104.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	16.8	286.0

MAPID: 07700017000C VERSION: 3

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 3

QUARTERS/FOOTAGES: SE NE SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.198015

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.940051

DATE COLLECTED:

SURFACE ELEVATION (FT.): 390.0

LOGGED (FT.): 347.0

LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 1

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0	
361.0	PLEISTOCENE		CLAY	31.0	29.0	PINK
330.0	PLEISTOCENE		UNCONSOLIDATED	20.0	60.0	
310.0	MODESTO		SHALE	45.0	80.0	SANDY
265.0	MODESTO		SHALE	1.5	125.0	
263.5	MODESTO		CLAYSTONE	0.5	126.5	
263.0	MODESTO		SANDSTONE	7.0	127.0	LIMESTONE PARTINGS
256.0	MODESTO		SHALE	1.0	134.0	
255.0	MODESTO		SANDSTONE	8.0	135.0	
247.0	MODESTO		SHALE	2.0	143.0	
245.0	MODESTO	DEGRAFF	SHALY COAL	1.0	145.0	
244.0	MODESTO		SHALE	6.0	146.0	
238.0	MODESTO		SANDSTONE	5.0	152.0	
233.0	MODESTO		SHALE	18.0	157.0	
215.0	MODESTO	PIASA	LIMESTONE	6.0	175.0	
209.0	MODESTO		SHALE	0.5	181.0	
208.5	MODESTO		SHALE	0.5	181.5	
208.0	CARBONDALE	DANVILLE	COAL	1.5	182.0	
206.5	CARBONDALE		SHALE	17.5	183.5	
189.0	CARBONDALE		CLAYSTONE	5.0	201.0	
184.0	CARBONDALE	BANKSTON FORK	LIMESTONE	8.0	206.0	
176.0	CARBONDALE		SHALE	10.0	214.0	
166.0	CARBONDALE		LIMESTONE	1.0	224.0	
165.0	CARBONDALE		SHALE	33.0	225.0	
132.0	CARBONDALE		SHALE	28.8	258.0	
103.2	CARBONDALE	HERRIN	COAL	2.5	286.8	
100.7	CARBONDALE	HERRIN	SHALE	1.8	289.3	PARTING
99.0	CARBONDALE	HERRIN	COAL	0.3	291.0	
98.7	CARBONDALE	HERRIN	SHALE	0.3	291.3	
98.3	CARBONDALE	HERRIN	COAL	0.7	291.7	
97.7	CARBONDALE	HERRIN	SHALE	0.7	292.3	
97.0	CARBONDALE	HERRIN	COAL	0.5	293.0	
96.5	CARBONDALE	HERRIN	SHALE	0.8	293.5	
95.7	CARBONDALE	HERRIN	COAL	2.0	294.3	
93.7	CARBONDALE	HERRIN	SHALE	0.5	296.3	
93.2	CARBONDALE	HERRIN	COAL	4.3	296.8	
89.0	CARBONDALE	HERRIN	SHALE	0.5	301.0	
88.5	CARBONDALE	HERRIN	COAL	2.0	301.5	
86.5	CARBONDALE		UNDERCLAY	9.5	303.5	LIMESTONE PARTINGS

77.0	CARBONDALE		LIMESTONE	8.0	313.0
69.0	CARBONDALE		SHALE	0.5	321.0
68.5	CARBONDALE		SHALE	7.5	321.5
61.0	CARBONDALE		SHALE	5.0	329.0
56.0	CARBONDALE		SHALE	4.0	334.0
52.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	338.0
51.0	CARBONDALE		SHALE	1.8	339.0
49.2	CARBONDALE	SPRINGFIELD	COAL	5.1	340.8
44.2	CARBONDALE		UNDERCLAY	1.2	345.8

MAPID: 07700001000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 4 **QUARTERS/FOOTAGES:** SE NW SE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.211944 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.94012 **DATE COLLECTED:** 0 / 0 / 1891
SURFACE ELEVATION (FT.): 394.0 **LOGGED (FT.):** 282.0 **LOG TYPE:** Drillers Log
SOURCE: HALLIDAY ESTATE 18 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
394.0	PLEISTOCENE		UNCONSOLIDATED	36.0	0.0
358.0	PLEISTOCENE		CLAY	18.0	36.0 RED
340.0	PLEISTOCENE		UNCONSOLIDATED	8.0	54.0
332.0			SHALE	55.0	62.0
277.0			SHALE	26.0	117.0
251.0			SHALE	1.0	143.0
250.0			SHALE	1.0	144.0
249.0			SHALE	2.0	145.0
247.0			SHALE	25.0	147.0
222.0			SHALE	6.0	172.0
216.0			SHALE	14.0	178.0
202.0			SHALE	2.0	192.0
200.0			SHALE	13.5	194.0
186.5			LIMESTONE	13.5	207.5
173.0			SANDSTONE	1.5	221.0
171.5			SHALE	8.5	222.5
163.0			LIMESTONE	8.5	231.0
154.5			SHALE	0.5	239.5
154.0	CARBONDALE	BRERETON	LIMESTONE	4.0	240.0
150.0	CARBONDALE	ANNA	SHALE	3.0	244.0
147.0	CARBONDALE	ENERGY	SHALE	25.5	247.0
121.5	CARBONDALE	ENERGY	SHALE	0.5	272.5
121.0	CARBONDALE	HERRIN	COAL	9.0	273.0
112.0	CARBONDALE		UNDERCLAY	-	282.0

MAPID: 07700001000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.211944

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.94012

DATE COLLECTED: 0 / 0 / 1991

SURFACE ELEVATION (FT.): 394.0

LOGGED (FT.): 282.0

LOG TYPE:

SOURCE: HALLIDAY 0018

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
121.0	CARBONDALE	HERRIN	COAL	9.0	273.0	

MAPID: 07700002000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: NW NE NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.218848

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.949289

DATE COLLECTED:

SURFACE ELEVATION (FT.): 393.7

LOGGED (FT.): 335.0

LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 27

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
393.7	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
381.7	PLEISTOCENE		UNCONSOLIDATED	8.0	12.0	
373.7	PLEISTOCENE		UNCONSOLIDATED	15.0	20.0	
358.7	MODESTO		SHALE	6.0	35.0	BLUE
352.7	MODESTO		SHALE	16.0	41.0	BLUE
336.7	MODESTO		SHALE	5.0	57.0	BLUE
331.7	MODESTO		SHALE	81.0	62.0	BLUE
250.7	MODESTO		SHALE	24.0	143.0	BLUE
226.7	MODESTO		SHALE	26.0	167.0	BLUE
200.7	MODESTO		SHALE	0.8	193.0	
199.9	MODESTO		SHALE	2.3	193.8	DARK
197.7	MODESTO		LIMESTONE	12.0	196.0	
185.7	MODESTO		SHALE	10.0	208.0	DARK
175.7	MODESTO		SANDSTONE	8.0	218.0	
167.7	MODESTO		SHALE	3.0	226.0	
164.7	MODESTO		SHALE	6.0	229.0	DARK
158.7	MODESTO		SHALE	6.8	235.0	DARK
151.9	CARBONDALE	DANVILLE	COAL	1.8	241.8	
150.2	CARBONDALE		SANDY CLAYSTONE	4.5	243.5	
145.7	CARBONDALE		UNDERCLAY	7.0	248.0	
138.7	CARBONDALE		SANDSTONE/LIMESTONE	7.0	255.0	BLUE
131.7	CARBONDALE	BANKSTON FORK	LIMESTONE	13.5	262.0	GRAY
118.2	CARBONDALE		SHALE	1.5	275.5	
116.7	CARBONDALE		SHALE	5.0	277.0	
111.7	CARBONDALE	CONANT	LIMESTONE	4.0	282.0	DARK
107.7	CARBONDALE	JAMESTOWN	SHALE	0.5	286.0	
107.2	CARBONDALE	JAMESTOWN	COAL	0.5	286.5	
106.7	CARBONDALE		SHALE	0.8	287.0	
105.9	CARBONDALE	BRERETON	LIMESTONE	3.0	287.8	DARK
102.9	CARBONDALE	ANNA	SHALE	2.3	290.8	
100.7	CARBONDALE	ENERGY	SHALE	5.0	293.0	BLUE
95.7	CARBONDALE	ENERGY	SHALE	9.0	298.0	BLUE
86.7	CARBONDALE	ENERGY	SHALE	6.0	307.0	BLUE
80.7	CARBONDALE	ENERGY	SHALE	11.5	313.0	LIMESTONE PARTINGS
69.2	CARBONDALE	HERRIN	COAL	8.5	324.5	
60.7	CARBONDALE		UNDERCLAY	2.0	333.0	

MAPID: 07700002000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 4 **QUARTERS/FOOTAGES:** NW NE NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.218848 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.949289 **DATE COLLECTED:** 0 / 0 / 1921
SURFACE ELEVATION (FT.): 393.7 **LOGGED (FT.):** 335.0 **LOG TYPE:**
SOURCE: UNION COLL0027 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
68.7	CARBONDALE	HERRIN	COAL	8.5	325.0	

MAPID: 07700003000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 4 **QUARTERS/FOOTAGES:** NW NW NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.22345 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.949303 **DATE COLLECTED:** 6 / 28 / 1921
SURFACE ELEVATION (FT.): 398.9 **LOGGED (FT.):** 297.0 **LOG TYPE:** Drillers Log
SOURCE: UNION COLLIERY CO. 36 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
398.9	PLEISTOCENE		SOIL	20.0	0.0	
378.9	PLEISTOCENE		SAND	10.0	20.0	
368.9	MODESTO		SHALE	118.0	30.0	
250.9	MODESTO		SHALE	4.0	148.0	
246.9	MODESTO		LIMESTONE	18.0	152.0	
228.9	MODESTO		LIMESTONE	1.0	170.0	
227.9	MODESTO		COAL	2.0	171.0	
225.9	MODESTO		UNDERCLAY	2.0	173.0	
223.9	MODESTO		SHALE	4.0	175.0	ROTTEN
219.9	CARBONDALE	DANVILLE	COAL	2.5	179.0	CORRELATION UNCERTAIN
217.4	CARBONDALE		UNDERCLAY	2.2	181.5	
215.2	CARBONDALE		SHALE	7.3	183.7	
207.9	CARBONDALE		LIMESTONE	1.0	191.0	
206.9	CARBONDALE		SHALE	4.0	192.0	
202.9	CARBONDALE		LIMESTONE	3.5	196.0	
199.4	CARBONDALE		SHALE	19.0	199.5	
180.4	CARBONDALE		LIMESTONE	13.5	218.5	
166.9	CARBONDALE		SHALE	7.5	232.0	
159.4	CARBONDALE		LIMESTONE	0.5	239.5	
158.9	CARBONDALE		SHALE	2.5	240.0	
156.4	CARBONDALE		LIMESTONE	1.5	242.5	
154.9	CARBONDALE	ENERGY	SHALE	43.0	244.0	
111.9	CARBONDALE	HERRIN	COAL	9.0	287.0	
102.9	CARBONDALE		UNDERCLAY	1.0	296.0	

MAPID: 07700003000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.22345

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.949303

DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 398.9

LOGGED (FT.): 297.0

LOG TYPE:

SOURCE: UNION COLL0036

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
111.9	CARBONDALE	HERRIN	COAL	9.0	287.0	

MAPID: 07700004000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.22345

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.949303

DATE COLLECTED:

SURFACE ELEVATION (FT.): 400.7

LOGGED (FT.): 270.0

LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 35

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.7	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
380.7	PLEISTOCENE		SAND	8.0	20.0	
372.7	PLEISTOCENE		CLAY	18.0	28.0	YELLOW
354.7	MODESTO		SHALE	30.5	46.0	BLUE
324.2	MODESTO		LIMESTONE	13.0	76.5	
311.2	MODESTO		SHALE	31.0	89.5	BLUE
280.2	MODESTO		COAL	2.5	120.5	
277.7	MODESTO		UNDERCLAY	1.0	123.0	
276.7	MODESTO		SHALE	2.3	124.0	
274.4	MODESTO		ROCK	0.3	126.3	
274.2	MODESTO		SHALE	7.5	126.5	LITHOLOGY QUESTIONABLE
266.7	MODESTO		SHALE	10.0	134.0	
256.7	MODESTO	PIASA	LIMESTONE	2.0	144.0	GRAY
254.7	MODESTO		SHALE	2.0	146.0	
252.7	CARBONDALE	DANVILLE	COAL	2.0	148.0	
250.7	CARBONDALE		SHALE	6.0	150.0	
244.7	CARBONDALE	ALLENBY	COAL	1.5	156.0	
243.2	CARBONDALE		UNDERCLAY	1.5	157.5	
241.7	CARBONDALE	BANKSTON FORK	LIMESTONE	9.0	159.0	GRAY
232.7	CARBONDALE	BANKSTON FORK	LIMESTONE	8.0	168.0	
224.7	CARBONDALE		SHALE	2.0	176.0	
222.7	CARBONDALE		SHALE	2.0	178.0	ROTTEN
220.7	CARBONDALE		SHALE	13.0	180.0	
207.7	CARBONDALE		LIMESTONE	14.0	193.0	
193.7	CARBONDALE		SHALE	9.0	207.0	
184.7	CARBONDALE		LIMESTONE	2.0	216.0	BLUE
182.7	CARBONDALE	ENERGY	SHALE	43.0	218.0	
139.7	CARBONDALE	HERRIN	COAL	9.0	261.0	

MAPID: 07700004000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.22345

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.949303

DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 400.7

LOGGED (FT.): 270.0

LOG TYPE:

SOURCE: UNION COLL0035

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
139.7	CARBONDALE	HERRIN	COAL	9.0	261.0	

MAPID: 07700005000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: NW SW NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.223524

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.945628

DATE COLLECTED: 6 / 21 / 1922

SURFACE ELEVATION (FT.): 389.5

LOGGED (FT.): 314.0

LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 41

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
389.5	PLEISTOCENE		SOIL	34.0	0.0	
355.5	PLEISTOCENE		SAND	3.0	34.0	
352.5	PLEISTOCENE		CLAY	2.0	37.0	
350.5	MODESTO		SHALE	12.0	39.0	
338.5	MODESTO		SHALE	21.0	51.0	BLUE
317.5	MODESTO		SHALE	2.0	72.0	SOME LIMESTONE NOTED; BLUE
315.5	MODESTO		SHALE	91.0	74.0	BLUE
224.5	MODESTO		SHALE	7.0	165.0	
217.5	MODESTO		SHALE	18.0	172.0	
199.5	MODESTO		SHALE	3.0	190.0	
196.5	MODESTO		SHALE	15.0	193.0	
181.5	MODESTO	PIASA	LIMESTONE	12.0	208.0	GRAY
169.5	MODESTO		SHALE	6.0	220.0	BLUE
163.5	CARBONDALE	DANVILLE	COAL	1.5	226.0	
162.0	CARBONDALE		SHALE	2.5	227.5	
159.5	CARBONDALE		SHALE	10.5	230.0	
149.0	CARBONDALE	GALUM	LIMESTONE	3.0	240.5	GRAY
146.0	CARBONDALE	ALLENBY	COAL	0.5	243.5	
145.5	CARBONDALE		SHALE	3.0	244.0	SOME LIMESTONE NOTED; BLUE
142.5	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	247.0	GRAY
136.5	CARBONDALE		SHALE	1.0	253.0	
135.5	CARBONDALE		SHALE	6.0	254.0	BLUE
129.5	CARBONDALE	BRERETON	LIMESTONE	9.0	260.0	DARK
120.5	CARBONDALE	ANNA	SHALE	2.0	269.0	
118.5	CARBONDALE	ENERGY	SHALE	18.0	271.0	
100.5	CARBONDALE	ENERGY	SHALY LIMESTONE	1.3	289.0	
99.2	CARBONDALE	ENERGY	SHALE	13.7	290.3	
85.5	CARBONDALE	HERRIN	COAL	8.0	304.0	
77.5	CARBONDALE		UNDERCLAY	2.0	312.0	

MAPID: 07700005000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: NW SW NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.223524

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.945628

DATE COLLECTED: 0 / 0 / 1922

SURFACE ELEVATION (FT.): 389.5

LOGGED (FT.): 314.0

LOG TYPE:

SOURCE: UNION COLL0041

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
85.5	CARBONDALE	HERRIN	COAL	8.0	304.0	

MAPID: 07700006000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: NE SW NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.221209

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.945626

DATE COLLECTED: 7 / 22 / 1922

SURFACE ELEVATION (FT.): 387.8

LOGGED (FT.): 324.4

LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 42

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
387.8	PLEISTOCENE		SOIL	28.0	0.0	
359.8	PLEISTOCENE		SAND	4.0	28.0	
355.8	PLEISTOCENE		CLAY	21.0	32.0	
334.8	MODESTO		SHALE	11.0	53.0	
323.8	MODESTO		SHALE	13.0	64.0	
310.8	MODESTO		SHALE	4.0	77.0	BLUE
306.8	MODESTO		LIMESTONE	3.0	81.0	GRAY
303.8	MODESTO		SHALE	106.0	84.0	BLUE
197.8	MODESTO		SHALE	4.0	190.0	
193.8	MODESTO		SHALE	2.0	194.0	
191.8	MODESTO		SHALE	6.0	196.0	
185.8	MODESTO		SHALE	11.0	202.0	
174.8	MODESTO		LIMESTONE	2.0	213.0	
172.8	MODESTO		SHALE	3.0	215.0	
169.8	MODESTO		SHALE	6.0	218.0	BLUE
163.8	MODESTO		SHALE	9.0	224.0	
154.8	MODESTO	PIASA	LIMESTONE	5.0	233.0	
149.8	MODESTO		LIMESTONE	12.0	238.0	LITHOLOGY QUESTIONABLE
137.8	CARBONDALE	DANVILLE	COAL	4.0	250.0	
133.8	CARBONDALE		SHALE	9.0	254.0	BLUE
124.8	CARBONDALE		SHALE	5.0	263.0	
119.8	CARBONDALE	BANKSTON FORK	LIMESTONE	13.0	268.0	
106.8	CARBONDALE		SHALE	8.0	281.0	BLUE
98.8	CARBONDALE	CONANT	LIMESTONE	5.0	289.0	
93.8	CARBONDALE	JAMESTOWN	COAL	1.0	294.0	
92.8	CARBONDALE	ENERGY	SHALE	20.4	295.0	
72.4	CARBONDALE	HERRIN	COAL	8.0	315.4	
64.4	CARBONDALE		UNDERCLAY	1.0	323.4	

MAPID: 07700006000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: NE SW NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.221209

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.945626

DATE COLLECTED: 0 / 0 / 1922

SURFACE ELEVATION (FT.): 387.8

LOGGED (FT.): 325.0

LOG TYPE:

SOURCE: UNION COLL0042

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
72.8	CARBONDALE	HERRIN	COAL	8.0	315.0	

MAPID: 07700009000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: SE SW NE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.211943

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.943778

DATE COLLECTED:

SURFACE ELEVATION (FT.): 385.3

LOGGED (FT.): 278.0

LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY 29

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.3	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	YELLOW
370.3	PLEISTOCENE		UNCONSOLIDATED	6.0	15.0	YELLOW
364.3	PLEISTOCENE		UNCONSOLIDATED	3.0	21.0	
361.3	PLEISTOCENE		UNCONSOLIDATED	20.0	24.0	PINK
341.3	PLEISTOCENE		UNCONSOLIDATED	6.0	44.0	CLAY; YELLOW
335.3	PLEISTOCENE		GRAVEL	2.0	50.0	
333.3	MODESTO		SHALE	4.0	52.0	BLUE
329.3	MODESTO		SHALE	50.0	56.0	BLUE
279.3	MODESTO		SHALE	18.0	106.0	SOME LIMESTONE NOTED; BLUE
261.3	MODESTO		SHALE	2.0	124.0	
259.3	MODESTO		SHALE	5.0	126.0	BLUE
254.3	MODESTO	DEGRAFF	COAL	0.3	131.0	
254.0	MODESTO		UNDERCLAY	0.8	131.3	LIGHT
253.3	MODESTO	PIASA	LIMESTONE	5.0	132.0	
248.3	MODESTO		SANDSTONE	15.0	137.0	SOME LIMESTONE NOTED
233.3	MODESTO		SHALE	4.0	152.0	
229.3	MODESTO		SHALE	9.0	156.0	
220.3	MODESTO		SHALE	6.0	165.0	SOME LIMESTONE NOTED
214.3	CARBONDALE	DANVILLE	SHALY COAL	3.0	171.0	
211.3	CARBONDALE		SHALE	3.0	174.0	SOME LIMESTONE NOTED
208.3	CARBONDALE		UNDERCLAY	6.0	177.0	
202.3	CARBONDALE	BANKSTON FORK	LIMESTONE	8.0	183.0	DARK
194.3	CARBONDALE	BANKSTON FORK	LIMESTONE	12.0	191.0	GRAY
182.3	CARBONDALE		SHALE	1.0	203.0	LIGHT
181.3	CARBONDALE		SHALE	8.5	204.0	BLUE
172.8	CARBONDALE	BRERETON	LIMESTONE	8.0	212.5	DARK
164.8	CARBONDALE	ANNA	SHALE	3.5	220.5	
161.3	CARBONDALE	ENERGY	SHALE	18.0	224.0	BLUE
143.3	CARBONDALE	ENERGY	SHALE	25.0	242.0	BLUE
118.3	CARBONDALE	HERRIN	COAL	9.5	267.0	
108.8	CARBONDALE		UNDERCLAY	1.5	276.5	

MAPID: 07700009000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: SE SW NE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.211943

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.943778

DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 385.3

LOGGED (FT.): 278.0

LOG TYPE:

SOURCE: UNION COLL0029

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
118.3	CARBONDALE	HERRIN	COAL	9.5	267.0	

MAPID: 07700010000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: NW NE SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.218936

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.941954

DATE COLLECTED:

SURFACE ELEVATION (FT.): 385.3

LOGGED (FT.): 252.0

LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 26

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.3	PLEISTOCENE		UNCONSOLIDATED	35.0	0.0	YELLOW
350.3	PLEISTOCENE		UNCONSOLIDATED	15.0	35.0	PINK
335.3	MODESTO		SHALE	5.0	50.0	BLUE
330.3	MODESTO		SHALE	35.0	55.0	BLUE
295.3	MODESTO		SHALE	4.0	90.0	BLUE
291.3	MODESTO		SHALE	23.0	94.0	SOME LIMESTONE NOTED; BLUE
268.3	MODESTO		SHALE	2.0	117.0	
266.3	MODESTO		LIMESTONE	0.5	119.0	
265.8	MODESTO		CLAYSTONE	4.5	119.5	
261.3	MODESTO		SHALE	3.0	124.0	
258.3	MODESTO		SHALE	1.5	127.0	
256.8	MODESTO		CLAYSTONE	1.5	128.5	
255.3	MODESTO		SHALE	6.0	130.0	
249.3	MODESTO		SHALE	1.5	136.0	
247.8	MODESTO		UNDERCLAY	1.5	137.5	
246.3	MODESTO	PIASA	LIMESTONE	2.0	139.0	
244.3	MODESTO		SHALE	2.0	141.0	
242.3	MODESTO		SHALE	12.5	143.0	SOME LIMESTONE NOTED
229.8	CARBONDALE	DANVILLE	COAL	2.0	155.5	
227.8	CARBONDALE		UNDERCLAY	0.5	157.5	
227.3	CARBONDALE		SHALE	3.5	158.0	BLUE
223.8	CARBONDALE		LIMESTONE	2.5	161.5	
221.3	CARBONDALE		LIMESTONE	4.0	164.0	
217.3	CARBONDALE		SANDSTONE	2.0	168.0	
215.3	CARBONDALE		CARBONACEOUS SHALE	6.0	170.0	COAL SEAM
209.3	CARBONDALE		UNDERCLAY	2.0	176.0	
207.3	CARBONDALE		UNDERCLAY	3.5	178.0	
203.8	CARBONDALE	BANKSTON FORK	LIMESTONE	14.0	181.5	
189.8	CARBONDALE		SHALE	1.5	195.5	
188.3	CARBONDALE		SHALE	6.0	197.0	
182.3	CARBONDALE	BRERETON	LIMESTONE	8.5	203.0	DARK
173.8	CARBONDALE	ANNA	SHALE	3.5	211.5	
170.3	CARBONDALE	ENERGY	SHALE	7.0	215.0	BLUE
163.3	CARBONDALE	ENERGY	SHALE	19.8	222.0	SOME LIMESTONE NOTED
143.5	CARBONDALE	HERRIN	COAL	8.8	241.8	
134.8	CARBONDALE		UNDERCLAY	1.5	250.5	

MAPID: 07700010000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: NW NE SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.218936

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.941954

DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 385.3

LOGGED (FT.): 252.0

LOG TYPE:

SOURCE: UNION COLL0026

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
143.3	CARBONDALE	HERRIN	COAL	8.8	242.0	

MAPID: 07700011000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: SE NW SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.221297

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.940118

DATE COLLECTED: 12 / 15 / 1921

SURFACE ELEVATION (FT.): 393.4

LOGGED (FT.): 312.3

LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 39

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
393.4	PLEISTOCENE		SOIL	35.0	0.0	
358.4	MODESTO		SHALE	2.0	35.0	GRAVELLY
356.4	MODESTO		SHALE	18.0	37.0	
338.4	MODESTO		SHALE	102.2	55.0	
236.2	MODESTO	PIASA	LIMESTONE	7.3	157.2	
228.9	MODESTO		SHALE	2.3	164.5	
226.6	CARBONDALE	DANVILLE	COAL	2.5	166.8	
224.1	CARBONDALE		UNDERCLAY	1.0	169.3	
223.1	CARBONDALE		SHALE	7.8	170.3	BLUE
215.3	CARBONDALE		LIMESTONE	1.5	178.1	
213.8	CARBONDALE		SHALE	14.6	179.6	BLUE
199.2	CARBONDALE		LIMESTONE	2.6	194.2	
196.6	CARBONDALE		SHALE	4.5	196.8	BLUE
192.1	CARBONDALE		LIMESTONE	2.0	201.3	
190.1	CARBONDALE		SHALE	12.0	203.3	BLUE
178.1	CARBONDALE	BRERETON	LIMESTONE	4.7	215.3	
173.4	CARBONDALE	ANNA	SHALE/COAL	4.0	220.0	ROTTEN
169.4	CARBONDALE	ENERGY	SHALE	30.7	224.0	
138.7	CARBONDALE	HERRIN	COAL	7.5	254.7	
131.2	CARBONDALE		UNDERCLAY	3.5	262.2	
127.7	CARBONDALE		SHALE	1.5	265.7	BLUE
126.2	CARBONDALE		LIMESTONE	7.6	267.2	
118.6	CARBONDALE		SHALE	9.8	274.8	SOME LIMESTONE NOTED
108.8	CARBONDALE		SHALE	13.2	284.6	
95.6	CARBONDALE		SHALE	4.0	297.8	
91.6	CARBONDALE		SHALE	4.8	301.8	BLUE
86.8	CARBONDALE	SPRINGFIELD	COAL	5.2	306.6	
81.6	CARBONDALE		UNDERCLAY	0.5	311.8	

MAPID: 07700011000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 4 QUARTERS/FOOTAGES: SE NW SW

QUADRANGLE: ELKVILLE LONGITUDE: -89.221297 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.940118 DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 393.4 LOGGED (FT.): 312.0 LOG TYPE:

SOURCE: UNION COLL0039 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
138.4	CARBONDALE	HERRIN	COAL	7.5	255.0	
86.4	CARBONDALE	SPRINGFIELD	COAL	5.2	307.0	

MAPID: 07700012000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: SE NW SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.221297

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.940118

DATE COLLECTED: 8 / 15 / 1922

SURFACE ELEVATION (FT.): 386.6

LOGGED (FT.): 278.5

LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 43

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
386.6	PLEISTOCENE		SOIL	20.0	0.0	CLAY
366.6	PLEISTOCENE		SAND	5.0	20.0	
361.6	PLEISTOCENE		CLAY	11.0	25.0	
350.6	MODESTO		SHALE	6.0	36.0	
344.6	MODESTO		SHALE	25.5	42.0	BLUE
319.1	MODESTO		SHALE	2.0	67.5	LIMESTONE PARTINGS; BLUE
317.1	MODESTO		SHALE	50.5	69.5	BLUE
266.6	MODESTO		SHALE	2.0	120.0	SOME LIMESTONE NOTED
264.6	MODESTO		SHALE	23.0	122.0	
241.6	MODESTO	DEGRAFF	COAL	1.0	145.0	
240.6	MODESTO		SHALE	4.0	146.0	
236.6	MODESTO		SHALE	2.0	150.0	SOME LIMESTONE NOTED
234.6	MODESTO		SHALE	12.0	152.0	
222.6	MODESTO		SHALE	8.0	164.0	
214.6	MODESTO	PIASA	LIMESTONE	7.0	172.0	
207.6	CARBONDALE	DANVILLE	COAL	1.0	179.0	
206.6	CARBONDALE		SHALE	10.5	180.0	BLUE
196.1	CARBONDALE		LIMESTONE	1.0	190.5	
195.1	CARBONDALE		SHALE	4.5	191.5	
190.6	CARBONDALE		SHALE	5.5	196.0	BLUE
185.1	CARBONDALE		SHALE	5.5	201.5	
179.6	CARBONDALE	BANKSTON FORK	LIMESTONE	7.0	207.0	
172.6	CARBONDALE	BANKSTON FORK	SHALY LIMESTONE	7.5	214.0	
165.1	CARBONDALE		SHALE	8.0	221.5	BLUE
157.1	CARBONDALE	BRERETON	LIMESTONE	3.0	229.5	
154.1	CARBONDALE	ENERGY	SHALE	34.5	232.5	
119.6	CARBONDALE	HERRIN	COAL	8.0	267.0	
111.6	CARBONDALE		UNDERCLAY	3.5	275.0	

MAPID: 07700012000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: SE NW SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.221297

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.940118

DATE COLLECTED: 0 / 0 / 1922

SURFACE ELEVATION (FT.): 386.6

LOGGED (FT.): 279.0

LOG TYPE:

SOURCE: UNION COLL0043

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
119.6	CARBONDALE	HERRIN	COAL	8.0	267.0	

MAPID: 07700013000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: SW NW SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.223636

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.940118

DATE COLLECTED: 10 / 31 / 1921

SURFACE ELEVATION (FT.): 385.8

LOGGED (FT.): 297.0

LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 38

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.8	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
367.8	PLEISTOCENE		GRAVEL	2.0	18.0	
365.8	PLEISTOCENE		CLAY	19.5	20.0	
346.3	MODESTO		SHALE	11.5	39.5	
334.8	MODESTO		SHALY LIMESTONE	62.0	51.0	
272.8	MODESTO		SHALE	33.5	113.0	
239.3	MODESTO		SHALY LIMESTONE	5.0	146.5	
234.3	MODESTO		SHALE	7.5	151.5	
226.8	MODESTO		SHALY LIMESTONE	4.0	159.0	
222.8	MODESTO		SHALE	3.0	163.0	
219.8	MODESTO		COAL	2.5	166.0	
217.3	MODESTO		UNDERCLAY	1.0	168.5	
216.3	MODESTO		SHALE	21.5	169.5	
194.8	MODESTO	DEGRAFF	COAL	1.0	191.0	
193.8	MODESTO	PIASA	LIMESTONE	9.0	192.0	
184.8	MODESTO	PIASA	SHALY LIMESTONE	2.0	201.0	
182.8	CARBONDALE	DANVILLE	COAL	3.5	203.0	
179.3	CARBONDALE		UNDERCLAY	1.8	206.5	
177.5	CARBONDALE		SHALE	6.8	208.3	
170.8	CARBONDALE		LIMESTONE	2.0	215.0	
168.8	CARBONDALE		SHALE	5.0	217.0	BLUE
163.8	CARBONDALE	ALLENBY	COAL	1.0	222.0	
162.8	CARBONDALE		UNDERCLAY	4.5	223.0	
158.3	CARBONDALE		SHALE	3.8	227.5	SOME LIMESTONE NOTED
154.5	CARBONDALE	BANKSTON FORK	LIMESTONE	12.2	231.3	HARD
142.4	CARBONDALE		SHALE	14.8	243.4	
127.5	CARBONDALE	BRERETON	LIMESTONE	4.0	258.3	
123.5	CARBONDALE		SHALE/COAL	7.0	262.3	ROTTEN
116.5	CARBONDALE		SHALE	10.8	269.3	ROTTEN
105.8	CARBONDALE		SHALE	7.5	280.0	
98.3	CARBONDALE	HERRIN	COAL	9.3	287.5	
89.0	CARBONDALE		PYRITE	0.2	296.8	

MAPID: 07700013000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: SW NW SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.223636

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.940118

DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 385.8

LOGGED (FT.): 294.0

LOG TYPE:

SOURCE: UNION COLL0038

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
97.8	CARBONDALE	HERRIN	COAL	9.3	288.0	

MAPID: 07700014000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 4

QUARTERS/FOOTAGES: SE SW SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.221356

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.936447

DATE COLLECTED:

SURFACE ELEVATION (FT.): 383.9

LOGGED (FT.): 245.0

LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 28

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
383.9	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0	
355.9	PLEISTOCENE		SAND	6.0	28.0	
349.9	PLEISTOCENE		UNCONSOLIDATED	4.0	34.0	
345.9	PLEISTOCENE		UNCONSOLIDATED	5.0	38.0	QUICKSAND
340.9	PLEISTOCENE		UNCONSOLIDATED	3.0	43.0	
337.9	MODESTO		SHALE	4.0	46.0	
333.9	MODESTO		SHALE	15.0	50.0	BLUE
318.9	MODESTO		SHALE	14.0	65.0	BLUE
304.9	MODESTO		LIMESTONE	0.3	79.0	DARK
304.6	MODESTO		SHALE	0.5	79.3	
304.1	MODESTO		CLAYSTONE	7.3	79.8	LIGHT
296.9	MODESTO		SHALE	14.0	87.0	BLUE
282.9	MODESTO		SHALE	0.8	101.0	
282.1	MODESTO		CLAYSTONE	2.3	101.8	
279.9	MODESTO		SANDSTONE	16.0	104.0	
263.9	MODESTO		SHALE	7.0	120.0	BLUE
256.9	MODESTO		SHALE	5.0	127.0	SOME LIMESTONE NOTED; BLUE
251.9	MODESTO		SHALE	2.0	132.0	
249.9	MODESTO		CLAYSTONE	3.0	134.0	
246.9	MODESTO	PIASA	LIMESTONE	9.0	137.0	GRAY
237.9	MODESTO		CLAYSTONE	3.0	146.0	
234.9	MODESTO		SHALE	11.0	149.0	BLUE
223.9	CARBONDALE	DANVILLE	CARBONACEOUS SHALE	5.0	160.0	SMALL COAL SEAM
218.9	CARBONDALE		UNDERCLAY	6.0	165.0	
212.9	CARBONDALE	BANKSTON FORK	LIMESTONE	13.0	171.0	GRAY
199.9	CARBONDALE		SHALE	1.5	184.0	
198.4	CARBONDALE		SHALE	8.0	185.5	DARK
190.4	CARBONDALE	BRERETON	LIMESTONE	5.5	193.5	DARK
184.9	CARBONDALE	ANNA	SHALE	3.0	199.0	
181.9	CARBONDALE	ENERGY	SHALE	12.0	202.0	BLUE
169.9	CARBONDALE	ENERGY	SHALE	15.0	214.0	SOME LIMESTONE NOTED; BLUE
154.9	CARBONDALE	ENERGY	SHALE	5.8	229.0	SOME LIMESTONE NOTED
149.1	CARBONDALE	HERRIN	COAL	8.3	234.8	
140.9	CARBONDALE		UNDERCLAY	2.0	243.0	DARK

MAPID: 07700014000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 4 QUARTERS/FOOTAGES: SE SW SW

QUADRANGLE: ELKVILLE LONGITUDE: -89.221356 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.936447 DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 383.9 LOGGED (FT.): 245.0 LOG TYPE:

SOURCE: UNION COLL0028 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
148.9	CARBONDALE	HERRIN	COAL	8.3	235.0	

MAPID: 07701500000C VERSION: 1 PROJECT: ROOF STUDY

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 4 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.208417 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.937378 DATE COLLECTED:

SURFACE ELEVATION (FT.): 391.0 LOGGED (FT.): 66.8 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER COAL CO R-61-3 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
358.1	CARBONDALE	LAWSON	SANDSTONE	20.0	32.9	
338.1	CARBONDALE		DARK GRAY SHALE	1.2	52.9	
336.9	CARBONDALE	BRERETON	LIMESTONE	2.3	54.1	
334.7	CARBONDALE	ANNA	BLACK SHALE	4.7	56.3	
330.0	CARBONDALE	HERRIN	COAL	5.8	61.0	

MAPID: 07700007000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 5

QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.225905

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.943798

DATE COLLECTED:

SURFACE ELEVATION (FT.): 389.3

LOGGED (FT.): 319.0

LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 37

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
389.3	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
373.3	PLEISTOCENE		SAND	14.0	16.0	
359.3	PLEISTOCENE		CLAY	21.0	30.0	
338.3	MODESTO		SHALE	27.0	51.0	
311.3	MODESTO		SHALE	113.0	78.0	
198.3	MODESTO	PIASA	LIMESTONE	1.0	191.0	
197.3	MODESTO		SHALE	2.0	192.0	
195.3	MODESTO		SHALE	2.0	194.0	
193.3	CARBONDALE	DANVILLE	COAL	3.0	196.0	
190.3	CARBONDALE		SHALE	3.0	199.0	
187.3	CARBONDALE		SHALE	2.0	202.0	
185.3	CARBONDALE		SHALE	4.0	204.0	
181.3	CARBONDALE		SHALE	3.5	208.0	
177.8	CARBONDALE		LIMESTONE	8.5	211.5	
169.3	CARBONDALE		SHALE	10.5	220.0	
158.8	CARBONDALE		LIMESTONE	1.0	230.5	
157.8	CARBONDALE		SHALE	6.0	231.5	BLUE
151.8	CARBONDALE		SHALE	5.5	237.5	
146.3	CARBONDALE		LIMESTONE	10.0	243.0	
136.3	CARBONDALE		SHALE	13.0	253.0	
123.3	CARBONDALE	BRERETON	LIMESTONE	4.0	266.0	
119.3	CARBONDALE	ENERGY	SHALE	2.0	270.0	BLUE
117.3	CARBONDALE	ENERGY	SHALE	1.5	272.0	ROTTEN
115.8	CARBONDALE	ENERGY	SHALE	31.5	273.5	
84.3	CARBONDALE	HERRIN	COAL	10.5	305.0	
73.8	CARBONDALE		PYRITE	2.5	315.5	
71.3	CARBONDALE		LIMESTONE	1.0	318.0	

MAPID: 07700007000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 5

QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.225905

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.943798

DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 389.3

LOGGED (FT.): 319.0

LOG TYPE:

SOURCE: UNION COLL0037

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
84.3	CARBONDALE	HERRIN	COAL	10.5	305.0	

MAPID: 07700008000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 5

QUARTERS/FOOTAGES: SE NE SE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.225975

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.940121

DATE COLLECTED:

SURFACE ELEVATION (FT.): 385.2

LOGGED (FT.): 302.0

LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 33

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.2	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
371.2	PLEISTOCENE		UNCONSOLIDATED	6.0	14.0	
365.2	PLEISTOCENE		UNCONSOLIDATED	10.0	20.0	BLUE
355.2	PLEISTOCENE		UNCONSOLIDATED	10.0	30.0	
345.2	MODESTO		SHALE	6.0	40.0	BLUE
339.2	MODESTO		SHALE	79.0	46.0	BLUE
260.2	MODESTO		SHALE	25.0	125.0	BLUE
235.2	MODESTO		SHALE	5.0	150.0	SOME LIMESTONE NOTED; BLUE
230.2	MODESTO		SHALE	2.0	155.0	
228.2	MODESTO		UNDERCLAY	2.0	157.0	
226.2	MODESTO		LIMESTONE	5.0	159.0	
221.2	MODESTO		SHALE	10.0	164.0	SOME LIMESTONE NOTED; BLUE
211.2	MODESTO		SANDSTONE	9.0	174.0	
202.2	MODESTO		SHALE	2.5	183.0	
199.7	MODESTO		SHALE	0.5	185.5	DARK
199.2	MODESTO	DEGRAFF	COAL	1.5	186.0	
197.7	MODESTO		UNDERCLAY	4.5	187.5	
193.2	MODESTO		UNDERCLAY	2.0	192.0	
191.2	MODESTO		LIMESTONE	4.8	194.0	BLUE
186.4	MODESTO	PIASA	LIMESTONE	9.8	198.8	GRAY
176.7	MODESTO		SHALE	1.3	208.5	
175.4	CARBONDALE	DANVILLE	COAL	2.3	209.8	
173.2	CARBONDALE		UNDERCLAY	6.0	212.0	
167.2	CARBONDALE		SHALE	7.0	218.0	BLUE
160.2	CARBONDALE	ALLENBY	SHALY COAL	0.8	225.0	
159.4	CARBONDALE		UNDERCLAY	5.3	225.8	
154.2	CARBONDALE	BANKSTON FORK	LIMESTONE	13.0	231.0	
141.2	CARBONDALE		SHALE	1.5	244.0	
139.7	CARBONDALE		SHALE	10.0	245.5	BLUE
129.7	CARBONDALE	BRERETON	LIMESTONE	4.5	255.5	DARK
125.2	CARBONDALE	ANNA	SHALE	2.5	260.0	
122.7	CARBONDALE	ENERGY	SHALE	11.5	262.5	BLUE
111.2	CARBONDALE	ENERGY	SHALE	18.5	274.0	SOME LIMESTONE NOTED
92.7	CARBONDALE	HERRIN	COAL	8.5	292.5	
84.2	CARBONDALE		UNDERCLAY	1.0	301.0	

MAPID: 07700008000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 5 QUARTERS/FOOTAGES: SE NE SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.225975 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.940121 DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 385.2 LOGGED (FT.): 302.0 LOG TYPE:

SOURCE: UNION COLL0033 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
92.2	CARBONDALE	HERRIN	COAL	8.5	293.0	

MAPID: 07700015000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 5 QUARTERS/FOOTAGES: NE SE NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.235171 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.945686 DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 391.1 LOGGED (FT.): 0.0 LOG TYPE:

SOURCE: UNION COLL 34 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
255.1	CARBONDALE	HERRIN	COAL	8.5	136.0	

MAPID: 07700016000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 5 QUARTERS/FOOTAGES: NE SE NE
 QUADRANGLE: ELKVILLE LONGITUDE: -89.22587 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.945637 DATE COLLECTED: 3 / 9 / 1922
 SURFACE ELEVATION (FT.): 396.1 LOGGED (FT.): 296.5 LOG TYPE: Drillers Log
 SOURCE: UNION COLLIERY CO. 40 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
396.1	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0	
372.1	PLEISTOCENE		SAND	4.0	24.0	
368.1	PLEISTOCENE		SAND	10.0	28.0	
358.1	MODESTO		SHALE	31.0	38.0	
327.1	MODESTO		SHALE	78.7	69.0	SOME LIMESTONE NOTED
248.4	MODESTO		LIMESTONE	2.0	147.7	
246.4	MODESTO		SHALE	15.9	149.7	SOME LIMESTONE NOTED
230.5	MODESTO		SHALE	3.5	165.6	
227.0	MODESTO		SHALE	26.3	169.1	
200.7	MODESTO	PIASA	LIMESTONE	8.8	195.4	
191.8	MODESTO		SHALE	1.0	204.3	
190.8	CARBONDALE		SHALE	4.3	205.3	DANVILLE HORIZON? BLUE
186.5	CARBONDALE		SHALE	6.2	209.6	
180.3	CARBONDALE		SHALE	6.1	215.8	
174.3	CARBONDALE	BANKSTON FORK	LIMESTONE	13.4	221.8	
160.8	CARBONDALE		SHALE	5.0	235.3	BLUE
155.8	CARBONDALE		SHALE	3.6	240.3	
152.3	CARBONDALE		SHALE	1.5	243.8	BLUE
150.8	CARBONDALE		SHALE	1.0	245.3	
149.8	CARBONDALE	CONANT	LIMESTONE	3.0	246.3	
146.8	CARBONDALE	JAMESTOWN	COAL	2.0	249.3	
144.8	CARBONDALE	ENERGY	SHALE	36.0	251.3	
108.8	CARBONDALE	HERRIN	COAL	8.3	287.3	
100.4	CARBONDALE		UNDERCLAY	0.8	295.7	

MAPID: 07700016000C VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 5 QUARTERS/FOOTAGES: NE SE NE
 QUADRANGLE: ELKVILLE LONGITUDE: -89.22587 GEOLOGIST:
 CONFIDENTIAL: N LATITUDE: 37.945637 DATE COLLECTED: 0 / 0 / 1922
 SURFACE ELEVATION (FT.): 396.1 LOGGED (FT.): 297.0 LOG TYPE:
 SOURCE: UNION COLL 40 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
109.1	CARBONDALE	HERRIN	COAL	8.3	287.0	

MAPID: 07700019000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 5 QUARTERS/FOOTAGES: NW NW SW

QUADRANGLE: ELKVILLE LONGITUDE: -89.24218 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.942028 DATE COLLECTED:

SURFACE ELEVATION (FT.): 408.5 LOGGED (FT.): 100.5 LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY 1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
408.5	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
389.5	PLEISTOCENE		LIMESTONE	3.0	19.0	GRAY
386.5	PLEISTOCENE		CLAYSTONE	1.0	22.0	
385.5	MODESTO		SHALE	2.0	23.0	
383.5	CARBONDALE	DANVILLE	COAL	2.0	25.0	
381.5	CARBONDALE		UNDERCLAY	13.0	27.0	
368.5	CARBONDALE	BANKSTON FORK	LIMESTONE	12.0	40.0	GRAY
356.5	CARBONDALE		SHALE	2.0	52.0	
354.5	CARBONDALE		SHALE	9.5	54.0	BLUE
345.0	CARBONDALE	BRERETON	LIMESTONE	9.0	63.5	DARK
336.0	CARBONDALE	ANNA	SHALE	3.5	72.5	
332.5	CARBONDALE	ENERGY	SHALE	10.5	76.0	BLUE
322.0	CARBONDALE	ENERGY	SHALE	4.5	86.5	
317.5	CARBONDALE	HERRIN	COAL	5.5	91.0	
312.0	CARBONDALE		UNDERCLAY	2.5	96.5	
309.5	CARBONDALE		LIMESTONE	1.5	99.0	

MAPID: 07700019000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 5 QUARTERS/FOOTAGES: NW NW SW

QUADRANGLE: ELKVILLE LONGITUDE: -89.24218 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.942028 DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 408.5 LOGGED (FT.): 101.0 LOG TYPE:

SOURCE: UNION COLL0001 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
317.5	CARBONDALE	HERRIN	COAL	5.5	91.0	

MAPID: 07700020000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 5 QUARTERS/FOOTAGES: NE NW NE

QUADRANGLE: ELKVILLE LONGITUDE: -89.230461 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.949344 DATE COLLECTED:

SURFACE ELEVATION (FT.): 402.4 LOGGED (FT.): 180.0 LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 22 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
402.4	PLEISTOCENE		UNCONSOLIDATED	44.0	0.0	
358.4	MODESTO		SANDSTONE	5.0	44.0	BROWN
353.4	MODESTO		SHALE	17.5	49.0	BLUE
335.9	MODESTO	PIASA	LIMESTONE	12.0	66.5	GRAY
323.9	MODESTO		CLAYSTONE	0.3	78.5	
323.6	MODESTO		SHALE	1.3	78.8	
322.4	MODESTO		SHALE	0.5	80.0	BLUE
321.9	CARBONDALE	DANVILLE	COAL	2.5	80.5	
319.4	CARBONDALE		UNDERCLAY	8.0	83.0	
311.4	CARBONDALE	BANKSTON FORK	LIMESTONE	12.0	91.0	GRAY
299.4	CARBONDALE		SHALE	1.5	103.0	
297.9	CARBONDALE		SHALE	7.0	104.5	BLUE
290.9	CARBONDALE	BRERETON	LIMESTONE	4.5	111.5	
286.4	CARBONDALE	ANNA	SHALE	4.0	116.0	
282.4	CARBONDALE	ENERGY	SHALE	41.0	120.0	BLUE
241.4	CARBONDALE		SHALE	7.0	161.0	BLUE
234.4	CARBONDALE	HERRIN	COAL	10.3	168.0	
224.1	CARBONDALE		UNDERCLAY	1.8	178.3	

MAPID: 07700020000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 5 QUARTERS/FOOTAGES: NE NW NE

QUADRANGLE: ELKVILLE LONGITUDE: -89.230461 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.949344 DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 402.4 LOGGED (FT.): 180.0 LOG TYPE:

SOURCE: UNION COLL0022 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
234.4	CARBONDALE	HERRIN	COAL	10.3	168.0	

MAPID: 07700021000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 5

QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.22594

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.94196

DATE COLLECTED:

SURFACE ELEVATION (FT.): 388.7

LOGGED (FT.): 238.0

LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 23

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
388.7	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
366.7	MODESTO		SHALE	3.0	22.0	YELLOW
363.7	MODESTO		SHALE	35.0	25.0	BLUE
328.7	MODESTO		SHALE	32.0	60.0	SOME LIMESTONE NOTED; BLUE
296.7	MODESTO		SHALE	1.5	92.0	
295.2	MODESTO		LIMESTONE	4.5	93.5	
290.7	MODESTO		SANDSTONE	15.0	98.0	
275.7	MODESTO		SHALE	1.0	113.0	
274.7	MODESTO	DEGRAFF	COAL	0.8	114.0	
273.9	MODESTO		UNDERCLAY	4.3	114.8	
269.7	MODESTO		SHALY SANDSTONE	12.0	119.0	
257.7	MODESTO		SHALE	9.0	131.0	BLUE
248.7	MODESTO		SHALE	1.0	140.0	DARK
247.7	MODESTO	PIASA	LIMESTONE	9.5	141.0	GRAY
238.2	MODESTO		CLAYSTONE	0.5	150.5	
237.7	MODESTO		SHALE	1.5	151.0	
236.2	MODESTO		SHALE	1.0	152.5	BLUE
235.2	CARBONDALE	DANVILLE	COAL	1.5	153.5	
233.7	CARBONDALE		UNDERCLAY	2.0	155.0	
231.7	CARBONDALE		SHALE	7.0	157.0	BLUE
224.7	CARBONDALE		CLAYSTONE	5.0	164.0	
219.7	CARBONDALE	BANKSTON FORK	LIMESTONE	14.0	169.0	GRAY
205.7	CARBONDALE		SHALE	2.0	183.0	
203.7	CARBONDALE		SHALE	3.0	185.0	BLUE
200.7	CARBONDALE		SHALE	9.0	188.0	SOME LIMESTONE NOTED; BLUE
191.7	CARBONDALE	BRERETON	LIMESTONE	3.0	197.0	
188.7	CARBONDALE	ANNA	SHALE	3.0	200.0	
185.7	CARBONDALE	ENERGY	SHALE	3.0	203.0	
182.7	CARBONDALE	ENERGY	SHALE	14.0	206.0	BLUE
168.7	CARBONDALE	ENERGY	SHALE	8.0	220.0	BLUE
160.7	CARBONDALE	HERRIN	COAL	8.3	228.0	
152.4	CARBONDALE		UNDERCLAY	1.8	236.3	

MAPID: 07700021000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 5

QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.22594

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.94196

DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 388.7

LOGGED (FT.): 238.0

LOG TYPE:

SOURCE: UNION COLL0023

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
160.7	CARBONDALE	HERRIN	COAL	8.3	228.0	

MAPID: 07700022000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 5

QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.23067

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.936458

DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.2

LOGGED (FT.): 258.0

LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 24

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.2	PLEISTOCENE		UNCONSOLIDATED	44.0	0.0	
351.2	PLEISTOCENE		UNCONSOLIDATED	8.0	44.0	
343.2	MODESTO		SHALE	10.0	52.0	BLUE
333.2	MODESTO		SHALE	20.0	62.0	BLUE
313.2	MODESTO		SHALE	20.0	82.0	BLUE
293.2	MODESTO		SHALE	6.0	102.0	BLUE
287.2	MODESTO		SHALE	2.0	108.0	DARK
285.2	MODESTO		CLAYSTONE	4.0	110.0	
281.2	MODESTO		SHALE	10.0	114.0	BLUE
271.2	MODESTO		CLAYSTONE	8.0	124.0	
263.2	MODESTO		SANDSTONE	10.0	132.0	
253.2	MODESTO		SHALE	18.0	142.0	BLUE
235.2	MODESTO		SHALE	0.5	160.0	
234.7	MODESTO		CLAYSTONE	3.0	160.5	
231.7	MODESTO	PIASA	LIMESTONE	9.5	163.5	GRAY
222.2	MODESTO		CLAYSTONE	0.5	173.0	
221.7	MODESTO		SHALE	1.0	173.5	BLUE
220.7	CARBONDALE	DANVILLE	COAL	1.5	174.5	
219.2	CARBONDALE		CLAYSTONE	2.0	176.0	
217.2	CARBONDALE		SHALE	16.0	178.0	COALY PARTINGS NOTED; BLUE
201.2	CARBONDALE		UNDERCLAY	4.0	194.0	
197.2	CARBONDALE	BANKSTON FORK	LIMESTONE	11.5	198.0	GRAY
185.7	CARBONDALE		SHALE	1.5	209.5	
184.2	CARBONDALE		SHALE	7.3	211.0	
176.9	CARBONDALE	BRERETON	LIMESTONE	6.5	218.3	
170.4	CARBONDALE	ANNA	SHALE	2.3	224.8	
168.2	CARBONDALE	ENERGY	SHALE	8.0	227.0	BLUE
160.2	CARBONDALE	ENERGY	SHALE	12.5	235.0	BLUE
147.7	CARBONDALE	HERRIN	COAL	9.0	247.5	
138.7	CARBONDALE		UNDERCLAY	1.5	256.5	

MAPID: 07700022000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 5

QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.23067

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.936458

DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 395.2

LOGGED (FT.): 258.0

LOG TYPE:

SOURCE: UNION COLL0024

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
147.2	CARBONDALE	HERRIN	COAL	9.0	248.0	

MAPID: 07700023000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 5

QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.232901

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.94199

DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.2

LOGGED (FT.): 191.5

LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY 30

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.2	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0	YELLOW
371.2	MODESTO		SHALE	16.0	24.0	YELLOW
355.2	MODESTO		SHALE	5.0	40.0	BLUE
350.2	MODESTO		SHALE	3.5	45.0	BLUE
346.7	MODESTO		SHALE	1.0	48.5	
345.7	MODESTO		CLAYSTONE	3.5	49.5	
342.2	MODESTO		SHALE	17.8	53.0	BLUE
324.4	MODESTO		SHALE	0.8	70.8	
323.7	MODESTO		CLAYSTONE	1.5	71.5	
322.2	MODESTO		CLAYSTONE	1.0	73.0	
321.2	MODESTO		ROCK	13.0	74.0	
308.2	MODESTO		SHALE	12.0	87.0	BLUE
296.2	MODESTO	PIASA	LIMESTONE	9.0	99.0	GRAY
287.2	MODESTO		CLAYSTONE	0.5	108.0	
286.7	MODESTO		SHALE	1.0	108.5	
285.7	MODESTO		SHALE	1.5	109.5	DARK
284.2	CARBONDALE	DANVILLE	COAL	3.5	111.0	
280.7	CARBONDALE		UNDERCLAY	2.5	114.5	
278.2	CARBONDALE		SANDSTONE	5.0	117.0	
273.2	CARBONDALE		SHALE	2.0	122.0	COALY PARTINGS NOTED; BLUE
271.2	CARBONDALE		UNDERCLAY	6.0	124.0	
265.2	CARBONDALE	BANKSTON FORK	LIMESTONE	12.0	130.0	
253.2	CARBONDALE		SHALE	1.5	142.0	
251.7	CARBONDALE		SHALE	10.5	143.5	BLUE
241.2	CARBONDALE	BRERETON	LIMESTONE	3.0	154.0	
238.2	CARBONDALE	ANNA	SHALE	4.0	157.0	
234.2	CARBONDALE	ENERGY	SHALE	5.0	161.0	DARK
229.2	CARBONDALE	ENERGY	SHALE	3.0	166.0	BLUE
226.2	CARBONDALE	ENERGY	SHALE	13.5	169.0	SOME LIMESTONE NOTED
212.7	CARBONDALE	HERRIN	COAL	7.8	182.5	
204.9	CARBONDALE		UNDERCLAY	1.3	190.3	

MAPID: 07700023000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 5

QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.232901

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.94199

DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 395.2

LOGGED (FT.): 192.0

LOG TYPE:

SOURCE: UNION COLL0030

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
211.2	CARBONDALE	HERRIN	COAL	7.7	184.0	

MAPID: 07700024000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 5

QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.230579

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.941979

DATE COLLECTED:

SURFACE ELEVATION (FT.): 397.2

LOGGED (FT.): 226.0

LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 31

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
397.2	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0	YELLOW
372.2	MODESTO		SHALE	10.0	25.0	YELLOW
362.2	MODESTO		SHALE	20.0	35.0	BLUE
342.2	MODESTO		SHALE	28.0	55.0	BLUE
314.2	MODESTO		SHALE	0.5	83.0	
313.7	MODESTO		CLAYSTONE	2.5	83.5	
311.2	MODESTO		SANDSTONE	6.0	86.0	
305.2	MODESTO		SHALE	2.0	92.0	
303.2	MODESTO		SHALE	0.8	94.0	
302.4	MODESTO		CLAYSTONE	1.3	94.8	
301.2	MODESTO		CLAYSTONE	3.0	96.0	
298.2	MODESTO		SHALE	21.0	99.0	BLUE
277.2	MODESTO		SHALE	12.0	120.0	BLUE
265.2	MODESTO		CLAYSTONE	3.0	132.0	
262.2	MODESTO	PIASA	LIMESTONE	9.0	135.0	
253.2	MODESTO		CLAYSTONE	1.5	144.0	
251.7	MODESTO		CLAYSTONE	1.0	145.5	
250.7	MODESTO		SHALE	3.0	146.5	
247.7	CARBONDALE	DANVILLE	COAL	2.5	149.5	
245.2	CARBONDALE		UNDERCLAY	2.0	152.0	
243.2	CARBONDALE		SHALE	3.0	154.0	COALY PARTINGS NOTED
240.2	CARBONDALE		CLAYSTONE	5.0	157.0	
235.2	CARBONDALE	BANKSTON FORK	LIMESTONE	12.5	162.0	
222.7	CARBONDALE		SHALE	1.5	174.5	
221.2	CARBONDALE		SHALE	13.5	176.0	BLUE
207.7	CARBONDALE	BRERETON	LIMESTONE	2.5	189.5	
205.2	CARBONDALE	ANNA	SHALE	2.5	192.0	
202.7	CARBONDALE	ENERGY	SHALE	13.0	194.5	BLUE
189.7	CARBONDALE	ENERGY	SHALE	10.0	207.5	BLUE
179.7	CARBONDALE	HERRIN	COAL	7.8	217.5	
171.9	CARBONDALE		UNDERCLAY	0.8	225.3	

MAPID: 07700024000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 5

QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.230579

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.941979

DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 397.2

LOGGED (FT.): 226.0

LOG TYPE:

SOURCE: UNION COLL0031

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
179.2	CARBONDALE	HERRIN	COAL	7.8	218.0	

MAPID: 07700025000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 5

QUARTERS/FOOTAGES: SE NE SE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.225975

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.940121

DATE COLLECTED:

SURFACE ELEVATION (FT.): 385.1

LOGGED (FT.): 299.0

LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 32

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.1	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0	
345.1	MODESTO		SHALE	82.0	40.0	BLUE
263.1	MODESTO		SHALE	30.0	122.0	BLUE
233.1	MODESTO		SHALE	2.0	152.0	DARK
231.1	MODESTO		LIMESTONE	8.0	154.0	
223.1	MODESTO		SANDY SHALE	10.0	162.0	
213.1	MODESTO		SHALE	4.0	172.0	DARK
209.1	MODESTO		SHALE	1.8	176.0	
207.3	MODESTO		SHALE	4.3	177.8	
203.1	MODESTO		COAL	1.0	182.0	
202.1	MODESTO		UNDERCLAY	1.5	183.0	
200.6	MODESTO		LIMESTONE	8.5	184.5	
192.1	MODESTO		SHALE	4.0	193.0	BLUE
188.1	MODESTO		LIMESTONE	9.5	197.0	
178.6	MODESTO		SHALE	2.5	206.5	DARK
176.1	CARBONDALE	DANVILLE	COAL	1.8	209.0	
174.3	CARBONDALE		UNDERCLAY	1.3	210.8	
173.1	CARBONDALE		SHALE	6.0	212.0	BLUE
167.1	CARBONDALE		SHALE	0.8	218.0	
166.3	CARBONDALE		UNDERCLAY	2.3	218.8	
164.1	CARBONDALE		SHALE	8.0	221.0	
156.1	CARBONDALE	BANKSTON FORK	LIMESTONE	13.5	229.0	
142.6	CARBONDALE		SHALE	1.5	242.5	LIGHT
141.1	CARBONDALE		SHALE	10.0	244.0	BLUE
131.1	CARBONDALE	BRERETON	LIMESTONE	4.0	254.0	BLUE
127.1	CARBONDALE	ANNA	SHALE	2.0	258.0	
125.1	CARBONDALE	ENERGY	SHALE	18.0	260.0	BLUE
107.1	CARBONDALE	ENERGY	SHALE	9.8	278.0	SOME LIMESTONE NOTED; BLUE
97.3	CARBONDALE	HERRIN	COAL	9.3	287.8	
88.1	CARBONDALE		UNDERCLAY	2.0	297.0	

MAPID: 07700025000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 5 **QUARTERS/FOOTAGES:** SE NE SE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.225975 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.940121 **DATE COLLECTED:** 0 / 0 / 1921
SURFACE ELEVATION (FT.): 385.1 **LOGGED (FT.):** 299.0 **LOG TYPE:**
SOURCE: UNION COLL0032 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
97.1	CARBONDALE	HERRIN	COAL	9.3	288.0	

MAPID: 07700350000C **VERSION:** 1 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 5 **QUARTERS/FOOTAGES:** NW NE SE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.228261 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.941971 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.5 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: UNION COLL **WELL TYPE:** Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
143.5	CARBONDALE	HERRIN	COAL	8.7	252.0	
100.5	CARBONDALE	SPRINGFIELD	COAL	5.3	295.0	

MAPID: 07700350000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 5 **QUARTERS/FOOTAGES:** NW NE SE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.228261 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.941971 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 259.7 **LOG TYPE:** Drillers Log
SOURCE: **WELL TYPE:** Coal Test
COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
231.5	MODESTO	PIASA	LIMESTONE	9.0	163.5	
222.5	MODESTO		GRAY SHALE	12.0	172.5	
210.5	CARBONDALE	DANVILLE	COAL	2.5	184.5	
208.0	CARBONDALE		SILTY SHALE	6.0	187.0	
202.0	CARBONDALE	BANKSTON FORK	LIMESTONE	14.0	193.0	
188.0	CARBONDALE		GRAY SHALE	11.0	207.0	
177.0	CARBONDALE	BRERETON	LIMESTONE	2.0	218.0	
175.0	CARBONDALE	ENERGY	UNKNOWN	31.0	220.0	
144.0	CARBONDALE	HERRIN	COAL	8.7	251.0	

MAPID: 07700350000C VERSION: 3

PROJECT: NCRDS87

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 5 QUARTERS/FOOTAGES: NW NE SE
QUADRANGLE: ELKVILLE LONGITUDE: -89.228261 GEOLOGIST: WEIBEL
CONFIDENTIAL: N LATITUDE: 37.941971 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.5 LOGGED (FT.): 300.5 LOG TYPE: Drillers Log
SOURCE: UNION COLLIERY CO. WELL TYPE: Mine Shaft
COMMENT: LOCATION IMPRECISE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.5			UNCONSOLIDATED	25.0	0.0
370.5			SHALE	71.0	25.0
299.5			BLACK SHALE	15.7	96.0
283.8			UNDERCLAY	2.5	111.7
281.3			SHALE	16.6	114.2
264.7			BLACK SHALE	1.0	130.8
263.7			UNDERCLAY	9.0	131.8
254.7			SHALE	21.3	140.8
233.5			LIMESTONE	9.0	162.0
224.5			SHALE	12.0	171.0
212.5			COAL	2.5	183.0
210.0			UNDERCLAY	0.5	185.5
209.5			SHALE	6.0	186.0
203.5	CARBONDALE		LIMESTONE	14.0	192.0
189.5	CARBONDALE		UNDERCLAY	1.5	206.0
188.0	CARBONDALE		SHALE	11.0	207.5
177.0	CARBONDALE	BRERETON	LIMESTONE	2.0	218.5
175.0	CARBONDALE	ANNA	DARK SHALE	31.0	220.5
144.0	CARBONDALE	HERRIN	COAL	8.7	251.5
135.3	CARBONDALE		UNDERCLAY	5.5	260.2
129.8	CARBONDALE		LIMESTONE	2.0	265.7
127.8	CARBONDALE		SHALE	21.2	267.7
106.7	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	288.8
103.7	CARBONDALE		GRAY SHALE	3.3	291.8
100.3	CARBONDALE	SPRINGFIELD	COAL	5.3	295.2

MAPID: 07700350000C VERSION: 4

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 5

QUARTERS/FOOTAGES: NW NE SE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.228261

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.941971

DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.5

LOGGED (FT.): 300.5

LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO.

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.5	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0	
370.5	MODESTO		SHALE	10.0	25.0	
360.5	MODESTO		SHALE	61.0	35.0	BLUE
299.5	MODESTO		SHALE	15.7	96.0	
283.8	MODESTO		SHALE	0.5	111.7	
283.3	MODESTO		CLAYSTONE	2.0	112.2	
281.3	MODESTO		SHALE	6.0	114.2	
275.3	MODESTO		SHALE	3.3	120.2	
272.0	MODESTO		SHALE	7.3	123.5	BLUE
264.7	MODESTO		SHALE	1.0	130.8	
263.7	MODESTO		CLAYSTONE	9.0	131.8	
254.7	MODESTO		SHALE	21.3	140.8	BLUE
233.5	MODESTO	PIASA	LIMESTONE	9.0	162.0	CRYSTALLINE; GRAY
224.5	MODESTO		SHALE	12.0	171.0	BLUE
212.5	CARBONDALE	DANVILLE	COAL	2.5	183.0	
210.0	CARBONDALE		UNDERCLAY	0.5	185.5	
209.5	CARBONDALE		SHALE	6.0	186.0	
203.5	CARBONDALE	BANKSTON FORK	LIMESTONE	14.0	192.0	WHITE
189.5	CARBONDALE		CLAYSTONE	1.5	206.0	
188.0	CARBONDALE		SHALE	11.0	207.5	BLUE
177.0	CARBONDALE	BRERETON	LIMESTONE	2.0	218.5	BLACK
175.0	CARBONDALE	ENERGY	SHALE	31.0	220.5	BLUE
144.0	CARBONDALE	HERRIN	COAL	8.7	251.5	
135.3	CARBONDALE		UNDERCLAY	5.5	260.2	
129.8	CARBONDALE		SHALY LIMESTONE	2.0	265.7	
127.8	CARBONDALE		LIMESTONE	7.0	267.7	GRAY
120.8	CARBONDALE		LIMESTONE	1.7	274.7	GRAY
119.2	CARBONDALE		SHALE	2.5	276.3	
116.7	CARBONDALE		SHALE	9.0	278.8	
107.7	CARBONDALE		PYRITE	1.0	287.8	BAND
106.7	CARBONDALE		SHALE	0.5	288.8	
106.2	CARBONDALE		SHALE	2.5	289.3	
103.7	CARBONDALE		SHALE	3.3	291.8	
100.3	CARBONDALE	SPRINGFIELD	COAL	5.3	295.2	

MAPID: 07700351000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 5 QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.230579 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.941979 DATE COLLECTED:

SURFACE ELEVATION (FT.): 398.5 LOGGED (FT.): 209.6 LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
398.5	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0	YELLOW
373.5	MODESTO		SHALE	10.0	25.0	YELLOW
363.5	MODESTO		SHALE	38.0	35.0	BBL
325.5	MODESTO		SHALE	13.0	73.0	
312.5	MODESTO		CONCRETION	0.5	86.0	
312.0	MODESTO		CLAYSTONE	2.0	86.5	
310.0	MODESTO		SANDSTONE	6.0	88.5	
304.0	MODESTO		SHALE	14.3	94.5	
289.7	MODESTO		SHALE	0.8	108.8	
289.0	MODESTO		SHALE	1.0	109.5	
288.0	MODESTO		SANDSTONE	14.5	110.5	
273.5	MODESTO		SHALE	5.0	125.0	BLUE
268.5	MODESTO		SHALE	4.5	130.0	BLUE
264.0	MODESTO		SHALE	3.5	134.5	
260.5	MODESTO	PIASA	LIMESTONE	9.0	138.0	CRYSTALLINE
251.5	MODESTO		CLAYSTONE	1.5	147.0	
250.0	MODESTO		SHALE	4.1	148.5	
245.9	MODESTO		SHALE	3.3	152.6	
242.7	CARBONDALE	DANVILLE	COAL	2.5	155.8	
240.2	CARBONDALE		CLAYSTONE	0.5	158.3	
239.7	CARBONDALE		SHALE	10.2	158.8	DARK
229.5	CARBONDALE		LIMESTONE	10.5	169.0	WHITE
219.0	CARBONDALE		CLAYSTONE	0.8	179.5	
218.2	CARBONDALE		SHALE	2.5	180.3	
215.7	CARBONDALE		SHALE	8.5	182.8	
207.2	CARBONDALE		LIMESTONE	2.2	191.3	BLACK
205.0	CARBONDALE		SHALE	8.3	193.5	
196.7	CARBONDALE		CLAYSTONE	7.8	201.8	

MAPID: 07700351000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 5 QUARTERS/FOOTAGES: NE NW SE
QUADRANGLE: ELKVILLE LONGITUDE: -89.230579 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.941979 DATE COLLECTED:
SURFACE ELEVATION (FT.): 398.5 LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: UNION COLL WELL TYPE: Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
176.5	CARBONDALE	HERRIN	COAL	7.8	222.0	

MAPID: 07700027000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 6 QUARTERS/FOOTAGES: SW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.260333 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.937509 DATE COLLECTED: 0 / 0 / 1917
SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 146.0 LOG TYPE: Drillers Log
SOURCE: UNION COLLIERY CO. 20 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
427.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	SOME LIMESTONE NOTED
407.0			SHALE	2.0	20.0	YELLOW
405.0			LIMESTONE	6.0	22.0	BROWN
399.0			SHALE	18.0	28.0	BLUE
381.0			SHALE	32.0	46.0	BLUE
349.0			SHALE	14.0	78.0	SOME LIMESTONE NOTED
335.0			LIMESTONE	0.5	92.0	CONGLOMERATE
334.5			SHALE	2.0	92.5	
332.5			COAL	2.0	94.5	
330.5			UNDERCLAY	2.5	96.5	
328.0			LIMESTONE	1.5	99.0	
326.5			SHALE	9.5	100.5	BLUE
317.0			SHALE	5.0	110.0	BLUE
312.0			SHALE	31.0	115.0	

MAPID: 07700630000C **VERSION:** 1 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 6 **QUARTERS/FOOTAGES:** SE NW SE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.249396 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.940219 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 410.0 **LOGGED (FT.):** 0.0 **LOG TYPE:**
SOURCE: UNION COLL **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN
0.0	CARBONDALE	HERRIN	COAL	3.7	410.0

MAPID: 07700630000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 6 **QUARTERS/FOOTAGES:** SE NW SE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.249396 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.940219 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 427.0 **LOGGED (FT.):** 108.0 **LOG TYPE:** Drillers Log
SOURCE: **WELL TYPE:** Coal Test
COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN
398.0	CARBONDALE	BANKSTON FORK	LIMESTONE	10.0	29.0
388.0	CARBONDALE		SHALE	38.0	39.0
350.0	CARBONDALE	BRERETON	LIMESTONE	10.0	77.0
340.0	CARBONDALE	ENERGY	UNKNOWN	15.0	87.0
325.0	CARBONDALE	HERRIN	COAL	6.0	102.0

MAPID: 07700630000C **VERSION:** 3 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 6 **QUARTERS/FOOTAGES:** SE NW SE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.249396 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.940219 **DATE COLLECTED:** 0 / 0 / 1940
SURFACE ELEVATION (FT.): 405.0 **LOGGED (FT.):** 112.0 **LOG TYPE:** Drillers Log
SOURCE: UNION COLLIERY CO. 201 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN
405.0	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0
376.0	CARBONDALE		LIMESTONE	10.0	29.0
366.0	CARBONDALE		SHALE	38.0	39.0
328.0	CARBONDALE		LIMESTONE	10.0	77.0
318.0	CARBONDALE		SHALE	15.0	87.0
303.0	CARBONDALE	HERRIN	COAL	6.0	102.0
297.0	CARBONDALE		UNDERCLAY	1.0	108.0
296.0	CARBONDALE		UNCLASSIFIED	3.0	109.0

MAPID: 07700026000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 7 QUARTERS/FOOTAGES: NW NW NE

QUADRANGLE: VERGENNES LONGITUDE: -89.251907 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.934709 DATE COLLECTED:

SURFACE ELEVATION (FT.): 421.4 LOGGED (FT.): 108.6 LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 2 WELL TYPE: Coal Test

COMMENT: MATH ERROR IN LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
421.4	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0	YELLOW
397.4	MODESTO	PIASA	LIMESTONE	4.0	24.0	GRAY
393.4	MODESTO		CLAYSTONE	2.0	28.0	
391.4	MODESTO		SHALE	0.5	30.0	
390.9	CARBONDALE	DANVILLE	COAL	2.0	30.5	
388.9	CARBONDALE		CLAYSTONE	7.5	32.5	
381.4	CARBONDALE		SHALE	2.0	40.0	
379.4	CARBONDALE		SHALE	4.0	42.0	
375.4	CARBONDALE	BANKSTON FORK	LIMESTONE	0.3	46.0	
375.1	CARBONDALE	BANKSTON FORK	CLAYSTONE	3.3	46.3	
371.9	CARBONDALE	BANKSTON FORK	LIMESTONE	13.0	49.5	GRAY
358.9	CARBONDALE		CLAYSTONE	1.5	62.5	
357.4	CARBONDALE		SHALE	7.5	64.0	DARK
349.9	CARBONDALE	BRERETON	LIMESTONE	3.0	71.5	DARK
346.9	CARBONDALE	ANNA	SHALE	6.0	74.5	
340.9	CARBONDALE	ENERGY	SHALE	16.8	80.5	BLUE
324.1	CARBONDALE	HERRIN	COAL	8.3	97.3	
315.8	CARBONDALE		UNDERCLAY	3.0	105.6	

MAPID: 07700026000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 7 QUARTERS/FOOTAGES: NW NW NE

QUADRANGLE: VERGENNES LONGITUDE: -89.251907 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.934709 DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 421.4 LOGGED (FT.): 108.0 LOG TYPE:

SOURCE: UNION COLL0002 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
323.4	CARBONDALE	HERRIN	COAL	8.3	98.0	

MAPID: 07700028000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 7 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.252108 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.922002 DATE COLLECTED: 0 / 0 / 1917

SURFACE ELEVATION (FT.): 431.9 LOGGED (FT.): 201.6 LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 9 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
431.9	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
411.9			SHALE	16.0	20.0	
395.9			SHALE	2.7	36.0	
393.2			COAL	2.3	38.7	
390.9			SHALE	2.0	41.0	BLUE
388.9			SHALY LIMESTONE	4.0	43.0	
384.9			SANDSTONE	4.0	47.0	
380.9			SHALE	8.0	51.0	
372.9			SANDSTONE	1.0	59.0	
371.9			SHALY SANDSTONE	9.0	60.0	
362.9			SHALY SANDSTONE	20.0	69.0	
342.9			SHALE	9.5	89.0	
333.4			LIMESTONE	1.0	98.5	
332.4			SHALE	3.0	99.5	
329.4			LIMESTONE	0.6	102.5	
328.8			SHALE	0.3	103.1	
328.5			LIMESTONE	0.5	103.4	
328.0			COAL	0.6	103.9	
327.4			CLAYSTONE & SILTSTONE	2.5	104.5	
324.9			SHALE	29.0	107.0	
295.9			SHALE	3.3	136.0	BLUE
292.6			COAL	1.8	139.3	
290.9			SANDSTONE	8.0	141.0	
282.9			SHALE	11.0	149.0	DARK
271.9			SHALE	4.2	160.0	DARK
267.7			COAL	1.7	164.2	
266.1			SHALE	2.2	165.8	
263.9			SHALE	3.0	168.0	
260.9			SHALE	12.0	171.0	
248.9			SHALE	6.0	183.0	
242.9			SHALE	4.2	189.0	BLUE
238.7			COAL	0.7	193.2	
238.1			UNDERCLAY	2.2	193.8	
235.9			SHALE	5.0	196.0	
230.9			SANDSTONE	0.5	201.0	

MAPID: 07700028000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 7 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.252108 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.922002 DATE COLLECTED: 0 / 0 / 1917
SURFACE ELEVATION (FT.): 431.9 LOGGED (FT.): 202.0 LOG TYPE:
SOURCE: UNION COLL0009 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
392.9	CARBONDALE	SPRINGFIELD	COAL	2.3	39.0	

MAPID: 07700568000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 7 QUARTERS/FOOTAGES: NW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.252077 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.923818 DATE COLLECTED: 0 / 0 / 1935
SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log
SOURCE: MCLAREN COAL CO. 519 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
520.0	PLEISTOCENE		CLAY	25.0	0.0	
495.0			SHALE	8.0	25.0	YELLOW
487.0			SHALE	27.0	33.0	

MAPID: 07700568000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 7 QUARTERS/FOOTAGES: NW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.252077 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.923818 DATE COLLECTED: 0 / 0 / 1935
SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 60.0 LOG TYPE:
SOURCE: MCLAREN CC0519 WELL TYPE: Coal Test
COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED

MAPID: 07700575000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 7 QUARTERS/FOOTAGES: SE NW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.259341 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.925689 DATE COLLECTED:
SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 76.7 LOG TYPE: Drillers Log
SOURCE: TRUAX-TRAER COAL CO. 6 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
438.0	PLEISTOCENE		SOIL	22.0	0.0	
416.0			SHALE	4.0	22.0	
412.0			SHALE	3.0	26.0	
409.0			SHALE	4.0	29.0	
405.0			SHALE	10.0	33.0	BLUE
395.0			SANDSTONE	2.7	43.0	BLUE
392.3			SHALE	11.8	45.7	BLUE
380.5			SANDSTONE	4.0	57.5	BLUE
376.5			SHALE	2.3	61.5	BLUE
374.2			LIMESTONE	2.0	63.8	GRAY
372.2			SMUT	0.3	65.8	
371.9			CONCRETION	1.1	66.1	
370.7			SMUT	1.1	67.3	BLACK
369.7			LIMESTONE	0.5	68.3	
369.2			SMUT	0.4	68.8	
368.8			SHALE	0.9	69.2	
367.9			COAL	0.3	70.1	GOOD
367.6			SHALE	4.3	70.4	
363.3			SHALE	2.0	74.7	

MAPID: 07700575000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 7 QUARTERS/FOOTAGES: SE NW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.259341 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.925689 DATE COLLECTED: 0 / 0 / 1938
SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 77.0 LOG TYPE:
SOURCE: TRUAX-TRAER 6 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED

MAPID: 07700560000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 8 QUARTERS/FOOTAGES: SW SE SW
QUADRANGLE: ELKVILLE LONGITUDE: -89.237806 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.921923 DATE COLLECTED: 0 / 0 / 1935
SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 41.2 LOG TYPE: Drillers Log
SOURCE: MCLAREN COAL CO. 511 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE		CLAY	16.0	0.0	YELLOW
389.0	CARBONDALE		ROCK	1.0	16.0	
388.0	CARBONDALE		CLAY	3.0	17.0	
385.0	CARBONDALE		SHALE	11.0	20.0	
374.0	CARBONDALE	ST. DAVID	ROCK	1.1	31.0	
372.9	CARBONDALE	TURNER MINE	SHALE	4.3	32.1	
368.7	CARBONDALE	SPRINGFIELD	COAL	4.2	36.3	
364.5	CARBONDALE		UNDERCLAY	0.7	40.5	

MAPID: 07700560000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 8 QUARTERS/FOOTAGES: SW SE SW
QUADRANGLE: ELKVILLE LONGITUDE: -89.237806 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.921923 DATE COLLECTED: 0 / 0 / 1935
SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 41.0 LOG TYPE:
SOURCE: MCLAREN CC0511 WELL TYPE: Coal Test
COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
369.0	CARBONDALE	SPRINGFIELD	COAL	4.2	36.0	

MAPID: 07700561000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 8 QUARTERS/FOOTAGES: SE SW SW
QUADRANGLE: ELKVILLE LONGITUDE: -89.24012 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.921928 DATE COLLECTED: 0 / 0 / 1935
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 47.0 LOG TYPE:
SOURCE: MCLAREN CC0512 WELL TYPE: Coal Test
COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
378.0	CARBONDALE	SPRINGFIELD	COAL	4.2	42.0	

MAPID: 07700562000C **VERSION:** 1 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 8 **QUARTERS/FOOTAGES:** NW SE SW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.237782 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.923742 **DATE COLLECTED:** 0 / 0 / 1935
SURFACE ELEVATION (FT.): 405.0 **LOGGED (FT.):** 60.0 **LOG TYPE:**
SOURCE: MCLAREN CC0513 **WELL TYPE:** Coal Test
COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	-		

MAPID: 07700563000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 8 **QUARTERS/FOOTAGES:** NE SW SW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.240096 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.923745 **DATE COLLECTED:** 0 / 0 / 1935
SURFACE ELEVATION (FT.): 418.0 **LOGGED (FT.):** 42.3 **LOG TYPE:** Drillers Log
SOURCE: MCLAREN COAL CO. 514 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
418.0	PLEISTOCENE		CLAY	15.3	0.0	
402.7	CARBONDALE		ROCK	11.0	15.3	
391.7	CARBONDALE		SHALE	4.7	26.3	
387.0	CARBONDALE		ROCK	1.3	31.0	
385.7	CARBONDALE		SHALE	0.8	32.3	
385.0	CARBONDALE		ROCK	1.3	33.0	
383.7	CARBONDALE		SHALE	0.6	34.3	
383.2	CARBONDALE		SHALE	2.8	34.8	
380.3	CARBONDALE	SPRINGFIELD	COAL	4.1	37.7	
376.2	CARBONDALE		UNDERCLAY	0.6	41.8	

MAPID: 07700563000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 8 **QUARTERS/FOOTAGES:** NE SW SW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.240096 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.923745 **DATE COLLECTED:** 0 / 0 / 1935
SURFACE ELEVATION (FT.): 418.0 **LOGGED (FT.):** 42.0 **LOG TYPE:**
SOURCE: MCLAREN CC0514 **WELL TYPE:** Coal Test
COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
380.0	CARBONDALE	SPRINGFIELD	COAL	4.1	38.0	

MAPID: 07700564000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 8 QUARTERS/FOOTAGES: NW SW SW

QUADRANGLE: ELKVILLE LONGITUDE: -89.24241 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.92375 DATE COLLECTED: 0 / 0 / 1935

SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 56.3 LOG TYPE: Drillers Log

SOURCE: MCLAREN COAL CO. 515 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
418.0	PLEISTOCENE		CLAY	15.5	0.0	YELLOW
402.5			SMUT	3.0	15.5	
399.5			CLAYSTONE	3.0	18.5	
396.5			SHALE	29.5	21.5	
367.0			SHALE	1.3	51.0	SOFT
365.7			COAL	2.3	52.3	SOFT
363.5			UNDERCLAY	1.8	54.5	

MAPID: 07700564000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 8 QUARTERS/FOOTAGES: NW SW SW

QUADRANGLE: ELKVILLE LONGITUDE: -89.24241 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.92375 DATE COLLECTED: 0 / 0 / 1935

SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 56.0 LOG TYPE:

SOURCE: MCLAREN CC0515 WELL TYPE: Coal Test

COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		CORRELATION UNCERTAIN, NO COAL
366.0	CARBONDALE	SPRINGFIELD	COAL	2.3	52.0	

MAPID: 07700631000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 8 QUARTERS/FOOTAGES: NW SE SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.228522 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.923726 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 397.5 LOGGED (FT.): 70.0 LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 221 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
397.5	PLEISTOCENE		UNCONSOLIDATED	33.0	0.0	COAL STREAK AT 20'
364.5	CARBONDALE	BANKSTON FORK	LIMESTONE	9.5	33.0	
355.0	CARBONDALE	BANKSTON FORK	LIMESTONE	0.5	42.5	
354.5	CARBONDALE		SANDY SHALE	4.5	43.0	
350.0	CARBONDALE		SANDY SHALE	5.0	47.5	
345.0	CARBONDALE		SHALE	1.0	52.5	
344.0	CARBONDALE		SHALE	2.8	53.5	GRAY TO BLACK
341.2	CARBONDALE		SHALE	0.2	56.3	
341.0	CARBONDALE	BRERETON	LIMESTONE	0.5	56.5	GRAY TO BLACK
340.5	CARBONDALE	ANNA	SHALE	3.0	57.0	
337.5	CARBONDALE	ENERGY	SHALE	2.5	60.0	
335.0	CARBONDALE	ENERGY	SHALE	0.7	62.5	
334.3	CARBONDALE	HERRIN	COAL	5.6	63.2	
328.7	CARBONDALE		UNDERCLAY	1.2	68.8	

MAPID: 07700631000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 8 QUARTERS/FOOTAGES: NW SE SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.228522 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.923726 DATE COLLECTED:

SURFACE ELEVATION (FT.): 397.5 LOGGED (FT.): 0.0 LOG TYPE:

SOURCE: UNION COLL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
334.5	CARBONDALE	SPRINGFIELD	COAL	5.0	63.0	

MAPID: 07700029000C **VERSION:** 1 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 9 **QUARTERS/FOOTAGES:** SW NE SW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.21913 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.925523 **DATE COLLECTED:** 0 / 0 / 1905
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 278.0 **LOG TYPE:**
SOURCE: HALLIDAY 0020 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
174.0	CARBONDALE	HERRIN	COAL	10.7	221.0
122.0	CARBONDALE	SPRINGFIELD	COAL	4.7	273.0

MAPID: 07700029000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 9 **QUARTERS/FOOTAGES:** SW NE SW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.21913 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.925523 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 228.8 **LOG TYPE:** Survey Core Study
SOURCE: **WELL TYPE:** Coal Test
COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
279.0	MODESTO	PIASA	LIMESTONE	7.0	116.0
272.0	MODESTO		BLACK SHALE	2.5	123.0
269.5	CARBONDALE	DANVILLE	COAL	2.0	125.5
267.5	CARBONDALE		SILTY SHALE	12.5	127.5
255.0	CARBONDALE	ALLENBY	COAL	0.3	140.0
254.7	CARBONDALE		CLAYSTONE	1.0	140.3
253.7	CARBONDALE	BANKSTON FORK	LIMESTONE	15.8	141.3
238.0	CARBONDALE		SILTY SHALE	30.0	157.0
208.0	CARBONDALE	BRERETON	LIMESTONE	7.0	187.0
201.0	CARBONDALE	ENERGY	UNKNOWN	27.0	194.0
174.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	7.8	221.0

MAPID: 07700029000C VERSION: 3

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 9

QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.21913

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.925523

DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0

LOGGED (FT.): 277.4

LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 20

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	56.0	0.0	
339.0	MODESTO		SHALE	1.0	56.0	
338.0	MODESTO		SHALE	6.0	57.0	
332.0	MODESTO		SHALE	1.0	63.0	
331.0	MODESTO		CLAYSTONE	0.5	64.0	
330.5	MODESTO		SHALE	15.5	64.5	
315.0	MODESTO		SANDSTONE	6.0	80.0	
309.0	MODESTO		SHALE	0.5	86.0	
308.5	MODESTO		SHALE	0.8	86.5	
307.7	MODESTO		COAL	1.0	87.3	
306.7	MODESTO		UNDERCLAY	0.3	88.3	
306.5	MODESTO		SANDSTONE	13.5	88.5	
293.0	MODESTO		SHALE	11.0	102.0	
282.0	MODESTO		SHALE	1.0	113.0	
281.0	MODESTO		CLAYSTONE	2.0	114.0	
279.0	MODESTO	PIASA	LIMESTONE	7.0	116.0	
272.0	MODESTO		SHALE	0.8	123.0	
271.2	MODESTO		CLAYSTONE	0.3	123.8	
271.0	MODESTO		SHALE	1.0	124.0	
270.0	MODESTO		SHALE	0.5	125.0	
269.5	CARBONDALE	DANVILLE	COAL	2.0	125.5	
267.5	CARBONDALE		UNDERCLAY	2.5	127.5	
265.0	CARBONDALE		SHALE	9.0	130.0	
256.0	CARBONDALE		SHALE	1.0	139.0	
255.0	CARBONDALE	ALLENBY	COAL	0.3	140.0	
254.7	CARBONDALE		UNDERCLAY	1.0	140.3	
253.7	CARBONDALE	BANKSTON FORK	LIMESTONE	0.5	141.3	
253.2	CARBONDALE	BANKSTON FORK	CLAYSTONE	3.8	141.8	
249.5	CARBONDALE	BANKSTON FORK	LIMESTONE	11.5	145.5	
238.0	CARBONDALE		SANDSTONE	1.0	157.0	
237.0	CARBONDALE		SHALE	18.0	158.0	
219.0	CARBONDALE		SHALE	11.0	176.0	
208.0	CARBONDALE	BRERETON	LIMESTONE	7.0	187.0	
201.0	CARBONDALE		SHALE	17.0	194.0	
184.0	CARBONDALE		SHALE	10.2	211.0	
173.8	CARBONDALE	HERRIN	COAL	10.7	221.2	TOTAL THICKNESS OF PTGS. = 11 IN.
163.2	CARBONDALE		UNDERCLAY	3.2	231.8	
160.0	CARBONDALE		LIMESTONE	14.0	235.0	
146.0	CARBONDALE		SHALE	0.3	249.0	

145.7	CARBONDALE		SHALE	17.3	249.3
128.5	CARBONDALE	ST. DAVID	LIMESTONE	1.5	266.5
127.0	CARBONDALE	TURNER MINE	SHALE	4.8	268.0
122.2	CARBONDALE	SPRINGFIELD	COAL	4.7	272.8

MAPID: 07700632000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 9 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: ELKVILLE LONGITUDE: -89.223894 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.921899 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 209.0 LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 208 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	51.0	0.0	
344.0			SHALE	19.8	51.0	
324.2			LIMESTONE	5.7	70.8	
318.6			LIMESTONE	6.5	76.4	
312.1			CLAYSTONE	0.8	82.9	
311.2			SHALE	17.1	83.8	
294.2			SANDSTONE	0.2	100.8	
294.0			SANDSTONE	9.5	101.0	
284.5			SHALE	2.3	110.5	
282.2			COAL	0.2	112.8	DIRTY
282.0			UNDERCLAY	3.3	113.0	
278.7			LIMESTONE	4.8	116.3	
274.0			LIMESTONE	2.0	121.0	
272.0			LIMESTONE	4.0	123.0	
268.0			LIMESTONE	4.0	127.0	
264.0			SILTSTONE	0.8	131.0	
263.2			SHALE	9.2	131.8	
254.0			SHALE	3.0	141.0	
251.0			SHALE	2.0	144.0	
249.0			SHALE	6.0	146.0	
243.0			SHALE	8.0	152.0	
235.0			SHALE	40.5	160.0	
194.5			SHALE	1.5	200.5	
193.0	CARBONDALE	HERRIN	COAL	7.0	202.0	

MAPID: 07700632000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 9 **QUARTERS/FOOTAGES:** SW SW SW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.223894 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.921899 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 0.0 **LOG TYPE:**
SOURCE: UNION COLL **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
193.0	CARBONDALE	HERRIN	COAL	7.0	202.0	

MAPID: 07701711000C **VERSION:** 1 **PROJECT:** ROOF STUDY
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 11 **QUARTERS/FOOTAGES:** SW SE SE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.172572 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.921556 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 383.0 **LOGGED (FT.):** 313.2 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER COAL CO C-853 **WELL TYPE:** Coal Test
COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
158.4	MODESTO	PIASA	LIMESTONE	10.0	224.6	
148.4	CARBONDALE		SILTY SHALE	12.0	234.6	
136.4	CARBONDALE	BANKSTON FORK	LIMESTONE	10.4	246.6	
126.0	CARBONDALE	ENERGY	GRAY SHALE	41.0	257.0	
85.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	15.2	298.0	

MAPID: 07701700000C **VERSION:** 1 **PROJECT:** ROOF STUDY
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 12 **QUARTERS/FOOTAGES:**
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.159884 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.927952 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 387.0 **LOGGED (FT.):** 362.2 **LOG TYPE:**
SOURCE: TRUAX-TRAER COAL CO C-833 **WELL TYPE:**
COMMENT: ELEV ADDED, FROM DEM

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
150.5	CARBONDALE	ENERGY	SILTY SHALE	67.0	236.5	
83.5	CARBONDALE	ENERGY	SHALE & SANDSTONE	20.0	303.5	
63.5	CARBONDALE	ENERGY	SILTY SHALE	22.5	323.5	
41.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	16.2	346.0	

MAPID: 07726381000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 12 QUARTERS/FOOTAGES: 426' S line, 1722' W line
 QUADRANGLE: ELKVILLE LONGITUDE: -89.163108 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 37.921801 DATE COLLECTED: 6 / 22 / 1977
 SURFACE ELEVATION (FT.): 386.5 LOGGED (FT.): 400.0 LOG TYPE: Drillers Log
 SOURCE: CONSOLIDATION COAL CO. 77--DN-10 WELL TYPE: Coal Test
 COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
386.5			NO RECORD	44.0	0.0
342.5	SHELBURN		SANDSTONE	33.0	44.0
309.5	SHELBURN		SHALE	91.0	77.0
218.5	SHELBURN		BLACK SHALE	3.0	168.0
215.5	SHELBURN		SHALE	49.0	171.0
166.5	SHELBURN	ANVIL ROCK	SANDSTONE	38.0	220.0
128.5	CARBONDALE	ENERGY	SHALE	68.0	258.0
60.5	CARBONDALE	HERRIN	COAL	4.2	326.0
56.3	CARBONDALE	HERRIN	SHALY COAL	0.4	330.2
55.9	CARBONDALE	HERRIN	COAL	4.4	330.6
51.5	CARBONDALE	HERRIN	SHALY COAL	1.5	335.0
50.0	CARBONDALE	HERRIN	COAL	4.0	336.5
46.0	CARBONDALE		GRAY SHALE	2.5	340.5
43.5	CARBONDALE	HIGGINSVILLE	LIMESTONE	1.6	343.0
42.0	CARBONDALE		SHALE	17.5	344.5
24.5	CARBONDALE		SANDY SHALE	16.0	362.0
8.5	CARBONDALE		SHALE	22.0	378.0

MAPID: 07700545000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 13 QUARTERS/FOOTAGES: NE NE NE
 QUADRANGLE: ELKVILLE LONGITUDE: -89.151894 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.919698 DATE COLLECTED: 5 / 28 / 1948
 SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 365.8 LOG TYPE: Drillers Log
 SOURCE: FRANKLIN COUNTY COAL CO. WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
390.0			UNCLASSIFIED	352.0	0.0
38.0	CARBONDALE	HERRIN	COAL	13.8	352.0

MAPID: 07700545000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 13 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: ELKVILLE LONGITUDE: -89.151894 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.919698 DATE COLLECTED:

SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 0.0 LOG TYPE:

SOURCE: WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
38.0	CARBONDALE	HERRIN	COAL	13.8	352.0	

MAPID: 07700546000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 13 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: ELKVILLE LONGITUDE: -89.151945 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.914194 DATE COLLECTED: 5 / 28 / 1948

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 363.9 LOG TYPE: Drillers Log

SOURCE: FRANKLIN COUNTY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0			UNCLASSIFIED	349.0	0.0	
46.0			COAL	14.9	349.0	HERRIN - CADY

MAPID: 07700546000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 13 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: ELKVILLE LONGITUDE: -89.151945 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.914194 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE:

SOURCE: WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
46.0	CARBONDALE	HERRIN	COAL	14.9	349.0	

MAPID: 07701762000C **VERSION:** 1 **PROJECT:** ROOF STUDY
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 13 **QUARTERS/FOOTAGES:** NW SE SW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.163575 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.908682 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 410.0 **LOGGED (FT.):** 369.0 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER COAL CO C-878 **WELL TYPE:** Coal Test
COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
135.0	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	10.0	275.0
125.0	CARBONDALE	ENERGY	DARK GRAY SHALE	71.0	285.0
54.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	13.0	356.0

MAPID: 07726383000C **VERSION:** 1 **PROJECT:** NCRDS 2013
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 13 **QUARTERS/FOOTAGES:** 2600' N line, 2600' E line
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.15981 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 37.913485 **DATE COLLECTED:** 3 / 10 / 1980
SURFACE ELEVATION (FT.): 401.0 **LOGGED (FT.):** 400.0 **LOG TYPE:** Drillers Log
SOURCE: CONSOLIDATION COAL CO. DN-21 **WELL TYPE:** Coal Test
COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
401.0	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0
380.0	SHELBURN		SANDSTONE	8.2	21.0
371.8	SHELBURN		BLACK SHALE	1.1	29.2
370.7	SHELBURN		SILTY SHALE	34.7	30.3
336.0	SHELBURN		SANDSTONE	136.0	65.0
200.0	SHELBURN		BLACK SHALE	1.8	201.0
198.2	SHELBURN		SANDSTONE	5.6	202.8
192.6	SHELBURN		LIMESTONE	1.6	208.4
191.0	SHELBURN		SANDSTONE	12.5	210.0
178.5	SHELBURN		BLACK SHALE	2.7	222.5
175.8	SHELBURN		SANDSTONE	14.6	225.2
161.2	SHELBURN		BLACK SHALE	0.9	239.8
160.3	SHELBURN		SANDSTONE	99.8	240.7
60.5	CARBONDALE	ANNA	BLACK SHALE	5.9	340.5
54.6	CARBONDALE	HERRIN	COAL	13.4	346.4
41.2	CARBONDALE		CLAYSTONE & SILTSTONE	1.5	359.8
39.8	CARBONDALE		SHALE	33.8	361.2
6.0	CARBONDALE		UNKNOWN	5.0	395.0

13.35' HERRIN WITH SH & SH
COAL

MAPID: 07726384000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 13 QUARTERS/FOOTAGES: 38' S line, 1215' E line
QUADRANGLE: ELKVILLE LONGITUDE: -89.155069 GEOLOGIST: LOUCHIOS
CONFIDENTIAL: N LATITUDE: 37.906042 DATE COLLECTED: 5 / 29 / 1978
SURFACE ELEVATION (FT.): 401.0 LOGGED (FT.): 360.0 LOG TYPE: Drillers Log
SOURCE: CONSOLIDATION COAL CO. DN-13 WELL TYPE: Coal Test
COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
401.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
381.0	SHELBURN		SANDY SHALE	17.0	20.0
364.0	SHELBURN		COAL	1.0	37.0
363.0	SHELBURN		SHALE	107.0	38.0
256.0	SHELBURN		SHALY SANDSTONE	20.0	145.0
236.0	SHELBURN		BLACK SHALE	2.0	165.0
234.0	SHELBURN		SHALE	25.0	167.0
209.0	SHELBURN		COAL	1.5	192.0
207.5	SHELBURN		SHALE	34.5	193.5
173.0	SHELBURN		LIMESTONE	2.0	228.0
171.0	SHELBURN		SANDY SHALE	12.0	230.0
159.0	SHELBURN		LIMESTONE	1.5	242.0
157.5	SHELBURN		SANDSTONE	17.5	243.5
140.0	CARBONDALE	ENERGY	SHALE	65.0	261.0
75.0	CARBONDALE	HERRIN	COAL	3.0	326.0
72.0	CARBONDALE	HERRIN	SHALE	1.0	329.0
71.0	CARBONDALE	HERRIN	COAL	2.8	330.0
68.2	CARBONDALE	HERRIN	SHALE	1.2	332.8
67.0	CARBONDALE	HERRIN	COAL	2.3	334.0
64.7	CARBONDALE		CLAYSTONE & SILTSTONE	1.7	336.3
63.0	CARBONDALE		LIMESTONE	2.0	338.0
61.0	CARBONDALE		SANDSTONE	4.0	340.0
57.0	CARBONDALE		SANDY SHALE	16.0	344.0

MAPID: 07700541000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 14

QUARTERS/FOOTAGES: SE SW SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.184293

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.906952

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 381.2

LOGGED (FT.): 290.0

LOG TYPE: Drillers Log

SOURCE: FRANKLIN COUNTY COAL CORP. 3

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
381.2	PLEISTOCENE		CLAY	45.0	0.0	
336.2	PLEISTOCENE		SAND	26.0	45.0	
310.2	PLEISTOCENE		SAND	10.0	71.0	
300.2	PLEISTOCENE		GRAVEL	2.0	81.0	
298.2	MODESTO		SHALE	7.0	83.0	
291.2	MODESTO		SHALE	15.0	90.0	BLUE
276.2	MODESTO		SHALE	14.0	105.0	
262.2	MODESTO		COAL	0.5	119.0	BONY
261.7	MODESTO		UNDERCLAY	1.0	119.5	
260.7	MODESTO		SHALE	4.5	120.5	
256.2	MODESTO		SHALE	4.0	125.0	
252.2	MODESTO		LIMESTONE	1.0	129.0	
251.2	MODESTO		SANDSTONE	7.0	130.0	
244.2	MODESTO		SHALE	6.0	137.0	
238.2	MODESTO		SHALE	12.0	143.0	
226.2	MODESTO		SHALE	1.0	155.0	BLUE
225.2	MODESTO		SHALE	3.0	156.0	
222.2	MODESTO	PIASA	LIMESTONE	7.0	159.0	
215.2	MODESTO	PIASA	SHALE	1.0	166.0	
214.2	MODESTO	PIASA	LIMESTONE	1.0	167.0	BLACK
213.2	MODESTO		SHALE	1.8	168.0	DARK
211.4	CARBONDALE	DANVILLE	COAL	2.3	169.8	
209.0	CARBONDALE		UNDERCLAY	0.3	172.2	
208.8	CARBONDALE		SHALE	9.6	172.4	
199.2	CARBONDALE		SHALE	2.5	182.0	BLUE
196.7	CARBONDALE	BANKSTON FORK	LIMESTONE	10.3	184.5	
186.4	CARBONDALE		SHALE	4.3	194.8	SOME LIMESTONE NOTED
182.2	CARBONDALE		SHALE	20.0	199.0	BLUE
162.2	CARBONDALE		SHALE	1.0	219.0	BLUE
161.2	CARBONDALE	BRERETON	LIMESTONE	4.5	220.0	
156.7	CARBONDALE	HERRIN	COAL	3.3	224.5	
153.4	CARBONDALE		SHALE	6.2	227.8	DARK
147.2	CARBONDALE		SHALE	12.0	234.0	
135.2	CARBONDALE		SHALE	10.0	246.0	SOME LIMESTONE NOTED
125.2	CARBONDALE		SHALE	10.0	256.0	
115.2	CARBONDALE		SHALE	9.0	266.0	SOME LIMESTONE NOTED
106.2	CARBONDALE		SHALE	15.0	275.0	

MAPID: 07700541000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 14

QUARTERS/FOOTAGES: SE SW SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.184293

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.906952

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 381.2

LOGGED (FT.): 290.0

LOG TYPE:

SOURCE: FRAN CO CC0003

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
157.2	CARBONDALE	HERRIN	COAL	3.3	224.0	

MAPID: 07700542000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 14

QUARTERS/FOOTAGES: NE NW SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.184255

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.912435

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 375.4

LOGGED (FT.): 220.0

LOG TYPE: Drillers Log

SOURCE: FRANKLIN COUNTY COAL CORP. 5

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.4	PLEISTOCENE		CLAY	33.0	0.0	
342.4	PLEISTOCENE		SAND	31.0	33.0	
311.4	PLEISTOCENE		SAND	10.5	64.0	
300.9	PLEISTOCENE		GRAVEL	1.5	74.5	
299.4	MODESTO		SHALE	4.0	76.0	BLUE
295.4	MODESTO		SHALE	7.0	80.0	BLUE
288.4	MODESTO		SHALE	11.5	87.0	BLUE
276.9	MODESTO		SHALE	27.7	98.5	
249.2	MODESTO		SHALE	0.8	126.2	
248.4	MODESTO		COAL	1.0	127.0	BONY
247.4	MODESTO		SHALE	9.0	128.0	
238.4	MODESTO		SHALE	15.0	137.0	
223.4	MODESTO	PIASA	LIMESTONE	1.0	152.0	
222.4	MODESTO	PIASA	LIMESTONE	5.8	153.0	BROKEN
216.6	MODESTO		SHALE	2.8	158.8	
213.7	MODESTO		PYRITE	0.1	161.7	
213.6	CARBONDALE	DANVILLE	COAL	2.0	161.8	
211.6	CARBONDALE		UNDERCLAY	0.7	163.8	
211.0	CARBONDALE		SHALE	9.2	164.4	
201.8	CARBONDALE	ALLENBY	COAL	0.2	173.6	BONY
201.6	CARBONDALE		UNDERCLAY	1.5	173.8	
200.1	CARBONDALE		SHALE	3.8	175.3	
196.4	CARBONDALE	BANKSTON FORK	LIMESTONE	11.0	179.0	
185.4	CARBONDALE		SHALE	14.0	190.0	
171.4	CARBONDALE		SHALE	7.5	204.0	BLUE
163.9	CARBONDALE	BRERETON	LIMESTONE	0.5	211.5	BLUE
163.4	CARBONDALE	BRERETON	LIMESTONE	1.4	212.0	
162.0	CARBONDALE	ANNA	SHALE	2.2	213.4	
159.8	CARBONDALE	HERRIN	COAL	3.7	215.6	
156.1	CARBONDALE		UNDERCLAY	0.8	219.3	

MAPID: 07700542000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 14

QUARTERS/FOOTAGES: NE NW SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.184255

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.912435

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 375.4

LOGGED (FT.): 220.0

LOG TYPE:

SOURCE: FRAN CO CC0005

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
159.4	CARBONDALE	HERRIN	COAL	3.7	216.0	

MAPID: 07700543000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 14 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.177397 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.908733 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 384.4 LOGGED (FT.): 298.0 LOG TYPE: Drillers Log

SOURCE: FRANKLIN COUNTY COAL CORP. 4 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
384.4	PLEISTOCENE		CLAY	26.0	0.0	
358.4	PLEISTOCENE		SAND	2.5	26.0	
355.9	PLEISTOCENE		CLAY	16.5	28.5	
339.4	PLEISTOCENE		CLAY	21.0	45.0	
318.4	PLEISTOCENE		SAND	16.0	66.0	
302.4	MODESTO		SHALE	20.0	82.0	BLUE
282.4	MODESTO		SHALE	26.0	102.0	BLUE
256.4	MODESTO		SHALE	17.0	128.0	
239.4	MODESTO		SHALE	15.0	145.0	BLUE
224.4	MODESTO		SHALE	13.0	160.0	
211.4	MODESTO		SHALE	16.0	173.0	BLUE
195.4	MODESTO	PIASA	LIMESTONE	8.0	189.0	
187.4	MODESTO		SHALE	3.0	197.0	
184.4	CARBONDALE	DANVILLE	COAL	1.3	200.0	BONY
183.1	CARBONDALE		SHALE	2.0	201.3	
181.1	CARBONDALE		SHALE	16.2	203.3	
164.9	CARBONDALE	BANKSTON FORK	LIMESTONE	14.5	219.5	
150.4	CARBONDALE		SANDSTONE	2.0	234.0	
148.4	CARBONDALE		SHALE	23.0	236.0	BLUE
125.4	CARBONDALE		SHALE	2.0	259.0	BLUE
123.4	CARBONDALE	BRERETON	LIMESTONE	4.5	261.0	
118.9	CARBONDALE		SHALE	10.0	265.5	
108.9	CARBONDALE		SHALE	11.0	275.5	BLUE
97.9	CARBONDALE	HERRIN	COAL	4.3	286.5	
93.6	CARBONDALE	HERRIN	PYRITE	0.1	290.8	
93.6	CARBONDALE	HERRIN	COAL	1.5	290.8	
92.1	CARBONDALE	HERRIN	SHALY COAL	2.5	292.3	
89.6	CARBONDALE	HERRIN	COAL	0.3	294.8	
89.3	CARBONDALE	HERRIN	SHALY COAL	1.4	295.1	
87.9	CARBONDALE		SHALE	1.5	296.5	

MAPID: 07700543000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 14

QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.177397

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.908733

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 384.4

LOGGED (FT.): 298.0

LOG TYPE:

SOURCE: FRAN CO CC0004

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
97.4	CARBONDALE	HERRIN	COAL	10.0	287.0	

MAPID: 07700544000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 14

QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.170512

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.908686

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 372.8

LOGGED (FT.): 431.0

LOG TYPE: Drillers Log

SOURCE: FRANKLIN COUNTY COAL CO. 2

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
372.8	PLEISTOCENE		CLAY	18.0	0.0	
354.8	PLEISTOCENE		CLAY	14.0	18.0	BLUE
340.8	PLEISTOCENE		SAND	33.0	32.0	
307.8			SHALE	31.0	65.0	BLUE
276.8			SHALE	29.0	96.0	BLUE
247.8			SHALE	16.0	125.0	
231.8			SHALE	21.0	141.0	
210.8			COAL	0.5	162.0	
210.3			SHALE	8.5	162.5	
201.8			SHALE	24.0	171.0	BLUE
177.8			SHALE	6.0	195.0	
171.8			SHALE	29.0	201.0	
142.8			SHALE	33.0	230.0	
109.8			SHALE	1.0	263.0	
108.8	CARBONDALE	BRERETON	LIMESTONE	3.0	264.0	
105.8	CARBONDALE	ANNA	SHALE	3.0	267.0	
102.8	CARBONDALE	ENERGY	SHALE	9.0	270.0	DARK
93.8	CARBONDALE	ENERGY	SHALE	35.3	279.0	BLUE
58.5	CARBONDALE	HERRIN	COAL	13.3	314.3	TOTAL THICKNESS OF PTGS. = 5 INCHES
45.3	CARBONDALE		UNDERCLAY	1.5	327.5	
43.8	CARBONDALE		SHALE	9.0	329.0	
34.8	CARBONDALE		SHALE	17.0	338.0	SANDY
17.8	CARBONDALE		SANDSTONE	36.5	355.0	
-18.7	CARBONDALE		COAL	0.2	391.5	
-18.9	CARBONDALE		SANDSTONE	6.3	391.7	
-25.2	CARBONDALE		SANDSTONE	20.0	398.0	WITH COAL PARTINGS
-45.2	CARBONDALE		LIMESTONE	2.5	418.0	
-47.7	CARBONDALE		SHALE	1.5	420.5	BLUE
-49.2	CARBONDALE		LIMESTONE	2.0	422.0	
-51.2	CARBONDALE		SHALE	4.6	424.0	
-55.8	CARBONDALE		COAL	1.3	428.6	SPRINGFIELD - CADY
-57.1	CARBONDALE		UNDERCLAY	0.3	429.9	
-57.4	CARBONDALE		SHALE	0.8	430.2	

MAPID: 07700544000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 14 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.170512 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.908686 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 372.8 LOGGED (FT.): 431.0 LOG TYPE:

SOURCE: FRAN CO CC0002 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
58.8	CARBONDALE	HERRIN	COAL	13.5	314.0	

MAPID: 07701712000C VERSION: 1 PROJECT: ROOF STUDY

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 14 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.175134 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.906883 DATE COLLECTED:

SURFACE ELEVATION (FT.): 380.0 LOGGED (FT.): 319.0 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER COAL CO C-854 WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
157.4	CARBONDALE		DARK GRAY SHALE	30.0	222.6	
127.4	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	252.6	
122.4	CARBONDALE	ENERGY	DARK GRAY SHALE	47.4	257.6	
75.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	14.0	305.0	

MAPID: 07726389000C VERSION: 1 PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 14 QUARTERS/FOOTAGES: 1361' N line, 113' E line

QUADRANGLE: ELKVILLE LONGITUDE: -89.169558 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 37.916903 DATE COLLECTED: 5 / 31 / 1978

SURFACE ELEVATION (FT.): 382.0 LOGGED (FT.): 350.0 LOG TYPE: Drillers Log

SOURCE: CONSOLIDATION COAL CO. DN-14 WELL TYPE: Coal Test

COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
382.0	PLEISTOCENE		UNCONSOLIDATED	67.0	0.0
315.0	SHELBURN		SHALE	75.0	67.0
240.0	SHELBURN		DARK SHALE	2.0	142.0
238.0	SHELBURN		SANDY SHALE	15.5	144.0
222.5	SHELBURN		BLACK SHALE	2.5	159.5
220.0	SHELBURN		SHALE	93.0	162.0
127.0	SHELBURN		LIMESTONE	2.0	255.0
125.0	CARBONDALE	ANNA	BLACK SHALE	3.0	257.0
122.0	CARBONDALE	ENERGY	SHALE	54.5	260.0
67.5	CARBONDALE	HERRIN	COAL	3.0	314.5
64.5	CARBONDALE	HERRIN	SHALY COAL	1.5	317.5
63.0	CARBONDALE	HERRIN	COAL	3.0	319.0
59.8	CARBONDALE	HERRIN	SHALE	1.8	322.2
58.0	CARBONDALE	HERRIN	COAL	4.2	324.0
53.8	CARBONDALE		SANDY SHALE	21.8	328.2

MAPID: 07726390000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 14 QUARTERS/FOOTAGES: 13' N line, 1332' E line
 QUADRANGLE: ELKVILLE LONGITUDE: -89.173694 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 37.920609 DATE COLLECTED: 8 / 28 / 1970
 SURFACE ELEVATION (FT.): 383.0 LOGGED (FT.): 316.5 LOG TYPE: Drillers Log
 SOURCE: CONSOLIDATION COAL CO. C7-00-853 WELL TYPE: Coal Test
 COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
383.0	PLEISTOCENE		CLAY	43.0	0.0
340.0	SHELBURN		GRAY SHALE	20.0	43.0
320.0	SHELBURN		GRAY SHALE	63.0	63.0
257.0	SHELBURN		DARK SHALE	10.0	126.0
247.0	SHELBURN		SANDY SHALE	18.2	136.0
228.8	SHELBURN		SANDSTONE	4.0	154.2
224.8	SHELBURN		BLACK SHALE	1.3	158.2
223.5	SHELBURN		DARK SHALE	2.6	159.5
220.9	SHELBURN	DANVILLE	COAL	1.1	162.1
219.8	SHELBURN		GRAY SHALE	50.8	163.2
169.0	SHELBURN		SANDY SHALE	15.5	214.0
153.5	SHELBURN	CONANT	LIMESTONE	5.5	229.5
148.0	SHELBURN		SANDY SHALE	6.5	235.0
141.5	SHELBURN		DARK SHALE	5.5	241.5
136.0	SHELBURN	BRERETON	LIMESTONE	10.5	247.0
125.5	CARBONDALE	ENERGY	SHALE	41.0	257.5
84.5	CARBONDALE	HERRIN	COAL	6.1	298.5
78.4	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	5.9	304.6
72.6	CARBONDALE	HERRIN	COAL	3.5	310.4
69.1	CARBONDALE		SHALE	2.6	313.9

MAPID: 07700030000C VERSION: 1

PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 15 QUARTERS/FOOTAGES: NE SE
 QUADRANGLE: ELKVILLE LONGITUDE: -89.190071 GEOLOGIST:
 CONFIDENTIAL: N LATITUDE: 37.911559 DATE COLLECTED: 0 / 0 / 1905
 SURFACE ELEVATION (FT.): 370.0 LOGGED (FT.): 300.0 LOG TYPE:
 SOURCE: HALLIDAY 0036 WELL TYPE: Coal Test
 COMMENT: LOCATION AND SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
114.0	CARBONDALE	HERRIN	COAL	9.2	256.0
76.0	CARBONDALE	SPRINGFIELD	COAL	4.3	294.0

MAPID: 07700030000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 15 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.190071 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.911559 DATE COLLECTED:

SURFACE ELEVATION (FT.): 370.0 LOGGED (FT.): 265.2 LOG TYPE: Survey Core Study

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
190.0	MODESTO	PIASA	LIMESTONE	6.0	180.0	
184.0	CARBONDALE		SILTY SHALE	41.0	186.0	
143.0	CARBONDALE	BANKSTON FORK	LIMESTONE AND SANDSTONE	4.0	227.0	
139.0	CARBONDALE	ENERGY	UNKNOWN	25.0	231.0	
114.0	CARBONDALE	HERRIN	COAL	9.2	256.0	

MAPID: 07700030000C VERSION: 3

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 15 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.190071 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.911559 DATE COLLECTED:

SURFACE ELEVATION (FT.): 370.0 LOGGED (FT.): 300.0 LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 36 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
370.0	PLEISTOCENE		UNCONSOLIDATED	55.0	0.0	
315.0	MODESTO		SHALE	72.0	55.0	
243.0	MODESTO		SHALE	2.0	127.0	DARK
241.0	MODESTO		SHALE	14.0	129.0	
227.0	MODESTO		SANDSTONE	2.0	143.0	
225.0	CARBONDALE		SHALE	1.0	145.0	DANVILLE HORIZON?
224.0	CARBONDALE		CLAYSTONE	10.0	146.0	
214.0	CARBONDALE		SHALE	19.0	156.0	
195.0	CARBONDALE		SHALE	5.0	175.0	
190.0	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	180.0	
184.0	CARBONDALE		SHALE	6.0	186.0	
178.0	CARBONDALE		SHALE	6.0	192.0	
172.0	CARBONDALE		SHALE	29.0	198.0	
143.0	CARBONDALE	BRERETON	LIMESTONE	4.0	227.0	
139.0	CARBONDALE		SHALE	25.0	231.0	
114.0	CARBONDALE	HERRIN	COAL	9.2	256.0	
104.8	CARBONDALE		UNDERCLAY	4.8	265.2	
100.0	CARBONDALE		LIMESTONE	8.0	270.0	
92.0	CARBONDALE		SHALE	7.0	278.0	
85.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	285.0	
84.0	CARBONDALE	TURNER MINE	SHALE	1.5	286.0	
82.5	CARBONDALE	DYKERSBURG	SHALE	6.5	287.5	
76.0	CARBONDALE	SPRINGFIELD	COAL	4.3	294.0	
71.7	CARBONDALE		UNDERCLAY	1.7	298.3	

MAPID: 07700634000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 16 QUARTERS/FOOTAGES: SW NW NW
 QUADRANGLE: ELKVILLE LONGITUDE: -89.223943 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.918257 DATE COLLECTED: 0 / 0 / 1940
 SURFACE ELEVATION (FT.): 391.8 LOGGED (FT.): 158.0 LOG TYPE: Drillers Log
 SOURCE: UNION COLLIERY CO. 202 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
391.8	PLEISTOCENE		UNCONSOLIDATED	33.0	0.0	
358.8	MODESTO	PIASA	LIMESTONE	7.0	33.0	
351.8	MODESTO		SHALE	0.8	40.0	
351.0	CARBONDALE	DANVILLE	COAL	0.3	40.8	
350.6	CARBONDALE		SHALE	1.8	41.2	DARK
348.8	CARBONDALE		SHALE	4.0	43.0	
344.8	CARBONDALE		LIMESTONE	0.8	47.0	
344.0	CARBONDALE		SHALE	2.3	47.8	
341.8	CARBONDALE		LIMESTONE	1.4	50.0	
340.4	CARBONDALE		SHALE	25.3	51.4	
315.0	CARBONDALE	BANKSTON FORK	LIMESTONE	8.3	76.8	WHITE
306.8	CARBONDALE	BANKSTON FORK	LIMESTONE	0.3	85.0	
306.5	CARBONDALE	BANKSTON FORK	SANDSTONE	2.4	85.3	
304.1	CARBONDALE	BANKSTON FORK	SHALY LIMESTONE	0.8	87.7	
303.3	CARBONDALE	BANKSTON FORK	SHALE	2.0	88.5	DARK
301.3	CARBONDALE	BANKSTON FORK	LIMESTONE	2.2	90.5	GRAY
299.1	CARBONDALE		SHALE	17.3	92.7	
281.8	CARBONDALE	BRERETON	LIMESTONE	4.5	110.0	GRAY
277.3	CARBONDALE		SHALE	21.5	114.5	
255.8	CARBONDALE		SHALE	15.0	136.0	
240.8	CARBONDALE	HERRIN	COAL	7.0	151.0	

MAPID: 07700634000C VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 16 QUARTERS/FOOTAGES: SW NW NW
 QUADRANGLE: ELKVILLE LONGITUDE: -89.223943 GEOLOGIST:
 CONFIDENTIAL: N LATITUDE: 37.918257 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 391.8 LOGGED (FT.): 0.0 LOG TYPE:
 SOURCE: UNION COLL WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
240.8	CARBONDALE	HERRIN	COAL	7.0	151.0	

MAPID: 07700635000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 16 QUARTERS/FOOTAGES: NW NW SW

QUADRANGLE: ELKVILLE LONGITUDE: -89.224012 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.912786 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 392.4 LOGGED (FT.): 153.0 LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 203 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
392.4	PLEISTOCENE		UNCONSOLIDATED	41.0	0.0	
351.4	MODESTO	PIASA	LIMESTONE	6.9	41.0	GRAY
344.5	CARBONDALE		SHALE	3.1	47.9	DANVILLE HORIZON?
341.4	CARBONDALE		SHALE	1.0	51.0	
340.4	CARBONDALE		LIMESTONE	6.4	52.0	GRAY
334.0	CARBONDALE	ALLENBY	COAL	0.2	58.4	
333.8	CARBONDALE		UNDERCLAY	2.1	58.6	
331.7	CARBONDALE	ALLENBY	COAL	0.3	60.7	
331.4	CARBONDALE		SHALE	13.8	61.0	
317.6	CARBONDALE	BANKSTON FORK	LIMESTONE	15.2	74.8	WHITE
302.4	CARBONDALE		SHALE	19.5	90.0	
282.9	CARBONDALE		SHALE	14.5	109.5	
268.4	CARBONDALE		SHALE	19.3	124.0	
249.1	CARBONDALE		SHALE	0.2	143.3	COAL STREAK
248.9	CARBONDALE	HERRIN	COAL	9.5	143.5	

MAPID: 07700635000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 16 QUARTERS/FOOTAGES: NW NW SW

QUADRANGLE: ELKVILLE LONGITUDE: -89.224012 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.912786 DATE COLLECTED:

SURFACE ELEVATION (FT.): 392.4 LOGGED (FT.): 0.0 LOG TYPE:

SOURCE: UNION COLL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
249.4	CARBONDALE	HERRIN	COAL	9.5	143.0	

MAPID: 07700636000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 16 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.21805 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.91914 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 385.5 LOGGED (FT.): 255.0 LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 214 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.5	PLEISTOCENE		UNCONSOLIDATED	64.5	0.0	
321.0			LIMESTONE	6.8	64.5	
314.2			LIMESTONE	2.7	71.3	COAL FRAGMENTS
311.5			SILTY SHALE	2.3	74.0	
309.2			SHALE	6.7	76.3	
302.5			SHALE	6.5	83.0	LIMESTONE NOTED; GRAY BLACK
296.0			SHALE	6.5	89.5	LIMESTONE NOTED; GRAY BLACK
289.5			CLAYSTONE	2.0	96.0	
287.5			SHALE	7.7	98.0	SOME LIMESTONE NOTED
279.8			CORE LOSS	1.3	105.7	FISH TAILED
278.5			SHALE	6.5	107.0	SOME LIMESTONE NOTED
272.0			SHALE	6.7	113.5	
265.3			SHALE	2.3	120.2	
263.0			SHALE	3.8	122.5	
259.2			SILTY SHALE	1.4	126.3	
257.8			SHALE	4.0	127.7	
253.8			SILTY SHALE	0.9	131.7	
252.9			SHALE	1.4	132.6	
251.5			SILTY SHALE	6.0	134.0	
245.5			SHALE	13.5	140.0	
232.0			COAL	0.5	153.5	
231.5			UNDERCLAY	1.2	154.0	
230.3			UNDERCLAY	5.5	155.2	SOME LIMESTONE NOTED
224.8			UNDERCLAY	1.5	160.7	COAL FRAGMENTS
223.3			COAL	0.3	162.2	
223.0			SHALY SANDSTONE	2.5	162.5	
220.5			SHALY SANDSTONE	1.7	165.0	
218.8			SHALE	3.3	166.7	
215.5			SHALE	1.0	170.0	
214.5			SHALE	3.7	171.0	
210.8			SANDSTONE	1.8	174.7	
209.0			SHALE	4.5	176.5	
204.5			SHALE	1.0	181.0	
203.5			LIMESTONE	0.5	182.0	YELLOW
203.0			SHALE	7.5	182.5	SOME LIMESTONE NOTED
195.5			SANDSTONE	1.5	190.0	ARGILLACEOUS
194.0			LIMESTONE	0.5	191.5	
193.5			LIMESTONE	2.5	192.0	WITH SHALE; GRAY

191.0	COAL	0.3	194.5	
190.7	UNDERCLAY	7.2	194.8	
183.5	UNDERCLAY	2.3	202.0	WHITE
181.2	SHALE	1.0	204.3	
180.2	LIMESTONE	0.5	205.3	BLACK
179.7	SHALE	1.2	205.8	
178.5	SHALE	0.5	207.0	
178.0	UNDERCLAY	4.5	207.5	
173.5	SHALE	1.0	212.0	
172.5	SHALE	9.5	213.0	CONCRETIONS NOTED
163.0	SHALE	6.0	222.5	CONCRETIONS NOTED
157.0	LIMESTONE	1.5	228.5	GRAY TO BLACK
155.5	LIMESTONE	0.5	230.0	GRAY TO BLACK
155.0	SHALE	3.5	230.5	
151.5	COAL	0.5	234.0	
151.0	UNDERCLAY	3.0	234.5	GRAY
148.0	UNDERCLAY	0.5	237.5	SOME LIMESTONE NOTED
147.5	UNDERCLAY	5.8	238.0	SOME LIMESTONE NOTED
141.7	UNDERCLAY	0.7	243.8	SOME LIMESTONE NOTED
141.0	LIMESTONE	2.0	244.5	GRAY
139.0	SHALY COAL	2.0	246.5	
137.0	SANDSTONE	3.0	248.5	
134.0	SHALE	2.8	251.5	
131.2	COAL	0.1	254.3	
131.1	SANDY SHALE	0.6	254.4	

MAPID: 07700637000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 16

QUARTERS/FOOTAGES: NW NE SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.219326

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.912744

DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 389.4

LOGGED (FT.): 217.7

LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 215

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
389.4	PLEISTOCENE		UNCONSOLIDATED	57.0	0.0	
332.4	MODESTO		SHALY SANDSTONE	3.9	57.0	
328.5	MODESTO		SHALE	6.1	60.9	
322.4	MODESTO		CORE LOSS	18.0	67.0	FISH TAILED
304.4	MODESTO	PIASA	LIMESTONE	7.5	85.0	
296.9	MODESTO	PIASA	SHALY LIMESTONE	0.6	92.5	
296.3	MODESTO		SHALE	0.8	93.1	
295.5	MODESTO		SHALE	0.8	93.9	SOME LIMESTONE NOTED
294.7	CARBONDALE	DANVILLE	COAL	0.5	94.7	
294.2	CARBONDALE		UNDERCLAY	1.3	95.2	
292.9	CARBONDALE		SANDY SHALE	7.2	96.5	
285.7	CARBONDALE		SHALE	1.3	103.7	
284.4	CARBONDALE		SANDY SHALE	10.0	105.0	
274.4	CARBONDALE		SANDY SHALE	1.5	115.0	
272.9	CARBONDALE		SANDSTONE	2.7	116.5	
270.2	CARBONDALE	ALLENBY	COAL	2.2	119.2	TOTAL THICKNESS OF PTGS. = 1.7
268.0	CARBONDALE		UNDERCLAY	0.7	121.4	
267.3	CARBONDALE		UNDERCLAY	2.9	122.1	
264.4	CARBONDALE		UNDERCLAY	2.0	125.0	
262.4	CARBONDALE		UNDERCLAY	1.0	127.0	
261.4	CARBONDALE	BANKSTON FORK	LIMESTONE	2.6	128.0	
258.8	CARBONDALE	BANKSTON FORK	LIMESTONE	0.8	130.6	
258.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.6	131.4	
254.4	CARBONDALE	BANKSTON FORK	LIMESTONE	7.0	135.0	
247.4	CARBONDALE		SANDSTONE	1.3	142.0	
246.1	CARBONDALE		SHALE	2.7	143.3	
243.4	CARBONDALE		SHALE	0.1	146.0	
243.3	CARBONDALE		SHALE	5.2	146.1	CONCRETIONS NOTED
238.1	CARBONDALE		SHALE	3.7	151.3	
234.4	CARBONDALE		SHALE	4.0	155.0	
230.4	CARBONDALE		SHALE	1.0	159.0	
229.4	CARBONDALE		SHALE	4.5	160.0	
224.9	CARBONDALE		SHALE	10.0	164.5	
214.9	CARBONDALE		SHALE	3.8	174.5	
211.1	CARBONDALE		SHALE	6.2	178.3	CONCRETIONS NOTED
204.9	CARBONDALE		SHALE	7.5	184.5	
197.4	CARBONDALE		SHALE	10.0	192.0	CONCRETIONS NOTED
187.4	CARBONDALE		SHALE	2.0	202.0	
185.4	CARBONDALE		SHALE	0.6	204.0	

184.8	CARBONDALE	HERRIN	COAL	12.4	204.6	TOTAL THICKNESS OF PTGS. = 1.2
172.4	CARBONDALE		UNDERCLAY	0.2	217.0	
172.2	CARBONDALE		UNDERCLAY	0.5	217.2	

MAPID: 07700637000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 16 QUARTERS/FOOTAGES: NW NE SW

QUADRANGLE: ELKVILLE LONGITUDE: -89.219326 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.912744 DATE COLLECTED:

SURFACE ELEVATION (FT.): 389.4 LOGGED (FT.): 0.0 LOG TYPE:

SOURCE: UNION COLL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
184.4	CARBONDALE	HERRIN	COAL	12.4 205.0	

MAPID: 07700638000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 16

QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.219354

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.910914

DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 386.6

LOGGED (FT.): 166.5

LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 218

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
386.6	PLEISTOCENE		UNCONSOLIDATED	31.4	0.0	
355.2	MODESTO		SANDSTONE	1.0	31.4	
354.2	MODESTO		SHALE	7.6	32.4	CONCRETIONS NOTED
346.6	MODESTO		SHALE	1.6	40.0	CONCRETIONS NOTED
345.0	MODESTO		SHALE	2.4	41.6	
342.6	MODESTO		SHALE	6.5	44.0	
336.1	MODESTO		SHALE	2.9	50.5	
333.2	MODESTO		SHALE	1.0	53.4	
332.2	MODESTO	DEGRAFF	COAL	0.1	54.4	
332.1	MODESTO		UNDERCLAY	1.0	54.5	SOME LIMESTONE NOTED
331.1	MODESTO	PIASA	LIMESTONE	9.0	55.5	
322.1	MODESTO	PIASA	SHALE	2.1	64.5	
320.0	MODESTO	PIASA	LIMESTONE	1.2	66.6	ARGILLACEOUS
318.8	MODESTO		SHALE	0.5	67.8	
318.3	CARBONDALE	DANVILLE	COAL	2.2	68.3	
316.1	CARBONDALE	DANVILLE	SHALE	0.1	70.5	
316.0	CARBONDALE	DANVILLE	COAL	0.8	70.6	
315.2	CARBONDALE		UNDERCLAY	0.5	71.4	
314.7	CARBONDALE		SHALE	4.5	71.9	
310.2	CARBONDALE		SANDY SHALE	1.8	76.4	
308.4	CARBONDALE		SHALE	1.5	78.2	
306.9	CARBONDALE		SHALE	0.4	79.7	
306.5	CARBONDALE	ALLENBY	COAL	0.1	80.1	
306.4	CARBONDALE		SHALE	1.5	80.2	SOME LIMESTONE NOTED
304.9	CARBONDALE		SHALE	0.5	81.7	
304.4	CARBONDALE	ALLENBY	COAL	0.2	82.2	
304.2	CARBONDALE		UNDERCLAY	4.0	82.4	
300.2	CARBONDALE	BANKSTON FORK	LIMESTONE	2.3	86.4	
297.9	CARBONDALE	BANKSTON FORK	LIMESTONE	3.8	88.7	
294.1	CARBONDALE	BANKSTON FORK	LIMESTONE	8.0	92.5	
286.1	CARBONDALE		SANDSTONE	1.0	100.5	
285.1	CARBONDALE		SHALE	0.5	101.5	
284.6	CARBONDALE		SHALE	6.5	102.0	
278.1	CARBONDALE		SHALE	3.0	108.5	IRON CONCRETIONS
275.1	CARBONDALE		SHALE	7.7	111.5	IRON CONCRETIONS
267.4	CARBONDALE		SANDSTONE	1.5	119.2	
265.9	CARBONDALE		LIMESTONE	0.8	120.7	
265.1	CARBONDALE		SANDSTONE	8.5	121.5	MATH ERROR IN LOG AT THIS POINT

256.6	CARBONDALE		SHALE	1.5	130.0	
255.1	CARBONDALE		SHALE	1.0	131.5	
254.1	CARBONDALE		SHALE	9.0	132.5	IRON CONCRETIONS
245.1	CARBONDALE		SHALE	10.0	141.5	IRON CONCRETIONS
235.1	CARBONDALE		SHALE	3.7	151.5	IRON CONCRETIONS
231.4	CARBONDALE		SHALE	0.2	155.2	COALY
231.2	CARBONDALE	HERRIN	SHALE/COAL	11.0	155.4	TOTAL SHALE PTGS = 3.05 FEET

MAPID: 07700638000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 16 **QUARTERS/FOOTAGES:** SW NE SW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.219354 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.910914 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 386.6 **LOGGED (FT.):** 0.0 **LOG TYPE:**
SOURCE: UNION COLL **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
231.6	CARBONDALE	HERRIN	COAL	11.0	155.0

MAPID: 07700639000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 16 **QUARTERS/FOOTAGES:** NW SE NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.21927 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.916402 **DATE COLLECTED:** 0 / 0 / 1940
SURFACE ELEVATION (FT.): 390.0 **LOGGED (FT.):** 170.1 **LOG TYPE:** Drillers Log
SOURCE: UNION COLLIERY CO. 263 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
390.0	PLEISTOCENE		UNCONSOLIDATED	51.5	0.0
338.5			SANDSTONE	4.5	51.5
334.0			CLAYSTONE & SILTSTONE	5.0	56.0
329.0			SHALE	1.0	61.0 WITH CLAY
328.0			LIMESTONE	2.0	62.0
326.0			CLAYSTONE & SILTSTONE	0.5	64.0
325.5			LIMESTONE	11.7	64.5
313.8			SHALE	1.5	76.2
312.3			SHALE	6.8	77.7
305.5			SHALE	13.5	84.5 WITH CLAY
292.0			SHALE	4.0	98.0
288.0			SHALE	56.0	102.0
232.0	CARBONDALE	HERRIN	COAL/CLAYSTONE	11.0	158.0 .2 FEET OF BLUE BAND
221.0			UNDERCLAY	1.0	169.0

MAPID: 07700639000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 16 QUARTERS/FOOTAGES: NW SE NW
QUADRANGLE: ELKVILLE LONGITUDE: -89.21927 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.916402 DATE COLLECTED:
SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: UNION COLL WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
232.0	CARBONDALE	HERRIN	COAL	11.0	158.0	

MAPID: 07700640000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 16 QUARTERS/FOOTAGES: NE SW NW
QUADRANGLE: ELKVILLE LONGITUDE: -89.221618 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.916419 DATE COLLECTED:
SURFACE ELEVATION (FT.): 391.2 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: UNION COLL WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
322.2	CARBONDALE	HERRIN	COAL	11.0	69.0	

MAPID: 07700640000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 16 QUARTERS/FOOTAGES: NE SW NW
QUADRANGLE: ELKVILLE LONGITUDE: -89.221618 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.916419 DATE COLLECTED:
SURFACE ELEVATION (FT.): 391.0 LOGGED (FT.): 80.1 LOG TYPE: Survey Core Study
SOURCE: WELL TYPE: Coal Test
COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
362.4	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	28.6	
358.9	CARBONDALE	ENERGY	SILTY SHALE	28.1	32.1	
330.8	CARBONDALE	ENERGY	GRAY SHALE	7.8	60.2	
323.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	12.1	68.0	

MAPID: 07700640000C VERSION: 3

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 16

QUARTERS/FOOTAGES: NE SW NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.221618

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.916419

DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 391.2

LOGGED (FT.): 211.1

LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 264

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
391.2	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0	
363.2	CARBONDALE		LIMESTONE	2.8	28.0	
360.4	CARBONDALE		CLAYSTONE & SILTSTONE	0.7	30.8	SOME LIMESTONE NOTED
359.7	CARBONDALE		SILTSTONE	3.5	31.5	ADD .4FT HERE, LOG MSING MEASUREMENTS
356.2	CARBONDALE		CORE LOSS	1.5	35.0	FISHTAILED
354.7	CARBONDALE		SILTSTONE	15.5	36.5	
339.2	CARBONDALE		SILTSTONE	8.0	52.0	
331.2	CARBONDALE		SHALE	1.3	60.0	ARGILLACEOUS
329.9	CARBONDALE		SHALE	6.5	61.3	
323.4	CARBONDALE	HERRIN	COAL	0.1	67.8	DIRTY
323.3	CARBONDALE	HERRIN	SHALE	1.1	67.9	
322.2	CARBONDALE	HERRIN	COAL	11.0	69.0	SHATTERED
311.2	CARBONDALE		CORE LOSS	4.0	80.0	FISHTAILED
307.2	CARBONDALE		LIMESTONE	6.5	84.0	ARGILLACEOUS
300.7	CARBONDALE		LIMESTONE	5.5	90.5	
295.2	CARBONDALE		SILTY SHALE	9.5	96.0	
285.7	CARBONDALE		SILTY SHALE	1.4	105.5	
284.3	CARBONDALE		SHALE	5.4	106.9	
278.9	CARBONDALE	ST. DAVID	LIMESTONE	0.7	112.3	BLACK
278.2	CARBONDALE	ST. DAVID	LIMESTONE	1.3	113.0	
276.9	CARBONDALE	TURNER MINE	SHALE	1.7	114.3	
275.2	CARBONDALE	TURNER MINE	SHALE	2.5	116.0	
272.7	CARBONDALE	DYKERSBURG	SHALE	1.5	118.5	
271.2	CARBONDALE	DYKERSBURG	SHALE	1.0	120.0	
270.2	CARBONDALE	SPRINGFIELD	COAL	4.0	121.0	
266.2	CARBONDALE		UNDERCLAY	3.0	125.0	
263.2	CARBONDALE		UNDERCLAY	7.5	128.0	
255.7	CARBONDALE		LIMESTONE	3.5	135.5	ARGILLACEOUS
252.2	CARBONDALE		SHALE	1.0	139.0	IRON CONCRETIONS
251.2	CARBONDALE		SHALE	5.0	140.0	IRON CONCRETIONS
246.2	CARBONDALE		SANDY SHALE	4.0	145.0	
242.2	CARBONDALE		SHALE	5.0	149.0	IRON CONCRETIONS
237.2	CARBONDALE		SHALE	11.0	154.0	IRON CONCRETIONS
226.2	CARBONDALE		SANDSTONE	9.0	165.0	
217.2	CARBONDALE		SANDSTONE	14.7	174.0	
202.5	CARBONDALE		SHALE	0.3	188.7	
202.2	CARBONDALE		SHALE	1.5	189.0	
200.7	CARBONDALE		SHALE	5.0	190.5	
195.7	CARBONDALE		SHALE	4.5	195.5	

191.2	CARBONDALE	SHALE	3.5	200.0	
187.7	CARBONDALE	COAL	0.2	203.5	
187.5	CARBONDALE	UNDERCLAY	4.8	203.7	
182.7	CARBONDALE	SANDSTONE	1.5	208.5	ARGILLACEOUS
181.2	CARBONDALE	COAL	0.2	210.0	
181.0	CARBONDALE	UNDERCLAY	0.8	210.2	

MAPID: 07700641000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 16 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.221566 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.920071 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 390.8 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 265 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.8	PLEISTOCENE		UNCONSOLIDATED	46.5	0.0	
344.3	CARBONDALE		LIMESTONE	4.0	46.5	
340.3	CARBONDALE		LIMESTONE	14.5	50.5	
325.8	CARBONDALE		SHALE	10.0	65.0	
315.8	CARBONDALE		SILTSTONE	55.5	75.0	ARGILLACEOUS
260.3	CARBONDALE		SHALE	8.0	130.5	
252.3	CARBONDALE	HERRIN	COAL	11.5	138.5	SHATTERED

MAPID: 07700641000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 16 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.221566 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.920071 DATE COLLECTED:

SURFACE ELEVATION (FT.): 390.8 LOGGED (FT.): 0.0 LOG TYPE:

SOURCE: UNION COLL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
251.8	CARBONDALE	HERRIN	COAL	11.5	139.0	

MAPID: 07700642000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 16

QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.221566

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.920071

DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 390.0

LOGGED (FT.): 224.0

LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 266

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	PLEISTOCENE		UNCONSOLIDATED	51.0	0.0	
339.0			SANDSTONE	4.0	51.0	
335.0			SHALE	0.5	55.0	
334.5			UNDERCLAY	4.0	55.5	
330.5			SANDSTONE	6.5	59.5	ARGILLACEOUS
324.0			SILTY SHALE	4.0	66.0	
320.0			SHALE	20.0	70.0	
300.0			SHALE	0.9	90.0	
299.1			LIMESTONE	2.1	90.9	
297.0			SHALY LIMESTONE	7.0	93.0	
290.0			CORE LOSS	6.0	100.0	
284.0			SHALE	4.4	106.0	
279.6			SANDSTONE	2.6	110.4	
277.0			SHALE	3.0	113.0	
274.0			SHALE	2.5	116.0	
271.5			SHALE	0.3	118.5	
271.2			COAL	0.2	118.8	
271.0			UNDERCLAY	1.0	119.0	SOME LIMESTONE NOTED
270.0			UNDERCLAY	2.0	120.0	
268.0			UNDERCLAY	0.8	122.0	GREEN GRAY
267.2			LIMESTONE	1.2	122.8	
266.0			LIMESTONE	9.0	124.0	
257.0			SILTSTONE	2.2	133.0	
254.8			LIMESTONE	0.3	135.2	
254.5			SILTSTONE	0.5	135.5	GRAY
254.0			SHALE	2.0	136.0	
252.0			SHALE	4.0	138.0	
248.0			SHALE	6.0	142.0	
242.0			SILTSTONE	63.0	148.0	ARGILLACEOUS
179.0			SHALE	2.0	211.0	
177.0			SHALE	1.0	213.0	
176.0	CARBONDALE	HERRIN	COAL	10.0	214.0	.3 FT BLUE SHALE BAND

MAPID: 07700642000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 16 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.221566 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.920071 DATE COLLECTED:

SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 0.0 LOG TYPE:

SOURCE: UNION COLL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
176.0	CARBONDALE	HERRIN	COAL	10.0	214.0	

MAPID: 07700643000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 16 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.22159 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.918243 DATE COLLECTED:

SURFACE ELEVATION (FT.): 391.4 LOGGED (FT.): 0.0 LOG TYPE:

SOURCE: UNION COLL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
363.4	CARBONDALE	HERRIN	COAL	12.3	28.0	

MAPID: 07700644000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 16

QUARTERS/FOOTAGES: SW NW NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.223943

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.918257

DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 391.6

LOGGED (FT.): 151.5

LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 268

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
391.6	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0	
362.6			LIMESTONE	1.0	29.0	
361.6			SHALE	1.0	30.0	
360.6			CORE LOSS	11.0	31.0	FISHTAILED
349.6			SHALY SANDSTONE	7.0	42.0	
342.6			SHALE	0.4	49.0	
342.2			SHALE	2.3	49.4	
339.9			COAL	0.3	51.7	DIRTY
339.6			UNDERCLAY	3.7	52.0	SOME LIMESTONE NOTED
335.9			LIMESTONE	2.7	55.7	
333.2			LIMESTONE	2.6	58.4	
330.6			LIMESTONE	7.0	61.0	
323.6			SHALY SILTSTONE	1.0	68.0	
322.6			SHALE	1.0	69.0	
321.6			CORE LOSS	2.0	70.0	FISHTAILED
319.6			SHALE	17.0	72.0	
302.6			SHALE	8.0	89.0	
294.6			SHALE	3.4	97.0	IRON CONCRETIONS
291.2			SILTSTONE	36.0	100.4	ARGILLACEOUS
255.2			SHALE	0.6	136.4	IRON CONCRETIONS
254.6			SHALE	3.9	137.0	IRON CONCRETIONS
250.7	CARBONDALE	HERRIN	COAL	0.1	140.9	
250.6	CARBONDALE	HERRIN	SHALE	1.0	141.0	
249.6	CARBONDALE	HERRIN	COAL/CLAYSTONE	9.5	142.0	0.2FT BLUE SHALE BAND

MAPID: 07700644000C VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 16

QUARTERS/FOOTAGES: SW NW NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.223943

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.918257

DATE COLLECTED:

SURFACE ELEVATION (FT.): 391.6

LOGGED (FT.): 0.0

LOG TYPE:

SOURCE: UNION COLL

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
249.6	CARBONDALE	HERRIN	COAL	9.4	142.0	

MAPID: 07700645000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 16 QUARTERS/FOOTAGES: NW NW NW
QUADRANGLE: ELKVILLE LONGITUDE: -89.223918 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.920079 DATE COLLECTED:
SURFACE ELEVATION (FT.): 389.5 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: UNION COLL WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
236.5	CARBONDALE	HERRIN	COAL	11.0	153.0	

MAPID: 07700031000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: NW NW NW
QUADRANGLE: ELKVILLE LONGITUDE: -89.242454 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.920114 DATE COLLECTED: 0 / 0 / 1917
SURFACE ELEVATION (FT.): 425.3 LOGGED (FT.): 85.0 LOG TYPE: Survey Core Study
SOURCE: UNION COLLIERY CO. 3 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.3	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0	
402.3			SHALE	50.0	23.0	
352.3			SHALE	4.0	73.0	
348.3			COAL	2.0	77.0	
346.3			SHALE	3.0	79.0	BLUE
343.3			SHALE	3.0	82.0	

MAPID: 07700031000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: NW NW NW
QUADRANGLE: ELKVILLE LONGITUDE: -89.242454 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.920114 DATE COLLECTED: 0 / 0 / 1917
SURFACE ELEVATION (FT.): 425.3 LOGGED (FT.): 85.0 LOG TYPE:
SOURCE: UNION COLL0003 WELL TYPE: Coal Test
COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
348.3	CARBONDALE	SPRINGFIELD	COAL	2.0	77.0	

MAPID: 07700352000C **VERSION:** 1 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 17 **QUARTERS/FOOTAGES:** SE SE NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.235564 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.914655 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 398.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: CASTLETON **WELL TYPE:** Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
378.0	CARBONDALE	HERRIN	COAL	8.0	20.0	

MAPID: 07700549000C **VERSION:** 1 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 17 **QUARTERS/FOOTAGES:** NW NE NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.237826 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.920107 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 404.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: MONROE CC 0002 **WELL TYPE:** Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
364.0	CARBONDALE	SPRINGFIELD	COAL	-	40.0	

MAPID: 07700550000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 17 **QUARTERS/FOOTAGES:** SW SE NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.237874 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.91466 **DATE COLLECTED:** 0 / 0 / 1935
SURFACE ELEVATION (FT.): 405.0 **LOGGED (FT.):** 33.7 **LOG TYPE:** Drillers Log
SOURCE: MCLAREN COAL CO. 501 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE	HERRIN	CLAY	22.2	0.0	YELLOW
382.8	PLEISTOCENE		MUD	2.0	22.2	
380.8	PLEISTOCENE		CLAY	2.8	24.2	
378.0	CARBONDALE		COAL	6.1	27.0	6 INCH DIRT BAND
371.9	CARBONDALE		UNDERCLAY	0.9	33.1	

MAPID: 07700550000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: SW SE NW
QUADRANGLE: ELKVILLE LONGITUDE: -89.237874 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.91466 DATE COLLECTED: 0 / 0 / 1935
SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 34.0 LOG TYPE:
SOURCE: MCLAREN CC0501 WELL TYPE: Coal Test
COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
378.0	CARBONDALE	HERRIN	COAL	5.8	27.0	

MAPID: 07700551000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: NW SE NW
QUADRANGLE: ELKVILLE LONGITUDE: -89.23786 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.916476 DATE COLLECTED: 0 / 0 / 1935
SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 26.3 LOG TYPE: Drillers Log
SOURCE: MCLAREN COAL CO. 502 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE		CLAY	20.0	0.0	
385.0	CARBONDALE	HERRIN	SMUT	2.9	20.0	
382.1	CARBONDALE	HERRIN	COAL	2.0	22.9	
380.1	CARBONDALE		UNDERCLAY	1.4	24.9	

MAPID: 07700551000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: NW SE NW
QUADRANGLE: ELKVILLE LONGITUDE: -89.23786 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.916476 DATE COLLECTED: 0 / 0 / 1935
SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 26.0 LOG TYPE:
SOURCE: MCLAREN CC0502 WELL TYPE: Coal Test
COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	CARBONDALE	HERRIN	COAL	4.9	20.0	

MAPID: 07700552000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.237843 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.918293 DATE COLLECTED: 0 / 0 / 1935

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 43.6 LOG TYPE: Drillers Log

SOURCE: MCLAREN COAL CO. 503 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0	PLEISTOCENE		CLAY	23.0	0.0	YELLOW
387.0	CARBONDALE		SANDSTONE	2.0	23.0	
385.0	CARBONDALE		SHALE	5.3	25.0	
379.7	CARBONDALE		ROCK	0.7	30.3	
379.0	CARBONDALE		SHALE	0.7	31.0	
378.3	CARBONDALE		SHALE	1.0	31.7	
377.3	CARBONDALE		SHALE	5.7	32.7	
371.7	CARBONDALE	SPRINGFIELD	COAL	4.2	38.3	
367.5	CARBONDALE		UNDERCLAY	1.1	42.5	

MAPID: 07700552000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.237843 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.918293 DATE COLLECTED: 0 / 0 / 1935

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 44.0 LOG TYPE:

SOURCE: MCLAREN CC0503 WELL TYPE: Coal Test

COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
372.0	CARBONDALE	SPRINGFIELD	COAL	4.2	38.0	

MAPID: 07700553000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.240157 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.918298 DATE COLLECTED: 0 / 0 / 1935

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 38.6 LOG TYPE: Drillers Log

SOURCE: MCLAREN COAL CO. 504 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
415.0	PLEISTOCENE		CLAY	25.0	0.0	YELLOW
390.0	CARBONDALE		SHALE	4.8	25.0	
385.2	CARBONDALE		ROCK	0.9	29.8	
384.2	CARBONDALE		SHALE	0.5	30.8	
383.7	CARBONDALE		SHALE	1.9	31.3	
381.8	CARBONDALE	SPRINGFIELD	COAL	4.4	33.2	
377.4	CARBONDALE		UNDERCLAY	1.0	37.6	

MAPID: 07700553000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.240157 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.918298 DATE COLLECTED: 0 / 0 / 1935

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 39.0 LOG TYPE:

SOURCE: MCLAREN CC0504 WELL TYPE: Coal Test

COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
382.0	CARBONDALE	SPRINGFIELD	COAL	4.3	33.0	

MAPID: 07700554000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: NE SW NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.240171 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.916484 DATE COLLECTED: 0 / 0 / 1935

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 54.6 LOG TYPE: Drillers Log

SOURCE: MCLAREN COAL CO. 505 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0	PLEISTOCENE		CLAY	24.0	0.0	YELLOW
386.0	CARBONDALE		SHALE	1.3	24.0	
384.7	CARBONDALE		ROCK	1.2	25.3	
383.5	CARBONDALE		CLAYSTONE & SILTSTONE	6.8	26.5	
376.7	CARBONDALE		SHALE	2.7	33.3	
374.0	CARBONDALE		SHALE	6.0	36.0	
368.0	CARBONDALE		SHALE	1.0	42.0	
367.0	CARBONDALE		CONCRETION	0.5	43.0	
366.5	CARBONDALE		SHALE	0.8	43.5	
365.7	CARBONDALE		SHALE	5.7	44.3	
360.0	CARBONDALE	SPRINGFIELD	COAL	4.0	50.0	
356.0	CARBONDALE		UNDERCLAY	0.6	54.0	

MAPID: 07700554000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: NE SW NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.240171 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.916484 DATE COLLECTED: 0 / 0 / 1935

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 55.0 LOG TYPE:

SOURCE: MCLAREN CC0505 WELL TYPE: Coal Test

COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
360.0	CARBONDALE	SPRINGFIELD	COAL	4.0	50.0	

MAPID: 07700555000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.240188 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.914668 DATE COLLECTED: 0 / 0 / 1935

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 63.8 LOG TYPE: Drillers Log

SOURCE: MCLAREN COAL CO. 506 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE		CLAY	28.5	0.0	YELLOW
376.5	CARBONDALE	HERRIN	COAL	1.0	28.5	
375.5	CARBONDALE		UNDERCLAY	1.5	29.5	
374.0	CARBONDALE		SHALE	4.2	31.0	YELLOW
369.8	CARBONDALE		ROCK	2.9	35.2	
366.9	CARBONDALE		SHALE	8.5	38.1	
358.4	CARBONDALE		SHALE	8.4	46.6	
350.0	CARBONDALE	ST. DAVID	ROCK	1.0	55.0	
349.0	CARBONDALE	TURNER MINE	SHALE	3.2	56.0	
345.8	CARBONDALE	SPRINGFIELD	COAL	4.1	59.2	
341.7	CARBONDALE		UNDERCLAY	0.6	63.3	

MAPID: 07700555000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.240188 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.914668 DATE COLLECTED: 0 / 0 / 1935

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 64.0 LOG TYPE:

SOURCE: MCLAREN CC0506 WELL TYPE: Coal Test

COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
376.0	CARBONDALE	HERRIN	COAL	1.0	29.0	
346.0	CARBONDALE	SPRINGFIELD	COAL	4.1	59.0	

MAPID: 07700556000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.237843 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.918293 DATE COLLECTED: 0 / 0 / 1935

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 51.0 LOG TYPE: Drillers Log

SOURCE: MCLAREN COAL CO. 507 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
390.0	PLEISTOCENE		CLAY	6.0	15.0	
384.0	CARBONDALE		ROCK	5.7	21.0	WHITE
378.3	CARBONDALE		SHALE	6.5	26.7	
371.8	CARBONDALE		ROCK	0.6	33.2	
371.2	CARBONDALE		SHALE	9.6	33.8	
361.7	CARBONDALE	ST. DAVID	ROCK	1.0	43.3	
360.7	CARBONDALE	TURNER MINE	SHALE	1.9	44.3	
358.7	CARBONDALE	SPRINGFIELD	COAL	4.3	46.3	
354.5	CARBONDALE		UNDERCLAY	0.5	50.5	

MAPID: 07700556000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.237843 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.918293 DATE COLLECTED: 0 / 0 / 1935

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 51.0 LOG TYPE:

SOURCE: MCLAREN CC0507 WELL TYPE: Coal Test

COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
359.0	CARBONDALE	SPRINGFIELD	COAL	4.3	46.0	

MAPID: 07700557000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: SW NW NW
QUADRANGLE: ELKVILLE LONGITUDE: -89.242468 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.918303 DATE COLLECTED: 0 / 0 / 1935
SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log
SOURCE: MCLAREN COAL CO. 508 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
413.0	PLEISTOCENE		CLAY	11.0	12.0	YELLOW
402.0			SHALE	12.0	23.0	
390.0			SHALE	35.0	35.0	

MAPID: 07700557000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: SW NW NW
QUADRANGLE: ELKVILLE LONGITUDE: -89.242468 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.918303 DATE COLLECTED: 0 / 0 / 1935
SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 70.0 LOG TYPE:
SOURCE: MCLAREN CC0508 WELL TYPE: Coal Test
COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	-		

MAPID: 07700558000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: NW NW NW
QUADRANGLE: ELKVILLE LONGITUDE: -89.242454 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.920114 DATE COLLECTED: 0 / 0 / 1935
SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 62.0 LOG TYPE: Drillers Log
SOURCE: MCLAREN COAL CO. 509 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
410.0	PLEISTOCENE		CLAY	6.5	15.0	YELLOW
403.5	PLEISTOCENE		SAND	0.5	21.5	
403.0	PLEISTOCENE		CLAY	2.0	22.0	YELLOW
401.0			SHALE	38.0	24.0	

MAPID: 07700558000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 17 **QUARTERS/FOOTAGES:** NW NW NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.242454 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.920114 **DATE COLLECTED:** 0 / 0 / 1935
SURFACE ELEVATION (FT.): 425.0 **LOGGED (FT.):** 62.0 **LOG TYPE:**
SOURCE: MCLAREN CC0509 **WELL TYPE:** Coal Test
COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0	COAL ABSENT OR ERODED

MAPID: 07700559000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 17 **QUARTERS/FOOTAGES:** NE NW NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.24014 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.920112 **DATE COLLECTED:** 0 / 0 / 1935
SURFACE ELEVATION (FT.): 408.0 **LOGGED (FT.):** 50.3 **LOG TYPE:** Drillers Log
SOURCE: MCLAREN COAL CO. 510 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
408.0	PLEISTOCENE		UNCONSOLIDATED	17.5	0.0
390.5	CARBONDALE		SHALE	1.0	17.5
389.5	CARBONDALE		ROCK	5.5	18.5
384.0	CARBONDALE	HERRIN	COAL	0.5	24.0 SOFT STREAK
383.5	CARBONDALE		ROCK	0.4	24.5
383.1	CARBONDALE		SHALE	16.1	24.9
367.0	CARBONDALE	ST. DAVID	ROCK	1.3	41.0
365.7	CARBONDALE	TURNER MINE	SHALE	3.3	42.3
362.5	CARBONDALE	SPRINGFIELD	COAL	4.3	45.5
358.2	CARBONDALE		UNDERCLAY	0.6	49.8

MAPID: 07700559000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 17 **QUARTERS/FOOTAGES:** NE NW NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.24014 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.920112 **DATE COLLECTED:** 0 / 0 / 1935
SURFACE ELEVATION (FT.): 408.0 **LOGGED (FT.):** 50.0 **LOG TYPE:**
SOURCE: MCLAREN CC0510 **WELL TYPE:** Coal Test
COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0	COAL ABSENT OR ERODED
362.0	CARBONDALE	SPRINGFIELD	COAL	-	46.0

MAPID: 07700646000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.226385 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.909159 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 389.3 LOGGED (FT.): 148.5 LOG TYPE: Survey Core Study

SOURCE: MCLAREN 204 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
389.3	PLEISTOCENE		UNCONSOLIDATED	35.0	0.0	
354.3	MODESTO	PIASA	LIMESTONE	6.5	35.0	
347.8	MODESTO	PIASA	LIMESTONE	1.5	41.5	BROKEN
346.3	MODESTO		SHALE	0.5	43.0	
345.8	CARBONDALE	DANVILLE	COAL	0.3	43.5	
345.5	CARBONDALE		UNDERCLAY	0.8	43.8	
344.8	CARBONDALE		SHALE	17.5	44.5	
327.3	CARBONDALE		LIMESTONE	2.5	62.0	
324.8	CARBONDALE		SHALE	3.1	64.5	
321.7	CARBONDALE		SHALE	1.4	67.6	
320.3	CARBONDALE		SHALE	2.0	69.0	
318.3	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	71.0	BROKEN
316.3	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	73.0	
311.3	CARBONDALE		SHALE	7.0	78.0	
304.3	CARBONDALE	BANKSTON FORK	LIMESTONE	10.0	85.0	
294.3	CARBONDALE		SHALE	1.0	95.0	
293.3	CARBONDALE		SHALE	14.0	96.0	
279.3	CARBONDALE		SHALE	5.0	110.0	
274.3	CARBONDALE		SHALE	7.0	115.0	
267.3	CARBONDALE	ANNA	SHALE	5.0	122.0	
262.3	CARBONDALE	ENERGY	SHALE	13.0	127.0	
249.3	CARBONDALE	HERRIN	COAL	8.5	140.0	

MAPID: 07700646000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.226385 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.909159 DATE COLLECTED:

SURFACE ELEVATION (FT.): 389.3 LOGGED (FT.): 0.0 LOG TYPE:

SOURCE: UNION COLL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
249.3	CARBONDALE	HERRIN	COAL	8.5	140.0	

MAPID: 07700647000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: ELKVILLE LONGITUDE: -89.226274 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.918266 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 395.9 LOGGED (FT.): 132.0 LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 209 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.9	PLEISTOCENE		SOIL	36.5	0.0	
359.4			SHALY SANDSTONE	8.7	36.5	
350.7			CLAYSTONE	1.3	45.2	SOME LIMESTONE NOTED
349.4			CLAYSTONE	0.3	46.5	SOME LIMESTONE NOTED
349.1			CLAYSTONE	0.2	46.8	LIMESTONE NOTED; DARK
349.0			COAL	0.3	46.9	DIRTY
348.6			UNDERCLAY	0.2	47.3	
348.5			UNDERCLAY	2.1	47.4	LIMESTONE NOTED; GREEN GRAY
346.4			UNDERCLAY	3.0	49.5	
343.4			LIMESTONE	3.5	52.5	
339.9			LIMESTONE	6.5	56.0	
333.4			LIMESTONE	4.2	62.5	
329.2			SHALY SILTSTONE	0.8	66.7	
328.4			SILTY SHALE	9.0	67.5	
319.4			SHALE	2.8	76.5	
316.6			LIMESTONE	1.7	79.3	
314.9			SHALE	10.8	81.0	IRON BANDS NOTED
304.1			SHALE	31.2	91.8	IRON BANDS NOTED
272.9	CARBONDALE	HERRIN	COAL	9.0	123.0	TOTAL THICKNESS OF SH PTGS 12.75INCH

MAPID: 07700647000C VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: ELKVILLE LONGITUDE: -89.226274 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.918266 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.9 LOGGED (FT.): 0.0 LOG TYPE:

SOURCE: UNION COLL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
272.9	CARBONDALE	HERRIN	COAL	9.0	123.0	

MAPID: 07700648000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: ELKVILLE LONGITUDE: -89.226319 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.914622 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 392.4 LOGGED (FT.): 121.0 LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 210 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
392.4	PLEISTOCENE		SOIL	19.5	0.0	
372.9	MODESTO	PIASA	LIMESTONE	0.5	19.5	
372.4	MODESTO	PIASA	LIMESTONE	1.1	20.0	
371.3	MODESTO	PIASA	LIMESTONE	0.8	21.1	DARK
370.5	MODESTO		SHALE	1.0	21.9	GREEN
369.5	MODESTO		SHALE	0.5	22.9	
369.0	MODESTO		SHALE	1.8	23.4	
367.2	MODESTO		SHALE	0.5	25.2	
366.7	CARBONDALE	DANVILLE	COAL	0.8	25.7	
365.9	CARBONDALE		CORE LOSS	10.0	26.5	FISHTAILED
355.9	CARBONDALE		SANDSTONE	1.0	36.5	
354.9	CARBONDALE		SHALE	3.7	37.5	
351.2	CARBONDALE		SHALE	1.7	41.2	
349.5	CARBONDALE	ALLENBY	COAL	0.2	42.9	DIRTY
349.3	CARBONDALE	ALLENBY	UNDERCLAY	3.0	43.1	SOME LIMESTONE NOTED
346.3	CARBONDALE	ALLENBY	COAL	0.4	46.1	
345.9	CARBONDALE		UNDERCLAY	3.0	46.5	SOME LIMESTONE NOTED
342.9	CARBONDALE	BANKSTON FORK	SHALY LIMESTONE	2.0	49.5	
340.9	CARBONDALE	BANKSTON FORK	LIMESTONE	10.0	51.5	
330.9	CARBONDALE	BANKSTON FORK	LIMESTONE	1.7	61.5	
329.2	CARBONDALE		SILTSTONE	0.8	63.2	
328.4	CARBONDALE		SANDY SHALE	1.6	64.0	
326.8	CARBONDALE		SHALE	7.4	65.6	
319.4	CARBONDALE		SHALE	2.8	73.0	
316.6	CARBONDALE	BRERETON	LIMESTONE	3.6	75.8	
313.0	CARBONDALE	ANNA	SHALE	3.6	79.4	
309.4	CARBONDALE	ENERGY	SHALE	11.0	83.0	
298.4	CARBONDALE	ENERGY	SHALE	9.0	94.0	IRON CONCRETIONS
289.4	CARBONDALE	ENERGY	SHALE	9.0	103.0	IRON CONCRETIONS
280.4	CARBONDALE	HERRIN	COAL	9.0	112.0	TOTAL THICKNESS OF SH PTGS. = .85 FT

MAPID: 07700648000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 17 **QUARTERS/FOOTAGES:** SE SE NE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.226319 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.914622 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 392.4 **LOGGED (FT.):** 0.0 **LOG TYPE:**
SOURCE: UNION COLL **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
280.4	CARBONDALE	HERRIN	COAL	9.0	112.0	

MAPID: 07700649000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 17 **QUARTERS/FOOTAGES:** SE NE SE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.226361 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.910981 **DATE COLLECTED:** 0 / 0 / 1940
SURFACE ELEVATION (FT.): 396.9 **LOGGED (FT.):** 127.5 **LOG TYPE:** Survey Core Study
SOURCE: UNION COLLIERY CO. 211 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
396.9	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0	
367.9	CARBONDALE		SANDSTONE	0.6	29.0	
367.3	CARBONDALE		SHALE	3.3	29.6	
364.0	CARBONDALE	ALLENBY	COAL	0.1	32.9	
363.9	CARBONDALE		UNDERCLAY	5.0	33.0	SOME LIMESTONE NOTED
358.9	CARBONDALE		CORE LOSS	5.0	38.0	FISHTAILED
353.9	CARBONDALE		PYRITE	0.1	43.0	
353.8	CARBONDALE	BANKSTON FORK	LIMESTONE	1.9	43.1	
351.9	CARBONDALE	BANKSTON FORK	PYRITE	0.1	45.0	
351.8	CARBONDALE	BANKSTON FORK	LIMESTONE	10.0	45.1	
341.9	CARBONDALE	BANKSTON FORK	LIMESTONE	3.6	55.0	
338.3	CARBONDALE		SHALE	0.9	58.6	
337.4	CARBONDALE		SHALE	2.8	59.5	
334.6	CARBONDALE		SHALE	0.5	62.3	
334.1	CARBONDALE		SHALE	14.7	62.8	
319.4	CARBONDALE	ANNA	SHALE	2.7	77.5	
316.7	CARBONDALE	ENERGY	SHALE	11.5	80.2	
305.2	CARBONDALE	ENERGY	SHALE	26.8	91.7	
278.4	CARBONDALE	HERRIN	COAL	9.0	118.5	TOTAL THICKNESS OF BNDS & DIRT = .65FT

MAPID: 07700649000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 17 **QUARTERS/FOOTAGES:** SE NE SE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.226361 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.910981 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 396.9 **LOGGED (FT.):** 0.0 **LOG TYPE:**
SOURCE: UNION COLL **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
278.9	CARBONDALE	HERRIN	COAL	9.0	118.0

MAPID: 07700650000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 17 **QUARTERS/FOOTAGES:** SW SE SE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.228713 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.90735 **DATE COLLECTED:** 0 / 0 / 1940
SURFACE ELEVATION (FT.): 393.0 **LOGGED (FT.):** 108.1 **LOG TYPE:** Survey Core Study
SOURCE: UNION COLLIERY CO. 212 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
393.0	PLEISTOCENE		UNCONSOLIDATED	46.0	0.0
347.0	CARBONDALE	BANKSTON FORK	LIMESTONE	10.0	46.0
337.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.6	56.0
334.4	CARBONDALE		SANDSTONE	0.8	58.6
333.6	CARBONDALE		SILTY SHALE	5.3	59.4
328.3	CARBONDALE		SHALE	0.4	64.7
327.9	CARBONDALE		SANDY SILTSTONE	0.4	65.1
327.5	CARBONDALE		SILTY SHALE	0.5	65.5
327.0	CARBONDALE		SHALE	10.5	66.0
316.5	CARBONDALE		SHALE	4.0	76.5
312.5	CARBONDALE	BRERETON	LIMESTONE	3.7	80.5 GRAY TO BLACK
308.8	CARBONDALE	BRERETON	LIMESTONE	5.3	84.2
303.5	CARBONDALE	BRERETON	LIMESTONE	1.3	89.5
302.2	CARBONDALE	BRERETON	LIMESTONE	3.2	90.8 GRAY TO BLACK
299.0	CARBONDALE	ANNA	SHALE	5.0	94.0
294.0	CARBONDALE	HERRIN	COAL	9.1	99.0 TOTAL THICKNESS OF SH PTGS. = .19FT

MAPID: 07700650000C VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: SW SE SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.228713

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.90735

DATE COLLECTED:

SURFACE ELEVATION (FT.): 393.0 LOGGED (FT.): 0.0

LOG TYPE:

SOURCE: UNION COLL

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
294.0	CARBONDALE	HERRIN	COAL	9.0 99.0	

MAPID: 07700651000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: NE NW NE

QUADRANGLE: ELKVILLE LONGITUDE: -89.230881

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.920096

DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 395.7 LOGGED (FT.): 90.0

LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 219

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
395.7	PLEISTOCENE		UNCONSOLIDATED	20.0 0.0	
375.7	CARBONDALE	BANKSTON FORK	LIMESTONE	10.0 20.0	
365.7	CARBONDALE	BANKSTON FORK	LIMESTONE	0.6 30.0	
365.1	CARBONDALE		SANDSTONE	1.0 30.6	
364.1	CARBONDALE		SHALE	7.4 31.6	
356.7	CARBONDALE		SHALE	4.7 39.0	
352.0	CARBONDALE	BRERETON	LIMESTONE	0.3 43.7	
351.7	CARBONDALE	BRERETON	LIMESTONE	1.7 44.0	
350.0	CARBONDALE	ANNA	SHALE	3.0 45.7	
347.0	CARBONDALE	ANNA	SHALE	0.8 48.7	
346.2	CARBONDALE	ENERGY	SHALE	2.5 49.5	
343.7	CARBONDALE	ENERGY	SILTY SHALE	3.3 52.0	
340.4	CARBONDALE	ENERGY	SHALE	6.7 55.3	IRON CONCRETIONS
333.7	CARBONDALE	ENERGY	SHALE	10.0 62.0	IRON CONCRETIONS
323.7	CARBONDALE	ENERGY	SHALE	9.0 72.0	IRON CONCRETIONS
314.7	CARBONDALE	HERRIN	COAL	9.0 81.0	TOTAL THICKNESS OF SH PTGS. = .15

MAPID: 07700651000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: NE NW NE
QUADRANGLE: ELKVILLE LONGITUDE: -89.230881 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.920096 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.7 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: UNION COLL WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
314.7	CARBONDALE	HERRIN	COAL	9.0	81.0	

MAPID: 07700652000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: NW SW NE
QUADRANGLE: ELKVILLE LONGITUDE: -89.233233 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.916463 DATE COLLECTED:
SURFACE ELEVATION (FT.): 399.5 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: UNION COLL WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
360.5	CARBONDALE	HERRIN	COAL	9.0	39.0	

MAPID: 07700652000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: NW SW NE
QUADRANGLE: ELKVILLE LONGITUDE: -89.233233 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.916463 DATE COLLECTED:
SURFACE ELEVATION (FT.): 399.0 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log
SOURCE: WELL TYPE: Coal Test
COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
377.0	CARBONDALE	ENERGY	UNKNOWN	17.0	22.0	
360.0	CARBONDALE	HERRIN	COAL	9.0	39.0	

MAPID: 07700652000C VERSION: 3

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: NW SW NE
 QUADRANGLE: ELKVILLE LONGITUDE: -89.233233 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.916463 DATE COLLECTED: 0 / 0 / 1940
 SURFACE ELEVATION (FT.): 399.5 LOGGED (FT.): 48.0 LOG TYPE: Survey Core Study
 SOURCE: UNION COLLIERY CO. 220 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
399.5	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
377.5	CARBONDALE		SHALE	11.0	22.0	
366.5	CARBONDALE		CLAYSTONE & SILTSTONE	0.5	33.0	
366.0	CARBONDALE		SHALE	5.2	33.5	
360.8	CARBONDALE		CLAYSTONE & SILTSTONE	0.4	38.7	
360.5	CARBONDALE	HERRIN	COAL	9.0	39.0	TOTAL THICKNESS OF DIRT BAND = .2 FT

MAPID: 07700653000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: NE NE NE
 QUADRANGLE: ELKVILLE LONGITUDE: -89.226253 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.920085 DATE COLLECTED: 0 / 0 / 1940
 SURFACE ELEVATION (FT.): 393.5 LOGGED (FT.): 148.0 LOG TYPE: Survey Core Study
 SOURCE: UNION COLLIERY CO. 262 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
393.5	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0	
368.5	CARBONDALE		LIMESTONE	5.5	25.0	
363.0	CARBONDALE		SHALE	11.0	30.5	
352.0	CARBONDALE		SHALE	4.0	41.5	
348.0	CARBONDALE		SANDSTONE	11.0	45.5	
337.0	CARBONDALE		SHALE	6.0	56.5	
331.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	62.5	
328.0	CARBONDALE	BANKSTON FORK	LIMESTONE	10.3	65.5	
317.7	CARBONDALE		SHALE	18.2	75.8	
299.5	CARBONDALE		SHALE	3.0	94.0	
296.5	CARBONDALE		SHALE	42.0	97.0	
254.5	CARBONDALE		SHALE	0.5	139.0	CSEAMS
254.0	CARBONDALE	HERRIN	COAL	8.5	139.5	TOTAL THICKNESS OF BAND = .5

MAPID: 07700653000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 17 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: ELKVILLE LONGITUDE: -89.226253 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.920085 DATE COLLECTED:

SURFACE ELEVATION (FT.): 393.5 LOGGED (FT.): 0.0 LOG TYPE:

SOURCE: UNION COLL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
254.5	CARBONDALE	HERRIN	COAL	8.5	139.0	

MAPID: 07700032000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.257002 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.911301 DATE COLLECTED:

SURFACE ELEVATION (FT.): 431.3 LOGGED (FT.): 38.1 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 38 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
431.3	PLEISTOCENE		CLAY	24.0	0.0	
407.3	CARBONDALE		SHALE	7.0	24.0	BLUE
400.3	CARBONDALE	HERRIN	COAL	7.1	31.0	

MAPID: 07700032000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.257002 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.911301 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 431.3 LOGGED (FT.): 338.0 LOG TYPE:

SOURCE: TRUAX-TRAER 0038 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.3	CARBONDALE	HERRIN	COAL	7.1	31.0	

MAPID: 07700033000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SW NE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.257002 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.911301 DATE COLLECTED:
SURFACE ELEVATION (FT.): 427.5 LOGGED (FT.): 27.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 39 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
427.5	PLEISTOCENE		CLAY	23.0	0.0	
404.5	CARBONDALE	HERRIN	COAL	4.0	23.0	TOP OF COAL ERODED

MAPID: 07700033000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SW NE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.257002 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.911301 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 427.5 LOGGED (FT.): 31.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0039 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.5	CARBONDALE	HERRIN	COAL	7.1	27.0	

MAPID: 07700034000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SW NW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.261845 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.911388 DATE COLLECTED:
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 28.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 40 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0	PLEISTOCENE		CLAY	24.0	0.0	
406.0	CARBONDALE	HERRIN	COAL	4.0	24.0	TOP OF COAL ERODED

MAPID: 07700034000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SW NW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.261845 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.911388 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 38.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0040 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
406.0	CARBONDALE	HERRIN	COAL	4.0	24.0	

MAPID: 07700035000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SE NE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.254581 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.911257 DATE COLLECTED:
SURFACE ELEVATION (FT.): 430.3 LOGGED (FT.): 30.4 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 41 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.3	PLEISTOCENE		CLAY	26.5	0.0	
403.8	CARBONDALE	HERRIN	COAL	3.9	26.5	TOP OF COAL ERODED

MAPID: 07700036000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SE NE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.254581 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.911257 DATE COLLECTED:
SURFACE ELEVATION (FT.): 424.1 LOGGED (FT.): 24.4 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 42 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
424.1	PLEISTOCENE		CLAY	19.4	0.0	
404.7	CARBONDALE	HERRIN	COAL	5.0	19.4	TOP OF COAL ERODED

MAPID: 07700036000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SE NE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.254581 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.911257 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 424.1 LOGGED (FT.): 25.0 LOG TYPE:

SOURCE: TRUAX-TRAER 0042 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.1	CARBONDALE	HERRIN	COAL	5.0	19.0	

MAPID: 07700037000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: NE SE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.254587 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.909463 DATE COLLECTED:

SURFACE ELEVATION (FT.): 424.3 LOGGED (FT.): 34.3 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 43 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
424.3	PLEISTOCENE		CLAY	29.8	0.0	
394.5	CARBONDALE	HERRIN	COAL	1.0	29.8	TOP OF COAL ERODED
393.5	CARBONDALE	HERRIN	COAL	3.5	30.8	TOP OF COAL ERODED

MAPID: 07700037000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: NE SE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.254587 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.909463 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 424.3 LOGGED (FT.): 35.0 LOG TYPE:

SOURCE: TRUAX-TRAER 0043 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
394.3	CARBONDALE	HERRIN	COAL	4.5	30.0	

MAPID: 07700038000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SE SE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.254589 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.907671 DATE COLLECTED:

SURFACE ELEVATION (FT.): 426.6 LOGGED (FT.): 43.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 44 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
426.6	PLEISTOCENE		CLAY	38.8	0.0	
387.8	CARBONDALE	HERRIN	COAL	4.3	38.8	TOP OF COAL ERODED

MAPID: 07700038000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SE SE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.254589 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.907671 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 426.6 LOGGED (FT.): 43.0 LOG TYPE:

SOURCE: TRUAX-TRAER 0044 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
387.6	CARBONDALE	HERRIN	COAL	4.3	39.0	

MAPID: 07700039000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SE NE SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.244894 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.911079 DATE COLLECTED:

SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 48.5 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 45 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0	PLEISTOCENE		CLAY	43.5	0.0	
381.5			LIMESTONE	5.0	43.5	NO COAL

MAPID: 07700040000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SE SE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.254589 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.907671 DATE COLLECTED:

SURFACE ELEVATION (FT.): 426.0 LOGGED (FT.): 45.8 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL 46 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
426.0	PLEISTOCENE		CLAY	31.0	0.0	
395.0	CARBONDALE	BRERETON	LIMESTONE	4.3	31.0	
390.7	CARBONDALE		SHALE	4.5	35.3	BLUE
386.2	CARBONDALE	HERRIN	COAL	5.9	39.8	

MAPID: 07700040000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SE SE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.254589 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.907671 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 426.0 LOGGED (FT.): 46.0 LOG TYPE:

SOURCE: TRUAX-TRAER 0046 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
386.0	CARBONDALE	HERRIN	COAL	5.9	40.0	

MAPID: 07700041000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SW SE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.257007 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.907723 DATE COLLECTED:

SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 38.3 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 47 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
422.0	PLEISTOCENE		CLAY	19.0	0.0	
403.0	CARBONDALE	BRERETON	LIMESTONE	11.0	19.0	
392.0	CARBONDALE	ENERGY	SHALE	2.3	30.0	BLUE
389.7	CARBONDALE	HERRIN	COAL	6.0	32.3	

MAPID: 07700041000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SW SE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.257007 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.907723 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 38.0 LOG TYPE:

SOURCE: TRUAX-TRAER 0047 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	CARBONDALE	HERRIN	COAL	6.0	32.0	

MAPID: 07700042000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SW SE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.257007 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.907723 DATE COLLECTED:

SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 43.2 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 48 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0	PLEISTOCENE		CLAY	22.0	0.0	
403.0	CARBONDALE	BRERETON	LIMESTONE	3.2	22.0	BLUE
399.8	CARBONDALE	ENERGY	SHALE	5.0	25.2	BLUE
394.8	CARBONDALE	ENERGY	SHALE	5.0	30.2	
389.8	CARBONDALE	HERRIN	COAL	8.0	35.2	

MAPID: 07700042000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SW SE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.257007 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.907723 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 43.0 LOG TYPE:

SOURCE: TRUAX-TRAER 0048 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	CARBONDALE	HERRIN	COAL	6.0	35.0	

MAPID: 07700043000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.254589 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.907671 DATE COLLECTED:
SURFACE ELEVATION (FT.): 425.3 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 49 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.3	PLEISTOCENE		CLAY	34.0	0.0	
391.3	CARBONDALE	BRERETON	SHALY LIMESTONE	3.0	34.0	
388.3	CARBONDALE	BRERETON	LIMESTONE	5.0	37.0	
383.3	CARBONDALE	ENERGY	SHALE	3.0	42.0	BLUE
380.3	CARBONDALE	HERRIN	COAL	7.0	45.0	

MAPID: 07700043000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.254589 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.907671 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 425.3 LOGGED (FT.): 52.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0049 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.3	CARBONDALE	HERRIN	COAL	7.0	45.0	

MAPID: 07700044000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: NW SW NW
QUADRANGLE: VERGENNES LONGITUDE: -89.261852 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.916728 DATE COLLECTED:
SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 40.4 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 50 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
418.0	PLEISTOCENE		CLAY	15.0	0.0	
403.0	PLEISTOCENE		SAND	1.0	15.0	
402.0	PLEISTOCENE		CLAY	15.0	16.0	
387.0			SHALE	0.8	31.0	BLUE
386.2			SANDSTONE	3.0	31.8	
383.2			LIMESTONE	3.0	34.8	WHITE
380.2			SHALE	2.5	37.8	BLUE

MAPID: 07700045000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SW SE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.256997 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.914876 DATE COLLECTED:
SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 50.8 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 51 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
423.0	PLEISTOCENE		CLAY	30.0	0.0	
393.0			SHALE	12.0	30.0	BLUE
381.0			LIMESTONE	6.0	42.0	WHITE
375.0			SHALE	2.8	48.0	

MAPID: 07700046000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: ELKVILLE LONGITUDE: -89.249737 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.911167 DATE COLLECTED:
SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 59.5 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 52 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
423.0	PLEISTOCENE		CLAY	30.0	0.0	
393.0	CARBONDALE		SHALE	15.0	30.0	GRAY TO BLACK
378.0	CARBONDALE		LIMESTONE	5.0	45.0	WHITE
373.0	CARBONDALE		SHALE	3.0	50.0	
370.0	CARBONDALE		SHALE	2.0	53.0	
368.0	CARBONDALE	HERRIN	COAL	4.5	55.0	

MAPID: 07700046000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: ELKVILLE LONGITUDE: -89.249737 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.911167 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 60.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0052 WELL TYPE: Coal Test
COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
368.0	CARBONDALE	SPRINGFIELD	COAL	4.5	55.0	

MAPID: 07700047000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SW SW NW
QUADRANGLE: VERGENNES LONGITUDE: -89.261851 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.914947 DATE COLLECTED:
SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 46.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 53 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
418.0	PLEISTOCENE		CLAY	30.0	0.0	
388.0	PLEISTOCENE		CLAY	15.0	30.0	DOLOMITE
373.0			LIMESTONE	1.0	45.0	WHITE

MAPID: 07700048000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.254589 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.907671 DATE COLLECTED:
SURFACE ELEVATION (FT.): 409.0 LOGGED (FT.): 37.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 54 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
409.0	PLEISTOCENE		CLAY	15.0	0.0	
394.0			SHALE	16.0	15.0	
378.0			SANDSTONE	2.0	31.0	
376.0			LIMESTONE	4.0	33.0	

MAPID: 07700049000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: NE SW SE
QUADRANGLE: ELKVILLE LONGITUDE: -89.249747 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.909367 DATE COLLECTED:
SURFACE ELEVATION (FT.): 406.0 LOGGED (FT.): 39.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 55 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
406.0	PLEISTOCENE		CLAY	20.0	0.0	
386.0			SHALE	8.0	20.0	
378.0			SANDSTONE	1.0	28.0	
377.0			LIMESTONE	5.0	29.0	GRAY
372.0			SHALE	4.0	34.0	
368.0			LIMESTONE	1.0	38.0	BLACK

MAPID: 07700050000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: NE SW SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.249747 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.909367 DATE COLLECTED:

SURFACE ELEVATION (FT.): 402.8 LOGGED (FT.): 24.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 56 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
402.8	PLEISTOCENE		CLAY	14.0	0.0	
388.8	CARBONDALE	ANNA	SHALE	3.0	14.0	
385.8	CARBONDALE	HERRIN	COAL	7.0	17.0	

MAPID: 07700050000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: NE SW SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.249747 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.909367 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 402.8 LOGGED (FT.): 24.0 LOG TYPE:

SOURCE: TRUAX-TRAER 0056 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
381.8	CARBONDALE	HERRIN	COAL	7.0	21.0	

MAPID: 07700051000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.249757 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.907564 DATE COLLECTED:

SURFACE ELEVATION (FT.): 408.5 LOGGED (FT.): 35.5 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 57 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
408.5	PLEISTOCENE		CLAY	28.0	0.0	
380.5	CARBONDALE		SHALE	1.5	28.0	BLUE
379.0	CARBONDALE	HERRIN	COAL	6.0	29.5	

MAPID: 07700051000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.249757 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.907564 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 408.5 LOGGED (FT.): 36.0 LOG TYPE:

SOURCE: TRUAX-TRAER 0057 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
378.5	CARBONDALE	HERRIN	COAL	6.0	30.0	

MAPID: 07700052000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.252165 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.909413 DATE COLLECTED:

SURFACE ELEVATION (FT.): 413.9 LOGGED (FT.): 36.2 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 58 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
413.9	PLEISTOCENE		CLAY	30.0	0.0	
383.9	CARBONDALE		SHALE	2.0	30.0	BLUE
381.9	CARBONDALE	HERRIN	COAL	4.2	32.0	

MAPID: 07700052000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.252165 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.909413 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 413.9 LOGGED (FT.): 36.0 LOG TYPE:

SOURCE: TRUAX-TRAER 0058 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
381.9	CARBONDALE	HERRIN	COAL	4.2	32.0	

MAPID: 07700053000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.252175 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.907616 DATE COLLECTED:

SURFACE ELEVATION (FT.): 418.4 LOGGED (FT.): 40.1 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 59 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
418.4	PLEISTOCENE		CLAY	30.0	0.0	
388.4	CARBONDALE		SHALE	5.0	30.0	BLUE
383.4	CARBONDALE	HERRIN	COAL	5.1	35.0	

MAPID: 07700053000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.252175 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.907616 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 418.4 LOGGED (FT.): 40.0 LOG TYPE:

SOURCE: TRUAX-TRAER 0059 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.4	CARBONDALE	HERRIN	COAL	5.1	38.0	

MAPID: 07700054000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.252175 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.907616 DATE COLLECTED:

SURFACE ELEVATION (FT.): 424.0 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 60 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
424.0	PLEISTOCENE		SILTY CLAY	29.0	0.0	
395.0	CARBONDALE	BRERETON	LIMESTONE	6.0	29.0	GRAY
389.0	CARBONDALE	ANNA	SHALE	6.0	35.0	
383.0	CARBONDALE	HERRIN	COAL	7.0	41.0	

MAPID: 07700054000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.252175 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.907616 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 424.0 LOGGED (FT.): 48.0 LOG TYPE:

SOURCE: TRUAX-TRAER 0060 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
378.0	CARBONDALE	HERRIN	COAL	7.0	46.0	

MAPID: 07700055000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.249757 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.907564 DATE COLLECTED:

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 44.4 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 61 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
415.0	PLEISTOCENE		CLAY	17.0	0.0	
398.0	CARBONDALE		SHALE	9.0	17.0	BLUE
389.0	CARBONDALE		SHALE	3.0	26.0	
386.0	CARBONDALE	BRERETON	LIMESTONE	6.0	29.0	
380.0	CARBONDALE	ANNA	SHALE	3.5	35.0	
376.5	CARBONDALE	HERRIN	COAL	5.9	38.5	

MAPID: 07700055000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.249757 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.907564 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 45.0 LOG TYPE:

SOURCE: TRUAX-TRAER 0061 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
376.0	CARBONDALE	HERRIN	COAL	6.0	39.0	

MAPID: 07700056000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 18 **QUARTERS/FOOTAGES:** SE SW SE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.249757 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.907564 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 405.7 **LOGGED (FT.):** 46.0 **LOG TYPE:** Drillers Log
SOURCE: BLACK SERVANT COAL CO. 62 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.7	PLEISTOCENE		CLAY	10.0	0.0	
395.7	CARBONDALE		SHALE	10.0	10.0	BLUE
385.7	CARBONDALE		SHALE	8.0	20.0	
377.7	CARBONDALE	BRERETON	LIMESTONE	2.0	28.0	
375.7	CARBONDALE		SHALE	8.0	30.0	
367.7	CARBONDALE	HERRIN	COAL	8.0	38.0	

MAPID: 07700056000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 18 **QUARTERS/FOOTAGES:** SE SW SE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.249757 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.907564 **DATE COLLECTED:** 0 / 0 / 1926
SURFACE ELEVATION (FT.): 405.7 **LOGGED (FT.):** 46.0 **LOG TYPE:**
SOURCE: TRUAX-TRAER 0062 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
367.7	CARBONDALE	HERRIN	COAL	8.0	38.0	

MAPID: 07700548000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 18 **QUARTERS/FOOTAGES:** NE SW SW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.259426 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.909561 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 433.3 **LOGGED (FT.):** 31.5 **LOG TYPE:** Drillers Log
SOURCE: BLACK SERVANT COAL CO. 37 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
433.3	PLEISTOCENE		CLAY	17.3	0.0	
416.0	CARBONDALE		SANDSTONE	1.8	17.3	
414.1	CARBONDALE	ANNA	SHALE	6.2	19.2	
408.0	CARBONDALE	HERRIN	COAL	6.2	25.3	

MAPID: 07700548000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: NE SW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.259426 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.909561 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 433.3 LOGGED (FT.): 32.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0037 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
408.3	CARBONDALE	HERRIN	COAL	6.2	25.0	

MAPID: 07700565000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: ELKVILLE LONGITUDE: -89.24726 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.920153 DATE COLLECTED: 0 / 0 / 1935
SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 56.7 LOG TYPE: Drillers Log
SOURCE: MCLAREN COAL CO. 516 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0	PLEISTOCENE		CLAY	25.0	0.0	
400.0			SHALE	23.6	25.0	
376.4			SHALE	4.0	48.6	
372.4			COAL	2.1	52.6	GOOD
370.3			UNDERCLAY	2.0	54.7	

MAPID: 07700565000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: ELKVILLE LONGITUDE: -89.24726 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.920153 DATE COLLECTED: 0 / 0 / 1935
SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 57.0 LOG TYPE:
SOURCE: MCLAREN CC0516 WELL TYPE: Coal Test
COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	-		

MAPID: 07700566000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 18 **QUARTERS/FOOTAGES:** SW NE NE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.24727 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.918344 **DATE COLLECTED:** 0 / 0 / 1935
SURFACE ELEVATION (FT.): 425.0 **LOGGED (FT.):** 60.0 **LOG TYPE:** Drillers Log
SOURCE: MCLAREN COAL CO. 517 **WELL TYPE:** Coal Test
COMMENT: NO COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0	PLEISTOCENE		CLAY	34.5	0.0	YELLOW
390.5			SHALE	25.5	34.5	

MAPID: 07700566000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 18 **QUARTERS/FOOTAGES:** SW NE NE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.24727 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.918344 **DATE COLLECTED:** 0 / 0 / 1935
SURFACE ELEVATION (FT.): 425.0 **LOGGED (FT.):** 60.0 **LOG TYPE:**
SOURCE: MCLAREN CC0517 **WELL TYPE:** Coal Test
COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	-		

MAPID: 07700567000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 18 **QUARTERS/FOOTAGES:** NE SE NE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.244854 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.916509 **DATE COLLECTED:** 0 / 0 / 1935
SURFACE ELEVATION (FT.): 425.0 **LOGGED (FT.):** 50.0 **LOG TYPE:** Drillers Log
SOURCE: MCLAREN COAL CO. 518 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0	PLEISTOCENE		CLAY	30.0	0.0	
395.0	PLEISTOCENE		MUD	12.5	30.0	BLUE
382.5			SHALE	7.5	42.5	

MAPID: 07700567000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 18 **QUARTERS/FOOTAGES:** NE SE NE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.244854 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.916509 **DATE COLLECTED:** 0 / 0 / 1935
SURFACE ELEVATION (FT.): 425.0 **LOGGED (FT.):** 50.0 **LOG TYPE:**
SOURCE: MCLAREN CC0518 **WELL TYPE:** Coal Test
COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	-		

MAPID: 07700574000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 18 **QUARTERS/FOOTAGES:** SW NE NW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.256992 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.918454 **DATE COLLECTED:** 0 / 0 / 1938
SURFACE ELEVATION (FT.): 438.0 **LOGGED (FT.):** 104.0 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER COAL CO. 5 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
438.0	PLEISTOCENE		SOIL	20.0	0.0	
418.0			SHALE	9.5	20.0	
408.5			SHALE	13.2	29.5	
395.3			SANDSTONE	0.8	42.7	
394.5			SHALE	4.1	43.5	
390.4			SANDSTONE	0.7	47.6	
389.7			SHALE	2.0	48.3	
387.7			SHALE	3.7	50.3	
384.1			SHALE	2.3	53.9	
381.8			SHALE	16.8	56.2	
365.0			SHALE	18.8	73.0	
346.2			LIMESTONE	0.8	91.8	
345.4			SHALE	2.9	92.6	
342.5			COAL	2.2	95.5	GOOD
340.3			SHALE	6.3	97.7	

MAPID: 07700574000C VERSION: 2 PROJECT: CIRC 24
 COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SW NE NW
 QUADRANGLE: VERGENNES LONGITUDE: -89.256992 GEOLOGIST:
 CONFIDENTIAL: N LATITUDE: 37.918454 DATE COLLECTED: 0 / 0 / 1938
 SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 104.0 LOG TYPE:
 SOURCE: TRUAX-TRAER 5 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0	COAL ABSENT OR ERODED
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	-	

MAPID: 07700576000C VERSION: 1 PROJECT: NCRDS99
 COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 18 QUARTERS/FOOTAGES: SE SW NW
 QUADRANGLE: VERGENNES LONGITUDE: -89.259422 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.914911 DATE COLLECTED: 0 / 0 / 1938
 SURFACE ELEVATION (FT.): 435.0 LOGGED (FT.): 120.7 LOG TYPE: Drillers Log
 SOURCE: TRUAX-TRAER COAL CO. 7 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
435.0	PLEISTOCENE		SOIL	12.0	0.0
423.0	PLEISTOCENE		CLAY	10.0	12.0
413.0			SANDSTONE	3.0	22.0
410.0			SHALE	1.3	25.0
408.7			SANDSTONE	1.1	26.3
407.7			SHALEY CLAYSTONE	4.0	27.3
403.7			SHALE	7.3	31.3
396.4			LIMESTONE	1.8	38.6
394.6			SHALE	0.5	40.4
394.1			LIMESTONE	0.7	40.9
393.4			SHALE	2.0	41.6
391.4			COAL	3.0	43.6
388.4			UNDERCLAY	0.8	46.6
387.6			SHALE	7.8	47.4
379.7			SHALE	37.8	55.3
342.0			SHALE	20.8	93.0
321.2			LIMESTONE	0.4	113.8
320.9			SMUT	0.8	114.1
320.2			SHALE	2.2	114.8
318.0			COAL	1.3	117.0
316.7			LIMESTONE	0.3	118.3
316.5			COAL	1.2	118.5
315.3			UNDERCLAY	1.0	119.7

MAPID: 07700576000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 18 **QUARTERS/FOOTAGES:** SE SW NW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.259422 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.914911 **DATE COLLECTED:** 0 / 0 / 1938
SURFACE ELEVATION (FT.): 435.0 **LOGGED (FT.):** 121.0 **LOG TYPE:**
SOURCE: TRUAX-TRAER 7 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	-		

MAPID: 07700601000C **VERSION:** 1 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 18 **QUARTERS/FOOTAGES:** SE SW SW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.259425 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.907778 **DATE COLLECTED:** 0 / 0 / 1926
SURFACE ELEVATION (FT.): 435.7 **LOGGED (FT.):** 0.0 **LOG TYPE:**
SOURCE: BLK SERVCC0170 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
394.7	CARBONDALE	HERRIN	COAL	7.3	41.0	

MAPID: 07700057000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 19 **QUARTERS/FOOTAGES:** NW NW NE
QUADRANGLE: VERGENNES **LONGITUDE:** -89.252192 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.905794 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 423.9 **LOGGED (FT.):** 70.3 **LOG TYPE:** Drillers Log
SOURCE: BLACK SERVANT COAL CO. 63 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
423.9	PLEISTOCENE		CLAY	21.0	0.0	
402.9	CARBONDALE		LIMESTONE	13.3	21.0	
389.6	CARBONDALE		SHALE	1.8	34.3	
387.9	CARBONDALE	BRERETON	LIMESTONE	13.3	36.0	BLACK
374.6	CARBONDALE	ANNA	SHALE	5.0	49.3	
369.6	CARBONDALE	ENERGY	SHALE	6.7	54.3	
362.9	CARBONDALE	HERRIN	COAL	9.3	61.0	

MAPID: 07700057000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NW NW NE

QUADRANGLE: VERGENNES LONGITUDE: -89.252192 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.905794 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 423.9 LOGGED (FT.): 71.0 LOG TYPE:

SOURCE: BLK SERVCC0063 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
362.9	CARBONDALE	HERRIN	COAL	8.3	61.0	

MAPID: 07700058000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NE NE NW

QUADRANGLE: VERGENNES LONGITUDE: -89.254606 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.905846 DATE COLLECTED:

SURFACE ELEVATION (FT.): 416.5 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 64 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
416.5	PLEISTOCENE		CLAY	30.0	0.0	
386.5	CARBONDALE		ROCK	3.0	30.0	BLUE
383.5	CARBONDALE	BRERETON	LIMESTONE	8.0	33.0	BLUE
375.5	CARBONDALE	ANNA	SHALE	2.0	41.0	
373.5	CARBONDALE	HERRIN	COAL	7.0	43.0	

MAPID: 07700058000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NE NE NW

QUADRANGLE: VERGENNES LONGITUDE: -89.254606 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.905846 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 416.5 LOGGED (FT.): 50.0 LOG TYPE:

SOURCE: BLK SERVCC0064 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
373.5	CARBONDALE	HERRIN	COAL	6.9	43.0	

MAPID: 07700059000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NW SW NW
QUADRANGLE: VERGENNES LONGITUDE: -89.261889 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.902276 DATE COLLECTED:
SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 67.7 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 74 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
438.0	PLEISTOCENE		CLAY	14.5	0.0	
423.5	PLEISTOCENE		SANDSTONE	1.8	14.5	
421.7	PLEISTOCENE		CLAYSTONE & SILTSTONE	5.5	16.3	
416.2	CARBONDALE		SANDSTONE	1.6	21.8	
414.6	CARBONDALE		SHALE	14.6	23.4	
400.0	CARBONDALE		SHALE	4.3	38.0	
395.7	CARBONDALE		SHALE	18.4	42.3	
377.3	CARBONDALE	HERRIN	COAL	7.0	60.7	

MAPID: 07700059000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NW SW NW
QUADRANGLE: VERGENNES LONGITUDE: -89.261889 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.902276 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 68.0 LOG TYPE:
SOURCE: BLK SERVCC0074 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
377.0	CARBONDALE	HERRIN	COAL	7.0	61.0	

MAPID: 07700060000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 19 **QUARTERS/FOOTAGES:** SE SW NW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.259499 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.900366 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 436.9 **LOGGED (FT.):** 70.3 **LOG TYPE:** Drillers Log
SOURCE: BLACK SERVANT COAL CO. 75 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
436.9	PLEISTOCENE		CLAY	21.0	0.0	
415.9	CARBONDALE		LIMESTONE	13.3	21.0	GRAY
402.6	CARBONDALE		SHALE	11.8	34.3	
390.9	CARBONDALE	BRERETON	LIMESTONE	3.3	46.0	BLUE
387.6	CARBONDALE		SHALE	5.0	49.3	BLUE
382.6	CARBONDALE		SHALE	6.7	54.3	
375.9	CARBONDALE	HERRIN	COAL	9.3	61.0	

MAPID: 07700060000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 19 **QUARTERS/FOOTAGES:** SE SW NW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.259499 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.900366 **DATE COLLECTED:** 0 / 0 / 1926
SURFACE ELEVATION (FT.): 436.9 **LOGGED (FT.):** 71.0 **LOG TYPE:**
SOURCE: BLK SERVCC0075 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.9	CARBONDALE	HERRIN	COAL	9.3	61.0	

MAPID: 07700061000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 19 **QUARTERS/FOOTAGES:** NW SE NW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.257064 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.902183 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 433.0 **LOGGED (FT.):** 66.8 **LOG TYPE:** Drillers Log
SOURCE: BLACK SERVANT COAL CO. 76 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
433.0	PLEISTOCENE		CLAY	17.5	0.0	
415.5	CARBONDALE		SANDSTONE	8.0	17.5	
407.5	CARBONDALE		SHALE	16.0	25.5	
391.5	CARBONDALE		SHALE	5.0	41.5	
386.5	CARBONDALE		ROCK	2.0	46.5	LIMESTONE NOTED
384.5	CARBONDALE		SHALE	11.3	48.5	
373.2	CARBONDALE	HERRIN	COAL	7.0	59.8	

MAPID: 07700061000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NW SE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.257064 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.902183 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 433.0 LOGGED (FT.): 67.0 LOG TYPE:
SOURCE: BLK SERVCC0076 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
373.0	CARBONDALE	HERRIN	COAL	7.0	60.0	

MAPID: 07700062000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SW NE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.257044 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.904043 DATE COLLECTED:
SURFACE ELEVATION (FT.): 431.2 LOGGED (FT.): 61.3 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 77 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
431.2	PLEISTOCENE		CLAY	28.0	0.0	
403.2	CARBONDALE		SHALE	9.0	28.0	
394.2	CARBONDALE	ANNA	SHALE	3.0	37.0	
391.2	CARBONDALE	ENERGY	SHALE	15.0	40.0	
376.2	CARBONDALE	HERRIN	COAL	6.3	55.0	

MAPID: 07700062000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SW NE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.257044 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.904043 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 431.2 LOGGED (FT.): 62.0 LOG TYPE:
SOURCE: BLK SERVCC0077 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
376.2	CARBONDALE	HERRIN	COAL	6.3	55.0	

MAPID: 07700063000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SE NE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.25463 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.903994 DATE COLLECTED:
SURFACE ELEVATION (FT.): 426.8 LOGGED (FT.): 57.8 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 78 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
426.8	PLEISTOCENE		CLAY	17.5	0.0	
409.3	CARBONDALE		SANDSTONE	3.5	17.5	
405.8	CARBONDALE		UNCLASSIFIED	20.0	21.0	
385.8	CARBONDALE	BRERETON	LIMESTONE	9.0	41.0	THICKNESS QUESTIONABLE
376.8	CARBONDALE	HERRIN	COAL	7.8	50.0	

MAPID: 07700063000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SE NE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.25463 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.903994 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 426.8 LOGGED (FT.): 58.0 LOG TYPE:
SOURCE: BLK SERVCC0078 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
376.8	CARBONDALE	HERRIN	COAL	7.8	50.0	

MAPID: 07700064000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NE NW NE
QUADRANGLE: ELKVILLE LONGITUDE: -89.249774 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.905739 DATE COLLECTED:
SURFACE ELEVATION (FT.): 412.5 LOGGED (FT.): 51.3 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL 79 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
412.5	PLEISTOCENE		CLAY	11.0	0.0	
401.5	CARBONDALE		SHALE	12.0	11.0	
389.5	CARBONDALE	ANNA	SHALE	6.0	23.0	
383.5	CARBONDALE	ENERGY	SHALE	15.0	29.0	
368.5	CARBONDALE	HERRIN	COAL	7.3	44.0	

MAPID: 07700064000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NE NW NE
QUADRANGLE: ELKVILLE LONGITUDE: -89.249774 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.905739 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 412.3 LOGGED (FT.): 52.0 LOG TYPE:
SOURCE: BLK SERVCC0079 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
368.3	CARBONDALE	HERRIN	COAL	7.3	44.0	

MAPID: 07700065000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: ELKVILLE LONGITUDE: -89.249921 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.896508 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 417.0 LOGGED (FT.): 82.0 LOG TYPE:
SOURCE: BLK SERVCC0080 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
341.0	CARBONDALE	HERRIN	COAL	6.7	76.0	

MAPID: 07700066000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NW NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.252192 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.905794 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0232 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
369.0	CARBONDALE	HERRIN	COAL	6.8	51.0	

MAPID: 07700067000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SE NE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.25463 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.903994 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 424.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0237 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
374.0	CARBONDALE	HERRIN	COAL	6.5	50.0	

MAPID: 07700068000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NW NE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.25702 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.905901 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0248 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
374.0	CARBONDALE	HERRIN	COAL	6.3	53.0	

MAPID: 07700069000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NE NW NW
QUADRANGLE: VERGENNES LONGITUDE: -89.259438 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.905953 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0258 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
379.0	CARBONDALE	HERRIN	COAL	6.5	51.0	

MAPID: 07700070000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NE NW NW
QUADRANGLE: VERGENNES LONGITUDE: -89.259438 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.905953 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 429.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0267 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	CARBONDALE	HERRIN	COAL	7.0	44.0	

MAPID: 07700071000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SW NW NW
QUADRANGLE: VERGENNES LONGITUDE: -89.261869 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.904142 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 436.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0278 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0	CARBONDALE	HERRIN	COAL	7.3	56.0	

MAPID: 07700072000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SE NW NW
QUADRANGLE: VERGENNES LONGITUDE: -89.259458 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.904093 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 433.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0266 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
379.0	CARBONDALE	HERRIN	COAL	6.7	54.0	

MAPID: 07700073000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SW NE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.257044 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.904043 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 428.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0256 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
373.0	CARBONDALE	HERRIN	COAL	7.5	55.0	

MAPID: 07700074000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SE NE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.25463 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.903994 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0246 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
370.0	CARBONDALE	HERRIN	COAL	6.8	55.0	

MAPID: 07700075000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SE NE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.25463 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.903994 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 428.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0235 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
373.0	CARBONDALE	HERRIN	COAL	6.8	55.0	

MAPID: 07700076000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: ELKVILLE LONGITUDE: -89.249921 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.896508 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0226 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
364.0	CARBONDALE	HERRIN	COAL	6.0	59.0	

MAPID: 07700077000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: ELKVILLE LONGITUDE: -89.249921 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.896508 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 412.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0220 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
352.0	CARBONDALE	HERRIN	COAL	7.0	60.0	

MAPID: 07700078000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NE SW NE
QUADRANGLE: ELKVILLE LONGITUDE: -89.249832 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.902048 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 419.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0215 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
351.0	CARBONDALE	HERRIN	COAL	7.5	68.0	

MAPID: 07700079000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NW SW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.252243 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.902092 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0229 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
357.0	CARBONDALE	HERRIN	COAL	6.3	70.0	

MAPID: 07700080000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NE SE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.254654 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.902139 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 428.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0241 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
367.0	CARBONDALE	HERRIN	COAL	8.0	61.0	

MAPID: 07700081000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NW SE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.257064 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.902183 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0251 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
371.0	CARBONDALE	HERRIN	COAL	7.1	59.0	

MAPID: 07700082000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NE SW NW
QUADRANGLE: VERGENNES LONGITUDE: -89.259479 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.902229 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 432.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0261 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
374.0	CARBONDALE	HERRIN	COAL	6.2	58.0	

MAPID: 07700083000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NE SW NW
QUADRANGLE: VERGENNES LONGITUDE: -89.259479 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.902229 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 436.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0272 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.0	CARBONDALE	HERRIN	COAL	7.4	61.0	

MAPID: 07700084000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NW NW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.261923 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.898541 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 434.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0021 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
368.0	CARBONDALE	HERRIN	COAL	7.3	66.0	

MAPID: 07700085000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NE NW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.259519 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.898505 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 434.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0025 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
369.0	CARBONDALE	HERRIN	COAL	7.1	65.0	

MAPID: 07700086000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NE NW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.259519 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.898505 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 435.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0029 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
373.0	CARBONDALE	HERRIN	COAL	7.0	62.0	

MAPID: 07700087000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NW NE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.257112 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.898467 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 434.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0031 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.0	CARBONDALE	HERRIN	COAL	8.0	59.0	

MAPID: 07700088000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.254705 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.898429 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 431.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0034 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
376.0	CARBONDALE	HERRIN	COAL	6.8	55.0	

MAPID: 07700089000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.252297 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.89839 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0038 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
366.0	CARBONDALE	HERRIN	COAL	6.3	61.0	

MAPID: 07700090000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: NE NW SE
QUADRANGLE: ELKVILLE LONGITUDE: -89.24989 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.898355 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 426.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0043 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
354.0	CARBONDALE	HERRIN	COAL	7.0	72.0	

MAPID: 07700091000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: ELKVILLE LONGITUDE: -89.249921 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.896508 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0045 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
328.0	CARBONDALE	HERRIN	COAL	7.3	94.0	

MAPID: 07700092000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.252325 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.896541 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 424.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0050 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
348.0	CARBONDALE	HERRIN	COAL	7.6	76.0	

MAPID: 07700093000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.252325 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.896541 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 428.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0054 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
364.0	CARBONDALE	HERRIN	COAL	6.7	64.0	

MAPID: 07700600000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.254779 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.892866 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 118.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0185 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
322.0	CARBONDALE	HERRIN	COAL	7.1	108.0	

MAPID: 07700600000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SE SE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.254779 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.892866 DATE COLLECTED:

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 115.1 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
402.0	MODESTO	PIASA	LIMESTONE	9.3	28.0
392.7	MODESTO		BLACK SHALE	3.0	37.3
389.7	CARBONDALE	DANVILLE	COAL	3.1	40.3
386.6	CARBONDALE		GRAY SHALE	15.6	43.4
371.0	CARBONDALE	BANKSTON FORK	LIMESTONE	17.9	59.0
353.1	CARBONDALE		DARK GRAY SHALE	15.7	76.9
337.4	CARBONDALE	BRERETON	LIMESTONE	13.1	92.6
324.3	CARBONDALE		BLACK SHALE	2.3	105.7
322.0	CARBONDALE	HERRIN	COAL	7.1	108.0

MAPID: 07700600000C VERSION: 3

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 19 QUARTERS/FOOTAGES: SE SE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.254779 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.892866 DATE COLLECTED: 4 / 5 / 1930

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 117.7 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER COAL CO. 185 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
430.0	PLEISTOCENE		CLAY	2.5	0.0
427.5	PLEISTOCENE		CLAY	16.1	2.5
411.4	MODESTO		LIMESTONE	3.1	18.6
408.3	MODESTO		SHALE	5.1	21.7
403.2	MODESTO	DEGRAFF	COAL	1.3	26.8
401.9	MODESTO		LIMESTONE	9.3	28.1
392.6	MODESTO		SHALE	3.0	37.4
389.6	CARBONDALE		COAL	3.1	40.4
386.5	CARBONDALE		SHALE	15.6	43.5
370.9	CARBONDALE		LIMESTONE	17.9	59.1
353.0	CARBONDALE		SHALE	15.7	77.0
337.3	CARBONDALE		LIMESTONE	13.1	92.7
324.2	CARBONDALE	ANNA	SHALE	2.3	105.8
321.9	CARBONDALE		COAL	7.1	108.1
314.8	CARBONDALE	HERRIN	UNDERCLAY	2.5	115.2

MAPID: 07700094000C **VERSION:** 1 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 20 **QUARTERS/FOOTAGES:** SE NW NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.240311 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.90375 **DATE COLLECTED:** 0 / 0 / 1996
SURFACE ELEVATION (FT.): 413.0 **LOGGED (FT.):** 146.0 **LOG TYPE:**
SOURCE: HALLIDAY **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
301.0	CARBONDALE	HERRIN	COAL	8.5	112.0	
272.0	CARBONDALE	SPRINGFIELD	COAL	4.3	141.0	

MAPID: 07700094000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 20 **QUARTERS/FOOTAGES:** SE NW NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.240311 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.90375 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 413.0 **LOGGED (FT.):** 120.5 **LOG TYPE:** Drillers Log
SOURCE: **WELL TYPE:** Coal Test
COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.0	MODESTO	PIASA	LIMESTONE	6.8	38.0	
368.2	MODESTO		BLACK SHALE	3.3	44.8	
365.0	CARBONDALE	DANVILLE	COAL	3.0	48.0	
362.0	CARBONDALE		SILTY SHALE	10.0	51.0	
352.0	CARBONDALE	ALLENBY	COAL	1.0	61.0	
351.0	CARBONDALE		CLAYSTONE	6.0	62.0	
345.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	68.0	UPPER BENCH
343.0	CARBONDALE	BANKSTON FORK	CLAYSTONE	1.0	70.0	SHALE PARTING
342.0	CARBONDALE	BANKSTON FORK	LIMESTONE	11.0	71.0	LOWER BENCH
331.0	CARBONDALE		SILTY SHALE	15.5	82.0	
315.5	CARBONDALE	BRERETON	LIMESTONE	7.3	97.5	
308.2	CARBONDALE	ANNA	BLACK SHALE	5.8	104.8	
302.5	CARBONDALE	ENERGY	UNKNOWN	1.5	110.5	
301.0	CARBONDALE	HERRIN	COAL	8.5	112.0	

MAPID: 07700094000C VERSION: 3

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 20

QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.240311

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.90375

DATE COLLECTED: 0 / 0 / 1896

SURFACE ELEVATION (FT.): 413.0

LOGGED (FT.): 146.0

LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
413.0	PLEISTOCENE		UNCONSOLIDATED	37.0	0.0	
376.0	MODESTO	PIASA	LIMESTONE	6.8	37.0	
369.2	MODESTO		CLAYSTONE	0.3	43.8	
369.0	MODESTO		SHALE	3.3	44.0	
365.7	CARBONDALE	DANVILLE	COAL	3.0	47.3	
362.7	CARBONDALE		UNDERCLAY	3.8	50.3	
359.0	CARBONDALE		SHALE	1.0	54.0	
358.0	CARBONDALE		SANDSTONE	2.0	55.0	
356.0	CARBONDALE		SHALE	1.0	57.0	
355.0	CARBONDALE		SHALE	3.0	58.0	
352.0	CARBONDALE	ALLENBY	COAL	1.0	61.0	
351.0	CARBONDALE		UNDERCLAY	6.0	62.0	
345.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	68.0	
343.0	CARBONDALE	BANKSTON FORK	UNDERCLAY	1.0	70.0	
342.0	CARBONDALE	BANKSTON FORK	LIMESTONE	11.0	71.0	
331.0	CARBONDALE		UNDERCLAY	1.5	82.0	
329.5	CARBONDALE		SHALE	8.0	83.5	
321.5	CARBONDALE		SHALE	6.0	91.5	
315.5	CARBONDALE	BRERETON	LIMESTONE	7.3	97.5	BLUE
308.2	CARBONDALE	ANNA	SHALE	5.8	104.8	
302.5	CARBONDALE	ENERGY	SHALE	1.5	110.5	
301.0	CARBONDALE	HERRIN	COAL	8.5	112.0	
292.5	CARBONDALE		UNDERCLAY	1.0	120.5	
291.5	CARBONDALE		LIMESTONE	11.5	121.5	
280.0	CARBONDALE		SHALE	0.5	133.0	
279.5	CARBONDALE		SANDSTONE	0.3	133.5	
279.2	CARBONDALE		SHALE	3.0	133.8	
276.2	CARBONDALE	ST. DAVID	LIMESTONE	0.3	136.8	
276.0	CARBONDALE		SHALE	3.8	137.0	WITH CLAY
272.2	CARBONDALE	SPRINGFIELD	COAL	4.3	140.8	
268.0	CARBONDALE		UNDERCLAY	1.0	145.0	

MAPID: 07700095000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 20

QUARTERS/FOOTAGES: SE NE SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.235847

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.896374

DATE COLLECTED:

SURFACE ELEVATION (FT.): 406.0

LOGGED (FT.): 176.0

LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 2

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
406.0	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0	
378.0	MODESTO		SANDSTONE	6.0	28.0	
372.0	MODESTO		SHALE	2.5	34.0	
369.5	MODESTO	DEGRAFF	COAL	0.3	36.5	
369.2	MODESTO		UNDERCLAY	2.3	36.8	
367.0	MODESTO	PIASA	LIMESTONE	7.0	39.0	
360.0	MODESTO		SHALE	4.8	46.0	BLUE
355.2	CARBONDALE	DANVILLE	COAL	2.3	50.8	
353.0	CARBONDALE		UNDERCLAY	1.0	53.0	
352.0	CARBONDALE		SHALE	4.0	54.0	
348.0	CARBONDALE		SHALE	5.0	58.0	
343.0	CARBONDALE		COAL	0.1	63.0	
342.9	CARBONDALE		SHALE	3.2	63.1	WITH CLAY
339.7	CARBONDALE	ALLENBY	COAL	1.2	66.3	
338.6	CARBONDALE		UNDERCLAY	7.6	67.4	
331.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	75.0	
326.0	CARBONDALE	BANKSTON FORK	SHALE	1.0	80.0	
325.0	CARBONDALE	BANKSTON FORK	LIMESTONE	8.0	81.0	
317.0	CARBONDALE		SHALE	22.5	89.0	WITH CLAY
294.5	CARBONDALE	BRERETON	LIMESTONE	3.5	111.5	
291.0	CARBONDALE	ANNA	SHALE	6.0	115.0	
285.0	CARBONDALE	ENERGY	SHALE	1.0	121.0	
284.0	CARBONDALE	HERRIN	COAL	9.1	122.0	
274.9	CARBONDALE		UNDERCLAY	1.9	131.1	
273.0	CARBONDALE		LIMESTONE	13.0	133.0	
260.0	CARBONDALE		SHALE	6.0	146.0	
254.0	CARBONDALE		SANDSTONE	5.0	152.0	
249.0	CARBONDALE		SHALE	9.0	157.0	
240.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	166.0	
238.5	CARBONDALE	TURNER MINE	SHALE	4.0	167.5	
234.5	CARBONDALE	SPRINGFIELD	COAL	4.0	171.5	
230.5	CARBONDALE		UNDERCLAY	0.5	175.5	

MAPID: 07700095000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 20 QUARTERS/FOOTAGES: SE NE SW

QUADRANGLE: ELKVILLE LONGITUDE: -89.235847 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.896374 DATE COLLECTED: 0 / 0 / 1905

SURFACE ELEVATION (FT.): 406.0 LOGGED (FT.): 176.0 LOG TYPE:

SOURCE: HALLIDAY 0002 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
284.0	CARBONDALE	HERRIN	COAL	9.1	122.0	
234.0	CARBONDALE	SPRINGFIELD	COAL	4.0	172.0	

MAPID: 07700569000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 20 QUARTERS/FOOTAGES: NW NE SW

QUADRANGLE: ELKVILLE LONGITUDE: -89.238115 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.898224 DATE COLLECTED: 0 / 0 / 1937

SURFACE ELEVATION (FT.): 407.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section

SOURCE: NEW MINE WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
276.0	CARBONDALE	HERRIN	COAL	8.5	131.0	

MAPID: 07700654000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 20

QUARTERS/FOOTAGES: SW NE NE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.228782

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.903682

DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 391.8

LOGGED (FT.): 111.0

LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 213

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
391.8	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0	
367.8	CARBONDALE		SANDSTONE	1.3	24.0	
366.5	CARBONDALE		SANDY SHALE	2.8	25.3	
363.7	CARBONDALE		SANDY SHALE	1.3	28.1	
362.4	CARBONDALE		SHALE	2.5	29.4	
359.9	CARBONDALE		CLAYSTONE	2.0	31.9	SOME LIMESTONE NOTED
357.9	CARBONDALE	ALLENBY	COAL	0.1	33.9	
357.8	CARBONDALE	ALLENBY	COAL	0.9	34.0	
356.9	CARBONDALE		UNDERCLAY	5.6	34.9	SOME LIMESTONE NOTED
351.3	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	40.5	ARGILLACEOUS
347.3	CARBONDALE	BANKSTON FORK	SHALY LIMESTONE	9.5	44.5	
337.8	CARBONDALE	BANKSTON FORK	LIMESTONE	1.6	54.0	ARGILLACEOUS
336.2	CARBONDALE		SILTSTONE	0.8	55.6	
335.4	CARBONDALE		SHALE	0.3	56.4	
335.1	CARBONDALE		SHALE	2.9	56.7	IRON CONCRETIONS
332.2	CARBONDALE		SHALE	5.6	59.6	
326.6	CARBONDALE		SHALE	1.5	65.2	
325.1	CARBONDALE		SHALE	5.6	66.7	IRON CONCRETIONS
319.5	CARBONDALE	BRERETON	LIMESTONE	1.7	72.3	BLACK
317.8	CARBONDALE	BRERETON	LIMESTONE	1.6	74.0	GRAY TO BLACK
316.2	CARBONDALE	ANNA	SHALE	3.0	75.6	
313.2	CARBONDALE	ANNA	SHALE	2.0	78.6	
311.2	CARBONDALE	ENERGY	SHALE	3.4	80.6	
307.8	CARBONDALE	ENERGY	SHALE	10.0	84.0	
297.8	CARBONDALE	ENERGY	SHALE	6.0	94.0	IRON CONCRETIONS
291.8	CARBONDALE	HERRIN	COAL	9.5	100.0	SH PTGS. = .12 FT., SULFUR STREAK
282.3	CARBONDALE		UNDERCLAY	1.5	109.5	SOME LIMESTONE NOTED

MAPID: 07700654000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 20 **QUARTERS/FOOTAGES:** SW NE NE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.228782 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.903682 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 391.8 **LOGGED (FT.):** 0.0 **LOG TYPE:**
SOURCE: UNION COLL **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
291.8	CARBONDALE	HERRIN	COAL	9.5	100.0	

MAPID: 07700096000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 21 **QUARTERS/FOOTAGES:** NW NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.222964 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.904551 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 385.0 **LOGGED (FT.):** 192.0 **LOG TYPE:** Drillers Log
SOURCE: JACKSON COAL CO. **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0	
345.0	CARBONDALE		SANDSTONE	1.0	40.0	
344.0	CARBONDALE		SHALE	16.0	41.0	
328.0	CARBONDALE		LIMESTONE	12.0	57.0	
316.0	CARBONDALE		SHALE	11.0	69.0	
305.0	CARBONDALE		SHALE	43.0	80.0	DARK
262.0	CARBONDALE		SHALE	14.2	123.0	
247.8	CARBONDALE	HERRIN	COAL	6.3	137.2	
241.5	CARBONDALE	HERRIN	SHALE	3.5	143.5	SPLIT COAL AREA
238.0	CARBONDALE	HERRIN	COAL	2.0	147.0	
236.0	CARBONDALE		LIMESTONE	7.0	149.0	
229.0	CARBONDALE		SHALE	18.0	156.0	SOME LIMESTONE NOTED
211.0	CARBONDALE		SHALE	1.0	174.0	
210.0	CARBONDALE		SHALE	8.0	175.0	
202.0	CARBONDALE		CARBONACEOUS SHALE	5.0	183.0	THIN LAYER OF COAL
197.0	CARBONDALE		UNDERCLAY	4.0	188.0	

MAPID: 07700096000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 21

QUARTERS/FOOTAGES: NW NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.222964

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.904551

DATE COLLECTED: 0 / 0 / 1905

SURFACE ELEVATION (FT.): 385.0

LOGGED (FT.): 192.0

LOG TYPE:

SOURCE: JACKSON CC

WELL TYPE: Coal Test

COMMENT: EXACT LOCATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
248.0	CARBONDALE	HERRIN	COAL	8.3	137.0	

MAPID: 07700655000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 21

QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.224114

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.905487

DATE COLLECTED: 5 / 0 / 1940

SURFACE ELEVATION (FT.): 386.6

LOGGED (FT.): 163.0

LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 205

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
386.6	PLEISTOCENE		UNCONSOLIDATED	38.0	0.0	
348.6	CARBONDALE		SANDSTONE	4.0	38.0	
344.6	CARBONDALE		SHALE	2.0	42.0	
342.6	CARBONDALE		SHALE	1.0	44.0	
341.6	CARBONDALE	ALLENBY	SHALY COAL	0.3	45.0	
341.3	CARBONDALE	ALLENBY	UNDERCLAY	2.3	45.3	SOME LIMESTONE NOTED
338.9	CARBONDALE	ALLENBY	COAL	0.3	47.7	DIRTY
338.6	CARBONDALE	BANKSTON FORK	LIMESTONE	15.2	48.0	ARGILLACEOUS
323.4	CARBONDALE		SANDSTONE	1.2	63.2	ARGILLACEOUS
322.3	CARBONDALE		SHALE	7.2	64.3	
315.1	CARBONDALE		SHALE	15.5	71.5	IRON CONCRETIONS
299.6	CARBONDALE	BRERETON	LIMESTONE	1.0	87.0	ARGILLACEOUS
298.6	CARBONDALE	BRERETON	LIMESTONE	2.0	88.0	
296.6	CARBONDALE	ANNA	SHALE	0.5	90.0	
296.1	CARBONDALE	ANNA	SHALE	8.5	90.5	
287.6	CARBONDALE	ENERGY	SHALE	9.0	99.0	
278.6	CARBONDALE	ENERGY	SHALE	3.0	108.0	
275.6	CARBONDALE	ENERGY	SHALE	8.5	111.0	IRON CONCRETIONS
267.1	CARBONDALE	HERRIN	COAL	7.5	119.5	TOTAL THICKNESS OF SH PTG. = 1.5 INCHES
259.6	CARBONDALE		ROCK	2.0	127.0	
257.6	CARBONDALE		UNDERCLAY	3.0	129.0	NO CORE
254.6	CARBONDALE		LIMESTONE	8.0	132.0	ARGILLACEOUS
246.6	CARBONDALE		SHALE	6.5	140.0	SOME LIMESTONE NOTED
240.1	CARBONDALE		SHALE	2.0	146.5	
238.1	CARBONDALE	ST. DAVID	LIMESTONE	1.0	148.5	
237.1	CARBONDALE	TURNER MINE	SHALE	1.0	149.5	
236.1	CARBONDALE	TURNER MINE	SHALE	3.0	150.5	
233.1	CARBONDALE	DYKERSBURG	SHALE	5.0	153.5	COAL STREAKS
228.1	CARBONDALE	SPRINGFIELD	COAL	4.0	158.5	
224.1	CARBONDALE		UNDERCLAY	0.5	162.5	

MAPID: 07700655000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 21

QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.224114

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.905487

DATE COLLECTED:

SURFACE ELEVATION (FT.): 386.6

LOGGED (FT.): 0.0

LOG TYPE:

SOURCE: UNION COLL

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
266.6	CARBONDALE	HERRIN	COAL	7.5	120.0	
227.6	CARBONDALE	SPRINGFIELD	COAL	4.0	159.0	

MAPID: 07700656000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 21 QUARTERS/FOOTAGES: SW NW NW
 QUADRANGLE: ELKVILLE LONGITUDE: -89.224152 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.903649 DATE COLLECTED: 0 / 0 / 1940
 SURFACE ELEVATION (FT.): 393.6 LOGGED (FT.): 136.5 LOG TYPE: Drillers Log
 SOURCE: UNION COLLIERY CO. 206 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
393.6	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0	
363.6	MODESTO	PIASA	LIMESTONE	8.1	30.0	
355.5	MODESTO		CLAYSTONE & SILTSTONE	0.1	38.1	
355.4	MODESTO		SHALE	0.3	38.2	
355.1	MODESTO		SHALE	1.7	38.5	
353.5	CARBONDALE	DANVILLE	COAL	1.3	40.1	
352.1	CARBONDALE		SHALE	7.5	41.5	
344.7	CARBONDALE		SHALE	4.4	48.9	SOME LIMESTONE NOTED
340.3	CARBONDALE		SHALE	4.7	53.3	
335.6	CARBONDALE	ALLENBY	COAL	0.1	58.0	
335.5	CARBONDALE	ALLENBY	UNDERCLAY	2.4	58.1	
333.1	CARBONDALE	ALLENBY	COAL	0.6	60.5	
332.5	CARBONDALE		UNDERCLAY	1.0	61.1	
331.5	CARBONDALE		SHALE	5.9	62.1	
325.6	CARBONDALE	BANKSTON FORK	LIMESTONE	16.0	68.0	WHITE
309.6	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	84.0	
308.6	CARBONDALE		SHALE	9.3	85.0	
299.3	CARBONDALE		CLAYSTONE & SILTSTONE	0.1	94.3	
299.2	CARBONDALE		SHALE	9.6	94.4	
289.6	CARBONDALE		LIMESTONE	2.8	104.0	GRAY
286.8	CARBONDALE		SHALE	7.2	106.8	
279.6	CARBONDALE		SHALE	2.0	114.0	
277.6	CARBONDALE	BRERETON	LIMESTONE	7.0	116.0	
270.6	CARBONDALE		SHALE	3.0	123.0	
267.6	CARBONDALE	HERRIN	COAL	10.5	126.0	

MAPID: 07700656000C VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 21 QUARTERS/FOOTAGES: SW NW NW
 QUADRANGLE: ELKVILLE LONGITUDE: -89.224152 GEOLOGIST:
 CONFIDENTIAL: N LATITUDE: 37.903649 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 393.6 LOGGED (FT.): 0.0 LOG TYPE:
 SOURCE: UNION COLL WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
267.6	CARBONDALE	HERRIN	COAL	10.0	126.0	

MAPID: 07700657000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 21 **QUARTERS/FOOTAGES:** SW SW NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.224229 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.899972 **DATE COLLECTED:** 0 / 0 / 1940
SURFACE ELEVATION (FT.): 391.1 **LOGGED (FT.):** 177.4 **LOG TYPE:** Drillers Log
SOURCE: JACKSON 207 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
391.1	PLEISTOCENE		UNCONSOLIDATED	47.0	0.0	
344.1	MODESTO	PIASA	LIMESTONE	6.9	47.0	
337.2	MODESTO		SHALE	1.4	53.9	
335.8	MODESTO		SHALE	0.8	55.3	
335.0	CARBONDALE	DANVILLE	COAL	0.9	56.1	
334.1	CARBONDALE		SHALE	4.8	57.0	
329.3	CARBONDALE		CLAYSTONE & SILTSTONE	0.2	61.8	
329.1	CARBONDALE		SHALE	8.0	62.0	
321.1	CARBONDALE		CLAYSTONE	1.0	70.0	
320.1	CARBONDALE		SHALE	0.5	71.0	
319.6	CARBONDALE	ALLENBY	COAL	0.1	71.5	
319.5	CARBONDALE	ALLENBY	SHALE	2.9	71.6	WITH CLAY
316.6	CARBONDALE	ALLENBY	COAL	0.7	74.5	
315.9	CARBONDALE		UNDERCLAY	5.5	75.2	
310.4	CARBONDALE	BANKSTON FORK	LIMESTONE	12.7	80.7	WHITE
297.7	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	93.4	
296.7	CARBONDALE		SHALE	10.6	94.4	
286.1	CARBONDALE		SHALE	4.2	105.0	
281.9	CARBONDALE		LIMESTONE	2.5	109.2	GRAY
279.4	CARBONDALE		SHALE	13.3	111.7	
266.1	CARBONDALE		SHALE	1.0	125.0	
265.1	CARBONDALE		SHALE	0.3	126.0	
264.8	CARBONDALE		SHALE	38.5	126.3	
226.3	CARBONDALE	HERRIN	COAL	12.7	164.8	TOTAL THICKNESS OF PTGS. = 7.5 INCHES

MAPID: 07700657000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 21 **QUARTERS/FOOTAGES:** SW SW NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.224229 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.899972 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 391.1 **LOGGED (FT.):** 0.0 **LOG TYPE:**
SOURCE: UNION COLL **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
226.1	CARBONDALE	HERRIN	COAL	12.9	165.0	

MAPID: 07700658000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 21 QUARTERS/FOOTAGES: NE NW NW
 QUADRANGLE: ELKVILLE LONGITUDE: -89.221779 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.905457 DATE COLLECTED: 0 / 0 / 1940
 SURFACE ELEVATION (FT.): 382.7 LOGGED (FT.): 142.0 LOG TYPE: Drillers Log
 SOURCE: UNION COLLIERY CO. 216 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
382.7	PLEISTOCENE		UNCONSOLIDATED	55.7	0.0	
327.0	CARBONDALE	BANKSTON FORK	LIMESTONE	14.2	55.7	
312.8	CARBONDALE		SANDSTONE	0.8	69.9	ARGILLACEOUS
312.0	CARBONDALE		SHALE	2.3	70.7	
309.7	CARBONDALE		SHALE	8.5	73.0	IRON CONCRETIONS
301.2	CARBONDALE		SHALE	2.5	81.5	IRON CONCRETIONS
298.7	CARBONDALE		SHALE	2.8	84.0	IRON CONCRETIONS
295.9	CARBONDALE	BRERETON	LIMESTONE	1.6	86.8	GRAY TO BLACK
294.3	CARBONDALE	ANNA	SHALE	0.5	88.4	
293.8	CARBONDALE	ANNA	SHALE	2.6	88.9	
291.2	CARBONDALE	ANNA	SHALE	0.5	91.5	
290.7	CARBONDALE	ENERGY	SANDSTONE	1.5	92.0	
289.2	CARBONDALE	ENERGY	LIMESTONE	0.5	93.5	
288.7	CARBONDALE	ENERGY	SHALE	7.5	94.0	ARGILLACEOUS
281.2	CARBONDALE	ENERGY	SHALE	4.0	101.5	
277.2	CARBONDALE	ENERGY	SHALE	5.5	105.5	IRON CONCRETIONS
271.7	CARBONDALE	ENERGY	SHALE	18.3	111.0	IRON CONCRETIONS
253.4	CARBONDALE	HERRIN	COAL	12.7	129.3	TOTAL THICKNESS OF PTGS. = 2.125 FT

MAPID: 07700658000C VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 21 QUARTERS/FOOTAGES: NE NW NW
 QUADRANGLE: ELKVILLE LONGITUDE: -89.221779 GEOLOGIST:
 CONFIDENTIAL: N LATITUDE: 37.905457 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 382.7 LOGGED (FT.): 0.0 LOG TYPE:
 SOURCE: UNION COLL WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
253.7	CARBONDALE	HERRIN	COAL	12.9	129.0	

MAPID: 07700659000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 21

QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.219599

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.896247

DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 388.9

LOGGED (FT.): 181.6

LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 217

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
388.9	PLEISTOCENE		UNCONSOLIDATED	67.0	0.0	
321.9	CARBONDALE		SHALE	3.0	67.0	
318.9	CARBONDALE		SHALE	0.4	70.0	
318.5	CARBONDALE	ALLENBY	COAL	0.3	70.4	
318.2	CARBONDALE		UNDERCLAY	3.0	70.7	
315.2	CARBONDALE	ALLENBY	COAL	0.3	73.7	
314.9	CARBONDALE		UNDERCLAY	5.0	74.0	SOME LIMESTONE NOTED
309.9	CARBONDALE	BANKSTON FORK	LIMESTONE	8.0	79.0	
301.9	CARBONDALE	BANKSTON FORK	LIMESTONE	6.3	87.0	
295.6	CARBONDALE	BANKSTON FORK	SANDSTONE	0.7	93.3	ARGILLACEOUS
294.9	CARBONDALE	BANKSTON FORK	SANDSTONE	0.7	94.0	
294.2	CARBONDALE	BANKSTON FORK	SHALE	1.1	94.7	
293.1	CARBONDALE	BANKSTON FORK	LIMESTONE	0.2	95.8	
292.9	CARBONDALE	BANKSTON FORK	SHALE	0.2	96.0	
292.7	CARBONDALE	BANKSTON FORK	LIMESTONE	0.2	96.2	
292.5	CARBONDALE		SHALE	0.6	96.4	
291.9	CARBONDALE		SHALE	7.0	97.0	IRON CONCRETIONS
284.9	CARBONDALE		SHALE	8.5	104.0	IRON CONCRETIONS
276.4	CARBONDALE		SHALE	0.7	112.5	IRON CONCRETIONS
275.7	CARBONDALE		SHALE	0.8	113.2	
274.9	CARBONDALE		SHALE	8.5	114.0	
266.4	CARBONDALE		SHALE	1.5	122.5	ARGILLACEOUS
264.9	CARBONDALE		SHALE	8.0	124.0	IRON CONCRETIONS
256.9	CARBONDALE		SHALE	5.2	132.0	IRON CONCRETIONS
251.7	CARBONDALE		SILTSTONE	1.5	137.2	
250.2	CARBONDALE		SANDY SILTSTONE	9.8	138.7	
240.4	CARBONDALE		SANDY SILTSTONE	10.0	148.5	
230.4	CARBONDALE		SANDY SILTSTONE	6.0	158.5	
224.4	CARBONDALE		SILTY SHALE	1.7	164.5	
222.7	CARBONDALE		SHALE	2.3	166.2	IRON CONCRETIONS
220.4	CARBONDALE		CARBONACEOUS SHALE	1.8	168.5	COAL STREAKS
218.6	CARBONDALE	HERRIN	SHALE/COAL	11.3	170.3	TOTAL SH PTGS. = 2.43 FT.

MAPID: 07700659000C VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 21 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: ELKVILLE LONGITUDE: -89.219599 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.896247 DATE COLLECTED:

SURFACE ELEVATION (FT.): 388.9 LOGGED (FT.): 0.0 LOG TYPE:

SOURCE: UNION COLL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
218.9	CARBONDALE	HERRIN	COAL	11.3	170.0	

MAPID: 07700660000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 21 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.221814 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.903618 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 389.7 LOGGED (FT.): 145.8 LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 257 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
389.7	PLEISTOCENE		UNCONSOLIDATED	48.0	0.0	
341.7	CARBONDALE		SHALE	1.8	48.0	IRON CONCRETIONS
339.9	CARBONDALE		SHALE	1.5	49.8	
338.4	CARBONDALE		SHALE	0.9	51.3	
337.5	CARBONDALE	ALLENBY	COAL	0.3	52.2	DIRTY
337.2	CARBONDALE		UNDERCLAY	1.5	52.5	SOME LIMESTONE NOTED
335.7	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	54.0	ARGILLACEOUS
331.2	CARBONDALE	BANKSTON FORK	LIMESTONE	5.5	58.5	
325.7	CARBONDALE	BANKSTON FORK	LIMESTONE	4.8	64.0	
320.9	CARBONDALE		SILTSTONE	0.7	68.8	ARGILLACEOUS
320.2	CARBONDALE		SILTY SHALE	1.5	69.5	
318.7	CARBONDALE		SHALE	10.0	71.0	
308.7	CARBONDALE		SHALE	9.3	81.0	
299.4	CARBONDALE		SHALE	0.7	90.3	SOME LIMESTONE NOTED
298.7	CARBONDALE		SANDSTONE	10.0	91.0	SOME LIMESTONE NOTED
288.7	CARBONDALE		SHALE	7.3	101.0	IRON CONCRETIONS
281.4	CARBONDALE		SHALE	2.7	108.3	
278.7	CARBONDALE		SHALE	20.0	111.0	
258.7	CARBONDALE		SHALE	3.0	131.0	
255.7	CARBONDALE		SHALE	0.3	134.0	
255.4	CARBONDALE		SHALE	0.5	134.3	
254.9	CARBONDALE		SHALE	0.2	134.8	
254.7	CARBONDALE	HERRIN	COAL	10.5	135.0	TOTAL THICKNESS OF SH PTGS. = 1.95
244.2	CARBONDALE		UNDERCLAY	0.3	145.5	

MAPID: 07700660000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 21 **QUARTERS/FOOTAGES:** SE NW NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.221814 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.903618 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 389.7 **LOGGED (FT.):** 0.0 **LOG TYPE:**
SOURCE: UNION COLL **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
254.7	CARBONDALE	HERRIN	COAL	10.5	135.0	

MAPID: 07700661000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 21 **QUARTERS/FOOTAGES:** SE NE NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.217135 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.90356 **DATE COLLECTED:** 0 / 0 / 1940
SURFACE ELEVATION (FT.): 390.2 **LOGGED (FT.):** 125.0 **LOG TYPE:** Survey Core Study
SOURCE: UNION COLLIERY CO. 258 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.2	PLEISTOCENE		UNCONSOLIDATED	51.0	0.0	
339.2	CARBONDALE		LIMESTONE	0.3	51.0	
338.9	CARBONDALE		SHALE	6.7	51.3	
332.2	CARBONDALE		SANDSTONE	3.0	58.0	SOME LIMESTONE NOTED
329.2	CARBONDALE		SILTSTONE	10.0	61.0	ARGILLACEOUS
319.2	CARBONDALE		SILTSTONE	14.5	71.0	ARGILLACEOUS
304.7	CARBONDALE		SILTY SHALE	5.5	85.5	
299.2	CARBONDALE		SILTY SHALE	6.8	91.0	
292.4	CARBONDALE		SHALE	3.2	97.8	
289.2	CARBONDALE		SHALE	9.5	101.0	
279.7	CARBONDALE		SHALE	0.5	110.5	
279.2	CARBONDALE		SHALE	2.3	111.0	
276.9	CARBONDALE		SHALE	0.2	113.3	
276.7	CARBONDALE	HERRIN	COAL	9.5	113.5	
267.2	CARBONDALE		UNDERCLAY	2.0	123.0	

MAPID: 07700661000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 21

QUARTERS/FOOTAGES: SE NE NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.217135

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.90356

DATE COLLECTED:

SURFACE ELEVATION (FT.): 390.2

LOGGED (FT.): 0.0

LOG TYPE:

SOURCE: UNION COLL

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
276.2	CARBONDALE	HERRIN	COAL	9.5	114.0	

MAPID: 07700662000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 21

QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.221884

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.899944

DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 390.1

LOGGED (FT.): 147.5

LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 259

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.1	PLEISTOCENE		UNCONSOLIDATED	39.5	0.0	
350.6	CARBONDALE		SHALY SANDSTONE	3.8	39.5	
346.8	CARBONDALE		SHALE	0.3	43.3	
346.5	CARBONDALE		SHALE	4.8	43.6	GRAY TO BLACK
341.7	CARBONDALE	ALLENBY	COAL	0.2	48.4	
341.5	CARBONDALE	ALLENBY	UNDERCLAY	1.0	48.6	SOME LIMESTONE NOTED
340.5	CARBONDALE	ALLENBY	COAL	0.4	49.6	DIRTY
340.1	CARBONDALE		UNDERCLAY	1.9	50.0	
338.2	CARBONDALE		UNDERCLAY	2.0	51.9	SOME LIMESTONE NOTED
336.2	CARBONDALE	BANKSTON FORK	LIMESTONE	2.6	53.9	
333.6	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	56.5	ARGILLACEOUS
332.6	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	57.5	
330.6	CARBONDALE	BANKSTON FORK	LIMESTONE	8.0	59.5	
322.6	CARBONDALE		SILTSTONE	0.8	67.5	
321.8	CARBONDALE		SHALE	2.1	68.3	
319.7	CARBONDALE		SHALE	0.6	70.4	
319.1	CARBONDALE		SHALE	3.5	71.0	
315.6	CARBONDALE		SHALE	6.5	74.5	IRON CONCRETIONS
309.1	CARBONDALE		SHALE	3.8	81.0	IRON CONCRETIONS
305.3	CARBONDALE		SHALE	0.4	84.8	SOME LIMESTONE NOTED
304.9	CARBONDALE		SANDSTONE	5.8	85.2	ARGILLACEOUS
299.1	CARBONDALE		SANDSTONE	10.0	91.0	ARGILLACEOUS
289.1	CARBONDALE		SHALE	6.7	101.0	IRON CONCRETIONS
282.4	CARBONDALE		SHALE	22.8	107.7	IRON CONCRETIONS
259.6	CARBONDALE		SHALE	2.0	130.5	
257.6	CARBONDALE		SHALE	0.2	132.5	
257.4	CARBONDALE		SHALE	2.8	132.7	
254.6	CARBONDALE	HERRIN	COAL	12.0	135.5	TOTAL THICKNESS OF SH PTGS. = 1.1 FT.

MAPID: 07700662000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 21 **QUARTERS/FOOTAGES:** SE SW NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.221884 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.899944 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 390.1 **LOGGED (FT.):** 0.0 **LOG TYPE:**
SOURCE: UNION COLL **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
254.1	CARBONDALE	HERRIN	COAL	12.0	136.0	

MAPID: 07700663000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 21 **QUARTERS/FOOTAGES:** SE NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.218348 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.900821 **DATE COLLECTED:** 0 / 0 / 1940
SURFACE ELEVATION (FT.): 378.9 **LOGGED (FT.):** 110.0 **LOG TYPE:** Survey Core Study
SOURCE: UNION COLLIERY CO. 260 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
378.9	PLEISTOCENE		UNCONSOLIDATED	37.0	0.0	
341.9			LIMESTONE	7.0	37.0	
334.9			LIMESTONE	4.0	44.0	
330.9			SILTSTONE	1.0	48.0	
329.9			SHALE	2.5	49.0	
327.4			SHALE	2.5	51.5	
324.9			SHALE	8.0	54.0	
316.9			SHALE	4.0	62.0	
312.9			SHALE	2.8	66.0	IRON CONCRETIONS
310.1			SHALE	6.4	68.8	
303.7			SHALE	0.3	75.2	
303.4			SHALE	0.5	75.5	
302.9			SHALY SILTSTONE	10.0	76.0	
292.9			SILTSTONE	10.0	86.0	
282.9			SILTSTONE	5.5	96.0	
277.4			SHALE	4.5	101.5	IRON CONCRETIONS
272.9			SHALE	3.0	106.0	
269.9			SHALE	1.0	109.0	

MAPID: 07700664000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 21 QUARTERS/FOOTAGES: SW SE NE
QUADRANGLE: ELKVILLE LONGITUDE: -89.210148 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.89981 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 384.9 LOGGED (FT.): 118.0 LOG TYPE: Survey Core Study
SOURCE: UNION COLLIERY CO. 261 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
384.9	PLEISTOCENE		UNCONSOLIDATED	60.0	0.0	
324.9	CARBONDALE		SHALE	41.0	60.0	
283.9	CARBONDALE	HERRIN	COAL	2.5	101.0	DIRTY
281.4	CARBONDALE	HERRIN	SHALE	3.5	103.5	
277.9	CARBONDALE	HERRIN	COAL	0.1	107.0	BONY
277.8	CARBONDALE	HERRIN	SHALE	1.8	107.1	
275.9	CARBONDALE	HERRIN	COAL	7.0	109.0	DIRTY
268.9	CARBONDALE	HERRIN	SHALE	2.0	116.0	

MAPID: 07700664000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 21 QUARTERS/FOOTAGES: SW SE NE
QUADRANGLE: ELKVILLE LONGITUDE: -89.210148 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.89981 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 384.9 LOGGED (FT.): 127.0 LOG TYPE:
SOURCE: UNION COLL WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
266.9	CARBONDALE	HERRIN	COAL	7.0	118.0	

MAPID: 07701445000C VERSION: 1 PROJECT: CUSMAP
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 21 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE
QUADRANGLE: ELKVILLE LONGITUDE: -89.214865 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.89986 DATE COLLECTED: 9 / 0 / 1958
SURFACE ELEVATION (FT.): 387.0 LOGGED (FT.): 1140.0 LOG TYPE: Electric Log
SOURCE: NAT'L. ASSOC. PETRO. CO. WELL TYPE: Producer-Oil and Gas
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
63.0	CARBONDALE	COLCHESTER	UNCLASSIFIED	-	324.0	
-9.0	SPOON	DAVIS	UNCLASSIFIED	-	396.0	
-753.0	BASE OF PENN.		UNCLASSIFIED	-	1140.0	

MAPID: 07701799000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 21 QUARTERS/FOOTAGES: 615' S line, 629' E line
 QUADRANGLE: ELKVILLE LONGITUDE: -89.208847 GEOLOGIST:
 CONFIDENTIAL: N LATITUDE: 37.893251 DATE COLLECTED: 5 / 4 / 1972
 SURFACE ELEVATION (FT.): 387.0 LOGGED (FT.): 130.6 LOG TYPE: Drillers Log
 SOURCE: CONSOLIDATION C.C. C-1138 WELL TYPE: Coal Test
 COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
349.8	CARBONDALE		LIMESTONE	8.5	37.2
341.3	CARBONDALE	BANKSTON FORK	LIMESTONE	5.4	45.7
335.9	CARBONDALE	ENERGY	GRAY SHALE	7.1	51.1
328.8	CARBONDALE	ENERGY	DARK GRAY SHALE	12.7	58.2
316.1	CARBONDALE	ENERGY	SILTY SHALE	29.7	70.9
286.4	CARBONDALE	ENERGY	GRAY SHALE	13.2	100.6
273.2	CARBONDALE	ENERGY	DARK GRAY SHALE	1.2	113.8
272.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	15.6	115.0

MAPID: 07701852000C VERSION: 1

PROJECT: NCRDS

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 21 QUARTERS/FOOTAGES: 2622' N line, 2695' E line
 QUADRANGLE: ELKVILLE LONGITUDE: -89.215971 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 37.899099 DATE COLLECTED: 6 / 7 / 1972
 SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 122.0 LOG TYPE: Drillers Log
 SOURCE: CONSOLIDATION COAL CO. C-1195 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
390.0	PLEISTOCENE		SOIL	5.0	0.0
385.0	PLEISTOCENE		HARD PAN	7.2	5.0
377.8	PLEISTOCENE		HARD PAN	19.6	12.2
358.2			SHALE	3.7	31.8
354.5			LIMESTONE	4.3	35.5 WEATHERED
350.2			GRAY LIMESTONE	7.7	39.8
342.5			GRAY SHALE	1.6	47.5
340.9			GRAY SHALE & SANDSTONE	7.2	49.1
333.7			SANDY DARK SHALE	7.9	56.3
325.8			SANDY DARK SHALE	22.6	64.2
303.2			GRAY SHALE & SANDSTONE	7.4	86.8
295.8			SANDY SHALE	13.8	94.2
282.0	CARBONDALE	HERRIN	COAL	13.6	108.0
268.4	CARBONDALE		UNDERCLAY	0.4	121.6

MAPID: 07700667000C **VERSION:** 1 **PROJECT:** CUSMAP
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 22 **QUARTERS/FOOTAGES:** 330' S line, 660' W line of SW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.204374 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.892421 **DATE COLLECTED:** 10 / 0 / 1943
SURFACE ELEVATION (FT.): 385.0 **LOGGED (FT.):** 1270.0 **LOG TYPE:** Electric Log
SOURCE: WISER OIL CO., THE **WELL TYPE:** Producer-Oil and Gas
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
81.0	CARBONDALE	COLCHESTER	UNCLASSIFIED	-	304.0
-27.0	SPOON	DAVIS	UNCLASSIFIED	-	412.0
-885.0	BASE OF PENN.		UNCLASSIFIED	-	1270.0

MAPID: 07700097000C **VERSION:** 1 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 23 **QUARTERS/FOOTAGES:** NE NE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.171721 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.904107 **DATE COLLECTED:** 0 / 0 / 1905
SURFACE ELEVATION (FT.): 390.0 **LOGGED (FT.):** 322.0 **LOG TYPE:**
SOURCE: JACKSON CC **WELL TYPE:** Coal Test
COMMENT: EXACT LOCATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
82.0	CARBONDALE	HERRIN	COAL	12.7	308.0

MAPID: 07700097000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 23 **QUARTERS/FOOTAGES:** NE NE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.171721 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.904107 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 390.0 **LOGGED (FT.):** 320.1 **LOG TYPE:** Drillers Log
SOURCE: **WELL TYPE:** Coal Test
COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
158.8	MODESTO	PIASA	LIMESTONE	18.0	231.2
140.8	CARBONDALE		LIMESTONE W/ SHALE	32.0	249.2
108.8	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	281.2
105.8	CARBONDALE		BLACK SHALE	12.0	284.2
93.8	CARBONDALE	BRERETON	LIMESTONE	9.0	296.2
84.8	CARBONDALE	ANNA	BLACK SHALE	1.8	305.2
83.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	13.1	307.0

MAPID: 07700097000C VERSION: 3 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 23 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: ELKVILLE LONGITUDE: -89.171721 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.904107 DATE COLLECTED:

SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 322.0 LOG TYPE: Drillers Log

SOURCE: JACKSON COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	PLEISTOCENE		CLAY	22.0	0.0	
368.0	PLEISTOCENE		CLAY	37.0	22.0	
331.0			SHALE	1.0	59.0	
330.0			SHALE	60.0	60.0	DARK
270.0			SHALE	53.0	120.0	DARK
217.0			SHALE	10.0	173.0	SOME LIMESTONE NOTED
207.0			SHALE	19.0	183.0	DARK
188.0			SHALE	11.0	202.0	
177.0			SHALE	19.0	213.0	DARK
158.0	CARBONDALE	BANKSTON FORK	LIMESTONE	18.0	232.0	
140.0	CARBONDALE		SHALE	6.0	250.0	DARK
134.0	CARBONDALE		SHALE	26.0	256.0	SOME LIMESTONE NOTED
108.0	CARBONDALE	BRERETON	LIMESTONE	3.0	282.0	DARK
105.0	CARBONDALE		SHALE	12.0	285.0	
93.0	CARBONDALE		SHALE	9.0	297.0	SOME LIMESTONE NOTED
84.0	CARBONDALE		SHALE	1.8	306.0	
82.2	CARBONDALE	HERRIN	COAL	6.0	307.8	
76.2	CARBONDALE	HERRIN	SHALE	0.4	313.8	BAND
75.7	CARBONDALE	HERRIN	COAL	6.7	314.3	
69.1	CARBONDALE		UNDERCLAY	1.1	320.9	

MAPID: 07726375000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 23 QUARTERS/FOOTAGES: 93' S line, 2485' E line
 QUADRANGLE: ELKVILLE LONGITUDE: -89.178049 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 37.891557 DATE COLLECTED: 3 / 8 / 1980
 SURFACE ELEVATION (FT.): 382.0 LOGGED (FT.): 240.0 LOG TYPE: Drillers Log
 SOURCE: CONSOLIDATION COAL CO. DN-29 WELL TYPE: Coal Test
 COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
382.0			NO RECORD	76.0	0.0	
306.0	SHELBURN		SANDSTONE	23.0	76.0	
283.0	SHELBURN		SHALE	21.0	99.0	
262.0	SHELBURN		DARK SHALE	20.5	120.0	
241.5	SHELBURN	BRERETON	LIMESTONE	1.0	140.5	
240.5	CARBONDALE	ANNA	BLACK SHALE	6.5	141.5	
234.0	CARBONDALE	ENERGY	DARK SHALE	2.0	148.0	
232.0	CARBONDALE	HERRIN	COAL	4.8	150.0	
227.2	CARBONDALE	HERRIN	SHALE	1.0	154.8	
226.2	CARBONDALE	HERRIN	BONE COAL	1.1	155.8	COAL WITH BONE LAYERS
225.1	CARBONDALE	HERRIN	SHALY COAL	3.5	156.9	COAL WITH SHALE LAYERS
221.6	CARBONDALE		SHALE	2.3	160.4	
219.3	CARBONDALE	SPRINGFIELD	COAL	4.2	162.7	
215.1	CARBONDALE		SHALE	1.2	166.9	
213.9	CARBONDALE		GRAY SHALE	2.2	168.1	
211.8	CARBONDALE		SHALE	69.8	170.2	

MAPID: 07726379000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 23 QUARTERS/FOOTAGES: 2506' N line, 1227' E line
 QUADRANGLE: ELKVILLE LONGITUDE: -89.173686 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 37.899073 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 378.4 LOGGED (FT.): 331.3 LOG TYPE: Drillers Log
 SOURCE: CONSOLIDATION COAL CO. 00-CN-75 WELL TYPE: Coal Test
 COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
60.4	CARBONDALE	HERRIN	COAL	13.3	318.0	SPLIT? NO COAL DESCRIPTION

MAPID: 07726380000C

VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 23

QUARTERS/FOOTAGES: 2216' N line, 2624' E line

QUADRANGLE: ELKVILLE

LONGITUDE: -89.178526

GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N

LATITUDE: 37.89991

DATE COLLECTED:

SURFACE ELEVATION (FT.): 376.1

LOGGED (FT.): 292.8

LOG TYPE: Drillers Log

SOURCE: CONSOLIDATION COAL CO.

00-CN-74

WELL TYPE: Coal Test

COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
96.8	CARBONDALE	HERRIN	COAL	13.5	279.3	SPLIT? NO COAL DESCRIPTION

MAPID: 07700098000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 24 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: ELKVILLE LONGITUDE: -89.152017 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.899405 DATE COLLECTED: 4 / 23 / 1906

SURFACE ELEVATION (FT.): 389.0 LOGGED (FT.): 333.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 1 WELL TYPE: Coal Test

COMMENT: LOG: SEE SAVAGE'S NOTES

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
389.0	PLEISTOCENE		SOIL	2.0	0.0	
387.0	PLEISTOCENE		SOIL	18.0	2.0	
369.0	PLEISTOCENE		CLAY	36.0	20.0	YELLOW
333.0	PLEISTOCENE		CLAY	8.0	56.0	
325.0			SHALE	47.0	64.0	BLUE
278.0			SHALE	19.0	111.0	BROWN
259.0			SHALE	7.0	130.0	
252.0			SANDSTONE	12.0	137.0	
240.0			SHALE	5.5	149.0	
234.5			SANDSTONE	4.0	154.5	
230.5			SHALE	1.5	158.5	
229.0			SHALE	26.3	160.0	BLUE
202.7			SHALY COAL	1.2	186.3	
201.5			SHALE	6.5	187.5	BLUE
195.0			SHALE	9.0	194.0	SOME LIMESTONE NOTED
186.0			SHALE	11.0	203.0	BLUE
175.0			LIMESTONE	1.0	214.0	
174.0			SHALE	2.0	215.0	
172.0			LIMESTONE	1.0	217.0	
171.0			SHALE	22.0	218.0	
149.0			SHALE	10.0	240.0	
139.0			SHALE	38.0	250.0	BLUE
101.0			SHALE	6.0	288.0	
95.0			SHALE	24.3	294.0	BLUE
70.7	CARBONDALE	HERRIN	COAL	10.4	318.3	THICKNESS OF BLUE BAND = 2 INCHES
60.2	CARBONDALE		SHALE	0.3	328.8	BLUE
60.0	CARBONDALE		SHALE	2.0	329.0	
58.0	CARBONDALE		LIMESTONE	2.0	331.0	

MAPID: 07700098000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 24 **QUARTERS/FOOTAGES:** SE SE NE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.152017 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.899405 **DATE COLLECTED:** 0 / 0 / 1906
SURFACE ELEVATION (FT.): 389.0 **LOGGED (FT.):** 333.0 **LOG TYPE:**
SOURCE: WESTERN CM0001 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
71.0	CARBONDALE	HERRIN	COAL	10.3	318.0	

MAPID: 07700099000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 24 **QUARTERS/FOOTAGES:** SW NE SE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.154338 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.895699 **DATE COLLECTED:** 0 / 0 / 1922
SURFACE ELEVATION (FT.): 382.5 **LOGGED (FT.):** 328.6 **LOG TYPE:** Drillers Log
SOURCE: WESTERN COAL & MINING CO. 4 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
382.5	CARBONDALE	BRERETON	CLAY	45.0	0.0	
337.5			SHALE	30.3	45.0	BLUE
307.2			SHALE	45.7	75.3	
261.5			SANDSTONE	10.0	121.0	
251.5			SHALE	15.0	131.0	
236.5			SHALE	4.3	146.0	
232.2			LIMESTONE	9.8	150.3	BLUE
222.5			SHALE	113.0	160.0	
109.5			SHALE	19.0	273.0	SOME LIMESTONE NOTED
90.5	CARBONDALE	ANNA	LIMESTONE	4.5	292.0	BLACK
86.0			SHALE	11.5	296.5	
74.5			SHALE	10.0	308.0	
64.5			COAL	10.3	318.0	
54.2			UNDERCLAY	0.3	328.3	

MAPID: 07700099000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 24 **QUARTERS/FOOTAGES:** SW NE SE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.154338 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.895699 **DATE COLLECTED:** 0 / 0 / 1922
SURFACE ELEVATION (FT.): 382.5 **LOGGED (FT.):** 329.0 **LOG TYPE:**
SOURCE: WESTERN CM0004 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
64.5	CARBONDALE	HERRIN	COAL	10.3	318.0	

MAPID: 07700100000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 24 **QUARTERS/FOOTAGES:** SW NE SW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.163632 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.895801 **DATE COLLECTED:** 0 / 0 / 1922
SURFACE ELEVATION (FT.): 379.6 **LOGGED (FT.):** 283.1 **LOG TYPE:** Drillers Log
SOURCE: WESTERN COAL & MINING CO. 5 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
379.6	PLEISTOCENE		CLAY	75.0	0.0	MUD; YELLOW
304.6			SHALE	50.0	75.0	
254.6			SHALE	7.0	125.0	BLUE
247.6			SANDSTONE	6.5	132.0	
241.1			SHALE	24.2	138.5	
216.9			LIMESTONE	4.0	162.7	
212.9			SHALE	12.3	166.7	
200.6			SANDSTONE	11.0	179.0	
189.6			SHALE	56.0	190.0	
133.6	CARBONDALE	ANNA	SHALE	2.0	246.0	
131.6	CARBONDALE	ANNA	SHALE	6.0	248.0	
125.6	CARBONDALE	ENERGY	SHALE	19.5	254.0	
106.1	CARBONDALE	HERRIN	COAL	8.3	273.5	TOTAL THICKNESS OF SH PTG. = 6 INCHES
97.8	CARBONDALE		UNDERCLAY	1.3	281.8	

MAPID: 07700100000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 24

QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.163632

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.895801

DATE COLLECTED: 0 / 0 / 1906

SURFACE ELEVATION (FT.): 379.6

LOGGED (FT.): 283.0

LOG TYPE:

SOURCE: WESTERN CM0005

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
105.6	CARBONDALE	HERRIN	COAL	8.3	274.0	

MAPID: 07701767000C

VERSION: 1

PROJECT: ROOF STUDY

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 24

QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.158985

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.899454

DATE COLLECTED:

SURFACE ELEVATION (FT.): 392.0

LOGGED (FT.): 356.0

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO

C-877

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
149.0	CARBONDALE	DANVILLE	COAL	1.0	243.0	
148.0	CARBONDALE	ENERGY	UNCLASSIFIED	100.0	244.0	
48.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	12.0	344.0	

MAPID: 07726396000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 24 QUARTERS/FOOTAGES: 640' S line, 1285' W line
 QUADRANGLE: ELKVILLE LONGITUDE: -89.164986 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 37.892981 DATE COLLECTED: 2 / 14 / 1980
 SURFACE ELEVATION (FT.): 387.0 LOGGED (FT.): 360.0 LOG TYPE: Drillers Log
 SOURCE: CONSOLIDATION COAL CO. DN-24 WELL TYPE: Coal Test
 COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
387.0	PLEISTOCENE		CLAY	67.0	0.0	BROWN
320.0	SHELBURN		GRAY SHALE	29.2	67.0	
290.8	SHELBURN		SANDY SHALE	5.8	96.2	
285.0	SHELBURN		GRAY SANDSTONE	11.6	102.0	
273.4	SHELBURN		SANDY SHALE	14.4	113.6	
259.0	SHELBURN		GRAY SANDSTONE	6.2	128.0	
252.8	SHELBURN		SANDY SHALE	6.1	134.2	
246.7	SHELBURN		SANDSTONE	99.7	140.3	
147.0	SHELBURN		SANDSTONE	9.6	240.0	TOP OF CORE
137.4	SHELBURN		SANDY SHALE	2.8	249.6	
134.6	CARBONDALE	ANNA	BLACK SHALE	1.6	252.4	
133.0	CARBONDALE	ENERGY	SHALE	26.4	254.0	
106.6	CARBONDALE	HERRIN	COAL	9.6	280.4	PYRITE AND THIN CALCITE ON CLEATS
96.9	CARBONDALE		SANDY SHALE	0.2	290.1	BOTTOM OF CORE
96.7	CARBONDALE		CALCAREOUS SHALE	15.7	290.3	
81.0	CARBONDALE		SANDSTONE	6.2	306.0	
74.8	CARBONDALE		SANDY SHALE	12.8	312.2	
62.0	CARBONDALE		BLACK SHALE	4.0	325.0	SOFT
58.0	CARBONDALE	SPRINGFIELD	COAL	4.0	329.0	
54.0	CARBONDALE		GRAY SANDSTONE	27.0	333.0	

MAPID: 07726402000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 24 QUARTERS/FOOTAGES: 2584' S line, 46' W line
 QUADRANGLE: ELKVILLE LONGITUDE: -89.169276 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 37.89839 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 387.0 LOGGED (FT.): 342.8 LOG TYPE: Drillers Log
 SOURCE: CONSOLIDATION COAL CO. 00-FC-W37 WELL TYPE: Coal Test
 COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
56.0	CARBONDALE	HERRIN	COAL	11.8	331.0	NO COAL DESCRIPTION

MAPID: 07726403000C

VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 24

QUARTERS/FOOTAGES: 2612' S line, 2592' E line

QUADRANGLE: ELKVILLE

LONGITUDE: -89.159834

GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N

LATITUDE: 37.89831

DATE COLLECTED:

SURFACE ELEVATION (FT.): 390.6

LOGGED (FT.): 333.4

LOG TYPE: Drillers Log

SOURCE: CONSOLIDATION COAL CO.

00-FC-W25

WELL TYPE: Coal Test

COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
69.3	CARBONDALE	HERRIN	COAL	12.1	321.3	NO COAL DESCRIPTION

MAPID: 07700101000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 25 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: ELKVILLE LONGITUDE: -89.153181 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.889208 DATE COLLECTED:

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 334.3 LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 33 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0	PLEISTOCENE		UNCONSOLIDATED	37.0	0.0	
363.0			SHALE	73.0	37.0	
290.0			SHALE	1.8	110.0	
288.2			SHALE	2.3	111.8	
286.0			SHALE	12.0	114.0	
274.0			SANDSTONE	7.0	126.0	
267.0			SHALE	4.5	133.0	
262.5			SHALE	0.5	137.5	
262.0			SHALE	12.0	138.0	
250.0			CARBONACEOUS SHALE	4.0	150.0	COAL PARTINGS
246.0			SHALE	32.0	154.0	
214.0			CLAYSTONE	12.0	186.0	SOME LIMESTONE NOTED
202.0			SHALE	24.5	198.0	
177.5			SANDSTONE	2.5	222.5	CONGLOMERATE
175.0			SHALE	2.0	225.0	DARK
173.0			SHALE	21.5	227.0	DARK; BRERETON NOT LOGGED?
151.5	CARBONDALE	ANNA	SHALE	1.5	248.5	
150.0	CARBONDALE	ENERGY	SHALE	33.0	250.0	
117.0	CARBONDALE	ENERGY	CARBONACEOUS SHALE	0.5	283.0	COAL PARTINGS
116.5	CARBONDALE	HERRIN	COAL/CLAYSTONE	9.3	283.5	
107.2	CARBONDALE		UNDERCLAY	1.0	292.8	
106.2	CARBONDALE		LIMESTONE	13.5	293.8	
92.7	CARBONDALE		CLAYSTONE	0.5	307.3	
92.2	CARBONDALE		SHALE	1.0	307.8	
91.2	CARBONDALE		SANDSTONE	5.5	308.8	
85.7	CARBONDALE		SHALE	10.5	314.3	DARK
75.2	CARBONDALE	TURNER MINE	SHALE	4.5	324.8	
70.7	CARBONDALE	SPRINGFIELD	COAL	4.0	329.3	
66.7	CARBONDALE		UNDERCLAY	1.0	333.3	

MAPID: 07700101000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 25 **QUARTERS/FOOTAGES:** NE NE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.153181 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.889208 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 400.0 **LOGGED (FT.):** 334.0 **LOG TYPE:**
SOURCE: HALLIDAY 0033 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
116.0	CARBONDALE	HERRIN	COAL	9.3	284.0	

MAPID: 07700102000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 25 **QUARTERS/FOOTAGES:** SE NW SE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.156724 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.881069 **DATE COLLECTED:** 3 / 15 / 1918
SURFACE ELEVATION (FT.): 410.0 **LOGGED (FT.):** 151.0 **LOG TYPE:** Drillers Log
SOURCE: WESTERN COAL & MINING CO. 19 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
410.0	PLEISTOCENE		SOIL	12.0	0.0	
398.0	CARBONDALE	ANVIL ROCK	SANDSTONE	58.0	12.0	
340.0	CARBONDALE		SHALE	15.0	70.0	
325.0	CARBONDALE		SHALE	33.0	85.0	BLUE
292.0	CARBONDALE		LIMESTONE	2.0	118.0	
290.0	CARBONDALE	BRERETON	SHALE	8.0	120.0	
282.0	CARBONDALE		SHALE	7.0	128.0	BLUE
275.0	CARBONDALE		SHALE	4.0	135.0	
271.0	CARBONDALE		COAL	9.0	139.0	
262.0	CARBONDALE	HERRIN	UNDERCLAY	2.0	148.0	
260.0	CARBONDALE		SANDSTONE	1.0	150.0	

MAPID: 07700102000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 25 **QUARTERS/FOOTAGES:** SE NW SE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.156724 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.881069 **DATE COLLECTED:** 0 / 0 / 1918
SURFACE ELEVATION (FT.): 411.0 **LOGGED (FT.):** 161.0 **LOG TYPE:**
SOURCE: WESTERN CM0019 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
272.0	CARBONDALE	HERRIN	COAL	9.0	139.0	

MAPID: 07700103000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 25 QUARTERS/FOOTAGES: SW NE NE

QUADRANGLE: ELKVILLE LONGITUDE: -89.154349 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.888317 DATE COLLECTED: 3 / 20 / 1918

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 291.5 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 20 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		SOIL	12.0	0.0	
383.0			SHALE	12.0	12.0	
371.0			SHALY SANDSTONE	20.0	24.0	
351.0			SHALE	46.0	44.0	
305.0			SANDSTONE	10.0	90.0	
295.0			SHALE	12.0	100.0	
283.0			SHALE	7.0	112.0	BLUE
276.0			LIMESTONE	2.0	119.0	
274.0			SHALE	2.0	121.0	
272.0			SHALE	17.0	123.0	BLUE
255.0			SANDSTONE	100.0	140.0	WHITE
155.0			SHALE	8.0	240.0	
147.0	CARBONDALE	ANNA	SHALE	5.0	248.0	
142.0	CARBONDALE	ENERGY	SHALE	25.5	253.0	
116.5	CARBONDALE	HERRIN	COAL	9.5	278.5	
107.0	CARBONDALE		UNDERCLAY	3.0	288.0	
104.0	CARBONDALE		LIMESTONE	0.5	291.0	

MAPID: 07700103000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 25 QUARTERS/FOOTAGES: SW NE NE

QUADRANGLE: ELKVILLE LONGITUDE: -89.154349 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.888317 DATE COLLECTED: 0 / 0 / 1918

SURFACE ELEVATION (FT.): 395.5 LOGGED (FT.): 292.0 LOG TYPE:

SOURCE: WESTERN CM0020 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
116.5	CARBONDALE	HERRIN	COAL	9.5	279.0	

MAPID: 07700104000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 25 QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.156709 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.882888 DATE COLLECTED: 3 / 29 / 1918

SURFACE ELEVATION (FT.): 407.0 LOGGED (FT.): 183.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 21 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
407.0	PLEISTOCENE		SOIL	16.0	0.0	
391.0	CARBONDALE	ANVIL ROCK	SHALY SANDSTONE	36.0	16.0	
355.0	CARBONDALE	ANVIL ROCK	SANDSTONE	50.0	52.0	
305.0	CARBONDALE		SHALE	28.0	102.0	BLUE
277.0	CARBONDALE	ANNA	SHALE	8.0	130.0	
269.0	CARBONDALE	ENERGY	SHALE	32.0	138.0	
237.0	CARBONDALE	HERRIN	COAL	10.7	170.0	
226.3	CARBONDALE		UNDERCLAY	2.0	180.7	
224.3	CARBONDALE		SANDSTONE	0.3	182.7	

MAPID: 07700104000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 25 QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: ELKVILLE LONGITUDE: -89.156709 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.882888 DATE COLLECTED: 0 / 0 / 1918

SURFACE ELEVATION (FT.): 406.0 LOGGED (FT.): 183.0 LOG TYPE:

SOURCE: WESTERN CM0021 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
236.0	CARBONDALE	HERRIN	COAL	10.7	170.0	

MAPID: 07700105000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 25 QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.163628 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.888458 DATE COLLECTED: 0 / 0 / 1922

SURFACE ELEVATION (FT.): 383.1 LOGGED (FT.): 176.5 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 6 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
383.1	CARBONDALE		CLAY	38.0	0.0	
345.1	CARBONDALE	ANVIL ROCK	SANDSTONE	93.0	38.0	
252.1	CARBONDALE	ANNA	SHALE	3.5	131.0	
248.6	CARBONDALE	ENERGY	SHALE	3.5	134.5	DARK
245.1	CARBONDALE	ENERGY	SHALE	29.5	138.0	
215.6	CARBONDALE	HERRIN	COAL	8.3	167.5	TOTAL THICKNESS OF PTGS. = 10 INCHES
207.3	CARBONDALE		UNDERCLAY	0.7	175.8	

MAPID: 07700105000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 25 QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.163628 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.888458 DATE COLLECTED: 0 / 0 / 1922

SURFACE ELEVATION (FT.): 383.1 LOGGED (FT.): 177.0 LOG TYPE:

SOURCE: WESTERN CM0006 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
215.1	CARBONDALE	HERRIN	COAL	8.3	168.0	
154.1	CARBONDALE	SPRINGFIELD	COAL	4.0	229.0	

MAPID: 07700106000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 25 QUARTERS/FOOTAGES: NE SW SW

QUADRANGLE: ELKVILLE LONGITUDE: -89.166014 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.879346 DATE COLLECTED: 6 / 0 / 1922

SURFACE ELEVATION (FT.): 394.5 LOGGED (FT.): 175.3 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 7 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
394.5	PLEISTOCENE		CLAY	24.0	0.0	
370.5	CARBONDALE	ANVIL ROCK	SANDSTONE	119.0	24.0	
251.5	CARBONDALE	BRERETON	LIMESTONE	2.5	143.0	
249.0	CARBONDALE	ANNA	SHALE	5.5	145.5	
243.5	CARBONDALE	ENERGY	SHALE	14.0	151.0	
229.5	CARBONDALE	HERRIN	COAL	9.5	165.0	TOTAL THICKNESS OF PTGS. = 1FT. 4INCHES
220.0	CARBONDALE		UNDERCLAY	0.8	174.5	

MAPID: 07700106000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 25 QUARTERS/FOOTAGES: NE SW SW

QUADRANGLE: ELKVILLE LONGITUDE: -89.166014 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.879346 DATE COLLECTED: 0 / 0 / 1922

SURFACE ELEVATION (FT.): 394.5 LOGGED (FT.): 175.0 LOG TYPE:

SOURCE: WESTERN CM0007 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
229.5	CARBONDALE	HERRIN	COAL	9.5	165.0	

MAPID: 07701713000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 25 QUARTERS/FOOTAGES: 701' S line, 1330' W line
 QUADRANGLE: DE SOTO LONGITUDE: -89.164895 GEOLOGIST:
 CONFIDENTIAL: N LATITUDE: 37.878519 DATE COLLECTED: 8 / 18 / 1970
 SURFACE ELEVATION (FT.): 397.0 LOGGED (FT.): 164.3 LOG TYPE: Drillers Log
 SOURCE: TRUAX-TRAER COAL CO C-837 WELL TYPE: Coal Test
 COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
377.0	CARBONDALE	LAWSON	SANDSTONE	72.2	20.0	
304.8	CARBONDALE	LAWSON	SANDSTONE	50.0	92.2	
254.8	CARBONDALE	LAWSON	CARBONACEOUS SANDSTONE	3.1	142.2	
251.7	CARBONDALE	LAWSON	CONGLOMERATE	1.8	145.3	
250.0	CARBONDALE	BRERETON	LIMESTONE	3.2	147.0	
246.8	CARBONDALE	ANNA	BLACK SHALE	4.8	150.2	
242.0	CARBONDALE	HERRIN	COAL	9.3	155.0	

MAPID: 07701713000C VERSION: 2

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 25 QUARTERS/FOOTAGES: 701' S line, 1330' W line
 QUADRANGLE: DE SOTO LONGITUDE: -89.164895 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 37.878519 DATE COLLECTED: 8 / 15 / 1970
 SURFACE ELEVATION (FT.): 396.9 LOGGED (FT.): 214.1 LOG TYPE: Drillers Log
 SOURCE: TRUAX-TRAER C-837 WELL TYPE: Coal Test
 COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
396.9	PLEISTOCENE		CLAY	17.0	0.0	
379.9	SHELBURN		SANDSTONE	127.0	17.0	
252.9	SHELBURN		SANDSTONE WITH COAL	2.8	144.0	SS WITH COAL BANDS
250.1	SHELBURN		LIMESTONE	3.2	146.8	
246.9	CARBONDALE	ANNA	BLACK SHALE	5.0	150.0	
241.9	CARBONDALE	HERRIN	COAL	9.3	155.0	
232.6	CARBONDALE		UNDERCLAY	0.7	164.3	
231.9	CARBONDALE		LIMESTONE W/ SHALE	9.1	165.0	
222.8	CARBONDALE		GRAY SHALE	10.0	174.1	
212.8	CARBONDALE		BLUE SHALE	11.0	184.1	
201.8	CARBONDALE		BLACK SHALE	4.0	195.1	
197.8	CARBONDALE		UNCLASSIFIED	5.0	199.1	NOT LEGIBLE
192.8	CARBONDALE		SHALE	1.1	204.1	
191.7	CARBONDALE	SPRINGFIELD	COAL	4.7	205.2	
187.0	CARBONDALE		UNDERCLAY	4.2	209.9	

MAPID: 07701714000C VERSION: 1 PROJECT: NCRDS

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 25 QUARTERS/FOOTAGES: 2650' S line, 2630' W line

QUADRANGLE: ELKVILLE LONGITUDE: -89.16044 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 37.884017 DATE COLLECTED: 8 / 12 / 1970

SURFACE ELEVATION (FT.): 393.9 LOGGED (FT.): 234.0 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER COAL CO C-834 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
393.9			GRAY SHALE	30.0	0.0	
363.9			BLUE SHALE	70.0	30.0	W/ SS BANDS
293.9			GRAY SANDSTONE	50.5	100.0	
243.4	CARBONDALE	ANNA	BLACK SHALE	3.5	150.5	
239.9	CARBONDALE	ENERGY	DARK SHALE	16.0	154.0	
223.9	CARBONDALE	ENERGY	GRAY SHALE	16.7	170.0	
207.2	CARBONDALE	HERRIN	COAL	13.7	186.7	
193.5	CARBONDALE		UNDERCLAY	7.0	200.4	
186.5	CARBONDALE		BLUE SHALE	8.6	207.4	
177.9	CARBONDALE	TURNER MINE	BLACK SHALE	5.0	216.0	
172.9	CARBONDALE	DYKERSBURG	BLUE SHALE	6.7	221.0	
166.2	CARBONDALE	SPRINGFIELD	COAL	5.5	227.7	
160.7	CARBONDALE		CLAYSTONE	0.8	233.2	

MAPID: 07701715000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 25 **QUARTERS/FOOTAGES:** 2635' S line, 1355' W line
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.164779 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 37.883828 **DATE COLLECTED:** 8 / 17 / 1970
SURFACE ELEVATION (FT.): 390.4 **LOGGED (FT.):** 222.2 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER C-836 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
390.4	PLEISTOCENE		CLAY	30.0	0.0
360.4			GRAY SHALE & SANDSTONE	60.0	30.0
300.4			SHALY SANDSTONE	50.0	90.0
250.4			SANDSTONE WITH COAL	14.2	140.0
236.2			BLACK SHALE	2.8	154.2
233.4			DARK SHALE	2.0	157.0
231.4	CARBONDALE	ENERGY	GRAY SHALE	15.6	159.0
215.8	CARBONDALE	HERRIN	COAL	10.1	174.6
205.7	CARBONDALE		UNDERCLAY	6.5	184.7
199.2	CARBONDALE		UNDERCLAY	10.0	191.2
189.2	CARBONDALE		GRAY SHALE	5.0	201.2
184.2	CARBONDALE		BLACK SHALE	5.3	206.2
178.9	CARBONDALE	SPRINGFIELD	COAL	4.6	211.5
174.3	CARBONDALE		UNDERCLAY	6.1	216.1

MAPID: 07701719000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 25 **QUARTERS/FOOTAGES:** 109' S line, 2654' W line
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.160317 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 37.876852 **DATE COLLECTED:** 9 / 24 / 1970
SURFACE ELEVATION (FT.): 405.1 **LOGGED (FT.):** 168.5 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER C-873 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
405.1	PLEISTOCENE		CLAY	16.0	0.0
389.1			SANDSTONE	117.0	16.0
272.1			GRAY SHALE	25.0	133.0
247.1	CARBONDALE	HERRIN	COAL	9.5	158.0
237.6	CARBONDALE		UNDERCLAY	1.0	167.5

MAPID: 07701723000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 25 QUARTERS/FOOTAGES: 900' N line, 2320' W line
 QUADRANGLE: ELKVILLE LONGITUDE: -89.161272 GEOLOGIST:
 CONFIDENTIAL: N LATITUDE: 37.888816 DATE COLLECTED: 10 / 1 / 1970
 SURFACE ELEVATION (FT.): 391.0 LOGGED (FT.): 249.6 LOG TYPE: Drillers Log
 SOURCE: TRUAX-TRAER COAL CO C-876 WELL TYPE: Coal Test
 COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
341.2	CARBONDALE	ENERGY	SILTY SHALE	85.0	49.8
256.2	CARBONDALE	ENERGY	SANDSTONE	30.0	134.8
226.2	CARBONDALE	ENERGY	SILTY SHALE	10.0	164.8
216.2	CARBONDALE	ENERGY	ARGILLACEOUS SANDSTONE	30.0	174.8
186.2	CARBONDALE	ENERGY	GRAY SHALE	35.3	204.8
151.0	CARBONDALE	HERRIN	COAL	9.6	240.0

MAPID: 07726404000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 25 QUARTERS/FOOTAGES: 1397' S line, 1379' E line
 QUADRANGLE: ELKVILLE LONGITUDE: -89.155709 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 37.880344 DATE COLLECTED: 6 / 17 / 1977
 SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 205.0 LOG TYPE: Drillers Log
 SOURCE: CONSOLIDATION COAL CO. DN-3 WELL TYPE: Coal Test
 COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
410.0	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0
388.0	SHELBURN		SANDY SHALE	8.0	22.0
380.0	SHELBURN		SANDSTONE	48.0	30.0
332.0	SHELBURN		SANDY SHALE	42.5	78.0
289.5	SHELBURN		LIMESTONE	2.5	120.5
287.0	CARBONDALE	ANNA	BLACK SHALE	4.0	123.0
283.0	CARBONDALE	ENERGY	SHALE	9.7	127.0
273.3	CARBONDALE	HERRIN	COAL	5.8	136.7
267.5	CARBONDALE	HERRIN	SHALE	1.4	142.5
266.1	CARBONDALE	HERRIN	COAL	2.4	143.9
263.7	CARBONDALE		SOFT SHALE	2.7	146.3
261.0	CARBONDALE	HIGGINSVILLE	LIMESTONE	13.0	149.0
248.0	CARBONDALE		SHALE	5.0	162.0
243.0	CARBONDALE		BLACK SHALE	1.0	167.0
242.0	CARBONDALE		SHALE	9.0	168.0
233.0	CARBONDALE		BLACK SHALE	4.0	177.0
229.0	CARBONDALE		SHALE	10.0	181.0
219.0	CARBONDALE	SPRINGFIELD	COAL	4.2	191.0
214.8	CARBONDALE		SHALE	9.8	195.2

MAPID: 07726405000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 25 QUARTERS/FOOTAGES: 53' S line, 162' E line
QUADRANGLE: ELKVILLE LONGITUDE: -89.15152 GEOLOGIST: LOUCHIOS
CONFIDENTIAL: N LATITUDE: 37.876615 DATE COLLECTED: 6 / 17 / 1977
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 275.0 LOG TYPE: Drillers Log
SOURCE: KNIGHT HAWK COAL DN-4 WELL TYPE: Coal Test
COMMENT: ROYAL FALCON MINE (CONSOLIDATION CC)

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
410.0	PLEISTOCENE		UNCONSOLIDATED	42.0	0.0
368.0	SHELBURN		SHALE	22.0	42.0
346.0	SHELBURN		SANDSTONE	8.0	64.0
338.0	SHELBURN		SANDY SHALE	13.0	72.0
325.0	SHELBURN		SANDSTONE	69.0	85.0
256.0	SHELBURN		SHALE	16.5	154.0
239.5	SHELBURN		LIMESTONE	2.5	170.5
237.0	CARBONDALE	ANNA	BLACK SHALE	4.0	173.0
233.0	CARBONDALE	ENERGY	SHALE	16.5	177.0
216.5	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	16.5	193.5 16.5' OF HERRIN OF WHICH 6.3' IS SHALE
200.0	CARBONDALE		CLAYSTONE & SILTSTONE	4.0	210.0
196.0	CARBONDALE		SHALE	15.0	214.0
181.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	229.0
179.0	CARBONDALE		BLACK SHALE	5.5	231.0
173.5	CARBONDALE	SPRINGFIELD	COAL	3.5	236.5
170.0	CARBONDALE		SHALE	35.0	240.0

MAPID: 07726406000C VERSION: 1 PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 25 QUARTERS/FOOTAGES: 690' S line, 2660' W line

QUADRANGLE: ELKVILLE LONGITUDE: -89.160287 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 37.878447 DATE COLLECTED: 8 / 13 / 1970

SURFACE ELEVATION (FT.): 409.3 LOGGED (FT.): 200.0 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER C-835 WELL TYPE: Coal Test

COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
409.3	PLEISTOCENE		CLAY	27.0	0.0	
382.3	SHELBURN		SANDSTONE	78.0	27.0	
304.3	SHELBURN		GRAY SHALE	36.0	105.0	WITH SS STREAKS
268.3	SHELBURN		CORE LOSS	1.0	141.0	
267.3	CARBONDALE	HERRIN	COAL	6.9	142.0	
260.4	CARBONDALE		CALCAREOUS CLAYSTONE	18.1	148.9	
242.3	CARBONDALE		SANDY SHALE	3.0	167.0	
239.3	CARBONDALE		SHALE	15.2	170.0	
224.1	CARBONDALE		LIMESTONE	1.5	185.2	
222.6	CARBONDALE		SHALE	2.0	186.7	
220.6	CARBONDALE	TURNER MINE	BLACK SHALE	3.9	188.7	
216.7	CARBONDALE	SPRINGFIELD	COAL	4.5	192.6	
212.2	CARBONDALE		UNDERCLAY	2.9	197.1	

MAPID: 07726407000C

VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 25

QUARTERS/FOOTAGES: 2311' N line, 1377' E line

QUADRANGLE: ELKVILLE

LONGITUDE: -89.155667

GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N

LATITUDE: 37.884721

DATE COLLECTED: 6 / 18 / 1977

SURFACE ELEVATION (FT.): 397.0

LOGGED (FT.): 232.0

LOG TYPE: Drillers Log

SOURCE: CONSOLIDATION COAL CO.

DN-7

WELL TYPE: Coal Test

COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
397.0	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
375.0	SHELBURN		SHALE	38.0	22.0	W/ SANDSTONE STREAKS W/ SHALE STREAKS
337.0	SHELBURN		SANDSTONE	46.0	60.0	
291.0	SHELBURN		DARK SHALE	3.0	106.0	
288.0	SHELBURN		SHALE	26.0	109.0	
262.0	CARBONDALE	ANNA	BLACK SHALE	3.0	135.0	
259.0	CARBONDALE	ENERGY	SHALE	31.4	138.0	
227.6	CARBONDALE	HERRIN	COAL	9.8	169.4	
217.8	CARBONDALE		CLAYSTONE & SILTSTONE	1.8	179.2	
216.0	CARBONDALE		LIMESTONE	11.0	181.0	
205.0	CARBONDALE		SHALE	16.0	192.0	
189.0	CARBONDALE		LIMESTONE	2.5	208.0	
186.5	CARBONDALE	TURNER MINE	BLACK SHALE	5.5	210.5	
181.0	CARBONDALE	SPRINGFIELD	COAL	3.7	216.0	
177.3	CARBONDALE		SHALE	12.3	219.7	

MAPID: 07726408000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 25 QUARTERS/FOOTAGES: 23' S line, 93' W line
 QUADRANGLE: ELKVILLE LONGITUDE: -89.169188 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 37.876697 DATE COLLECTED: 6 / 21 / 1977
 SURFACE ELEVATION (FT.): 389.0 LOGGED (FT.): 220.0 LOG TYPE: Drillers Log
 SOURCE: CONSOLIDATION COAL CO. DN-8 WELL TYPE: Coal Test
 COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
389.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
369.0	SHELBURN		SANDY SHALE	10.0	20.0	
359.0	SHELBURN		SANDSTONE	45.0	30.0	W/ SHALE STREAKS
314.0	SHELBURN		BLACK SHALE	2.0	75.0	
312.0	SHELBURN		SANDSTONE	55.0	77.0	W/ SHALE STREAKS
257.0	SHELBURN		SHALE	9.5	132.0	
247.5	SHELBURN		GRAY SHALE	2.2	141.5	TOP OF CORE
245.3	SHELBURN		ARGILLACEOUS LIMESTONE	1.6	143.7	
243.7	CARBONDALE	ANNA	BLACK SHALE	8.3	145.3	DARK GRAY
235.4	CARBONDALE	HERRIN	COAL	9.9	153.6	
225.5	CARBONDALE		CLAYSTONE & SILTSTONE	1.9	163.5	
223.6	CARBONDALE		CLAY	7.5	165.4	
216.1	CARBONDALE		ARGILLACEOUS LIMESTONE	5.6	172.9	LIGHT GRAY
210.5	CARBONDALE		GRAY SHALE	0.3	178.5	
210.3	CARBONDALE		SILTSTONE	4.1	178.7	
206.2	CARBONDALE		DARK SHALE	14.9	182.8	
191.3	CARBONDALE		DARK GRAY SHALE	1.0	197.7	W/ FOSSILS
190.3	CARBONDALE	ST. DAVID	ARGILLACEOUS LIMESTONE	1.9	198.7	
188.3	CARBONDALE	TURNER MINE	FOSSILIFEROUS BLACK SHALE	0.9	200.7	
187.4	CARBONDALE	TURNER MINE	BLACK SHALE	4.2	201.6	NO FOSSILS
183.3	CARBONDALE	SPRINGFIELD	COAL	4.2	205.7	
179.0	CARBONDALE		CLAYSTONE & SILTSTONE	1.2	210.0	
177.9	CARBONDALE		BLUE SHALE	1.5	211.1	
176.4	CARBONDALE		BLUE SHALE	2.0	212.6	W/ LIMESTONE NODULES
174.4	CARBONDALE		LIMESTONE	1.0	214.6	
173.3	CARBONDALE		SHALE	4.3	215.7	

MAPID: 07726409000C

VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 25

QUARTERS/FOOTAGES: 810' N line, 1290' W line

QUADRANGLE: ELKVILLE

LONGITUDE: -89.164981

GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N

LATITUDE: 37.888998

DATE COLLECTED: 3 / 9 / 1980

SURFACE ELEVATION (FT.): 387.0

LOGGED (FT.): 320.0

LOG TYPE: Drillers Log

SOURCE: CONSOLIDATION COAL CO. DN-30

WELL TYPE: Coal Test

COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
387.0	PLEISTOCENE		CLAY & GRAVEL	56.0	0.0
331.0	SHELBURN		GRAY SHALE	5.2	56.0
325.8	SHELBURN		SANDY SHALE	12.8	61.2
313.0	SHELBURN		GRAY SANDSTONE	160.6	74.0
152.4	SHELBURN		GRAY SHALE	4.4	234.6
148.0	SHELBURN		LIMESTONE	5.0	239.0
143.0	CARBONDALE	ANNA	BLACK SHALE	4.9	244.0
138.1	CARBONDALE	HERRIN	COAL	9.5	248.9
128.6	CARBONDALE		GRAY SHALE	2.6	258.4
126.0	CARBONDALE		SANDSTONE/LIMESTONE	13.6	261.0
112.4	CARBONDALE		SANDSTONE	5.4	274.6
107.0	CARBONDALE		SANDY SHALE	9.0	280.0
98.0	CARBONDALE		LIMESTONE	2.0	289.0
96.0	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	291.0
92.0	CARBONDALE	SPRINGFIELD	COAL	3.9	295.0
88.1	CARBONDALE		SANDSTONE	21.1	298.9

MAPID: 07726410000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 25 QUARTERS/FOOTAGES: 1010' N line, 1290' W line
 QUADRANGLE: ELKVILLE LONGITUDE: -89.164983 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 37.888449 DATE COLLECTED: 3 / 11 / 1980
 SURFACE ELEVATION (FT.): 389.0 LOGGED (FT.): 260.0 LOG TYPE: Drillers Log
 SOURCE: CONSOLIDATION COAL CO. DN-31 WELL TYPE: Coal Test
 COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
389.0	PLEISTOCENE		UNCONSOLIDATED	46.0	0.0	
343.0	SHELBURN		SANDSTONE/SHALE	16.0	46.0	
327.0	SHELBURN		SANDSTONE	47.0	62.0	
280.0	SHELBURN		SHALY SANDSTONE	47.0	109.0	
233.0	SHELBURN		LIMESTONE	2.0	156.0	
231.0	CARBONDALE	ANNA	BLACK SHALE	4.1	158.0	TOP OF CORE
226.9	CARBONDALE	ENERGY	DARK SHALE	4.3	162.1	
222.6	CARBONDALE	ENERGY	GRAY SHALE	15.0	166.4	W/ SIDERITE BANDS
207.5	CARBONDALE	HERRIN	COAL	11.4	181.5	
196.2	CARBONDALE		UNDERCLAY	2.0	192.8	
194.1	CARBONDALE		GRAY SHALE	0.3	194.9	BOTTOM OF CORE
193.8	CARBONDALE		SHALE	17.3	195.2	
176.5	CARBONDALE		LIMESTONE	1.5	212.5	
175.0	CARBONDALE		BLACK SHALE	5.0	214.0	
170.0	CARBONDALE		SHALE	4.5	219.0	
165.5	CARBONDALE	SPRINGFIELD	COAL	4.8	223.5	
160.7	CARBONDALE		SHALE	1.3	228.3	
159.5	CARBONDALE		LIMESTONE	1.0	229.5	
158.5	CARBONDALE		SHALE	29.5	230.5	

MAPID: 07700107000C VERSION: 1

PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 26 QUARTERS/FOOTAGES: SE NE NE
 QUADRANGLE: ELKVILLE LONGITUDE: -89.170608 GEOLOGIST:
 CONFIDENTIAL: N LATITUDE: 37.888547 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 382.0 LOGGED (FT.): 209.0 LOG TYPE:
 SOURCE: HALLIDAY 0032 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
217.0	CARBONDALE	HERRIN	COAL	12.4	165.0	
179.0	CARBONDALE	SPRINGFIELD	COAL	4.3	203.0	

MAPID: 07700107000C

VERSION: 2

PROJECT: ROOF STUDY

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 26

QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.170608

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.888547

DATE COLLECTED:

SURFACE ELEVATION (FT.): 382.0

LOGGED (FT.): 176.4

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
318.5	CARBONDALE	BANKSTON FORK	SHALE & SANDSTONE	42.0	63.5
276.5	CARBONDALE		LIMESTONE	3.0	105.5
273.5	CARBONDALE		SHALE	41.0	108.5
232.5	CARBONDALE	BRERETON	LIMESTONE	2.0	149.5
230.5	CARBONDALE	ANNA	BLACK SHALE	6.5	151.5
224.0	CARBONDALE	ENERGY	UNKNOWN	6.0	158.0
218.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	12.4	164.0

MAPID: 07700107000C
VERSION: 3

PROJECT: NCRDS99

COUNTY: JACKSON
TWP/RNG: 7S 1W
SECTION: 26
QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: ELKVILLE
LONGITUDE: -89.170608
GEOLOGIST: C.KOROSE

CONFIDENTIAL: N
LATITUDE: 37.888547
DATE COLLECTED:

SURFACE ELEVATION (FT.): 382.0
LOGGED (FT.): 208.9
LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 32
WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
382.0	PLEISTOCENE		UNCONSOLIDATED	64.0	0.0	
318.0			SANDSTONE	4.0	64.0	
314.0			SHALE	3.0	68.0	
311.0			SANDSTONE	35.0	71.0	
276.0			LIMESTONE	3.0	106.0	
273.0			SHALE	4.0	109.0	
269.0			SHALE	15.0	113.0	
254.0			SHALE	22.0	128.0	
232.0			LIMESTONE	2.0	150.0	
230.0			SHALE	6.5	152.0	
223.5	CARBONDALE	BRERETON	SHALE	1.0	158.5	DARK THICKNESS OF UNDERCLAY=1'8" PLUS PTGS.
222.5	CARBONDALE	ANNA	SHALE	5.0	159.5	
217.5	CARBONDALE	ENERGY	SHALE	12.4	164.5	
205.1	CARBONDALE	ENERGY	COAL/CLAYSTONE	1.0	176.9	
204.1	CARBONDALE	HERRIN	PYRITE	14.5	177.9	
189.6	CARBONDALE	HERRIN	UNDERCLAY	7.0	192.4	
182.6	CARBONDALE	ST. DAVID	LIMESTONE	4.3	199.4	
178.3	CARBONDALE	TURNER MINE	SHALE	4.3	203.7	
174.1	CARBONDALE	SPRINGFIELD	COAL	1.0	207.9	
	CARBONDALE		UNDERCLAY			

MAPID: 07726431000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 26 QUARTERS/FOOTAGES: 997' N line, 11' W line
 QUADRANGLE: ELKVILLE LONGITUDE: -89.169412 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 37.88856 DATE COLLECTED: 6 / 19 / 1977
 SURFACE ELEVATION (FT.): 388.9 LOGGED (FT.): 245.0 LOG TYPE: Drillers Log
 SOURCE: CONSOLIDATION COAL CO. DN-9 WELL TYPE: Coal Test
 COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
388.9	PLEISTOCENE		CLAY	44.0	0.0	SOFT
344.9	SHELBURN		SHALY SANDSTONE	5.0	44.0	
339.9	SHELBURN		DARK SHALE	3.0	49.0	
336.9	SHELBURN		SHALY SANDSTONE	10.0	52.0	
326.9	SHELBURN		SHALE	2.0	62.0	
324.9	SHELBURN		SANDSTONE	4.0	64.0	
320.9	SHELBURN		SHALE	6.0	68.0	
314.9	SHELBURN		SANDSTONE	67.0	74.0	
247.9	SHELBURN		SHALE	2.5	141.0	
245.4	SHELBURN		LIMESTONE	1.5	143.5	
243.9	CARBONDALE	ANNA	BLACK SHALE	5.0	145.0	
238.9	CARBONDALE	ENERGY	SHALE	10.8	150.0	
228.1	CARBONDALE	HERRIN	COAL	7.5	160.8	
220.6	CARBONDALE		GRAY SHALE	1.7	168.3	
218.9	CARBONDALE		LIMESTONE	10.0	170.0	
208.9	CARBONDALE		GRAY SHALE	18.0	180.0	
190.9	CARBONDALE		LIMESTONE	0.5	198.0	
190.4	CARBONDALE		GRAY SHALE	1.7	198.5	
188.7	CARBONDALE		LIMESTONE	0.8	200.2	
187.9	CARBONDALE	TURNER MINE	BLACK SHALE	4.2	201.0	
183.7	CARBONDALE	SPRINGFIELD	COAL	4.6	205.2	
179.1	CARBONDALE		GRAY SHALE	4.2	209.8	
174.9	CARBONDALE		LIMESTONE	4.0	214.0	
170.9	CARBONDALE		SANDY SHALE	27.0	218.0	

MAPID: 07700108000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 27 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: ELKVILLE LONGITUDE: -89.189119 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.888569 DATE COLLECTED:

SURFACE ELEVATION (FT.): 366.0 LOGGED (FT.): 468.0 LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 9 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
366.0	PLEISTOCENE		UNCONSOLIDATED	64.0	0.0	
302.0			SHALE	65.0	64.0	
237.0			SHALE	3.0	129.0	
234.0			SHALE	13.0	132.0	
221.0			SHALE	3.0	145.0	
218.0			SHALE	8.0	148.0	
210.0			SHALE	43.0	156.0	
167.0			SANDSTONE	17.0	199.0	COALY PARTINGS NOTED
150.0			SHALE	8.0	216.0	
142.0			SANDSTONE	19.0	224.0	
123.0			SHALE	7.0	243.0	
116.0			SHALE	24.0	250.0	
92.0			LIMESTONE	1.5	274.0	
90.5			SHALE	7.5	275.5	
83.0			SHALE	17.0	283.0	
66.0			SHALE	14.0	300.0	SHALE PARTINGS

MAPID: 07700108000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 27 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: ELKVILLE LONGITUDE: -89.189119 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.888569 DATE COLLECTED:

SURFACE ELEVATION (FT.): 366.0 LOGGED (FT.): 468.0 LOG TYPE:

SOURCE: HALLIDAY 0009 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
66.0	CARBONDALE	HERRIN	COAL	14.0	300.0	

MAPID: 07700109000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 27 QUARTERS/FOOTAGES: SE NE NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.198547 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.888696 DATE COLLECTED:

SURFACE ELEVATION (FT.): 368.0 LOGGED (FT.): 288.0 LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 8 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
368.0	PLEISTOCENE		UNCONSOLIDATED	61.0	0.0	
307.0			SHALE	4.0	61.0	
303.0			SANDSTONE	58.0	65.0	
245.0			SANDSTONE	40.0	123.0	COALY PARTINGS NOTED
205.0			SANDSTONE	6.0	163.0	
199.0			SHALY SANDSTONE	24.0	169.0	
175.0			SHALE	3.0	193.0	
172.0			COAL	1.8	196.0	HERRIN - CADY
170.2			UNDERCLAY	1.7	197.8	
168.5			SHALE	6.5	199.5	
162.0			SHALE	5.0	206.0	
157.0			COAL	2.7	211.0	
154.3			SHALE	31.3	213.7	
123.0			SHALE	5.0	245.0	
118.0			SANDSTONE	23.0	250.0	
95.0			SHALE	15.0	273.0	

MAPID: 07700109000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 27 QUARTERS/FOOTAGES: SE NE NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.198547 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.888696 DATE COLLECTED:

SURFACE ELEVATION (FT.): 368.0 LOGGED (FT.): 288.0 LOG TYPE:

SOURCE: HALLIDAY 0008 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
282.0	CARBONDALE	HERRIN	COAL	-	86.0	CORRELATION UNCERTAIN

MAPID: 07701382000C VERSION: 1 PROJECT: CUSMAP

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 27 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE SW

QUADRANGLE: ELKVILLE LONGITUDE: -89.201292 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.879601 DATE COLLECTED: 11 / 0 / 1955

SURFACE ELEVATION (FT.): 388.0 LOGGED (FT.): 1388.0 LOG TYPE: Electric Log

SOURCE: SULLIVAN ERVIN WELL TYPE: Producer-Oil and Gas

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
60.0	CARBONDALE	COLCHESTER	UNCLASSIFIED	-	328.0
-9.0	SPOON	DAVIS	UNCLASSIFIED	-	397.0
-1000.0	BASE OF PENN.		UNCLASSIFIED	-	1388.0

MAPID: 07701853000C VERSION: 1 PROJECT: ROOF STUDY

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 27 QUARTERS/FOOTAGES: NE/c SW NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.20212 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.887829 DATE COLLECTED: 0 / 0 / 1972

SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 122.1 LOG TYPE: Drillers Log

SOURCE: CONSOLIDATION C.C. C-1198 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
319.0	CARBONDALE	ENERGY	SANDSTONE	34.4	71.0
284.6	CARBONDALE	ENERGY	SILTY SHALE	3.2	105.4
281.4	CARBONDALE	ENERGY	DARK GRAY SHALE	7.4	108.6
274.0	CARBONDALE	HERRIN	COAL	6.1	116.0

MAPID: 07701856000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 27 **QUARTERS/FOOTAGES:** SE SE NW NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.202688 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 37.888296 **DATE COLLECTED:** / / 1973
SURFACE ELEVATION (FT.): 390.0 **LOGGED (FT.):** 130.0 **LOG TYPE:** Drillers Log
SOURCE: CONSOLIDATION COAL CO. C-1199 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	PLEISTOCENE		CLAY	7.0	0.0	
383.0	PLEISTOCENE		CLAY	34.0	7.0	
349.0	PLEISTOCENE		GLACIAL DRIFT	30.0	41.0	
319.0			GRAY SANDSTONE	38.0	71.0	
281.0			DARK SHALE	5.1	109.0	
275.9			GRAY SHALE	3.0	114.1	
272.9			COAL WITH SHALE	11.3	117.1	
261.6			UNDERCLAY	0.2	128.4	
261.4			GRAY SHALE	1.1	128.6	
260.3			SHALE W/ LIME NODULES	0.3	129.7	

MAPID: 07790027000C **VERSION:** 1 **PROJECT:** LUMP
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 27 **QUARTERS/FOOTAGES:** NW NW NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.206354 **GEOLOGIST:** NORTH
CONFIDENTIAL: N **LATITUDE:** 37.890223 **DATE COLLECTED:** 5 / 28 / 1982
SURFACE ELEVATION (FT.): 390.0 **LOGGED (FT.):** 132.0 **LOG TYPE:** Drillers Log
SOURCE: CONSOLIDATION COAL CO. R3240 **WELL TYPE:** Coal Test
COMMENT: PERMIT 76; BURNING STAR #5

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	PLEISTOCENE		CLAY	39.0	0.0	BROWN
351.0	PLEISTOCENE		CLAY	9.0	39.0	GRAY
342.0			SANDSTONE	4.0	48.0	BROWN
338.0	CARBONDALE	ENERGY	SANDY SHALE	51.0	52.0	
287.0	CARBONDALE	HERRIN	COAL	2.2	103.0	
284.8	CARBONDALE	HERRIN	UNDERCLAY	0.8	105.2	
284.0	CARBONDALE	HERRIN	SANDY SHALE	7.0	106.0	
277.0	CARBONDALE	HERRIN	COAL	7.0	113.0	
270.0	CARBONDALE	HERRIN	GRAY SHALE	2.0	120.0	
268.0	CARBONDALE	HERRIN	COAL	3.0	122.0	
265.0	CARBONDALE		UNDERCLAY	1.1	125.0	
263.9	CARBONDALE	HIGGINSVILLE	LIMESTONE	5.9	126.1	BROWN

MAPID: 07700110000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 28 **QUARTERS/FOOTAGES:** SE NE NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.217413 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.888907 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 392.0 **LOGGED (FT.):** 212.5 **LOG TYPE:** Drillers Log
SOURCE: HALLIDAY ESTATE 6 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
392.0	PLEISTOCENE		UNCONSOLIDATED	31.0	0.0	
361.0	MODESTO	PIASA	LIMESTONE	6.0	31.0	
355.0	MODESTO		SHALE	3.0	37.0	
352.0	CARBONDALE	DANVILLE	COAL	2.0	40.0	
350.0	CARBONDALE		SHALE	23.0	42.0	
327.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	65.0	
324.0	CARBONDALE		SHALE	6.0	68.0	
318.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	74.0	
317.0	CARBONDALE		SHALE	9.0	75.0	
308.0	CARBONDALE	ANVIL ROCK	SANDSTONE	68.0	84.0	
240.0	CARBONDALE		SHALE	1.0	152.0	
239.0	CARBONDALE	HERRIN	SHALE/COAL	11.5	153.0	TOTAL THICKNESS SH PTGS. = 2 FT.
227.5	CARBONDALE		UNDERCLAY	7.0	164.5	
220.5	CARBONDALE		LIMESTONE	10.0	171.5	
210.5	CARBONDALE		SHALE	13.0	181.5	
197.5	CARBONDALE		SHALE	6.0	194.5	
191.5	CARBONDALE	ST. DAVID	LIMESTONE	4.0	200.5	
187.5	CARBONDALE	TURNER MINE	SHALE	3.3	204.5	
184.2	CARBONDALE	SPRINGFIELD	COAL	4.7	207.8	

MAPID: 07700110000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 28 **QUARTERS/FOOTAGES:** SE NE NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.217413 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.888907 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 392.0 **LOGGED (FT.):** 213.0 **LOG TYPE:**
SOURCE: HALLIDAY 0006 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
239.0	CARBONDALE	HERRIN	COAL	11.5	153.0	
184.0	CARBONDALE	SPRINGFIELD	COAL	4.7	208.0	

MAPID: 07700111000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 28 QUARTERS/FOOTAGES: NE SE NE
 QUADRANGLE: ELKVILLE LONGITUDE: -89.208054 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.886995 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 384.0 LOGGED (FT.): 167.5 LOG TYPE: Drillers Log
 SOURCE: HALLIDAY ESTATES 7 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
384.0	PLEISTOCENE		UNCONSOLIDATED	45.0	0.0	
339.0	CARBONDALE		SHALE	13.0	45.0	
326.0	CARBONDALE	ANVIL ROCK	SANDSTONE	46.7	58.0	
279.3	CARBONDALE	HERRIN	COAL	14.5	104.7	THICKNESS OF PTGS. = 5' 10"
264.8	CARBONDALE		UNDERCLAY	0.8	119.2	
264.0	CARBONDALE		SHALY LIMESTONE	8.0	120.0	
256.0	CARBONDALE		LIMESTONE	3.0	128.0	
253.0	CARBONDALE		SHALE	11.0	131.0	
242.0	CARBONDALE		SHALE	8.0	142.0	
234.0	CARBONDALE		SHALE	6.0	150.0	
228.0	CARBONDALE		SHALE	6.0	156.0	
222.0	CARBONDALE	SPRINGFIELD	COAL	4.2	162.0	
217.8	CARBONDALE		UNDERCLAY	1.3	166.2	

MAPID: 07700111000C VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 28 QUARTERS/FOOTAGES: NE SE NE
 QUADRANGLE: ELKVILLE LONGITUDE: -89.208054 GEOLOGIST:
 CONFIDENTIAL: N LATITUDE: 37.886995 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 384.0 LOGGED (FT.): 168.0 LOG TYPE:
 SOURCE: HALLIDAY 0007 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
279.0	CARBONDALE	HERRIN	COAL	14.5	105.0	
222.0	CARBONDALE	SPRINGFIELD	COAL	4.2	162.0	

MAPID: 07700889000C **VERSION:** 1 **PROJECT:** ROOF STUDY
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 28 **QUARTERS/FOOTAGES:** SE NE SW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.217682 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.88163 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 382.0 **LOGGED (FT.):** 134.3 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER COAL CO. R-60-8 **WELL TYPE:** Coal Test
COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
342.0	CARBONDALE	ENERGY	GRAY SHALE	19.0	40.0	
323.0	CARBONDALE	ENERGY	DARK GRAY SHALE	48.8	59.0	
274.2	CARBONDALE	ENERGY	GRAY SHALE	0.8	107.8	
273.4	CARBONDALE	ENERGY	DARK GRAY SHALE	17.4	108.6	
256.0	CARBONDALE	HERRIN	COAL	8.3	126.0	

MAPID: 07790031000C **VERSION:** 1 **PROJECT:** LUMP
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 28 **QUARTERS/FOOTAGES:** SW NW NE
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.214151 **GEOLOGIST:** NORTH
CONFIDENTIAL: N **LATITUDE:** 37.890122 **DATE COLLECTED:** 6 / 1 / 1982
SURFACE ELEVATION (FT.): 390.0 **LOGGED (FT.):** 165.0 **LOG TYPE:** Drillers Log
SOURCE: CONSOLIDATION COAL CO. R3241 **WELL TYPE:** Coal Test
COMMENT: PERMIT 76; BURNING STAR #5

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	PLEISTOCENE		CLAY	19.5	0.0	BROWN
370.5	PLEISTOCENE		SAND	4.0	19.5	BROWN
366.5	MODESTO		GRAY SHALE	4.3	23.5	
362.2	MODESTO	PIASA	LIMESTONE	5.1	27.8	GRAY
357.1	MODESTO		DARK SHALE	1.1	32.9	
356.0	CARBONDALE	DANVILLE	COAL	2.3	34.0	
353.7	CARBONDALE		SANDY SHALE	11.2	36.3	
342.5	CARBONDALE		SANDY DARK SHALE	6.8	47.5	
335.7	CARBONDALE		SANDSTONE	8.6	54.3	GRAY
327.1	CARBONDALE	BRERETON	LIMESTONE	5.6	62.9	GRAY
321.5	CARBONDALE	ENERGY	SANDY DARK SHALE	27.4	68.5	
294.1	CARBONDALE	ENERGY	SHALY SANDSTONE	49.9	95.9	GRAY
244.2	CARBONDALE	HERRIN	COAL	12.1	145.8	
232.1	CARBONDALE		UNDERCLAY	1.6	157.9	
230.5	CARBONDALE	HIGGINSVILLE	LIMESTONE	5.5	159.5	BROWN

MAPID: 07700112000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 29 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: ELKVILLE LONGITUDE: -89.236169 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.883601 DATE COLLECTED:
SURFACE ELEVATION (FT.): 403.0 LOGGED (FT.): 192.0 LOG TYPE:
SOURCE: HALLIDAY 0003 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
265.0	CARBONDALE	HERRIN	COAL	8.5	138.0
216.0	CARBONDALE	SPRINGFIELD	COAL	4.2	187.0

MAPID: 07700112000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 29 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: ELKVILLE LONGITUDE: -89.236169 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.883601 DATE COLLECTED:
SURFACE ELEVATION (FT.): 403.0 LOGGED (FT.): 146.5 LOG TYPE: Drillers Log
SOURCE: WELL TYPE: Coal Test
COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
384.1	MODESTO	PIASA	LIMESTONE	7.0	18.9
377.1	MODESTO		BLACK SHALE	3.5	25.9
373.6	CARBONDALE	DANVILLE	COAL	2.2	29.4
371.4	CARBONDALE	ALLENBY	ROCK	48.7	31.6
322.7	CARBONDALE		COAL	1.2	80.3
321.6	CARBONDALE		CLAYSTONE	8.6	81.4
313.0	CARBONDALE	BANKSTON FORK	LIMESTONE	13.0	90.0
300.0	CARBONDALE	BRERETON	GRAY SHALE	23.0	103.0
277.0	CARBONDALE		LIMESTONE	7.0	126.0
270.0	CARBONDALE		BLACK SHALE	5.0	133.0
265.0	CARBONDALE	HERRIN	COAL	8.5	138.0

MAPID: 07700112000C VERSION: 3

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 29

QUARTERS/FOOTAGES: NE NE SW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.236169

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.883601

DATE COLLECTED:

SURFACE ELEVATION (FT.): 403.0

LOGGED (FT.): 192.0

LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 3

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
403.0	PLEISTOCENE		UNCONSOLIDATED	31.0	0.0
372.0	MODESTO		SANDSTONE	22.0	31.0
350.0	MODESTO		CLAYSTONE	2.0	53.0
348.0	MODESTO	PIASA	LIMESTONE	7.0	55.0
341.0	MODESTO		SHALE	3.5	62.0
337.5	CARBONDALE	DANVILLE	COAL	2.2	65.5
335.3	CARBONDALE		UNDERCLAY	1.3	67.7
334.0	CARBONDALE		SHALE	7.0	69.0
327.0	CARBONDALE		SHALE	0.8	76.0
326.2	CARBONDALE	ALLENBY	SHALE/COAL	4.6	76.8
321.6	CARBONDALE		UNDERCLAY	8.6	81.4
313.0	CARBONDALE	BANKSTON FORK	LIMESTONE	13.0	90.0
300.0	CARBONDALE		SHALE	10.0	103.0
290.0	CARBONDALE		SHALE	13.0	113.0
277.0	CARBONDALE	BRERETON	LIMESTONE	7.0	126.0
270.0	CARBONDALE	ANNA	SHALE	5.0	133.0
265.0	CARBONDALE	HERRIN	COAL	8.5	138.0
256.5	CARBONDALE		UNDERCLAY	1.5	146.5
255.0	CARBONDALE		LIMESTONE	12.0	148.0
243.0	CARBONDALE		SANDSTONE	5.0	160.0
238.0	CARBONDALE		SHALE	8.0	165.0
230.0	CARBONDALE		SHALE	3.5	173.0
226.5	CARBONDALE	ST. DAVID	LIMESTONE	6.0	176.5
220.5	CARBONDALE	TURNER MINE	SHALE	2.0	182.5
218.5	CARBONDALE	DYKERSBURG	SHALE	2.7	184.5
215.8	CARBONDALE	SPRINGFIELD	COAL	4.2	187.2
211.7	CARBONDALE		UNDERCLAY	0.7	191.3

TOTAL THICKNESS OF SHALE
= 3FT.,3INCHES

MAPID: 07700114000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 29

QUARTERS/FOOTAGES: NE NE NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.235965

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.89087

DATE COLLECTED:

SURFACE ELEVATION (FT.): 410.0

LOGGED (FT.): 199.8

LOG TYPE: Drillers Log

SOURCE: MUDDY VALLEY MINING CO. 1

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0	
380.0	MODESTO		SANDSTONE	12.0	30.0	
368.0	MODESTO		SHALE	16.0	42.0	
352.0	MODESTO		LIMESTONE	0.5	58.0	
351.5	MODESTO	DEGRAFF	COAL	0.1	58.5	
351.4	MODESTO		UNDERCLAY	2.4	58.6	
349.0	MODESTO	PIASA	LIMESTONE	7.0	61.0	
342.0	MODESTO		SHALE	2.8	68.0	BLUE
339.2	CARBONDALE	DANVILLE	COAL	2.2	70.8	
337.0	CARBONDALE		UNDERCLAY	1.0	73.0	
336.0	CARBONDALE		SHALE	4.0	74.0	
332.0	CARBONDALE		SHALE	4.5	78.0	BLUE
327.5	CARBONDALE	ALLENBY	COAL/CLAYSTONE	4.0	82.5	THICKNESS OF UNDERCLAY = 3FT.
323.5	CARBONDALE		UNDERCLAY	8.5	86.5	
315.0	CARBONDALE	BANKSTON FORK	LIMESTONE	14.0	95.0	
301.0	CARBONDALE		SHALE	19.0	109.0	
282.0	CARBONDALE	BRERETON	LIMESTONE	4.0	128.0	
278.0	CARBONDALE	ANNA	SHALE	5.0	132.0	
273.0	CARBONDALE	ENERGY	SHALE	10.5	137.0	
262.5	CARBONDALE	HERRIN	COAL	8.5	147.5	
254.0	CARBONDALE		UNDERCLAY	1.0	156.0	
253.0	CARBONDALE		LIMESTONE	13.0	157.0	
240.0	CARBONDALE		SANDSTONE	5.0	170.0	
235.0	CARBONDALE		SHALE	10.0	175.0	
225.0	CARBONDALE		SHALE	4.0	185.0	
221.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	189.0	
219.0	CARBONDALE		SHALE	2.5	191.0	BLUE
216.5	CARBONDALE	SPRINGFIELD	COAL	5.8	193.5	
210.7	CARBONDALE		UNDERCLAY	0.5	199.3	

MAPID: 07700114000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 29 QUARTERS/FOOTAGES: NE NE NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.235965 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.89087 DATE COLLECTED:

SURFACE ELEVATION (FT.): 402.0 LOGGED (FT.): 200.0 LOG TYPE:

SOURCE: HALLIDAY 0001 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
254.0	CARBONDALE	HERRIN	COAL	8.5	148.0	
208.0	CARBONDALE	SPRINGFIELD	COAL	5.8	194.0	

MAPID: 07700115000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 29 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: ELKVILLE LONGITUDE: -89.226762 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.89081 DATE COLLECTED:

SURFACE ELEVATION (FT.): 396.0 LOGGED (FT.): 201.0 LOG TYPE:

SOURCE: HALLIDAY 0005 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
249.0	CARBONDALE	HERRIN	COAL	10.7	147.0	
200.0	CARBONDALE	SPRINGFIELD	COAL	5.0	196.0	

MAPID: 07700116000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 29 **QUARTERS/FOOTAGES:** NE NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.237142 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.88997 **DATE COLLECTED:** 0 / 0 / 1885
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 161.7 **LOG TYPE:** Drillers Log
SOURCE: HALLIDAY ESTATE **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	37.0	0.0	
358.0	MODESTO		SANDSTONE	7.0	37.0	
351.0	MODESTO		SHALE	15.0	44.0	
336.0	MODESTO		SHALE	1.8	59.0	
334.2	MODESTO	DEGRAFF	COAL	0.1	60.8	
334.2	MODESTO		UNDERCLAY	2.4	60.8	
331.7	MODESTO	PIASA	LIMESTONE	7.0	63.3	
324.7	MODESTO		SHALE	4.0	70.3	
320.7	CARBONDALE	DANVILLE	COAL	2.2	74.3	
318.6	CARBONDALE		UNDERCLAY	0.8	76.4	
317.8	CARBONDALE		SHALE	4.0	77.2	
313.8	CARBONDALE		SHALE	4.5	81.2	BLUE
309.3	CARBONDALE	ALLENBY	COAL/CLAYSTONE	4.3	85.7	UNDERCLAY THICKNESS 3FT AND 1.5INCHES
305.0	CARBONDALE		UNDERCLAY	8.8	90.0	
296.2	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	98.8	
292.2	CARBONDALE	BANKSTON FORK	SHALE	2.8	102.8	
289.3	CARBONDALE	BANKSTON FORK	LIMESTONE	8.3	105.7	
281.0	CARBONDALE		SHALE	18.0	114.0	BLUE
263.0	CARBONDALE	BRERETON	LIMESTONE	4.0	132.0	
259.0	CARBONDALE		SHALE	7.0	136.0	
252.0	CARBONDALE		SHALE	9.5	143.0	
242.5	CARBONDALE	HERRIN	COAL	9.2	152.5	

MAPID: 07700117000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 29

QUARTERS/FOOTAGES: NE NE NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.235965

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.89087

DATE COLLECTED:

SURFACE ELEVATION (FT.): 410.0

LOGGED (FT.): 1379.0

LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 10

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0	PLEISTOCENE		UNCONSOLIDATED	26.0	0.0	
384.0	MODESTO		SANDSTONE	14.0	26.0	
370.0	MODESTO		SHALE	16.0	40.0	
354.0	MODESTO		LIMESTONE	0.3	56.0	
353.7	MODESTO	DEGRAFF	COAL	0.2	56.3	
353.5	MODESTO		UNDERCLAY	2.5	56.5	
351.0	MODESTO	PIASA	LIMESTONE	6.0	59.0	
345.0	MODESTO		SHALE	6.0	65.0	BLUE
339.0	CARBONDALE	DANVILLE	COAL	2.3	71.0	
336.7	CARBONDALE		SANDSTONE	1.5	73.3	
335.2	CARBONDALE		UNDERCLAY	4.3	74.8	
331.0	CARBONDALE		SHALE	4.5	79.0	
326.5	CARBONDALE		SHALE	4.5	83.5	
322.0	CARBONDALE		COAL	1.0	88.0	
321.0	CARBONDALE		UNDERCLAY	8.0	89.0	
313.0	CARBONDALE		LIMESTONE	14.5	97.0	
298.5	CARBONDALE		SHALE	22.0	111.5	
276.5	CARBONDALE	BRERETON	LIMESTONE	7.5	133.5	
269.0	CARBONDALE	ANNA	SHALE	5.0	141.0	
264.0	CARBONDALE	ENERGY	SHALE	3.5	146.0	
260.5	CARBONDALE	HERRIN	COAL	8.5	149.5	
252.0	CARBONDALE		UNDERCLAY	1.0	158.0	
251.0	CARBONDALE		LIMESTONE	6.0	159.0	
245.0	CARBONDALE		SHALE	9.0	165.0	
236.0	CARBONDALE		SHALE	5.0	174.0	
231.0	CARBONDALE	ST. DAVID	LIMESTONE	3.0	179.0	
228.0	CARBONDALE	TURNER MINE	SHALE	4.5	182.0	
223.5	CARBONDALE	SPRINGFIELD	COAL	4.5	186.5	
219.0	CARBONDALE		UNDERCLAY	1.0	191.0	
218.0	CARBONDALE		SHALE	20.0	192.0	
198.0	CARBONDALE		SHALE	37.0	212.0	
161.0	CARBONDALE		LIMESTONE	1.0	249.0	
160.0	CARBONDALE	EXCELLO	SHALE	3.5	250.0	
156.5	CARBONDALE	HOUCHIN CREEK	COAL	2.0	253.5	
154.5			UNDERCLAY	3.5	255.5	
151.0			SHALE	7.0	259.0	
144.0			SHALE	22.0	266.0	
122.0			SANDSTONE	25.0	288.0	
97.0			SHALE	2.0	313.0	

95.0	SHALE	8.0	315.0	MURPHYSBORO - CADY
87.0	LIMESTONE	1.0	323.0	
86.0	SHALE	3.0	324.0	
83.0	LIMESTONE	1.0	327.0	
82.0	COAL	0.5	328.0	
81.5	UNDERCLAY	1.5	328.5	
80.0	SHALE	5.0	330.0	
75.0	SANDSTONE	23.0	335.0	
52.0	SHALE	21.0	358.0	
31.0	SHALE	3.5	379.0	
27.5	COAL	1.8	382.5	
25.7	SHALE	11.7	384.3	
14.0	SHALE	8.5	396.0	
5.5	COAL	2.3	404.5	
3.2	SHALE	33.3	406.8	
-30.0	SANDSTONE	34.5	440.0	
-64.5	COAL	0.5	474.5	
-65.0	SANDSTONE	4.0	475.0	
-69.0	SHALE	4.0	479.0	
-73.0	LIMESTONE	1.5	483.0	
-74.5	CLAYSTONE	3.5	484.5	
-78.0	SHALE	6.0	488.0	
-84.0	SHALE	7.0	494.0	
-91.0	LIMESTONE	1.0	501.0	
-92.0	SHALE	37.5	502.0	
-129.5	COAL	0.5	539.5	
-130.0	UNDERCLAY	2.0	540.0	
-132.0	SHALE	1.0	542.0	
-133.0	SHALE	22.0	543.0	
-155.0	SHALE	18.0	565.0	
-173.0	SHALE	6.0	583.0	
-179.0	SHALE	38.0	589.0	
-217.0	SANDSTONE	17.0	627.0	
-234.0	SHALE	37.0	644.0	
-271.0	SANDSTONE	87.0	681.0	
-358.0	SHALY SANDSTONE	5.0	768.0	
-363.0	SANDSTONE	7.0	773.0	
-370.0	SHALE	31.0	780.0	
-401.0	SANDSTONE	14.0	811.0	
-415.0	SHALE	4.0	825.0	
-419.0	SHALY SANDSTONE	147.0	829.0	
-566.0	COAL	0.3	976.0	
-566.3	SHALE	8.8	976.3	
-575.0	SANDSTONE	8.0	985.0	
-583.0	SHALE	10.0	993.0	
-593.0	SANDSTONE	40.0	1003.0	
-633.0	SHALE	17.0	1043.0	
-650.0	COAL	0.2	1060.0	

-650.2	SHALE	2.8	1060.2	
-653.0	SHALE	7.0	1063.0	
-660.0	SANDSTONE	3.0	1070.0	
-663.0	SHALE	10.0	1073.0	
-673.0	LIMESTONE	17.0	1083.0	
-690.0	SHALE	15.0	1100.0	
-705.0	LIMESTONE	30.5	1115.0	
-735.5	CLAYSTONE	1.5	1145.5	
-737.0	SHALE	8.0	1147.0	
-745.0	SHALE	2.0	1155.0	RED
-747.0	SHALE	5.0	1157.0	
-752.0	SHALE	17.0	1162.0	
-769.0	COAL	0.2	1179.0	
-769.2	SHALE	29.8	1179.2	
-799.0	SANDSTONE	14.0	1209.0	
-813.0	SHALE	10.0	1223.0	
-823.0	LIMESTONE	7.0	1233.0	
-830.0	SHALE	15.0	1240.0	
-845.0	SANDSTONE	7.0	1255.0	
-852.0	SHALE	11.0	1262.0	
-863.0	LIMESTONE	10.0	1273.0	
-873.0	SHALE	15.0	1283.0	
-888.0	LIMESTONE	3.0	1298.0	
-891.0	SANDSTONE	13.0	1301.0	
-904.0	SHALE	2.0	1314.0	
-906.0	SANDSTONE	5.0	1316.0	
-911.0	SANDSTONE	2.0	1321.0	SHALE PARTINGS
-913.0	SANDSTONE	15.0	1323.0	
-928.0	SHALE	27.5	1338.0	
-955.5	LIMESTONE	2.5	1365.5	
-958.0	SHALE	4.0	1368.0	
-962.0	UNCLASSIFIED	7.0	1372.0	COULD NOT LIFT CORE

MAPID: 07700117000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 29 **QUARTERS/FOOTAGES:** NE NE NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.235965 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.89087 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 410.0 **LOGGED (FT.):** 1379.0 **LOG TYPE:**
SOURCE: HALLIDAY 0010 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
260.0	CARBONDALE	HERRIN	COAL	8.5	150.0
223.0	CARBONDALE	SPRINGFIELD	COAL	4.5	187.0

MAPID: 07700118000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 29

QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.242869

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.890916

DATE COLLECTED:

SURFACE ELEVATION (FT.): 418.0

LOGGED (FT.): 166.8

LOG TYPE: Drillers Log

SOURCE: MUDDY VALLEY MINING CO. 4

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
418.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
398.0	MODESTO		SHALE	12.0	20.0
386.0	MODESTO		CLAYSTONE	3.0	32.0
383.0	MODESTO	PIASA	LIMESTONE	7.5	35.0
375.5	MODESTO		SHALE	2.5	42.5
373.0	MODESTO		SHALE	0.8	45.0
372.2	CARBONDALE	DANVILLE	COAL	2.2	45.8
370.0	CARBONDALE		UNDERCLAY	2.0	48.0
368.0	CARBONDALE		SANDSTONE	4.0	50.0
364.0	CARBONDALE		SHALE	3.5	54.0
360.5	CARBONDALE	ALLENBY	SHALE/COAL	4.2	57.5
356.3	CARBONDALE		UNDERCLAY	7.3	61.7
349.0	CARBONDALE	BANKSTON FORK	LIMESTONE	13.0	69.0
336.0	CARBONDALE		SHALE	8.0	82.0
328.0	CARBONDALE		SHALE	12.0	90.0
316.0	CARBONDALE	BRERETON	LIMESTONE	5.0	102.0
311.0	CARBONDALE	ANNA	SHALE	5.0	107.0
306.0	CARBONDALE	ENERGY	SHALE	6.5	112.0
299.5	CARBONDALE	HERRIN	COAL	7.8	118.5
291.7	CARBONDALE		UNDERCLAY	1.7	126.3
290.0	CARBONDALE		LIMESTONE	13.0	128.0
277.0	CARBONDALE		SANDSTONE	6.0	141.0
271.0	CARBONDALE		SHALE	11.0	147.0
260.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	158.0
259.0	CARBONDALE	TURNER MINE	SHALE	2.0	159.0
257.0	CARBONDALE		PYRITE	0.3	161.0
256.7	CARBONDALE	SPRINGFIELD	COAL	4.7	161.3
252.0	CARBONDALE		UNDERCLAY	0.8	166.0

TOTAL THICKNESS OF SHALE
= 2FT.,11INCHES

MAPID: 07700118000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 29

QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.242869

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.890916

DATE COLLECTED:

SURFACE ELEVATION (FT.): 418.0

LOGGED (FT.): 167.0

LOG TYPE:

SOURCE: HALLIDAY 0004

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
299.0	CARBONDALE	HERRIN	COAL	7.8	119.0	
257.0	CARBONDALE	SPRINGFIELD	COAL	4.7	161.0	

MAPID: 07700121000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 29

QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.236117

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.885418

DATE COLLECTED:

SURFACE ELEVATION (FT.): 410.0

LOGGED (FT.): 171.9

LOG TYPE: Drillers Log

SOURCE: MUDDY VALLEY MINING CO. 2

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0	
381.0	MODESTO		SANDSTONE	6.0	29.0	
375.0	MODESTO		SHALE	2.5	35.0	
372.5	MODESTO	DEGRAFF	COAL	0.3	37.5	
372.2	MODESTO		UNDERCLAY	2.3	37.8	
370.0	MODESTO	PIASA	LIMESTONE	7.0	40.0	
363.0	MODESTO		SHALE	2.8	47.0	
360.2	CARBONDALE	DANVILLE	COAL	2.3	49.8	
358.0	CARBONDALE		UNDERCLAY	1.0	52.0	
357.0	CARBONDALE		SHALE	1.0	53.0	
356.0	CARBONDALE		SHALE	5.0	54.0	
351.0	CARBONDALE	ALLENBY	SHALE/COAL	4.4	59.0	TOTAL THICKNESS OF SHALE = 3FT., 2INCHES
346.6	CARBONDALE		UNDERCLAY	7.0	63.4	
339.6	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	70.4	
334.6	CARBONDALE	BANKSTON FORK	SHALE	1.0	75.4	
333.6	CARBONDALE	BANKSTON FORK	LIMESTONE	8.0	76.4	
325.6	CARBONDALE		SHALE	22.5	84.4	
303.1	CARBONDALE	BRERETON	LIMESTONE	3.5	106.9	
299.6	CARBONDALE	ANNA	SHALE	6.0	110.4	
293.6	CARBONDALE	ENERGY	SHALE	1.0	116.4	WHITE
292.6	CARBONDALE	HERRIN	COAL	9.1	117.4	
283.5	CARBONDALE		UNDERCLAY	1.9	126.5	
281.6	CARBONDALE		LIMESTONE	13.0	128.4	
268.6	CARBONDALE		SANDSTONE	6.0	141.4	
262.6	CARBONDALE		SHALE	5.0	147.4	
257.6	CARBONDALE		SHALE	9.0	152.4	
248.6	CARBONDALE	ST. DAVID	LIMESTONE	1.5	161.4	
247.1	CARBONDALE	TURNER MINE	SHALE	4.0	162.9	
243.1	CARBONDALE	SPRINGFIELD	COAL	5.0	166.9	

MAPID: 07700121000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 29

QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: ELKVILLE

LONGITUDE: -89.236117

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.885418

DATE COLLECTED:

SURFACE ELEVATION (FT.): 410.0

LOGGED (FT.): 172.0

LOG TYPE:

SOURCE: HALLIDAY 0002

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
293.0	CARBONDALE	HERRIN	COAL	9.1	117.0	
243.0	CARBONDALE	SPRINGFIELD	COAL	5.0	167.0	

MAPID: 07700122000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 29

QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.226762

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.89081

DATE COLLECTED:

SURFACE ELEVATION (FT.): 399.0

LOGGED (FT.): 176.3

LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 31

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
399.0	PLEISTOCENE		UNCONSOLIDATED	34.0	0.0	
365.0	PLEISTOCENE		SANDSTONE	6.0	34.0	BROWN
359.0	PLEISTOCENE		SANDSTONE	8.5	40.0	
350.5	PLEISTOCENE		SHALE	0.3	48.5	DARK
350.2	CARBONDALE	ALLENBY	COAL	0.8	48.8	
349.5	CARBONDALE		UNDERCLAY	4.5	49.5	
345.0	CARBONDALE	BANKSTON FORK	LIMESTONE	7.0	54.0	
338.0	CARBONDALE	BANKSTON FORK	CLAYSTONE	1.0	61.0	
337.0	CARBONDALE	BANKSTON FORK	LIMESTONE	7.0	62.0	
330.0	CARBONDALE		SHALE	2.0	69.0	
328.0	CARBONDALE		SHALE	12.0	71.0	
316.0	CARBONDALE	BRERETON	LIMESTONE	2.5	83.0	
313.5	CARBONDALE	ANNA	SHALE	3.5	85.5	
310.0	CARBONDALE	ENERGY	SHALE	4.0	89.0	DARK
306.0	CARBONDALE	ENERGY	SHALE	8.0	93.0	
298.0	CARBONDALE	ENERGY	SHALE	19.8	101.0	
278.2	CARBONDALE	HERRIN	COAL	9.8	120.8	
268.5	CARBONDALE		LIMESTONE	12.8	130.5	
255.7	CARBONDALE		CLAYSTONE	0.8	143.3	
255.0	CARBONDALE		SHALE	10.0	144.0	
245.0	CARBONDALE		SHALE	6.3	154.0	
238.7	CARBONDALE	ST. DAVID	LIMESTONE	1.0	160.3	
237.7	CARBONDALE	TURNER MINE	SHALE	3.8	161.3	
234.0	CARBONDALE		SHALE	5.5	165.0	
228.5	CARBONDALE	SPRINGFIELD	COAL	4.8	170.5	
223.7	CARBONDALE		UNDERCLAY	1.0	175.3	

MAPID: 07700122000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 29

QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: ELKVILLE

LONGITUDE: -89.226762

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.89081

DATE COLLECTED:

SURFACE ELEVATION (FT.): 399.0

LOGGED (FT.): 176.0

LOG TYPE:

SOURCE: HALLIDAY 0031

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
278.0	CARBONDALE	HERRIN	COAL	9.8	121.0	
228.0	CARBONDALE	SPRINGFIELD	COAL	4.8	171.0	

MAPID: 07700124000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 29 QUARTERS/FOOTAGES: NW

QUADRANGLE: ELKVILLE LONGITUDE: -89.239489 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.888167 DATE COLLECTED: 0 / 0 / 1888

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 452.8 LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0	
375.0	MODESTO		SANDSTONE	12.0	30.0	
363.0	MODESTO		SHALE	16.0	42.0	
347.0	MODESTO		UNCLASSIFIED	0.5	58.0	
346.5	MODESTO	DEGRAFF	COAL	0.1	58.5	
346.4	MODESTO		UNDERCLAY	2.4	58.6	
344.0	MODESTO	PIASA	LIMESTONE	7.0	61.0	
337.0	MODESTO		SHALE	2.8	68.0	BLUE
334.2	CARBONDALE	DANVILLE	COAL	2.2	70.8	
332.0	CARBONDALE		UNDERCLAY	1.0	73.0	
331.0	CARBONDALE		SHALE	4.0	74.0	
327.0	CARBONDALE		SHALE	4.5	78.0	BLUE
322.5	CARBONDALE	ALLENBY	COAL/CLAYSTONE	4.0	82.5	UNDERCLAY THICKNESS 3 FT.
318.5	CARBONDALE		UNDERCLAY	8.5	86.5	
309.9	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	95.1	
305.9	CARBONDALE		SHALE	9.0	99.1	
296.9	CARBONDALE	BRERETON	LIMESTONE	4.0	108.1	
292.9	CARBONDALE	ENERGY	SHALE	5.0	112.1	BLUE
287.9	CARBONDALE	ENERGY	SHALE	10.5	117.1	
277.4	CARBONDALE	HERRIN	COAL	8.5	127.6	
268.9	CARBONDALE		UNDERCLAY	1.0	136.1	
267.9	CARBONDALE		LIMESTONE	13.0	137.1	
254.9	CARBONDALE		SANDSTONE	5.0	150.1	
249.9	CARBONDALE		SHALE	10.0	155.1	
239.9	CARBONDALE		SHALE	4.0	165.1	
235.9	CARBONDALE	ST. DAVID	LIMESTONE	2.0	169.1	
233.9	CARBONDALE		SHALE	2.5	171.1	BLUE
231.4	CARBONDALE	SPRINGFIELD	COAL	4.3	173.6	
227.1	CARBONDALE		UNDERCLAY	1.2	177.9	
225.9	CARBONDALE		SHALE	24.0	179.1	
201.9	CARBONDALE		SHALE	32.0	203.1	
169.9	CARBONDALE	EXCELLO	SHALE	3.0	235.1	
166.9	CARBONDALE	HOUCHIN CREEK	COAL	1.9	238.1	
165.0			UNDERCLAY	4.3	240.0	
160.7			SHALE	4.5	244.3	
156.2			SHALE	2.0	248.8	
154.2			SHALE	28.0	250.8	
126.2			SANDSTONE	10.0	278.8	
116.2			SHALE	10.0	288.8	

106.2	SHALE	11.0	298.8	
95.2	LIMESTONE	1.0	309.8	
94.2	SHALE	4.0	310.8	
90.2	SHALE	3.0	314.8	
87.2	LIMESTONE	0.5	317.8	
86.7	COAL	0.6	318.3	
86.2	UNDERCLAY	1.4	318.8	
84.7	SHALE	7.5	320.3	
77.2	SANDSTONE	18.0	327.8	
59.2	SANDSTONE	18.0	345.8	BLACK
41.2	SHALE	3.2	363.8	
38.1	COAL	1.8	366.9	
36.2	SHALE	10.0	368.8	
26.2	SHALE	9.5	378.8	
16.7	COAL	2.0	388.3	MURPHYSBORO - CADY
14.7	SHALE	29.5	390.3	
-14.8	SANDSTONE	11.0	419.8	
-25.8	SANDSTONE	22.0	430.8	

MAPID: 07700124000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 29 **QUARTERS/FOOTAGES:** NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.239489 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.888167 **DATE COLLECTED:** 0 / 0 / 1988
SURFACE ELEVATION (FT.): 405.0 **LOGGED (FT.):** 453.0 **LOG TYPE:**
SOURCE: HALLIDAY 0001 **WELL TYPE:** Coal Test
COMMENT: EXACT LOCATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
277.0	CARBONDALE	HERRIN	COAL	8.5	128.0
231.0	CARBONDALE	SPRINGFIELD	COAL	4.3	174.0

MAPID: 07700354000C **VERSION:** 1 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 29 **QUARTERS/FOOTAGES:** SE NE NW
QUADRANGLE: ELKVILLE **LONGITUDE:** -89.236017 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.889053 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 407.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: JACKSON CC **WELL TYPE:** Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
256.0	CARBONDALE	HERRIN	COAL	8.5	151.0

MAPID: 07701575000C VERSION: 1 PROJECT: ROOF STUDY

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 30 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.256245 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.882834 DATE COLLECTED:

SURFACE ELEVATION (FT.): 436.0 LOGGED (FT.): 125.5 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER COAL CO BS-1-67-5 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
396.8	MODESTO	PIASA	LIMESTONE	7.5	39.2	
389.3	MODESTO		DARK GRAY SHALE	4.0	46.7	
385.3	CARBONDALE	DANVILLE	COAL	1.9	50.7	
383.4	CARBONDALE		SILTY SHALE	20.3	52.6	
363.1	CARBONDALE	ALLENBY	COAL	0.2	72.9	
363.0	CARBONDALE		SILTY SHALE	5.8	73.0	
357.1	CARBONDALE	BANKSTON FORK	LIMESTONE	0.1	78.9	UPPER BENCH
357.1	CARBONDALE	BANKSTON FORK	GRAY SHALE	1.0	78.9	SHALE PARTING
356.1	CARBONDALE	BANKSTON FORK	LIMESTONE	10.8	79.9	LOWER BENCH
345.3	CARBONDALE	LAWSON	SILTY SHALE	14.9	90.7	
330.4	CARBONDALE	CONANT	LIMESTONE	2.6	105.6	
327.8	CARBONDALE	BRERETON	CALCAREOUS SHALE	7.1	108.2	
320.7	CARBONDALE	ANNA	BLACK SHALE	2.8	115.3	
318.0	CARBONDALE	HERRIN	COAL	7.5	118.0	

MAPID: 07700125000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: DE SOTO LONGITUDE: -89.245823 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.869111 DATE COLLECTED: 8 / 28 / 1927

SURFACE ELEVATION (FT.): 399.0 LOGGED (FT.): 64.3 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 10 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
399.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
379.0			SHALE	5.0	20.0	
374.0			LIMESTONE	9.0	25.0	
365.0			SHALE	27.0	34.0	
338.0			SHALE	3.0	61.0	
335.0			SANDSTONE	0.3	64.0	

MAPID: 07700125000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: NE NE SE
QUADRANGLE: DE SOTO LONGITUDE: -89.245823 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.869111 DATE COLLECTED: 0 / 0 / 1927
SURFACE ELEVATION (FT.): 399.0 LOGGED (FT.): 64.0 LOG TYPE:
SOURCE: WESTERN CM0010 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED

MAPID: 07700126000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES:
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.254248 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.870093 DATE COLLECTED: 8 / 28 / 1926
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. 1 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
400.0			SMUT	2.0	20.0	
398.0			SHALE	10.5	22.0	
387.5			COAL	1.0	32.5	
386.5			LIMESTONE	10.0	33.5	
376.5			SHALE	21.5	43.5	

MAPID: 07700126000C VERSION: 2 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES:
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.254248 GEOLOGIST: BARGH,M
CONFIDENTIAL: N LATITUDE: 37.870093 DATE COLLECTED: 8 / 28 / 1926
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0			UNCONSOLIDATED	22.0	0.0	
398.0			LIMESTONE	10.5	22.0	CORRELATION UNCERTAIN
387.5			COAL	1.0	32.5	
386.5			ROCK	31.5	33.5	

MAPID: 07700127000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: SE NE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.255549 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.867387 DATE COLLECTED: 8 / 28 / 1926
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 69.0 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. 15 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
430.0	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0
413.0			SANDSTONE	4.9	17.0
408.1			LIMESTONE	8.1	21.9
400.0			SHALE	21.0	30.0
379.0			SHALE	5.0	51.0
374.0			SHALE	13.0	56.0

MAPID: 07700128000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: SW SW SW SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.263543 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.863404 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 52.0 LOG TYPE:
SOURCE: WESTERN CM0002 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
370.0	CARBONDALE	HERRIN	COAL	7.0	45.0

MAPID: 07700128000C VERSION: 2 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: SW SW SW SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.263543 GEOLOGIST: BARGH,M
CONFIDENTIAL: N LATITUDE: 37.863404 DATE COLLECTED: 8 / 28 / 1926
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
415.0			UNCONSOLIDATED	10.0	0.0
405.0			LIMESTONE	28.0	10.0
377.0			BLACK SHALE	7.0	38.0
370.0			COAL	7.0	45.0
363.0			UNDERCLAY	-	52.0

MAPID: 07700128000C VERSION: 3 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: SW SW SW SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.263543 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.863404 DATE COLLECTED: 8 / 28 / 1926
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. 2 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
415.0	PLEISTOCENE		CLAY	10.0	0.0	
405.0	CARBONDALE		SHALE	23.0	10.0	
382.0	CARBONDALE	BRERETON	LIMESTONE	5.0	33.0	
377.0	CARBONDALE	ANNA	SHALE	3.0	38.0	
374.0	CARBONDALE	ENERGY	SHALE	4.0	41.0	
370.0	CARBONDALE	HERRIN	COAL	7.0	45.0	
363.0	CARBONDALE		UNDERCLAY	-	52.0	NO THICKNESS GIVEN IN LOG

MAPID: 07700244500M VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: 500' S line, 1300' E line
QUADRANGLE: DE SOTO LONGITUDE: -89.249306 GEOLOGIST: BARGH,M
CONFIDENTIAL: N LATITUDE: 37.864163 DATE COLLECTED: 0 / 0 / 1936
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 74.0 LOG TYPE: Measured section
SOURCE: MINE NOTES-CRAIG C C WELL TYPE: Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			UNKNOWN	64.0	0.0	
-	CARBONDALE	HERRIN	COAL	8.0		

MAPID: 07701554000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: 3981' N line, 2285' E line
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.252662 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.866343 DATE COLLECTED:
SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 80.0 LOG TYPE: Drillers Log
SOURCE: TRUAX-TRAER COAL CO BS-1-67-1 WELL TYPE: Coal Test
COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
403.8	CARBONDALE	BANKSTON FORK	LIMESTONE	8.9	23.2	
394.8	CARBONDALE		DARK GRAY SHALE	23.3	32.2	
371.6	CARBONDALE	BRERETON	LIMESTONE	1.7	55.4	
369.9	CARBONDALE	ANNA	BLACK SHALE	2.5	57.1	
367.4	CARBONDALE	ENERGY	GRAY SHALE	12.4	59.6	
355.0	CARBONDALE	HERRIN	COAL	8.0	72.0	

MAPID: 07725252000C VERSION: 1

PROJECT: NCRDS16

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.263572

GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.86618

DATE COLLECTED:

SURFACE ELEVATION (FT.): 419.0 LOGGED (FT.): 61.0

LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES E-12

WELL TYPE: Coal Test

COMMENT: RAZORBACK MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	27.5		
391.5	PLEISTOCENE		ROCK	1.5	27.5	LS BOULDER
390.0	PLEISTOCENE		CLAY	17.2	29.0	
372.8	SHELBURN	BRERETON	LIMESTONE	3.5	46.2	
369.3	CARBONDALE	ANNA	BLACK SHALE	3.7	49.7	
365.6	CARBONDALE	HERRIN	COAL	7.4	53.4	
358.2	CARBONDALE		UNDERCLAY	0.2	60.8	

MAPID: 07725268000C VERSION: 1

PROJECT: NCRDS16

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.26256

GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.865362

DATE COLLECTED:

SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 65.0

LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES E-14

WELL TYPE: Coal Test

COMMENT: RAZORBACK MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	19.0		
401.0	PLEISTOCENE		ROCK	6.0	19.0	
395.0	PLEISTOCENE		CLAY	10.0	25.0	
385.0	SHELBURN		GRAY SHALE	6.0	35.0	
371.0	SHELBURN	BRERETON	LIMESTONE	4.5	49.0	
366.5	CARBONDALE	ANNA	BLACK SHALE	3.2	53.5	
363.3	CARBONDALE	HERRIN	COAL	7.0	56.7	
356.3	CARBONDALE		UNDERCLAY	1.3	63.7	

MAPID: 07725269000C VERSION: 1

PROJECT: NCRDS16

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.262305 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.867002 DATE COLLECTED:

SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 75.0 LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES E-16 WELL TYPE: Coal Test

COMMENT: RAZORBACK MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	49.0		
371.0	CARBONDALE	ANNA	BLACK SHALE	4.5	49.0	
366.5	CARBONDALE	ENERGY	GRAY SHALE	11.9	53.5	
354.6	CARBONDALE	HERRIN	COAL	7.2	65.4	
347.4	CARBONDALE		UNDERCLAY	2.4	72.6	

MAPID: 07725271000C VERSION: 1

PROJECT: NCRDS16

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.263572 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.86618 DATE COLLECTED:

SURFACE ELEVATION (FT.): 419.0 LOGGED (FT.): 74.0 LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES WELL TYPE: Coal Test

COMMENT: RAZORBACK MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	19.0		
400.0	SHELBURN		SHALE	1.5	19.0	BROWN WEATHERED
398.5	SHELBURN	BANKSTON FORK	LIMESTONE	10.4	20.5	
388.1	SHELBURN		GRAY SHALE	20.1	30.9	SANDY
368.0	SHELBURN	BRERETON	LIMESTONE	1.5	51.0	
366.5	CARBONDALE	ANNA	BLACK SHALE	6.5	52.5	
360.0	CARBONDALE	ENERGY	GRAY SHALE	5.5	59.0	
354.5	CARBONDALE	HERRIN	COAL	8.0	64.5	
346.5	CARBONDALE		UNDERCLAY	1.5	72.5	

MAPID: 07725272000C VERSION: 1 PROJECT: NCRDS16
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260469 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.865835 DATE COLLECTED:
SURFACE ELEVATION (FT.): 417.0 LOGGED (FT.): 66.0 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES E-19 WELL TYPE: Coal Test
COMMENT: RAZORBACK MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	36.0		
381.0	SHELBURN		GRAY SHALE	4.0	36.0	
377.0	SHELBURN	BRERETON	LIMESTONE	1.0	40.0	
376.0	CARBONDALE	ANNA	BLACK SHALE	5.0	41.0	
371.0	CARBONDALE	ENERGY	GRAY SHALE	10.9	46.0	
360.1	CARBONDALE	HERRIN	COAL	7.9	56.9	
352.2	CARBONDALE		UNDERCLAY	1.2	64.8	

MAPID: 07725273000C VERSION: 1 PROJECT: NCRDS16
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.259878 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.863771 DATE COLLECTED:
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES E-20 WELL TYPE: Coal Test
COMMENT: RAZORBACK MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	27.0		
403.0	CARBONDALE		GRAY SHALE	16.0	27.0	
387.0	CARBONDALE	ANNA	BLACK SHALE	5.5	43.0	
381.5	CARBONDALE	ENERGY	GRAY SHALE	11.6	48.5	
369.9	CARBONDALE	HERRIN	COAL	7.9	60.1	
362.0	CARBONDALE		UNDERCLAY	2.0	68.0	

MAPID: 07725274000C VERSION: 1

PROJECT: NCRDS16

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260484

GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.864621

DATE COLLECTED:

SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 66.0

LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES E-21

WELL TYPE: Coal Test

COMMENT: RAZORBACK MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	26.0		
394.0	CARBONDALE		SHALE	6.0	26.0	BROWN WEATHERED
388.0	CARBONDALE		GRAY SHALE	8.5	32.0	
379.5	CARBONDALE		DARK SHALE	1.0	40.5	
378.5	CARBONDALE	ANNA	BLACK SHALE	4.5	41.5	
374.0	CARBONDALE	ENERGY	GRAY SHALE	11.0	46.0	
363.0	CARBONDALE	HERRIN	COAL	7.8	57.0	
355.2	CARBONDALE		UNDERCLAY	1.2	64.8	

MAPID: 07725276000C VERSION: 1

PROJECT: NCRDS16

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.261006

GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.863862

DATE COLLECTED:

SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 64.0

LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES E-23

WELL TYPE: Coal Test

COMMENT: RAZORBACK MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	16.0		
404.0	SHELBURN		UNDERCLAY & LIMESTONE	2.0	16.0	
402.0	SHELBURN		BROWN SHALE	1.0	18.0	
401.0	SHELBURN		GRAY SHALE	19.0	19.0	
382.0	SHELBURN	BRERETON	LIMESTONE	1.0	38.0	
381.0	CARBONDALE	ANNA	BLACK SHALE	5.0	39.0	
376.0	CARBONDALE	ENERGY	GRAY SHALE	10.6	44.0	
365.4	CARBONDALE	HERRIN	COAL	7.4	54.6	
358.0	CARBONDALE		UNDERCLAY	2.0	62.0	

MAPID: 07725277000C VERSION: 1

PROJECT: NCRDS16

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.262136

GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.863815

DATE COLLECTED:

SURFACE ELEVATION (FT.): 412.0 LOGGED (FT.): 63.0

LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES E-24

WELL TYPE: Coal Test

COMMENT: RAZORBACK MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		CLAY	20.0	
392.0	SHELBURN		GRAY SHALE	26.4	20.0
365.6	SHELBURN	BRERETON	LIMESTONE	5.1	46.4
360.5	CARBONDALE	ANNA	BLACK SHALE	3.5	51.5
357.0	CARBONDALE	HERRIN	COAL	7.3	55.0
349.7	CARBONDALE		UNDERCLAY	0.7	62.3

MAPID: 07725278000C VERSION: 1

PROJECT: NCRDS16

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258876

GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.866366

DATE COLLECTED: 1 / 5 / 1999

SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 80.0

LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES R1-1-99

WELL TYPE: Coal Test

COMMENT: RZRBK MIN W/CHEM ANALYSIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		CLAY	20.0	
400.0	SHELBURN	BANKSTON FORK	LIMESTONE	9.0	20.0
391.0	SHELBURN		SANDY DARK SHALE	2.0	29.0
389.0	SHELBURN		DARK SHALE	18.0	31.0
371.0	CARBONDALE	ANNA	BLACK SHALE	5.0	49.0
366.0	CARBONDALE	ENERGY	GRAY SHALE	14.3	54.0
351.7	CARBONDALE	HERRIN	COAL	8.0	68.3
343.8	CARBONDALE		UNDERCLAY	0.4	76.2
343.4	CARBONDALE		CALCAREOUS SHALE	3.4	76.6

MAPID: 07725279000C VERSION: 1

PROJECT: NCRDS16

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.25781 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.865735 DATE COLLECTED: 1 / 6 / 1999

SURFACE ELEVATION (FT.): 421.0 LOGGED (FT.): 78.0 LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES R2-1-99 WELL TYPE: Coal Test

COMMENT: RZRBK MIN W/CHEM ANALYSIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	22.0		
399.0	SHELBURN	BANKSTON FORK	LIMESTONE	10.0	22.0	
389.0	SHELBURN		DARK SHALE	21.5	32.0	
367.5	SHELBURN	BRERETON	LIMESTONE	1.7	53.5	
365.8	CARBONDALE	ANNA	BLACK SHALE	6.8	55.2	
359.0	CARBONDALE	ENERGY	GRAY SHALE	5.1	62.0	
353.9	CARBONDALE	HERRIN	COAL	7.3	67.1	
346.6	CARBONDALE		UNDERCLAY	0.1	74.4	
346.5	CARBONDALE		CALCAREOUS SHALE	3.6	74.5	

MAPID: 07725280000C VERSION: 1

PROJECT: NCRDS16

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258375 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.864899 DATE COLLECTED: 1 / 6 / 1999

SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 71.0 LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES R3-1-99 WELL TYPE: Coal Test

COMMENT: RZRBK MIN W/CHEM ANALYSIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	18.5		
406.5	PLEISTOCENE		ROCK	2.0	18.5	
404.5	PLEISTOCENE		CLAY	5.5	20.5	
399.0	SHELBURN		BROWN SHALE	7.0	26.0	
392.0	SHELBURN		DARK SHALE	7.0	33.0	
385.0	SHELBURN	BRERETON	LIMESTONE	2.5	40.0	
382.5	CARBONDALE	ANNA	BLACK SHALE	4.5	42.5	
378.0	CARBONDALE	ENERGY	GRAY SHALE	14.5	47.0	
363.5	CARBONDALE	HERRIN	COAL	6.8	61.5	
356.7	CARBONDALE		UNDERCLAY	0.7	68.3	
356.0	CARBONDALE		CALCAREOUS SHALE	2.0	69.0	

MAPID: 07725281000C VERSION: 1

PROJECT: NCRDS16

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.259504

GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.865429

DATE COLLECTED: 1 / 6 / 1999

SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 70.0

LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES R4-1-99

WELL TYPE: Coal Test

COMMENT: RZRBK MIN W/CHEM ANALYSIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		CLAY	25.0	
395.0	SHELBURN		GRAY SHALE	5.0	25.0
390.0	SHELBURN		DARK SHALE	12.0	30.0
378.0	CARBONDALE	ANNA	BLACK SHALE	5.0	42.0
373.0	CARBONDALE	ENERGY	GRAY SHALE	11.4	47.0
361.6	CARBONDALE	HERRIN	COAL	7.9	58.4
353.7	CARBONDALE		UNDERCLAY	1.0	66.3
352.7	CARBONDALE		CALCAREOUS SHALE	2.7	67.3

MAPID: 07725282000C VERSION: 1

PROJECT: NCRDS16

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.259221

GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.863664

DATE COLLECTED:

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 72.0

LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES R5-1-99

WELL TYPE: Coal Test

COMMENT: RZRBK MIN W/CHEM ANALYSIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
430.0	PLEISTOCENE		CLAY	24.0	0.0
406.0	SHELBURN		GRAY SHALE	4.0	24.0
402.0	SHELBURN		DARK SHALE	12.5	28.0
389.5	CARBONDALE	ANNA	BLACK SHALE	4.5	40.5
385.0	CARBONDALE	ENERGY	GRAY SHALE	17.0	45.0
368.0	CARBONDALE	HERRIN	COAL	8.0	62.0
360.1	CARBONDALE		UNDERCLAY	1.0	69.9
359.0	CARBONDALE		CALCAREOUS SHALE	1.0	71.0

MAPID: 07790129000C VERSION: 1

PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: 300' S line, 400' W line of NE NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.25753 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.874566 DATE COLLECTED:
SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 300.0 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES JC-50 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
427.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
407.0	CARBONDALE	DANVILLE	COAL	3.0	20.0
404.0	CARBONDALE		UNKNOWN	66.7	23.0
337.3	CARBONDALE	HERRIN	COAL	6.8	89.7
330.5	CARBONDALE		UNKNOWN	38.0	96.5
292.5	CARBONDALE	SPRINGFIELD	COAL	3.4	134.5
289.1	CARBONDALE		UNKNOWN	70.6	137.9
218.5	CARBONDALE	HOUCHIN CREEK	COAL	3.0	208.5
215.5	CARBONDALE		UNKNOWN	8.0	211.5
207.5	CARBONDALE	SURVANT	COAL	1.8	219.5
205.7	CARBONDALE		UNKNOWN	78.7	221.3

MAPID: 07790130000C VERSION: 1

PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: 1' N line, 450' W line of SE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.257638 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.8665 DATE COLLECTED:
SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 407.0 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES BSI67-1 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
427.0	PLEISTOCENE		UNCONSOLIDATED	26.2	0.0
400.8	CARBONDALE		UNKNOWN	45.8	26.2
355.0	CARBONDALE	HERRIN	COAL	8.0	72.0
347.0	CARBONDALE		UNKNOWN	37.6	80.0
309.4	CARBONDALE	SPRINGFIELD	COAL	3.7	117.6
305.7	CARBONDALE		UNKNOWN	76.0	121.3
229.7	CARBONDALE	HOUCHIN CREEK	COAL	1.6	197.3
228.1	CARBONDALE		UNKNOWN	53.8	198.9
174.3	CARBONDALE	COLCHESTER	COAL	7.3	252.7
167.0	CARBONDALE		UNKNOWN	147.0	260.0

MAPID: 07790131000C VERSION: 1 PROJECT: LUMP
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: 300' N line, 25' W line of SE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.259145 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.865689 DATE COLLECTED:
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 74.8 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES R-42 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
353.0	CARBONDALE	HERRIN	COAL	7.8	67.0	

MAPID: 07790132000C VERSION: 1 PROJECT: LUMP
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: 300' N line, 700' W line of SW SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.261627 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.865713 DATE COLLECTED:
SURFACE ELEVATION (FT.): 413.0 LOGGED (FT.): 51.0 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES A-75 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
368.0	CARBONDALE	HERRIN	COAL	6.0	45.0	

MAPID: 07790133000C VERSION: 1 PROJECT: LUMP
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: 25' S line, 650' W line of SW SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.261898 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.863003 DATE COLLECTED:
SURFACE ELEVATION (FT.): 431.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log
SOURCE: ILLINI ENGERY RESOURCES A-74 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
388.0	CARBONDALE	HERRIN	COAL	7.0	43.0	

MAPID: 07790136000C VERSION: 1 PROJECT: LUMP
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: 375' S line, 75' W line of SW SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.263865 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.863993 DATE COLLECTED:
SURFACE ELEVATION (FT.): 403.0 LOGGED (FT.): 42.8 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES A-73 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
367.0	CARBONDALE	HERRIN	COAL	6.8	36.0	

MAPID: 07790137000C VERSION: 1 PROJECT: LUMP
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: 350' S line, 325' W line of SW SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.262998 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.863913 DATE COLLECTED:
SURFACE ELEVATION (FT.): 403.0 LOGGED (FT.): 41.0 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES A-7 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
368.0	CARBONDALE	HERRIN	COAL	6.0	35.0	

MAPID: 07790138000C VERSION: 1 PROJECT: LUMP
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: 50' S line, 550' W line of NW SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.262115 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.866686 DATE COLLECTED:
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 67.8 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES A-67 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
355.0	CARBONDALE	HERRIN	COAL	7.8	60.0	

MAPID: 07790139000C VERSION: 1 PROJECT: LUMP
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: 25' N line, 375' W line of SW SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.262732 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.866486 DATE COLLECTED:
SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 70.2 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES A-76 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
355.0	CARBONDALE	HERRIN	COAL	7.2	63.0	

MAPID: 07790140000C VERSION: 1 PROJECT: LUMP
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 31 QUARTERS/FOOTAGES: 50' N line, 100' W line of SW SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.263694 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.866424 DATE COLLECTED:
SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 62.5 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES A-77 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
363.0	CARBONDALE	HERRIN	COAL	7.5	55.0	

MAPID: 07700129000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 32

QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: DE SOTO

LONGITUDE: -89.23421

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.870873

DATE COLLECTED:

SURFACE ELEVATION (FT.): 398.0

LOGGED (FT.): 166.0

LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
398.0	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0	
369.0	MODESTO		SANDSTONE	1.0	29.0	
368.0	MODESTO	PIASA	LIMESTONE	7.0	30.0	
361.0	MODESTO		CLAYSTONE	2.5	37.0	BLACK
358.5	MODESTO		CLAYSTONE	0.5	39.5	LIGHT
358.0	MODESTO		SHALE	0.3	40.0	SULFUR
357.7	CARBONDALE	DANVILLE	COAL	2.5	40.3	
355.2	CARBONDALE		UNDERCLAY	4.3	42.8	
351.0	CARBONDALE		SHALE	7.0	47.0	
344.0	CARBONDALE		SHALE	2.5	54.0	
341.5	CARBONDALE	ALLENBY	COAL	1.0	56.5	
340.5	CARBONDALE		UNDERCLAY	3.0	57.5	
337.5	CARBONDALE	BANKSTON FORK	LIMESTONE	14.0	60.5	
323.5	CARBONDALE		CLAYSTONE	0.5	74.5	
323.0	CARBONDALE		SHALE	5.0	75.0	
318.0	CARBONDALE		SHALE	11.0	80.0	
307.0	CARBONDALE		LIMESTONE	12.0	91.0	
295.0	CARBONDALE	BRERETON	LIMESTONE	4.0	103.0	DARK
291.0	CARBONDALE		SHALE	3.8	107.0	
287.2	CARBONDALE	HERRIN	COAL	8.3	110.8	
279.0	CARBONDALE		UNDERCLAY	3.0	119.0	
276.0	CARBONDALE		LIMESTONE	9.0	122.0	
267.0	CARBONDALE		SHALE	16.0	131.0	
251.0	CARBONDALE		SHALE	7.0	147.0	
244.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	154.0	
242.5	CARBONDALE	TURNER MINE	SHALE	2.5	155.5	
240.0	CARBONDALE	DYKERSBURG	SHALE	3.0	158.0	
237.0	CARBONDALE	SPRINGFIELD	COAL	4.0	161.0	
233.0	CARBONDALE		UNDERCLAY	1.0	165.0	

MAPID: 07700129000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 32 QUARTERS/FOOTAGES: SW SW NE
QUADRANGLE: DE SOTO LONGITUDE: -89.23421 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.870873 DATE COLLECTED:
SURFACE ELEVATION (FT.): 398.0 LOGGED (FT.): 166.0 LOG TYPE:
SOURCE: HALLIDAY WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
287.0	CARBONDALE	HERRIN	COAL	8.3	111.0
237.0	CARBONDALE	SPRINGFIELD	COAL	4.0	161.0

MAPID: 07701574000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 32 QUARTERS/FOOTAGES: SW SE
QUADRANGLE: DE SOTO LONGITUDE: -89.233206 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.864516 DATE COLLECTED:
SURFACE ELEVATION (FT.): 397.0 LOGGED (FT.): 91.8 LOG TYPE: Drillers Log
SOURCE: TRUAX-TRAER COAL CO BS-1-67-4 WELL TYPE: Coal Test
COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
344.6	CARBONDALE	BANKSTON FORK	LIMESTONE	9.5	52.4
335.1	CARBONDALE		DARK GRAY SHALE	9.8	61.9
325.3	CARBONDALE	BRERETON	LIMESTONE	1.3	71.7
324.1	CARBONDALE	ANNA	BLACK SHALE	3.8	72.9
320.3	CARBONDALE	ENERGY	SILTY SHALE	7.3	76.7
313.0	CARBONDALE	ENERGY	GRAY SHALE	1.0	84.0
312.0	CARBONDALE	HERRIN	COAL	6.8	85.0

MAPID: 07700898000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 33 QUARTERS/FOOTAGES: SE SE
QUADRANGLE: DE SOTO LONGITUDE: -89.209828 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.864296 DATE COLLECTED:
SURFACE ELEVATION (FT.): 378.0 LOGGED (FT.): 119.8 LOG TYPE: Drillers Log
SOURCE: CONSOLIDATION C.C.-TRUAX-TRAERR-63-3 WELL TYPE: Coal Test
COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
322.1	CARBONDALE	ENERGY	GRAY SHALE	11.0	55.9
311.1	CARBONDALE	ENERGY	SANDSTONE	8.0	66.9
303.2	CARBONDALE	ENERGY	GRAY SHALE	38.2	74.8
265.0	CARBONDALE	HERRIN	COAL	6.8	113.0

MAPID: 07724149000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 33 QUARTERS/FOOTAGES: 650' N line, 1500' W line
 QUADRANGLE: ELKVILLE LONGITUDE: -89.220862 GEOLOGIST: J MCBETH
 CONFIDENTIAL: N LATITUDE: 37.875319 DATE COLLECTED:
 SURFACE ELEVATION (FT.): LOGGED (FT.): 147.0 LOG TYPE: Drillers Log
 SOURCE: CONSOLIDATION COAL CO. R-4433 WELL TYPE: Coal Test
 COMMENT: PERMIT 157; BURNING STAR #5

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	35.2	0.0
-	CARBONDALE		SHALE	27.3	35.2
-	CARBONDALE	ALLENBY	COAL	0.5	62.5
-	CARBONDALE		SHALE	5.2	63.0
-	CARBONDALE	BANKSTON FORK	LIMESTONE	13.3	68.2
-	CARBONDALE		SHALE	17.0	81.5
-	CARBONDALE	BRERETON	LIMESTONE	0.5	98.5
-	CARBONDALE	ENERGY	SHALE	29.7	99.0
-	CARBONDALE	HERRIN	COAL	8.8	128.7
-	CARBONDALE		SANDY SHALE	0.8	137.5
-	CARBONDALE		LIMESTONE	6.7	138.3
-	CARBONDALE		SHALE	2.0	145.0

MAPID: 07725863000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 33 QUARTERS/FOOTAGES: 250' N line, 1100' E line
 QUADRANGLE: ELKVILLE LONGITUDE: -89.211137 GEOLOGIST: J MCBETH
 CONFIDENTIAL: N LATITUDE: 37.876314 DATE COLLECTED:
 SURFACE ELEVATION (FT.): LOGGED (FT.): 166.0 LOG TYPE: Drillers Log
 SOURCE: CONSOLIDATION COAL CO. R-4430 WELL TYPE: Coal Test
 COMMENT: PERMIT 157; BURNING STAR #5

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	63.0	0.0
-	CARBONDALE		SANDSTONE	14.7	63.0
-	CARBONDALE		LIMESTONE	11.7	77.7
-	CARBONDALE	ENERGY	SHALE	56.9	89.4
-	CARBONDALE	HERRIN	COAL	8.2	146.3
-	CARBONDALE	HERRIN	SHALE	0.3	154.5 PARTING
-	CARBONDALE	HERRIN	COAL	2.0	154.8
-	CARBONDALE		SHALE	1.7	156.8
-	CARBONDALE		LIMESTONE	7.5	158.5

MAPID: 07701786000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 34 **QUARTERS/FOOTAGES:** 1285' S line, 519' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.205654 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 37.865955 **DATE COLLECTED:** 5 / 14 / 1972
SURFACE ELEVATION (FT.): 389.4 **LOGGED (FT.):** 184.4 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER C-753 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
209.1	CARBONDALE	SPRINGFIELD	COAL	4.1	180.3	

MAPID: 07701851000C **VERSION:** 1 **PROJECT:** ROOF STUDY
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 34 **QUARTERS/FOOTAGES:** 2100' N line, 1300' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.202853 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.871086 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 386.0 **LOGGED (FT.):** 176.1 **LOG TYPE:** Survey Core Study
SOURCE: CONSOLIDATION C.C. C-1237 **WELL TYPE:** Coal Test
COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
310.0	CARBONDALE	LAWSON	SANDSTONE	26.4	76.0	
283.6	CARBONDALE	BRERETON	LIMESTONE	1.0	102.4	
282.6	CARBONDALE	ENERGY	SILTY SHALE	9.0	103.4	
273.6	CARBONDALE	ENERGY	GRAY SHALE	16.6	112.4	
257.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	47.1	129.0	

MAPID: 07721974000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 34 **QUARTERS/FOOTAGES:** 1294' S line, 1351' E line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.193061 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 37.865775 **DATE COLLECTED:** 4 / 29 / 1970
SURFACE ELEVATION (FT.): 386.6 **LOGGED (FT.):** 180.0 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER C-721 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
386.6	PLEISTOCENE		SOIL	5.0	0.0	
381.6	PLEISTOCENE		CLAY	39.5	5.0	
342.1	PLEISTOCENE		GLACIAL DRIFT	50.3	44.5	
291.8			SANDSTONE	55.7	94.8	W/ COAL STREAKS
236.1			COAL	1.9	150.5	
234.2			SANDSTONE	27.6	152.4	

MAPID: 07721976000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 34 **QUARTERS/FOOTAGES:** 1251' S line, 1691' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.201596 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 37.865796 **DATE COLLECTED:** / / 1970
SURFACE ELEVATION (FT.): 386.5 **LOGGED (FT.):** 250.0 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER R-773 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
386.5	PLEISTOCENE		SOIL	5.0	0.0
381.5	PLEISTOCENE		CLAY	38.1	5.0
343.4	PLEISTOCENE		GLACIAL DRIFT	45.0	43.1
298.4			SANDY SHALE	3.6	88.1
294.8			GRAY SHALE & LIMESTONE	1.2	91.7
293.6			GRAY SHALE	3.6	92.9
290.0			GRAY SHALE & SANDSTONE	34.2	96.5
255.8			DARK SHALE	3.4	130.7
252.4	CARBONDALE	HERRIN	COAL	3.4	134.1
249.0	CARBONDALE		CARBONACEOUS SHALE	1.0	137.5
248.0	CARBONDALE		SANDY SHALE	57.9	138.5
190.1	CARBONDALE		SANDSTONE	14.4	196.4
175.7	CARBONDALE		GRAY LIMESTONE	4.2	210.8
171.5	CARBONDALE		GRAY SHALE	9.6	215.0
161.9	CARBONDALE		SANDSTONE	25.4	224.6

MAPID: 07725865000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 34 **QUARTERS/FOOTAGES:** 1400' S line, 700' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.205011 **GEOLOGIST:** J MCBETH
CONFIDENTIAL: N **LATITUDE:** 37.86628 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 135.0 **LOG TYPE:** Drillers Log
SOURCE: CONSOLIDATION COAL CO. R-4434 **WELL TYPE:** Coal Test
COMMENT: PERMIT 157; BURNING STAR #5

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	113.8	0.0
-	CARBONDALE	HERRIN	COAL	9.4	113.8
-	CARBONDALE		SANDY SHALE	4.8	123.2
-	CARBONDALE		LIMESTONE	7.0	128.0

MAPID: 07700130000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 35 QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: DE SOTO LONGITUDE: -89.17556 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.866567 DATE COLLECTED: 0 / 0 / 1922

SURFACE ELEVATION (FT.): 382.8 LOGGED (FT.): 160.2 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL MINING CO. 9 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
382.8	PLEISTOCENE		CLAY	58.0	0.0	YELLOW
324.8	PLEISTOCENE		CLAY	9.0	58.0	BLUE
315.8	CARBONDALE		SANDSTONE	66.0	67.0	
249.8	CARBONDALE	BRERETON	LIMESTONE	4.2	133.0	
245.6	CARBONDALE	ANNA	SHALE	4.8	137.2	
240.8	CARBONDALE	ENERGY	SHALE	7.0	142.0	
233.8	CARBONDALE	HERRIN	COAL	9.0	149.0	TOTAL THICKNESS OF PTGS. = 3 FT.
224.8	CARBONDALE		UNDERCLAY	2.2	158.0	

MAPID: 07700130000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 35 QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: DE SOTO LONGITUDE: -89.17556 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.866567 DATE COLLECTED: 0 / 0 / 1922

SURFACE ELEVATION (FT.): 382.8 LOGGED (FT.): 160.0 LOG TYPE:

SOURCE: WESTERN CM0009 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
233.8	CARBONDALE	HERRIN	COAL	8.5	149.0	

MAPID: 07700131000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 35 QUARTERS/FOOTAGES: SW NE SE

QUADRANGLE: DE SOTO LONGITUDE: -89.173226 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.866547 DATE COLLECTED: 0 / 0 / 1922

SURFACE ELEVATION (FT.): 390.7 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 10 WELL TYPE: Coal Test

COMMENT: NO MINABLE COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.7	PLEISTOCENE		CLAY	39.0	0.0	
351.7			SANDSTONE	45.0	39.0	
306.7			SHALE	7.0	84.0	BLUE
299.7			SHALE	13.0	91.0	
286.7			LIMESTONE	2.0	104.0	
284.7			SHALE	0.5	106.0	
284.2			SHALE/COAL	1.5	106.5	TOTAL THICKNESS OF SHALE = 8 INCHES STREAKED WITH COAL
282.7			CARBONACEOUS SHALE	5.0	108.0	
277.7			SHALE	25.0	113.0	
252.7			SANDSTONE	10.0	138.0	
242.7			SHALE	2.0	148.0	

MAPID: 07700131000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 35 QUARTERS/FOOTAGES: SW NE SE

QUADRANGLE: DE SOTO LONGITUDE: -89.173226 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.866547 DATE COLLECTED: 0 / 0 / 1922

SURFACE ELEVATION (FT.): 390.7 LOGGED (FT.): 150.0 LOG TYPE:

SOURCE: WESTERN CM0010 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
283.7	CARBONDALE	HERRIN	COAL	6.5	107.0	CORRELATION UNCERTAIN

MAPID: 07700132000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 35 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: DE SOTO LONGITUDE: -89.170973 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.862852 DATE COLLECTED: 0 / 0 / 1922

SURFACE ELEVATION (FT.): 384.0 LOGGED (FT.): 300.1 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 12 WELL TYPE: Coal Test

COMMENT: NO COAL;EXPECTED AT 241 FT.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
384.0	PLEISTOCENE		CLAY	32.5	0.0	
351.5			SHALE	8.5	32.5	BLUE
343.0			SANDSTONE	43.0	41.0	
300.0			SHALE	12.0	84.0	BLUE
288.0			LIMESTONE	3.5	96.0	
284.5			SHALE	15.5	99.5	BLUE
269.0			LIMESTONE	10.0	115.0	
259.0			CLAYSTONE & SILTSTONE	1.0	125.0	WHITE
258.0			LIMESTONE	10.0	126.0	
248.0			SHALE	24.0	136.0	BLUE
224.0			LIMESTONE	3.0	160.0	BLACK
221.0			SHALE	9.0	163.0	
212.0			SHALE	65.0	172.0	
147.0			SHALE	4.0	237.0	
143.0			SHALE	4.0	241.0	
139.0			LIMESTONE	3.0	245.0	
136.0			SHALE	52.0	248.0	

MAPID: 07700132000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 35 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: DE SOTO LONGITUDE: -89.170973 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.862852 DATE COLLECTED: 0 / 0 / 1922

SURFACE ELEVATION (FT.): 384.0 LOGGED (FT.): 300.0 LOG TYPE:

SOURCE: WESTERN CM0012 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	-		CORRELATION UNCERTAIN, NO COAL

MAPID: 07726432000C VERSION: 1 PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 35 QUARTERS/FOOTAGES: 1041' N line, 2716' W line

QUADRANGLE: DE SOTO LONGITUDE: -89.17891 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 37.873778 DATE COLLECTED: 8 / 21 / 1970

SURFACE ELEVATION (FT.): 389.4 LOGGED (FT.): 227.0 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER C-846 WELL TYPE: Coal Test

COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
389.4	PLEISTOCENE		CLAY	21.9	0.0	
367.5			SANDSTONE	28.1	21.9	
339.4			GRAY SANDSTONE	5.9	50.0	
333.5			GRAY SANDSTONE	7.5	55.9	W/ COAL STREAKS
326.0			GRAY SANDSTONE	39.5	63.4	
286.5			SANDY SHALE	71.4	102.9	
215.1			GRAY SHALE	0.8	174.3	W/ COAL NODULES
214.3			DARK SHALE	0.1	175.1	
214.2	CARBONDALE	HERRIN	COAL	3.3	175.2	
210.9	CARBONDALE		CLAYSTONE	0.5	178.5	
210.4	CARBONDALE		GRAY SHALE	7.1	179.0	
203.3	CARBONDALE		SANDY SHALE	40.9	186.1	

MAPID: 07726433000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 35 QUARTERS/FOOTAGES: 2656' S line, 1462' E line
 QUADRANGLE: DE SOTO LONGITUDE: -89.174737 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 37.869274 DATE COLLECTED: 8 / 20 / 1970
 SURFACE ELEVATION (FT.): 388.1 LOGGED (FT.): 261.0 LOG TYPE: Drillers Log
 SOURCE: TRUAX-TRAER C-845 WELL TYPE: Coal Test
 COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
388.1	PLEISTOCENE		CLAY	20.0	0.0	
368.1			SANDSTONE	18.4	20.0	
349.7			SANDY SHALE	17.5	38.4	YELLOW TO GRAY
332.2	SHELBURN		GRAY SANDSTONE	14.6	55.9	
317.6	SHELBURN		SANDY SHALE	29.6	70.5	
288.0	SHELBURN		GRAY SANDSTONE	26.3	100.1	W/ COAL STREAKS
261.7	SHELBURN		SANDY SHALE	33.2	126.4	
228.5	SHELBURN		DARK SHALE	6.3	159.6	
222.2	SHELBURN		DARK SHALE	10.4	165.9	W/ COAL BANDS
211.8	CARBONDALE	HERRIN	COAL	3.4	176.3	
208.4	CARBONDALE		GRAY SHALE	1.8	179.7	
206.6	CARBONDALE		SHALY COAL	0.5	181.5	
206.1	CARBONDALE		SHALE	4.9	182.0	
201.2	CARBONDALE		DARK SHALE	3.0	186.9	
198.2	CARBONDALE	SPRINGFIELD	COAL	4.8	189.9	
193.4	CARBONDALE		GRAY SHALE	0.3	194.7	
193.1	CARBONDALE		LIMESTONE & CONGLOMERATE	6.0	195.0	
187.1	CARBONDALE		LIMESTONE	5.4	201.0	
181.7	CARBONDALE		DARK SHALE	6.6	206.4	
175.1	CARBONDALE		SANDSTONE	6.0	213.0	
169.1	CARBONDALE		SANDY SHALE	42.0	219.0	

MAPID: 07726434000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 35 QUARTERS/FOOTAGES: 2176' S line, 1367' W line
 QUADRANGLE: DE SOTO LONGITUDE: -89.183629 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 37.868064 DATE COLLECTED: 6 / / 1977
 SURFACE ELEVATION (FT.): 404.6 LOGGED (FT.): 215.0 LOG TYPE: Drillers Log
 SOURCE: CONSOLIDATION COAL CO. 77-DN-1 WELL TYPE: Coal Test
 COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
404.6	PLEISTOCENE		UNCONSOLIDATED	15.4	0.0
389.2	SHELBURN		SHALY SANDSTONE	74.6	15.4
314.6	SHELBURN		LIMESTONE	4.0	90.0
310.6	SHELBURN		SHALE	14.0	94.0
296.6	SHELBURN	ANVIL ROCK	SANDSTONE	6.0	108.0
290.6	SHELBURN	ANVIL ROCK	SHALE	14.0	114.0
276.6	SHELBURN	ANVIL ROCK	SANDSTONE	6.0	128.0
270.6	SHELBURN		SHALE	9.0	134.0
261.6	CARBONDALE	VERMILIONVILLE	SANDSTONE	11.0	143.0
250.6	CARBONDALE	DYKERSBURG	SHALE	40.0	154.0
210.6	CARBONDALE	SPRINGFIELD	COAL	1.0	194.0
209.6	CARBONDALE		SHALE	20.0	195.0

MAPID: 07700133000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 36 QUARTERS/FOOTAGES: SW SW NW
 QUADRANGLE: DE SOTO LONGITUDE: -89.168488 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.870188 DATE COLLECTED: 0 / 0 / 1922
 SURFACE ELEVATION (FT.): 383.4 LOGGED (FT.): 207.0 LOG TYPE: Drillers Log
 SOURCE: WESTERN COAL & MINING CO. 11 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
383.4	PLEISTOCENE		CLAY	47.0	0.0
336.4			SHALE	30.0	47.0
306.4			SANDSTONE	16.5	77.0
289.9			SHALE	4.5	93.5
285.4			SANDSTONE	43.0	98.0
242.4			LIMESTONE	3.8	141.0
238.6			SHALE	13.4	144.8
225.2	CARBONDALE	BRERETON	LIMESTONE	4.6	158.2 BLACK
220.6	CARBONDALE	ANNA	SHALE	9.3	162.8
211.4	CARBONDALE	ENERGY	SHALE	8.0	172.0
203.4	CARBONDALE	ENERGY	SHALE	12.0	180.0 DARK
191.4	CARBONDALE	HERRIN	SHALE/COAL	13.0	192.0 TOTAL THICKNESS OF PTGS. = 1FT.,8INCHES
178.4	CARBONDALE		UNDERCLAY	2.0	205.0

MAPID: 07700133000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 36 **QUARTERS/FOOTAGES:** SW SW NW
QUADRANGLE: DE SOTO **LONGITUDE:** -89.168488 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.870188 **DATE COLLECTED:** 0 / 0 / 1922
SURFACE ELEVATION (FT.): 383.4 **LOGGED (FT.):** 207.0 **LOG TYPE:**
SOURCE: WESTERN CM0011 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
191.4	CARBONDALE	HERRIN	COAL	13.0	192.0	

MAPID: 07700134000C **VERSION:** 1 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 36 **QUARTERS/FOOTAGES:** SW NW SE
QUADRANGLE: DE SOTO **LONGITUDE:** -89.159197 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.866442 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 400.0 **LOGGED (FT.):** 159.0 **LOG TYPE:**
SOURCE: CONSOL CC 0005 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
252.0	CARBONDALE	HERRIN	COAL	9.2	148.0	

MAPID: 07700135000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 36 **QUARTERS/FOOTAGES:** SE NW NW
QUADRANGLE: DE SOTO **LONGITUDE:** -89.166085 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.873845 **DATE COLLECTED:** 0 / 0 / 1922
SURFACE ELEVATION (FT.): 392.8 **LOGGED (FT.):** 170.2 **LOG TYPE:** Drillers Log
SOURCE: WESTERN COAL & MINING CO. 8 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
392.8	PLEISTOCENE		CLAY	19.7	0.0	
373.1	PLEISTOCENE		CLAY	4.5	19.7	
368.6	CARBONDALE	ANVIL ROCK	SANDSTONE	113.8	24.2	
254.8	CARBONDALE		SHALE	9.0	138.0	
245.8	CARBONDALE	ANNA	SHALE	5.0	147.0	
240.8	CARBONDALE	ENERGY	SHALE	9.0	152.0	
231.8	CARBONDALE	HERRIN	COAL	7.3	161.0	TOTAL THICKNESS OF PTGS. = 7 INCHES
224.5	CARBONDALE		UNDERCLAY	1.8	168.3	

MAPID: 07700135000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 36 **QUARTERS/FOOTAGES:** SE NW NW
QUADRANGLE: DE SOTO **LONGITUDE:** -89.166085 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.873845 **DATE COLLECTED:** 0 / 0 / 1922
SURFACE ELEVATION (FT.): 392.8 **LOGGED (FT.):** 170.0 **LOG TYPE:**
SOURCE: WESTERN CM0008 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
231.8	CARBONDALE	HERRIN	COAL	7.4	161.0	

MAPID: 07700136000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 36 **QUARTERS/FOOTAGES:** NW SE NE
QUADRANGLE: DE SOTO **LONGITUDE:** -89.154473 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.871911 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 401.0 **LOGGED (FT.):** 221.0 **LOG TYPE:** Drillers Log
SOURCE: WESTERN COAL & MINING CO. 24 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
401.0	PLEISTOCENE		SOIL	22.0	0.0	
379.0			SHALE	8.0	22.0	BLUE
371.0			COAL	0.7	30.0	
370.3			UNDERCLAY	1.3	30.7	
369.0			SHALE	28.0	32.0	
341.0	CARBONDALE	ANVIL ROCK	SANDSTONE	110.0	60.0	
231.0	CARBONDALE		SHALE	22.0	170.0	BLUE
209.0	CARBONDALE	BRERETON	LIMESTONE	2.5	192.0	
206.5	CARBONDALE	ANNA	SHALE	7.5	194.5	
199.0	CARBONDALE	ENERGY	SHALE	6.0	202.0	
193.0	CARBONDALE	HERRIN	COAL	12.0	208.0	
181.0	CARBONDALE		UNDERCLAY	0.7	220.0	
180.3	CARBONDALE		SANDSTONE	0.3	220.7	

MAPID: 07700136000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 1W **SECTION:** 36 **QUARTERS/FOOTAGES:** NW SE NE
QUADRANGLE: DE SOTO **LONGITUDE:** -89.154473 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.871911 **DATE COLLECTED:** 0 / 0 / 1922
SURFACE ELEVATION (FT.): 401.0 **LOGGED (FT.):** 221.0 **LOG TYPE:**
SOURCE: WESTERN CM0024 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
193.0	CARBONDALE	HERRIN	COAL	12.0	208.0	

MAPID: 07700137000C

VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 36

QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: DE SOTO

LONGITUDE: -89.156838

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.86826

DATE COLLECTED: 4 / 20 / 1918

SURFACE ELEVATION (FT.): 397.0

LOGGED (FT.): 172.0

LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 26

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
397.0	CARBONDALE		SOIL	25.0	0.0	
372.0	CARBONDALE	ANVIL ROCK	SANDSTONE	95.0	25.0	
277.0	CARBONDALE		SHALE	23.5	120.0	BLUE
253.5	CARBONDALE	BRERETON	LIMESTONE	2.5	143.5	
251.0	CARBONDALE	ANNA	SHALE	8.0	146.0	
243.0	CARBONDALE	ENERGY	SHALE	8.0	154.0	
235.0	CARBONDALE	HERRIN	COAL	7.4	162.0	TOTAL THICKNESS OF PTGS. = 9 INCHES
227.6	CARBONDALE		LIMESTONE	2.6	169.4	

MAPID: 07700137000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 1W

SECTION: 36

QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: DE SOTO

LONGITUDE: -89.156838

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.86826

DATE COLLECTED: 0 / 0 / 1922

SURFACE ELEVATION (FT.): 396.0

LOGGED (FT.): 162.0

LOG TYPE:

SOURCE: WESTERN CM0026

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
234.0	CARBONDALE	HERRIN	COAL	8.4	162.0	

MAPID: 07700138000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 36 QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: DE SOTO LONGITUDE: -89.156857 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.866427 DATE COLLECTED: 4 / 29 / 1918

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 204.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 27 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		SOIL	18.0	0.0	
377.0	CARBONDALE	ANVIL ROCK	SHALY SANDSTONE	32.0	18.0	
345.0	CARBONDALE	ANVIL ROCK	SANDSTONE	68.0	50.0	
277.0	CARBONDALE		SHALE	8.0	118.0	BLUE
269.0	CARBONDALE	ANNA	SHALE	8.0	126.0	
261.0	CARBONDALE	ENERGY	SHALE	12.0	134.0	
249.0	CARBONDALE	HERRIN	COAL	9.5	146.0	TOTAL THICKNESS OF BLUE BND. = 4INCHES
239.5	CARBONDALE		UNDERCLAY	2.0	155.5	
237.5	CARBONDALE		LIMESTONE	12.5	157.5	
225.0	CARBONDALE		UNDERCLAY	1.5	170.0	
223.5	CARBONDALE		LIMESTONE	9.5	171.5	
214.0	CARBONDALE		SHALE	12.0	181.0	BLUE
202.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	193.0	
200.0	CARBONDALE	TURNER MINE	SHALE	1.5	195.0	
198.5	CARBONDALE	DYKERSBURG	SHALE	1.5	196.5	
197.0	CARBONDALE	SPRINGFIELD	COAL	4.2	198.0	
192.8	CARBONDALE		UNDERCLAY	1.0	202.2	
191.8	CARBONDALE		SANDSTONE	0.8	203.2	

MAPID: 07700138000C VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 36 QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: DE SOTO LONGITUDE: -89.156857 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.866427 DATE COLLECTED: 0 / 0 / 1922

SURFACE ELEVATION (FT.): 394.0 LOGGED (FT.): 204.0 LOG TYPE:

SOURCE: WESTERN CM0027 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
248.0	CARBONDALE	HERRIN	COAL	9.5	146.0	
196.0	CARBONDALE	SPRINGFIELD	COAL	4.2	198.0	

MAPID: 07700139000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 36 QUARTERS/FOOTAGES: NE SE NE

QUADRANGLE: DE SOTO LONGITUDE: -89.152143 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.87189 DATE COLLECTED: 5 / 17 / 1918

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 197.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 31 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE		SOIL	23.0	0.0	
382.0	CARBONDALE	ANVIL ROCK	SHALY SANDSTONE	20.0	23.0	
362.0	CARBONDALE	ANVIL ROCK	SANDSTONE	90.0	43.0	
272.0	CARBONDALE		SHALE	17.0	133.0	BLUE
255.0	CARBONDALE	BRERETON	LIMESTONE	3.0	150.0	
252.0	CARBONDALE	ANNA	SHALE	9.0	153.0	
243.0	CARBONDALE	ENERGY	SHALE	23.0	162.0	
220.0	CARBONDALE	HERRIN	COAL	10.8	185.0	TOTAL THICKNESS OF PTGS. = 7 INCHES
209.2	CARBONDALE		UNDERCLAY	0.8	195.8	
208.5	CARBONDALE		LIMESTONE	0.5	196.5	

MAPID: 07700139000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 36 QUARTERS/FOOTAGES: NE SE NE

QUADRANGLE: DE SOTO LONGITUDE: -89.152143 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.87189 DATE COLLECTED: 0 / 0 / 1922

SURFACE ELEVATION (FT.): 403.0 LOGGED (FT.): 197.0 LOG TYPE:

SOURCE: WESTERN CM0031 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
218.0	CARBONDALE	HERRIN	COAL	10.8	185.0	

MAPID: 07701718000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 36 QUARTERS/FOOTAGES: NE SW NE
QUADRANGLE: DE SOTO LONGITUDE: -89.156803 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.871929 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 173.7 LOG TYPE: Survey Core Study
SOURCE: TRUAX-TRAER COAL CO C-838 WELL TYPE: Coal Test
COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
338.0	CARBONDALE	LAWSON	SANDSTONE	70.4	57.0
267.6	CARBONDALE		DARK GRAY SHALE	27.3	127.4
240.3	CARBONDALE	BRERETON	SANDSTONE	2.1	154.7
238.2	CARBONDALE	ANNA	BLACK SHALE	5.6	156.8
232.7	CARBONDALE	ENERGY	GRAY SHALE	1.7	162.3
231.0	CARBONDALE	HERRIN	COAL	9.7	164.0

MAPID: 07701718000C VERSION: 2 PROJECT: NCRDS 2013
COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 36 QUARTERS/FOOTAGES: NE SW NE
QUADRANGLE: DE SOTO LONGITUDE: -89.156803 GEOLOGIST: LOUCHIOS
CONFIDENTIAL: N LATITUDE: 37.871929 DATE COLLECTED: 8 / 19 / 1970
SURFACE ELEVATION (FT.): 395.2 LOGGED (FT.): 227.0 LOG TYPE: Drillers Log
SOURCE: TRUAX-TRAER C-838 WELL TYPE: Coal Test
COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
230.8	CARBONDALE	HERRIN	COAL	9.8	164.4
188.0	CARBONDALE	SPRINGFIELD	COAL	11.4	207.2

MAPID: 07701720000C VERSION: 1 PROJECT: NCRDS

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 36 QUARTERS/FOOTAGES: 2500' S line, 2600' E line

QUADRANGLE: DE SOTO LONGITUDE: -89.160342 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 37.8692 DATE COLLECTED: 8 / 20 / 1970

SURFACE ELEVATION (FT.): 393.7 LOGGED (FT.): 230.2 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER COAL CO C-839 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
393.7			SANDY SHALE	25.0	0.0	
368.7	SHELBURN		SHALE & SANDSTONE	38.0	25.0	
330.7	SHELBURN		SHALY SANDSTONE	56.0	63.0	
274.7	SHELBURN		SANDSTONE	10.0	119.0	
264.7	SHELBURN		DARK SHALE	10.0	129.0	
254.7	SHELBURN		DARK SHALE	8.0	139.0	SCATTERED SHALE BANDS
246.7	CARBONDALE	ANNA	BLACK SHALE	4.0	147.0	
242.7	CARBONDALE	ENERGY	GRAY SHALE	22.7	151.0	
220.0	CARBONDALE	HERRIN	COAL	9.0	173.7	
211.0	CARBONDALE		UNDERCLAY	7.0	182.7	
204.0	CARBONDALE		GRAY SANDSTONE	6.0	189.7	W/ SHALE BANDS
198.0	CARBONDALE		BLUE SHALE	4.1	195.7	W/ SS BANDS
193.9	CARBONDALE		BLUE SHALE	10.2	199.8	W/ LIME BANDS
183.7	CARBONDALE		LIMESTONE	2.0	210.0	
181.7	CARBONDALE	TURNER MINE	BLACK SHALE	3.7	212.0	
178.0	CARBONDALE	SPRINGFIELD	COAL	4.5	215.7	
173.5	CARBONDALE		CLAYSTONE	10.0	220.2	

MAPID: 07726436000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 36 QUARTERS/FOOTAGES: 1257' S line, 1358' W line

QUADRANGLE: DE SOTO LONGITUDE: -89.165052 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 37.865342 DATE COLLECTED: 7 / 9 / 1970

SURFACE ELEVATION (FT.): 390.4 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER C-787 WELL TYPE: Coal Test

COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.4	PLEISTOCENE		CLAY	15.0	0.0	
375.4	PLEISTOCENE		GLACIAL DRIFT	13.0	15.0	
362.4			SANDSTONE	6.5	28.0	
355.9	SHELBURN		SANDY SHALE	2.0	34.5	
353.9	SHELBURN		GRAY SANDSTONE	1.0	36.5	
352.9	SHELBURN		SANDY SHALE	6.0	37.5	
346.9	SHELBURN		SANDSTONE/SHALE	12.3	43.5	
334.6	SHELBURN		COAL	0.2	55.8	
334.4	SHELBURN		SANDSTONE	31.5	56.0	
302.9	SHELBURN		SANDY DARK SHALE	13.3	87.5	
289.6	SHELBURN		DARK SHALE	13.8	100.8	W/ SIDERITE BANDS
275.8	SHELBURN		DARK SHALE	0.5	114.6	
275.3	SHELBURN		DARK SHALE	1.7	115.1	
273.6	SHELBURN		GRAY SHALE	21.0	116.8	W/ SIDERITE BANDS
252.6	CARBONDALE	HERRIN	COAL	9.1	137.8	
243.5	CARBONDALE		CLAYSTONE	0.1	146.9	
243.4	CARBONDALE		GREEN SHALE	0.9	147.0	
242.5	CARBONDALE		LIMESTONE	2.2	147.9	

MAPID: 07726437000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 36 QUARTERS/FOOTAGES: 1236' S line, 2666' W line
 QUADRANGLE: DE SOTO LONGITUDE: -89.160521 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 37.865257 DATE COLLECTED: 7 / 10 / 1970
 SURFACE ELEVATION (FT.): 391.1 LOGGED (FT.): 158.0 LOG TYPE: Drillers Log
 SOURCE: TRUAX-TRAER C-788 WELL TYPE: Coal Test
 COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
391.1	PLEISTOCENE		CLAY	7.7	0.0	
383.4	PLEISTOCENE		GLACIAL DRIFT	24.3	7.7	
359.1	SHELBURN		GRAY SHALE	15.8	32.0	
343.3	SHELBURN		GRAY SHALE & SANDSTONE	7.4	47.8	
335.9	SHELBURN		GRAY SANDSTONE	7.2	55.2	
328.8	SHELBURN		GRAY SHALE & SANDSTONE	0.5	62.3	
328.3	SHELBURN		GRAY SANDSTONE	11.8	62.8	
316.5	SHELBURN		SANDY SHALE	6.2	74.6	
310.3	SHELBURN		GRAY SANDSTONE	5.0	80.8	
305.3	SHELBURN		SANDY SHALE	5.3	85.8	
300.0	SHELBURN		GRAY SANDSTONE	12.0	91.1	
288.0	SHELBURN		COAL	0.2	103.1	
287.9	SHELBURN		GRAY SANDSTONE	13.1	103.2	
274.8	SHELBURN		SANDY SHALE	19.5	116.3	W/ SIDERITE BANDS
255.3	SHELBURN		LIMESTONE	0.9	135.8	
254.4	SHELBURN		SHALE W/ LIME NODULES	11.1	136.7	
243.3	CARBONDALE	HERRIN	COAL	9.4	147.8	
233.9	CARBONDALE		CARBONACEOUS CLAYSTONE	0.8	157.2	

MAPID: 07726438000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 36 QUARTERS/FOOTAGES: 1280' S line, 1369' E line
 QUADRANGLE: DE SOTO LONGITUDE: -89.155747 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 37.865348 DATE COLLECTED: 7 / 10 / 1970
 SURFACE ELEVATION (FT.): 392.8 LOGGED (FT.): 156.5 LOG TYPE: Drillers Log
 SOURCE: TRUAX-TRAER C-789 WELL TYPE: Coal Test
 COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
392.8	PLEISTOCENE		CLAY	5.8	0.0
387.0	PLEISTOCENE		GLACIAL DRIFT	18.7	5.8
368.3			SANDSTONE	9.2	24.5
359.1	SHELBURN		SANDY SHALE	18.0	33.7
341.0	SHELBURN		GRAY SANDSTONE	2.3	51.8
338.7	SHELBURN		SANDSTONE	1.2	54.1
337.5	SHELBURN		GRAY SANDSTONE	1.2	55.3
336.3	SHELBURN		SANDSTONE	3.0	56.5 W/ LIMEY SHALE
333.3	SHELBURN		DARK SHALE	1.5	59.5
331.8	SHELBURN		GRAY SANDSTONE	22.7	61.0
309.1	SHELBURN	JAMESTOWN	COAL	0.2	83.7
308.9	SHELBURN		GRAY SHALE	10.1	83.9
298.8	SHELBURN		SANDY SHALE	9.0	94.0
289.8	SHELBURN	BRERETON	LIMESTONE	8.7	103.0
281.1	SHELBURN		SANDY SHALE	8.8	111.7
272.3	CARBONDALE	ENERGY	SHALE	23.9	120.5
248.4	CARBONDALE	HERRIN	COAL	9.3	144.4
239.1	CARBONDALE		CLAYSTONE	0.2	153.7
238.9	CARBONDALE		GRAY SHALE	0.8	153.9 W/ COAL NODULES
238.1	CARBONDALE		GREEN SHALE	0.8	154.7
237.3	CARBONDALE		LIMESTONE & CONGLOMERATE	1.0	155.5

MAPID: 07726439000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 36 QUARTERS/FOOTAGES: 2653' N line, 1037' W line
 QUADRANGLE: DE SOTO LONGITUDE: -89.166076 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 37.86932 DATE COLLECTED: 8 / 13 / 1970
 SURFACE ELEVATION (FT.): 385.6 LOGGED (FT.): 248.0 LOG TYPE: Drillers Log
 SOURCE: TRUAX-TRAER C-840 WELL TYPE: Coal Test
 COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.6	PLEISTOCENE		CLAY	10.0	0.0	
375.6	PLEISTOCENE		GLACIAL DRIFT	9.0	10.0	
366.6			SANDSTONE	3.4	19.0	
363.2			HARD PAN	3.6	22.4	
359.6			SANDSTONE	2.4	26.0	
357.2	SHELBURN		SANDY SHALE	13.6	28.4	
343.6	SHELBURN		GRAY SANDSTONE	10.6	42.0	
333.0	SHELBURN		SANDY SHALE	20.4	52.6	
312.6	SHELBURN		SANDSTONE	17.0	73.0	
295.6	SHELBURN		SANDY SHALE	8.4	90.0	
287.2	SHELBURN		GRAY SHALE & SANDSTONE	2.4	98.4	
284.8	SHELBURN		SANDSTONE	11.6	100.8	
273.2	SHELBURN	JAMESTOWN	COAL	0.5	112.4	
272.7	SHELBURN		SANDSTONE	19.9	112.9	
252.8	SHELBURN		GRAY SHALE	15.9	132.8	
236.9	SHELBURN		FOSSILIFEROUS LIMESTONE	4.4	148.7	
232.5	SHELBURN		DARK SHALE	22.5	153.1	
210.0	CARBONDALE	HERRIN	COAL	13.1	175.6	SHALE PARTING 0.8'
196.9	CARBONDALE		CLAYSTONE	0.4	188.7	
196.5	CARBONDALE		GRAY SHALE	0.4	189.1	
196.1	CARBONDALE		GRAY LIMESTONE	1.4	189.5	
194.7	CARBONDALE		CALCAREOUS SHALE	1.4	190.9	
193.3	CARBONDALE		SANDY SHALE	1.6	192.3	
191.7	CARBONDALE		LIMESTONE	7.0	193.9	

MAPID: 07726440000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 36 QUARTERS/FOOTAGES: 2656' S line, 27' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.16958 GEOLOGIST: LOUCHIOS
CONFIDENTIAL: N LATITUDE: 37.869211 DATE COLLECTED: 8 / 14 / 1970
SURFACE ELEVATION (FT.): 383.3 LOGGED (FT.): 208.9 LOG TYPE: Drillers Log
SOURCE: TRUAX-TRAER C-842 WELL TYPE: Coal Test
COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
383.3	PLEISTOCENE		CLAY	31.1	0.0	
352.2			SANDY SHALE	12.2	31.1	YELLOW, SOFT
340.0	SHELBURN		GRAY SANDSTONE	4.7	43.3	
335.3	SHELBURN		SANDY SHALE	3.5	48.0	
331.8	SHELBURN		GRAY SANDSTONE	2.3	51.5	
329.5	SHELBURN		SANDSTONE/SHALE	98.3	53.8	
231.2	SHELBURN		GRAY LIMESTONE	3.2	152.1	
228.0	SHELBURN		DARK SHALE	16.1	155.3	
211.9	SHELBURN		GRAY SHALE	0.3	171.4	
211.6	CARBONDALE	HERRIN	COAL	10.9	171.7	
200.7	CARBONDALE		CLAYSTONE	0.2	182.6	
200.5	CARBONDALE		LIMESTONE & CONGLOMERATE	3.2	182.8	
197.3	CARBONDALE		GRAY SHALE	12.9	186.0	
184.4	CARBONDALE		LIMESTONE	2.5	198.9	
181.9	CARBONDALE		DARK SHALE	1.0	201.4	
180.9	CARBONDALE	SPRINGFIELD	COAL	4.5	202.4	
176.4	CARBONDALE		GRAY SHALE	2.0	206.9	

MAPID: 07726441000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 36 QUARTERS/FOOTAGES: 994' N line, 123' W line
 QUADRANGLE: DE SOTO LONGITUDE: -89.169132 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 37.873904 DATE COLLECTED: 8 / 17 / 1970
 SURFACE ELEVATION (FT.): 388.5 LOGGED (FT.): 213.4 LOG TYPE: Drillers Log
 SOURCE: TRUAX-TRAER C-843 WELL TYPE: Coal Test
 COMMENT: ROYAL FALCON MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
388.5	PLEISTOCENE		CLAY	25.5	0.0	
363.0			SANDY SHALE	25.3	25.5	YELLOW TO GRAY SS STREAKS
337.7	SHELBURN		SANDY SHALE	3.2	50.8	
334.5	SHELBURN		SANDSTONE	82.0	54.0	
252.5	SHELBURN		GRAY SHALE	9.1	136.0	
243.4	SHELBURN		GRAY LIMESTONE	3.5	145.1	
239.9	SHELBURN		DARK SHALE	6.2	148.6	
233.7	SHELBURN		FOSSILIFEROUS LIMESTONE	2.7	154.8	
231.0	CARBONDALE	HERRIN	COAL	10.7	157.5	SH PARTING 1FT
220.3	CARBONDALE		CLAYSTONE	0.4	168.2	
219.9	CARBONDALE		SHALE WITH LIMESTONE	1.2	168.6	
218.7	CARBONDALE		LIMESTONE & CONGLOMERATE	5.5	169.8	
213.2	CARBONDALE		GRAY LIMESTONE	12.0	175.3	
201.2	CARBONDALE		SHALE WITH LIMESTONE	5.7	187.3	
195.5	CARBONDALE		SANDY SHALE	6.5	193.0	
189.0	CARBONDALE		LIMESTONE	0.8	199.5	
188.2	CARBONDALE		DARK SHALE	6.8	200.3	
181.4	CARBONDALE		GRAY SANDSTONE	0.3	207.1	
181.1	CARBONDALE		DARK SHALE	0.1	207.4	
181.0	CARBONDALE	SPRINGFIELD	COAL	3.8	207.5	
177.2	CARBONDALE		GRAY SANDSTONE	2.1	211.3	

MAPID: 07726442000C VERSION: 1

PROJECT: NCRDS 2013

COUNTY: JACKSON TWP/RNG: 7S 1W SECTION: 36 QUARTERS/FOOTAGES: 480' N line, 1325' W line
QUADRANGLE: ELKVILLE LONGITUDE: -89.16495 GEOLOGIST: LOUCHIOS
CONFIDENTIAL: N LATITUDE: 37.875276 DATE COLLECTED: 9 / 29 / 1989
SURFACE ELEVATION (FT.): 390.8 LOGGED (FT.): 230.0 LOG TYPE: Drillers Log
SOURCE: CONSOLIDATION COAL CO. 89-DN-36 WELL TYPE: Coal Test
COMMENT: ROYAL FALCON MINE, LOG TRANSLATED BY WJN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.8	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0	
362.8			GREEN SHALE	2.0	28.0	
360.8			GRAY SANDSTONE	80.7	30.0	START CORING
280.1			GRAY SANDSTONE	2.4	110.7	
277.7			CONGLOMERATE	0.5	113.1	
277.3			UNCLASSIFIED	26.7	113.5	
250.6	SHELBURN	BRERETON	LIMESTONE	1.3	140.2	
249.3	SHELBURN		DARK SHALE	3.2	141.5	
246.1	CARBONDALE	ANNA	BLACK SHALE	3.3	144.7	
242.9	CARBONDALE	HERRIN	COAL	9.1	147.9	
233.8	CARBONDALE		CLAYSTONE	1.9	157.0	
231.9	CARBONDALE		SHALE	1.8	158.9	
230.2	CARBONDALE	HIGGINSVILLE	LIMESTONE	11.4	160.6	
218.8	CARBONDALE		UNCLASSIFIED	19.0	172.0	
199.8	CARBONDALE	ST. DAVID	LIMESTONE	4.0	191.0	
195.8	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	195.0	
192.8	CARBONDALE	SPRINGFIELD	COAL	5.0	198.0	
187.8	CARBONDALE		SHALE	2.0	203.0	
185.8	CARBONDALE		SANDY SHALE	25.0	205.0	

MAPID: 07700140000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 1 QUARTERS/FOOTAGES: SE NE SE

QUADRANGLE: VERGENNES LONGITUDE: -89.263889 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.940553 DATE COLLECTED: 8 / 0 / 1911

SURFACE ELEVATION (FT.): 435.2 LOGGED (FT.): 112.0 LOG TYPE: Drillers Log

SOURCE: SECURITY COAL AND MINING 2 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.2	PLEISTOCENE		CLAY	21.0	0.0	YELLOW
414.2	MODESTO		SANDSTONE	8.0	21.0	
406.2	MODESTO		SHALE	6.0	29.0	
400.2	MODESTO		SHALE	10.0	35.0	BLUE
390.2	MODESTO		SHALE	0.5	45.0	
389.7	MODESTO	DEGRAFF	COAL	0.3	45.5	
389.4	MODESTO		UNDERCLAY	1.3	45.8	
388.2	MODESTO	PIASA	LIMESTONE	7.5	47.0	GRAY
380.7	MODESTO		CLAYSTONE	1.0	54.5	
379.7	MODESTO		SHALE	0.8	55.5	
378.9	MODESTO		SHALE	0.8	56.3	
378.2	CARBONDALE	DANVILLE	COAL	2.8	57.0	
375.4	CARBONDALE		UNDERCLAY	7.3	59.8	
368.2	CARBONDALE		UNDERCLAY	6.0	67.0	
362.2	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	73.0	GRAY
356.2	CARBONDALE		CLAYSTONE	1.3	79.0	
354.9	CARBONDALE		SHALE	0.8	80.3	
354.2	CARBONDALE		COAL	1.0	81.0	
353.2	CARBONDALE		UNDERCLAY	2.0	82.0	DARK
351.2	CARBONDALE		UNDERCLAY	3.0	84.0	LIGHT
348.2	CARBONDALE		SHALE	3.0	87.0	LIGHT
345.2	CARBONDALE		SHALE	13.5	90.0	SOME LIMESTONE NOTED
331.7	CARBONDALE	HERRIN	COAL	7.8	103.5	
323.9	CARBONDALE		UNDERCLAY	0.8	111.3	

MAPID: 07700140000C VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 1 QUARTERS/FOOTAGES: SE NE SE

QUADRANGLE: VERGENNES LONGITUDE: -89.263889 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.940553 DATE COLLECTED: 0 / 0 / 1911

SURFACE ELEVATION (FT.): 435.2 LOGGED (FT.): 112.0 LOG TYPE:

SOURCE: SECURITYCM0002 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
331.2	CARBONDALE	HERRIN	COAL	7.8	104.0	

MAPID: 07700862000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 1 QUARTERS/FOOTAGES:

QUADRANGLE: VERGENNES LONGITUDE: -89.272378 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.94358 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 417.1 LOGGED (FT.): 80.0 LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 223 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
417.1	PLEISTOCENE		UNCONSOLIDATED	31.0	0.0	
386.1	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	31.0	
383.6	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	33.5	
378.6	CARBONDALE		SILTSTONE	1.2	38.5	
377.4	CARBONDALE		SHALE	2.6	39.7	
374.8	CARBONDALE		SANDY SHALE	0.7	42.3	
374.1	CARBONDALE		SANDY SHALE	2.3	43.0	
371.8	CARBONDALE		SHALE	4.9	45.3	IRON CONCRETIONS
366.9	CARBONDALE	BRERETON	LIMESTONE	3.3	50.2	GRAY TO BLACK
363.6	CARBONDALE	BRERETON	LIMESTONE	0.9	53.5	GRAY TO BLACK
362.7	CARBONDALE	ANNA	SHALE	4.2	54.4	
358.5	CARBONDALE	ENERGY	SHALE	3.5	58.6	GRAY TO BLACK
355.0	CARBONDALE	ENERGY	SHALE	8.4	62.1	
346.6	CARBONDALE	HERRIN	COAL	7.5	70.5	TOTAL THICKNESS OF PTGS. = .3 FT.
339.1	CARBONDALE		UNDERCLAY	2.0	78.0	SOME LIMESTONE NOTED

MAPID: 07700863000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 1 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: VERGENNES LONGITUDE: -89.265085 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.941547 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 432.3 LOGGED (FT.): 133.8 LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 224 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
432.3	PLEISTOCENE		UNCONSOLIDATED	31.5	0.0	
400.8	MODESTO		SANDSTONE	7.5	31.5	
393.3	MODESTO		SHALE	11.2	39.0	IRON CONCRETIONS
382.1	MODESTO		SHALE	1.0	50.2	
381.1	MODESTO		SHALE	0.6	51.2	
380.5	MODESTO		CLAYSTONE	4.7	51.8	GRAY
375.8	MODESTO	PIASA	LIMESTONE	5.5	56.5	GRAY
370.3	MODESTO	PIASA	LIMESTONE	1.5	62.0	WITH SHALE; GRAY
368.8	MODESTO		SHALE	1.8	63.5	GRAY TO BLACK
367.0	CARBONDALE	DANVILLE	COAL	2.5	65.3	
364.5	CARBONDALE		UNDERCLAY	1.2	67.8	
363.3	CARBONDALE		SILTY SHALE	2.0	69.0	
361.3	CARBONDALE		SHALE	3.5	71.0	
357.8	CARBONDALE		SHALE	0.5	74.5	
357.3	CARBONDALE	ALLENBY	COAL	0.1	75.0	
357.2	CARBONDALE		UNDERCLAY	0.3	75.1	COAL STREAKS
356.9	CARBONDALE		UNDERCLAY	3.5	75.4	SOME LIMESTONE NOTED
353.4	CARBONDALE		UNDERCLAY	0.5	78.9	DARK GRAY
352.9	CARBONDALE		UNDERCLAY	0.5	79.4	COAL STREAKS
352.4	CARBONDALE		UNDERCLAY	2.1	79.9	SOME LIMESTONE NOTED
350.3	CARBONDALE		UNDERCLAY	1.2	82.0	
349.1	CARBONDALE	BANKSTON FORK	LIMESTONE	6.8	83.2	GRAY
342.3	CARBONDALE	BANKSTON FORK	LIMESTONE	4.7	90.0	GRAY
337.6	CARBONDALE		SILTSTONE	1.3	94.7	GRAY
336.3	CARBONDALE		SHALE	3.0	96.0	
333.3	CARBONDALE		SHALE	7.0	99.0	DARK GRAY
326.3	CARBONDALE	BRERETON	LIMESTONE	3.0	106.0	GRAY TO BLACK
323.3	CARBONDALE	BRERETON	LIMESTONE	0.5	109.0	GRAY TO BLACK
322.8	CARBONDALE	ANNA	SHALE	4.5	109.5	
318.3	CARBONDALE	ENERGY	SHALE	5.0	114.0	
313.3	CARBONDALE	ENERGY	SHALE	6.0	119.0	
307.3	CARBONDALE	HERRIN	COAL	8.8	125.0	TOTAL THICKNESS OF PTGS. = .175 FT

MAPID: 07700864000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 1 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271231 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.93926 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 449.9 LOGGED (FT.): 100.7 LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 225 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
449.9	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
430.9	MODESTO	PIASA	LIMESTONE	6.5	19.0	
424.4	CARBONDALE		CLAYSTONE & SILTSTONE	20.5	25.5	NO DANVILLE HERE?
403.9	CARBONDALE		SHALE	3.0	46.0	
400.9	CARBONDALE	BANKSTON FORK	LIMESTONE	8.8	49.0	
392.1	CARBONDALE		SHALE	5.0	57.8	
387.1	CARBONDALE		SHALE	14.2	62.8	
372.9	CARBONDALE		SHALE	4.0	77.0	
368.9	CARBONDALE		SHALE	12.0	81.0	
356.9	CARBONDALE		CLAYSTONE & SILTSTONE	0.1	93.0	
356.8	CARBONDALE	HERRIN	COAL	7.6	93.1	THICKNESS OF PTGS. = .25 FT.

MAPID: 07700864000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 1 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271231 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.93926 DATE COLLECTED:

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 100.6 LOG TYPE: Survey Core Study

SOURCE:

COMMENT: FAIR DESCRIPTION WELL TYPE: Coal Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
441.0	CARBONDALE	ALLENBY	LIMESTONE	6.5	9.0	
434.5	CARBONDALE		GRAY SHALE	23.5	15.5	
411.0	CARBONDALE	BANKSTON FORK	LIMESTONE	8.8	39.0	
402.2	CARBONDALE		GRAY SHALE	29.2	47.8	
373.0	CARBONDALE	ANNA	DARK GRAY SHALE	4.0	77.0	
369.0	CARBONDALE	ENERGY	UNKNOWN	12.1	81.0	
357.0	CARBONDALE	HERRIN	COAL	7.6	93.0	

MAPID: 07700865000C

VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 2W

SECTION: 1

QUARTERS/FOOTAGES: NE SE SW

QUADRANGLE: VERGENNES

LONGITUDE: -89.273663

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.93943

DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 442.7

LOGGED (FT.): 119.5

LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO.

226

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
442.7	PLEISTOCENE		UNCONSOLIDATED	34.0	0.0
408.7	MODESTO	PIASA	LIMESTONE	7.5	34.0
401.2	MODESTO		SHALE	1.8	41.5
399.4	MODESTO		SHALE	0.4	43.3
399.0	MODESTO		SHALE	1.2	43.7
397.8	MODESTO		SHALE	0.1	44.9
397.7	CARBONDALE	DANVILLE	COAL	0.8	45.0
396.9	CARBONDALE		UNDERCLAY	6.2	45.8
390.7	CARBONDALE		SHALE	1.0	52.0
389.7	CARBONDALE		SHALE	0.4	53.0
389.3	CARBONDALE		SHALE	8.6	53.4
380.7	CARBONDALE	BANKSTON FORK	LIMESTONE	7.0	62.0
373.7	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	69.0
368.7	CARBONDALE		SHALE	3.0	74.0
365.7	CARBONDALE		SHALE	9.0	77.0
356.7	CARBONDALE		SHALE	5.5	86.0
351.2	CARBONDALE		SHALE	21.0	91.5
330.2	CARBONDALE	HERRIN	COAL	7.0	112.5

MAPID: 07700867000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 1 QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: VERGENNES LONGITUDE: -89.276001 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.9487 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 447.1 LOGGED (FT.): 97.1 LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 231 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
447.1	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
425.1	MODESTO	PIASA	LIMESTONE	6.5	22.0	
418.6	MODESTO	PIASA	LIMESTONE	3.5	28.5	
415.1	MODESTO		CORE LOSS	0.5	32.0	FISHTAILED
414.6	CARBONDALE	DANVILLE	COAL	2.5	32.5	NO CORES
412.1	CARBONDALE		SHALE	7.0	35.0	
405.1	CARBONDALE	BANKSTON FORK	LIMESTONE	8.0	42.0	GRAY
397.1	CARBONDALE	BANKSTON FORK	LIMESTONE	8.3	50.0	
388.8	CARBONDALE		SILTSTONE	0.8	58.3	ARGILLACEOUS; GRAY
388.0	CARBONDALE		SHALE	0.5	59.1	
387.5	CARBONDALE		SHALE	2.9	59.6	
384.6	CARBONDALE		SHALE	4.0	62.5	
380.6	CARBONDALE		SHALE	0.6	66.5	SOME LIMESTONE NOTED
380.0	CARBONDALE		LIMESTONE	5.4	67.1	ARGILLACEOUS
374.6	CARBONDALE		LIMESTONE	14.0	72.5	ARGILLACEOUS
360.6	CARBONDALE		SHALE	3.0	86.5	BROWN
357.6	CARBONDALE		SHALE	0.5	89.5	BROWN
357.1	CARBONDALE	HERRIN	COAL	6.5	90.0	TOTAL THICKNESS OF SHALE BND. = .2FT
350.6	CARBONDALE		UNDERCLAY	0.6	96.5	

MAPID: 07700868000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 1 QUARTERS/FOOTAGES: NE

QUADRANGLE: VERGENNES LONGITUDE: -89.267402 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.947167 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 430.1 LOGGED (FT.): 86.0 LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 241 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.1	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
415.1	MODESTO	PIASA	LIMESTONE	7.5	15.0	BROWNISH GRAY
407.6	MODESTO		SHALE	0.5	22.5	DARK GRAY
407.1	CARBONDALE	DANVILLE	COAL	1.3	23.0	
405.8	CARBONDALE		UNDERCLAY	3.0	24.3	SOME LIMESTONE NOTED
402.8	CARBONDALE		SHALE	4.5	27.3	
398.3	CARBONDALE		SHALE	0.3	31.8	
398.0	CARBONDALE		UNDERCLAY	0.4	32.1	LIMESTONE NOTED; GRAY
397.6	CARBONDALE		CORE LOSS	7.5	32.5	FISHTAILED
390.1	CARBONDALE		UNDERCLAY	1.5	40.0	SOME LIMESTONE NOTED
388.6	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	41.5	GRAY
387.1	CARBONDALE	BANKSTON FORK	LIMESTONE	8.5	43.0	GRAY
378.6	CARBONDALE		SILTSTONE	1.5	51.5	ARGILLACEOUS
377.1	CARBONDALE		SHALE	3.5	53.0	
373.6	CARBONDALE		SHALE	4.2	56.5	
369.4	CARBONDALE	CONANT	LIMESTONE	1.5	60.7	ARGILLACEOUS; DARK
367.9	CARBONDALE	JAMESTOWN	SHALE	0.2	62.2	
367.7	CARBONDALE	JAMESTOWN	COAL	0.5	62.4	
367.2	CARBONDALE	BRERETON	LIMESTONE	6.2	62.9	GRAY
361.0	CARBONDALE	ANNA	SHALE	4.7	69.1	
356.3	CARBONDALE	ENERGY	SHALE	4.5	73.8	
351.8	CARBONDALE	HERRIN	COAL	6.9	78.3	TOTAL THICKNESS OF BLUE BAND = .2FT
344.9	CARBONDALE		UNDERCLAY	0.8	85.2	DARK GRAY

MAPID: 07700869000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 1 QUARTERS/FOOTAGES: SW NW NW

QUADRANGLE: VERGENNES LONGITUDE: -89.280926 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.949057 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 444.4 LOGGED (FT.): 102.0 LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 242 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
444.4	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0	
416.4	MODESTO	PIASA	LIMESTONE	8.0	28.0	BROWN
408.4	MODESTO		SHALE	0.8	36.0	
407.6	CARBONDALE	DANVILLE	COAL	1.2	36.8	
406.4	CARBONDALE		UNDERCLAY	2.0	38.0	LIMESTONE NOTED; GRAY
404.4	CARBONDALE		CORE LOSS	6.0	40.0	
398.4	CARBONDALE		UNDERCLAY	1.5	46.0	SOME LIMESTONE NOTED
396.9	CARBONDALE	ALLENBY	COAL	0.2	47.5	
396.7	CARBONDALE		UNDERCLAY	5.3	47.7	GRAY
391.4	CARBONDALE		UNDERCLAY	4.0	53.0	SOME LIMESTONE NOTED
387.4	CARBONDALE	BANKSTON FORK	LIMESTONE	10.0	57.0	GRAY
377.4	CARBONDALE	BANKSTON FORK	LIMESTONE	0.6	67.0	GRAY
376.8	CARBONDALE		SILTSTONE	1.3	67.6	WITH SHALE; GRAY
375.5	CARBONDALE		SHALE	5.1	68.9	
370.4	CARBONDALE		SHALE	8.0	74.0	IRON CONCRETIONS
362.4	CARBONDALE	BRERETON	LIMESTONE	2.0	82.0	GRAY
360.4	CARBONDALE	BRERETON	LIMESTONE	2.0	84.0	GRAY
358.4	CARBONDALE	ANNA	SHALE	4.8	86.0	
353.6	CARBONDALE	ENERGY	SHALE	1.7	90.8	
351.9	CARBONDALE	HERRIN	COAL	9.5	92.5	TOTAL THICKNESS OF PTGS. = 1 FT.

MAPID: 07700141000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 2 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: VERGENNES LONGITUDE: -89.283344 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.943684 DATE COLLECTED:

SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 96.5 LOG TYPE: Drillers Log

SOURCE: F.J. DEAN JR. 4A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0	PLEISTOCENE		UNCONSOLIDATED	89.5	0.0	
355.5	CARBONDALE	HERRIN	COAL	7.3	89.5	TOP OF COAL ERODED

MAPID: 07700141000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 2 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: VERGENNES LONGITUDE: -89.283344 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.943684 DATE COLLECTED:

SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 0.0 LOG TYPE:

SOURCE: DEAN 004A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
355.0	CARBONDALE	HERRIN	COAL	7.3	90.0	

MAPID: 07700142000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 2 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: VERGENNES LONGITUDE: -89.283326 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.949821 DATE COLLECTED:

SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 112.6 LOG TYPE: Drillers Log

SOURCE: FRANK J. DEAN, JR. 7A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0	PLEISTOCENE		UNCONSOLIDATED	105.8	0.0	
339.2	CARBONDALE	HERRIN	COAL	6.8	105.8	TOP OF COAL ERODED

MAPID: 07700142000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 2 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: VERGENNES LONGITUDE: -89.283326 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.949821 DATE COLLECTED:

SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 0.0 LOG TYPE:

SOURCE: DEAN 007A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
339.0	CARBONDALE	HERRIN	COAL	6.8	106.0	

MAPID: 07700143000C

VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 2W

SECTION: 2

QUARTERS/FOOTAGES: SW SW NW

QUADRANGLE: VERGENNES

LONGITUDE: -89.299779

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.945591

DATE COLLECTED:

SURFACE ELEVATION (FT.): 423.0

LOGGED (FT.): 103.3

LOG TYPE: Drillers Log

SOURCE: FRANK J. DEAN, JR.

5A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
423.0	PLEISTOCENE		UNCONSOLIDATED	96.0	0.0	
327.0	CARBONDALE	HERRIN	COAL	7.3	96.0	TOP OF COAL ERODED

MAPID: 07700870000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 2 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.289231 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.942806 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 442.2 LOGGED (FT.): 144.0 LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 228 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
442.2	PLEISTOCENE		UNCONSOLIDATED	34.0	0.0	
408.2			SHALE	7.0	34.0	NO CORES
401.2			SHALE	10.5	41.0	
390.7			SHALE	4.0	51.5	
386.7			SHALE	0.5	55.5	
386.2			SHALE	1.0	56.0	
385.2			SHALE	4.5	57.0	
380.7			SHALE	10.0	61.5	
370.7			SHALE	8.0	71.5	
362.7			LIMESTONE	2.1	79.5	
360.6			SHALE	3.0	81.6	ARGILLACEOUS; GRAY
357.6			SHALE	1.0	84.6	
356.6			SHALE	0.9	85.6	
355.7			LIMESTONE	0.1	86.5	ARGILLACEOUS; GRAY
355.6			COAL	0.4	86.6	
355.2			UNDERCLAY	5.8	87.0	SOME LIMESTONE NOTED
349.4			SANDY SHALE	4.2	92.8	
345.2			SHALE	20.0	97.0	
325.2			SHALE	2.6	117.0	DARK
322.6			SHALE	2.7	119.6	IRON CONCRETIONS
319.9			COAL	0.9	122.3	
319.0			SHALE	0.8	123.2	
318.2			SHALE	0.5	124.0	
317.7			SANDSTONE	9.5	124.5	GRAY
308.2			SHALY SANDSTONE	1.5	134.0	
306.7			SHALE	8.5	135.5	

MAPID: 07700871000C

VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 2W

SECTION: 2

QUARTERS/FOOTAGES:

QUADRANGLE: VERGENNES

LONGITUDE: -89.291574

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.944044

DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 436.0

LOGGED (FT.): 97.5

LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO.

229

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
436.0	PLEISTOCENE		UNCONSOLIDATED	60.0	0.0	
376.0	CARBONDALE		SHALE	5.0	60.0	NO CORES
371.0	CARBONDALE		SHALE	3.0	65.0	
368.0	CARBONDALE		SHALE	2.0	68.0	
366.0	CARBONDALE		SHALE	5.0	70.0	
361.0	CARBONDALE		SHALE	14.5	75.0	IRON CONCRETIONS
346.5	CARBONDALE	HERRIN	COAL	8.0	89.5	TOTAL THICKNESS OF PTGS. = .4FT

MAPID: 07700872000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 2 QUARTERS/FOOTAGES: NE SE NE

QUADRANGLE: VERGENNES LONGITUDE: -89.283333 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.947328 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 441.8 LOGGED (FT.): 110.1 LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 243 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
441.8	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	NO CORES
422.8			LIMESTONE	1.2	19.0	GRAY
421.6			CLAYSTONE & SILTSTONE	1.3	20.2	LIMESTONE NOTED; YELLOW
420.3			CORE LOSS	4.0	21.5	FISHTAILED
416.3			LIMESTONE	3.5	25.5	WITH IRON; GRAY
412.8			CORE LOSS	6.0	29.0	FISHTAILED
406.8			CLAYSTONE	5.5	35.0	
401.3			SHALE	7.5	40.5	
393.8			SHALE	5.0	48.0	
388.8			SANDY SHALE	5.8	53.0	
383.0			SHALE	9.0	58.8	
374.0			COAL	0.8	67.8	
373.2			UNDERCLAY	0.6	68.6	GRAY
372.6			ARGILLACEOUS SANDSTONE	6.3	69.2	COAL STREAKS
366.3			SANDSTONE	5.0	75.5	GRAY
361.3			SANDY SHALE	2.0	80.5	
359.3			SHALE	3.0	82.5	
356.3			SHALE	1.0	85.5	
355.3			SANDY SILTSTONE	3.4	86.5	
351.9			SHALE	4.1	89.9	
347.8			SHALE	0.8	94.0	
347.0			COAL	1.0	94.8	
346.0			UNDERCLAY	1.2	95.8	GRAY
344.8			UNDERCLAY	2.2	97.0	GRAY
342.6			CORE LOSS	3.5	99.2	FISHTAILED
339.1			SANDSTONE	1.6	102.7	ARGILLACEOUS
337.5			SILTY SHALE	3.2	104.3	
334.3			SILTY SHALE	2.5	107.5	

MAPID: 07700873000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 2 **QUARTERS/FOOTAGES:** SW SE NW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.295083 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.945569 **DATE COLLECTED:** 0 / 0 / 1940
SURFACE ELEVATION (FT.): 443.6 **LOGGED (FT.):** 84.6 **LOG TYPE:** Survey Core Study
SOURCE: UNION COLLIERY CO. 244 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
443.6	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0	
420.6			LIMESTONE	1.2	23.0	GRAY
419.4			SANDSTONE	0.4	24.2	GRAY
419.0			CLAYSTONE & SILTSTONE	4.4	24.6	NO CORE
414.6			SHALE	2.0	29.0	
412.6			SHALE	11.5	31.0	
401.1			SHALE	14.5	42.5	
386.6			SHALE	4.3	57.0	
382.3			SHALE	17.0	61.3	IRON CONCRETIONS
365.3			SHALE	1.0	78.3	SOME LIMESTONE NOTED
364.3			SHALE	3.2	79.3	
361.1			COAL	2.0	82.5	HERRIN - CADY

MAPID: 07700873000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 2 **QUARTERS/FOOTAGES:** SW SE NW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.295083 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.945569 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 444.0 **LOGGED (FT.):** 116.0 **LOG TYPE:** Survey Core Study
SOURCE: **WELL TYPE:** Coal Test
COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
381.1	CARBONDALE		SILTY SHALE	33.1	62.9	
348.0	CARBONDALE	BRERETON	LIMESTONE AND SANDSTONE	0.8	96.0	
347.2	CARBONDALE	ENERGY	UNKNOWN	11.2	96.8	
336.0	CARBONDALE	HERRIN	COAL	8.0	108.0	

MAPID: 07700874000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 2 QUARTERS/FOOTAGES: SW NW SW

QUADRANGLE: VERGENNES LONGITUDE: -89.299835 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.941947 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 119.0 LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. F246 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0	PLEISTOCENE		UNCONSOLIDATED	29.5	0.0	NO CORE
395.5			SANDSTONE	19.0	29.5	WITH SHALE; GRAY
376.5			SANDSTONE	0.5	48.5	WITH SHALE; GRAY
376.0			SHALE	4.7	49.0	IRON CONCRETIONS
371.3			SANDY SHALE	2.3	53.7	
369.0			COAL	2.0	56.0	NO CORE
367.0			SILTY SHALE	4.4	58.0	
362.6			SHALE	13.1	62.4	
349.5			SHALE	4.0	75.5	
345.5			SHALE	3.0	79.5	
342.5			COAL	0.9	82.5	CLAY PARTINGS
341.6			UNDERCLAY	1.1	83.4	GRAY
340.5			CORE LOSS	3.5	84.5	FISHTAILED
337.0			COAL	0.8	88.0	
336.2			UNDERCLAY	1.2	88.8	GRAY
335.0			CORE LOSS	2.0	90.0	FISHTAILED
333.0			SANDSTONE	2.2	92.0	ARGILLACEOUS; GRAY
330.8			SHALE	0.6	94.2	
330.2			SHALE	2.2	94.8	
328.0			SHALE	3.5	97.0	
324.5			SHALE	0.3	100.5	FISSILE
324.2			UNDERCLAY	2.0	100.8	GRAY
322.2			UNDERCLAY	1.2	102.8	GREEN
321.0			UNDERCLAY	2.0	104.0	GREEN
319.0			SHALE	10.0	106.0	IRON CONCRETIONS
309.0			SHALE	1.8	116.0	FIS
307.2			CLAYSTONE	1.2	117.8	

MAPID: 07700875000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 2 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: VERGENNES LONGITUDE: -89.29743 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.945581 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 433.2 LOGGED (FT.): 112.8 LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 248 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
433.2	PLEISTOCENE		UNCONSOLIDATED	49.0	0.0	NO CORES
384.2	CARBONDALE		SHALE	6.0	49.0	NO CORE
378.2	CARBONDALE	ALLENBY	COAL	0.1	55.0	
378.1	CARBONDALE		UNDERCLAY	0.9	55.1	
377.2	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	56.0	GRAY
376.2	CARBONDALE	BANKSTON FORK	LIMESTONE	7.5	57.0	GRAY
368.7	CARBONDALE		SHALE	14.0	64.5	
354.7	CARBONDALE		UNDERCLAY	2.5	78.5	GREEN
352.2	CARBONDALE		SHALE	2.0	81.0	
350.2	CARBONDALE		SHALE	3.5	83.0	
346.7	CARBONDALE		SHALE	18.5	86.5	
328.2	CARBONDALE		SHALE	0.5	105.0	
327.7	CARBONDALE	HERRIN	COAL	7.3	105.5	

MAPID: 07700876000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 2 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: VERGENNES LONGITUDE: -89.292734 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.945556 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 444.9 LOGGED (FT.): 131.0 LOG TYPE: Survey Core Study

SOURCE: UNION COLLIERY CO. 249 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
444.9	PLEISTOCENE		UNCONSOLIDATED	44.0	0.0	NO CORES
400.9			SHALE	6.0	44.0	NO CORE
394.9			SHALY SANDSTONE	8.7	50.0	
386.2			SHALE	1.3	58.7	
384.9			SHALE	10.0	60.0	
374.9			SHALE	4.5	70.0	
370.4			COAL	0.5	74.5	
369.9			UNDERCLAY	2.0	75.0	GRAY
367.9			COAL	0.2	77.0	
367.7			UNDERCLAY	2.0	77.2	
365.7			SANDY SHALE	5.8	79.2	
359.9			SHALE	5.0	85.0	
354.9			SHALE	6.0	90.0	
348.9			SHALE	3.0	96.0	
345.9			SHALE	5.5	99.0	GREEN GRAY
340.4			SHALE	0.5	104.5	
339.9			SILTY SHALE	3.0	105.0	
336.9			SHALE	0.9	108.0	
336.0			COAL	0.1	108.9	
335.9			UNDERCLAY	8.0	109.0	GRAY
327.9			SHALE	0.5	117.0	
327.4			SHALE	1.8	117.5	
325.6			SHALE	4.2	119.3	
321.4			COAL	4.0	123.5	
317.4			UNDERCLAY	1.7	127.5	
315.7			UNDERCLAY	1.8	129.2	LIMESTONE NOTED; DARK GRAY

MAPID: 07700877000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 2 **QUARTERS/FOOTAGES:** SW SE NE
QUADRANGLE: VERGENNES **LONGITUDE:** -89.285689 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.945519 **DATE COLLECTED:** 0 / 0 / 1940
SURFACE ELEVATION (FT.): 444.5 **LOGGED (FT.):** 117.0 **LOG TYPE:** Survey Core Study
SOURCE: UNION COLLIERY CO. 250 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
444.5	PLEISTOCENE		UNCONSOLIDATED	44.0	0.0	
400.5	CARBONDALE		SANDY SHALE	32.0	44.0	
368.5	CARBONDALE		SANDY SHALE	2.1	76.0	
366.4	CARBONDALE		SHALE	8.4	78.1	
358.0	CARBONDALE		SHALE	4.0	86.5	
354.0	CARBONDALE		LIMESTONE	1.0	90.5	COAL FRAGMENT
353.0	CARBONDALE		SHALE	2.5	91.5	
350.5	CARBONDALE		SHALE	1.0	94.0	
349.5	CARBONDALE		SHALE	8.0	95.0	
341.5	CARBONDALE		SHALE	2.5	103.0	
339.0	CARBONDALE		SHALE	2.5	105.5	
336.5	CARBONDALE	HERRIN	COAL	8.0	108.0	TOTAL THICKNESS PARTING = .1 FT
328.5	CARBONDALE		UNDERCLAY	1.0	116.0	

MAPID: 07700144000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 3 **QUARTERS/FOOTAGES:** SW SW NW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.318611 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.945772 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 420.0 **LOGGED (FT.):** 56.7 **LOG TYPE:** Drillers Log
SOURCE: FRANK J. DEAN, JR. 12B **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0	PLEISTOCENE		UNCONSOLIDATED	55.0	0.0	
365.0	CARBONDALE		COAL	1.7	55.0	PROBABLY NOT HERRIN - CADY

MAPID: 07700144000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 3 **QUARTERS/FOOTAGES:** SW SW NW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.318611 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.945772 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 420.0 **LOGGED (FT.):** 0.0 **LOG TYPE:**
SOURCE: DEAN 012B **WELL TYPE:** Coal Test
COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
365.0	CARBONDALE	HERRIN	COAL	1.7	55.0	

MAPID: 07790143000C **VERSION:** 1 **PROJECT:** LUMP
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 3 **QUARTERS/FOOTAGES:** 40' N line, 60' E line of NE
QUADRANGLE: VERGENNES **LONGITUDE:** -89.301079 **GEOLOGIST:** NORTH
CONFIDENTIAL: N **LATITUDE:** 37.950728 **DATE COLLECTED:** 6 / 1 / 1981
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 141.0 **LOG TYPE:** Drillers Log
SOURCE: FREEMAN UNITED COAL MINING CO.F11-18-81 **WELL TYPE:** Coal Test
COMMENT: PERMIT 314 FIDELITY MINE NO 11

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	49.0	0.0	¹⁹
-	CARBONDALE		GRAY SHALE	19.0	49.0	
-	CARBONDALE	BRERETON	LIMESTONE	1.0	68.0	
-	CARBONDALE	ANNA	BLACK SHALE	2.5	69.0	
-	CARBONDALE	ENERGY	GRAY SHALE	21.2	71.5	
-	CARBONDALE	HERRIN	COAL	7.8	92.7	
-	CARBONDALE		UNDERCLAY	2.0	100.5	
-	CARBONDALE	HIGGINSVILLE	LIMESTONE	4.5	102.5	
-	CARBONDALE		GRAY SHALE	5.0	107.0	
-	CARBONDALE		BLACK SHALE	0.3	112.0	
-	CARBONDALE		GRAY SHALE	4.8	112.3	
-	CARBONDALE		SANDSTONE	7.0	117.0	
-	CARBONDALE		SANDY SHALE	17.0	124.0	

MAPID: 07700145000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 4 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.328466 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.938617 DATE COLLECTED:
SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 93.3 LOG TYPE: Drillers Log
SOURCE: FRANK J. DEAN, JR. 9B WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0	PLEISTOCENE		UNCONSOLIDATED	92.8	0.0	
347.2	CARBONDALE		COAL	0.5	92.8	

MAPID: 07700612000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 4 QUARTERS/FOOTAGES: SE SW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.335608 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.938716 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log
SOURCE: FRED H. WILLS 10 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0	
426.0	CARBONDALE	HERRIN	COAL	2.0	29.0	
424.0	CARBONDALE		SHALE	29.0	31.0	

MAPID: 07700612000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 4 QUARTERS/FOOTAGES: SE SW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.335608 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.938716 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 60.0 LOG TYPE:
SOURCE: WILLS CC 0010 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
431.0	CARBONDALE	HERRIN	COAL	2.0	29.0	

MAPID: 07700613000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 4 QUARTERS/FOOTAGES: NW SW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.337901 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.940569 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 435.0 LOGGED (FT.): 51.0 LOG TYPE: Drillers Log
SOURCE: FRED H. WILLS 11 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.0	PLEISTOCENE		UNCONSOLIDATED	45.0	0.0	
390.0			ROCK	6.0	45.0	

MAPID: 07700613000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 4 QUARTERS/FOOTAGES: NW SW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.337901 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.940569 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 51.0 LOG TYPE:
SOURCE: WILLS CC 0011 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED

MAPID: 07700614000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 4 QUARTERS/FOOTAGES: NW NW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.337732 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.94421 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 57.0 LOG TYPE: Drillers Log
SOURCE: FRED H. WILLS 614 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	27.5	0.0	
367.5			COAL	2.0	27.5	
365.5			SHALE	27.5	29.5	

MAPID: 07700614000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 4 QUARTERS/FOOTAGES: NW NW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.337732 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.94421 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 57.0 LOG TYPE:
SOURCE: WILLS CC 0012 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	CARBONDALE	HERRIN	COAL	2.0	30.0	

MAPID: 07700615000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 4 QUARTERS/FOOTAGES: SE NW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.335436 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.942357 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 37.7 LOG TYPE: Drillers Log
SOURCE: FRED H. WILLS 13 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0	
375.0	CARBONDALE	HERRIN	COAL	5.2	30.0	
369.8	CARBONDALE		SHALE	2.5	35.2	

MAPID: 07700615000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 4 QUARTERS/FOOTAGES: SE NW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.335436 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.942357 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 38.0 LOG TYPE:
SOURCE: WILLS CC 0013 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0	CARBONDALE	HERRIN	COAL	5.2	30.0	

MAPID: 07700616000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 4 QUARTERS/FOOTAGES: NE SW NW
QUADRANGLE: VERGENNES LONGITUDE: -89.335179 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.94782 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: WILLS CC 0014 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	CARBONDALE	HERRIN	COAL	2.0	32.0	

MAPID: 07700619000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 4 QUARTERS/FOOTAGES: NE NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.325526 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.950343 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: WILLS CC 016B WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
388.0	CARBONDALE	HERRIN	COAL	5.0	32.0	

MAPID: 07700620000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 4 QUARTERS/FOOTAGES: SW NE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.33271 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.949605 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 20.0 LOG TYPE: Drillers Log
SOURCE: FRED H. WILLS 17 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	

MAPID: 07700621000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 4 QUARTERS/FOOTAGES: SW SE NW NW
QUADRANGLE: VERGENNES LONGITUDE: -89.335709 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.949193 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 20.0 LOG TYPE: Drillers Log
SOURCE: FRED H. WILLS 18 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	

MAPID: 07700622000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 4 QUARTERS/FOOTAGES: NE NE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.330289 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.95043 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 24.0 LOG TYPE: Drillers Log
SOURCE: FRED H. WILLS 19 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0

MAPID: 07700623000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 4 QUARTERS/FOOTAGES: SE SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.320978 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.9458 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 28.1 LOG TYPE: Drillers Log
SOURCE: FRED H. WILLS 20 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
455.0	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0
439.0			SANDSTONE	4.0	16.0
435.0			SHALE	2.0	20.0
433.0			SHALE	1.2	22.0
431.8			COAL	3.4	23.2
428.4			CLAYSTONE & SILTSTONE	1.5	26.6

MAPID: 07700623000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 4 QUARTERS/FOOTAGES: SE SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.320978 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.9458 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 28.0 LOG TYPE:
SOURCE: WILLS CC 0020 WELL TYPE: Coal Test
COMMENT: LOCATION AND SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
397.0	CARBONDALE	HERRIN	COAL	3.4	23.0

MAPID: 07700604000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 5 QUARTERS/FOOTAGES: SW SW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.3469 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.94623 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: FRED H. WILLS 1 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
395.0	PLEISTOCENE		UNCONSOLIDATED	38.0 0.0	

MAPID: 07700604000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 5 QUARTERS/FOOTAGES: SW SW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.3469 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.94623 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 38.0 LOG TYPE:
SOURCE: WILLS CC 0001 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0	COAL ABSENT OR ERODED

MAPID: 07700605000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 5 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.346994 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.944411 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 37.0 LOG TYPE: Drillers Log
SOURCE: FRED H. WILLS 2 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
395.0	PLEISTOCENE		UNCONSOLIDATED	37.0 0.0	

MAPID: 07700605000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 5 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.346994 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.944411 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 37.0 LOG TYPE:
SOURCE: WILLS CC 0002 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0	COAL ABSENT OR ERODED

MAPID: 07700606000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 5 **QUARTERS/FOOTAGES:** NW SW SE
QUADRANGLE: VERGENNES **LONGITUDE:** -89.347183 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.94077 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 405.0 **LOGGED (FT.):** 51.0 **LOG TYPE:** Drillers Log
SOURCE: FRED H. WILLS 3 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
405.0	PLEISTOCENE		UNCONSOLIDATED	51.0 0.0	

MAPID: 07700606000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 5 **QUARTERS/FOOTAGES:** NW SW SE
QUADRANGLE: VERGENNES **LONGITUDE:** -89.347183 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.94077 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 402.0 **LOGGED (FT.):** 51.0 **LOG TYPE:**
SOURCE: WILLS CC 0003 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0	COAL ABSENT OR ERODED

MAPID: 07700607000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 5 **QUARTERS/FOOTAGES:** SE SW SW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.354217 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.939106 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 32.0 **LOG TYPE:** Drillers Log
SOURCE: FRED H. WILLS 4 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
395.0	PLEISTOCENE		UNCONSOLIDATED	32.0 0.0	

MAPID: 07700607000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 5 **QUARTERS/FOOTAGES:** SE SW SW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.354217 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.939106 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 32.0 **LOG TYPE:**
SOURCE: WILLS CC 0004 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0	COAL ABSENT OR ERODED

MAPID: 07700617000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 5 QUARTERS/FOOTAGES: NE SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.339903 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.947893 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 20.5 LOG TYPE: Drillers Log
SOURCE: FRED H. WILLS 15 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
375.0			COAL	0.5	20.0	

MAPID: 07700617000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 5 QUARTERS/FOOTAGES: NE SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.339903 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.947893 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: WILLS CC 0015 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	CARBONDALE	HERRIN	COAL	0.5	20.0	

MAPID: 07700618000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 5 QUARTERS/FOOTAGES: SE SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.339987 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.946074 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 28.0 LOG TYPE: Drillers Log
SOURCE: FRED H. WILLS 16A WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0	
377.0			CLAYSTONE	-	28.0	

MAPID: 07700618000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 5 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: VERGENNES LONGITUDE: -89.339987 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.946074 DATE COLLECTED:

SURFACE ELEVATION (FT.): 402.0 LOGGED (FT.): 28.0 LOG TYPE:

SOURCE: WILLS CC 016A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED

MAPID: 07700146000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 7 QUARTERS/FOOTAGES: NE

QUADRANGLE: VERGENNES LONGITUDE: -89.362191 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.934602 DATE COLLECTED: 0 / 0 / 1903

SURFACE ELEVATION (FT.): 382.0 LOGGED (FT.): 155.1 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 69 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
382.0	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
360.0	PLEISTOCENE		SAND	25.0	22.0	YELLOW
335.0	PLEISTOCENE		SAND	14.0	47.0	
321.0			SHALE	12.0	61.0	BLUE
309.0			SHALE	12.0	73.0	BLUE
297.0			LIMESTONE	2.0	85.0	DARK
295.0			SHALE	1.5	87.0	
293.5			COAL	0.3	88.5	
293.2			UNDERCLAY	3.3	88.8	
290.0			SHALE	5.0	92.0	BLUE
285.0			SANDSTONE	10.0	97.0	GRAY
275.0			SHALE	15.0	107.0	
260.0			SHALE	2.0	122.0	
258.0			SHALE	2.0	124.0	DARK
256.0			SANDSTONE	10.0	126.0	GRAY
246.0			SHALE	12.0	136.0	BLUE
234.0			SHALE	2.0	148.0	
232.0			COAL	3.8	150.0	
228.2			UNDERCLAY	1.3	153.8	

MAPID: 07700147000C VERSION: 1 PROJECT: CUSMAP
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 8 QUARTERS/FOOTAGES: NW NW
QUADRANGLE: VERGENNES LONGITUDE: -89.355569 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.936327 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 388.0 LOGGED (FT.): 90.0 LOG TYPE: Drillers Log
SOURCE: WARREN WELL TYPE: Producer-Oil and Gas
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
298.0	BASE OF PENN.		UNCLASSIFIED	-	90.0	

MAPID: 07700608000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 8 QUARTERS/FOOTAGES: SW NE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.352158 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.935307 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 45.0 LOG TYPE: Drillers Log
SOURCE: FRED H. WILLS 5 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	45.0	0.0	

MAPID: 07700608000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 8 QUARTERS/FOOTAGES: SW NE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.352158 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.935307 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 45.0 LOG TYPE:
SOURCE: WILLS CC 0005 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED

MAPID: 07700609000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 8 QUARTERS/FOOTAGES: NW NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.347386 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.937095 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 45.0 LOG TYPE: Drillers Log
SOURCE: FRED H. WILLS 6 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
415.0	PLEISTOCENE		UNCONSOLIDATED	38.0	0.0	
377.0			SHALE	7.0	38.0	

MAPID: 07700609000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 8 QUARTERS/FOOTAGES: NW NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.347386 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.937095 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 45.0 LOG TYPE:
SOURCE: WILLS CC 0006 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED

MAPID: 07700610000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 8 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.34275 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.936992 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 435.0 LOGGED (FT.): 20.4 LOG TYPE: Drillers Log
SOURCE: FRED H. WILLS 7 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.0	PLEISTOCENE		UNCONSOLIDATED	17.5	0.0	
417.5			SHALE	2.0	17.5	
415.5			COAL	0.9	19.5	

MAPID: 07700610000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 8 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.34275 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.936992 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: WILLS CC 0007 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	CARBONDALE	HERRIN	COAL	0.9	20.0	

MAPID: 07700611000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 8 QUARTERS/FOOTAGES: SE NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.340548 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.935065 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 30.0 LOG TYPE: Drillers Log
SOURCE: FRED H. WILLS 8 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0	
398.0			SHALE	1.0	27.0	
397.0			SMUT	2.0	28.0	

MAPID: 07700611000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 8 QUARTERS/FOOTAGES: SE NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.340548 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.935065 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: WILLS CC 0008 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
401.0	CARBONDALE	HERRIN	COAL	1.0	29.0	

MAPID: 07700625000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 8 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: VERGENNES LONGITUDE: -89.340433 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.936942 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 30.7 LOG TYPE: Drillers Log

SOURCE: FRED H. WILLS 9 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0	PLEISTOCENE		UNCONSOLIDATED	27.5	0.0	
417.5			SHALE	2.5	27.5	
415.0			COAL	0.7	30.0	

MAPID: 07700625000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 8 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: VERGENNES LONGITUDE: -89.340433 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.936942 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 0.0 LOG TYPE:

SOURCE: WILLS CC 0009 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0	CARBONDALE	HERRIN	COAL	0.7	30.0	

MAPID: 07700148000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 11 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: VERGENNES LONGITUDE: -89.284586 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.935437 DATE COLLECTED: 0 / 0 / 1917

SURFACE ELEVATION (FT.): 442.9 LOGGED (FT.): 143.0 LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 16 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
442.9	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0	YELLOW
415.9			SHALE	2.0	27.0	YELLOW
413.9			SHALE	6.0	29.0	BLUE
407.9			SHALE	27.0	35.0	BLUE
380.9			SHALE	5.0	62.0	DARK
375.9			LIMESTONE	2.0	67.0	DARK
373.9			SHALE	3.8	69.0	
370.1			COAL	0.5	72.8	
369.6			UNDERCLAY	1.8	73.3	
367.9			LIMESTONE	5.0	75.0	
362.9			SHALE	17.0	80.0	BLUE
345.9			SHALE	13.0	97.0	BLUE
332.9			SHALE	2.0	110.0	SOME LIMESTONE NOTED
330.9			COAL	1.5	112.0	
329.4			UNDERCLAY	2.5	113.5	DARK
326.9			SHALE	15.0	116.0	DARK
311.9			SHALE	1.5	131.0	SOME LIMESTONE NOTED
310.4			COAL	1.0	132.5	
309.4			UNDERCLAY	3.5	133.5	
305.9			COAL	4.3	137.0	
301.6			UNDERCLAY	1.8	141.3	DARK

MAPID: 07722235000C VERSION: 1

PROJECT: CUSMAP

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 11 QUARTERS/FOOTAGES: 330' S line, 330' W line of SW SE NW

QUADRANGLE: VERGENNES LONGITUDE: -89.295432 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.930806 DATE COLLECTED:

SURFACE ELEVATION (FT.): 447.0 LOGGED (FT.): 647.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Dry Hole

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-200.0	BASE OF PENN.		UNCLASSIFIED	-	647.0	

MAPID: 07700149000C

VERSION: 1

PROJECT: CUSMAP

COUNTY: JACKSON

TWP/RNG: 7S 2W

SECTION: 12

QUARTERS/FOOTAGES: 1' S line, 1' E line

QUADRANGLE: VERGENNES

LONGITUDE: -89.26307

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.921407

DATE COLLECTED: 0 / 0 / 1900

SURFACE ELEVATION (FT.): 450.0

LOGGED (FT.): 248.5

LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
287.0	CARBONDALE	COLCHESTER	UNCLASSIFIED	-	163.0	
201.5	SPOON	DAVIS	UNCLASSIFIED	-	248.5	

MAPID: 07700149000C VERSION: 2

PROJECT: NCRDS87

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 12 QUARTERS/FOOTAGES: 1' S line, 1' E line

QUADRANGLE: VERGENNES LONGITUDE: -89.26307 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 37.921407 DATE COLLECTED:

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 399.0 LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0			UNCONSOLIDATED	19.0	0.0	
431.0	CARBONDALE	HERRIN	COAL	2.0	19.0	
429.0	CARBONDALE		UNCLASSIFIED	8.0	21.0	
421.0	CARBONDALE		SANDSTONE	14.0	29.0	
407.0	CARBONDALE		SHALE	49.5	43.0	
357.5	CARBONDALE		LIMESTONE	1.5	92.5	
356.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	94.0	
353.0	CARBONDALE	SPRINGFIELD	COAL	2.0	97.0	
351.0	CARBONDALE		UNDERCLAY	8.0	99.0	
343.0	CARBONDALE		SHALE	49.0	107.0	
294.0	CARBONDALE	OAK GROVE	LIMESTONE	2.0	156.0	
292.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	5.0	158.0	
287.0	CARBONDALE	COLCHESTER	COAL	0.5	163.0	
286.5			UNDERCLAY	2.5	163.5	
284.0			SANDSTONE	15.0	166.0	
269.0			SHALE	17.3	181.0	
251.7	SPOON	DEKOVEN	COAL	1.8	198.3	
250.0			SHALE	1.0	200.0	
249.0			SANDSTONE	11.0	201.0	
238.0			SHALE	12.8	212.0	
225.2	SPOON	DAVIS	COAL	1.0	224.8	
224.2			UNDERCLAY	1.0	225.8	
223.2			COAL	1.5	226.8	
221.7			UNDERCLAY	2.8	228.3	
219.0			SHALE	17.0	231.0	
202.0			BLACK SHALE	0.5	248.0	
201.5			COAL	0.5	248.5	
201.0			UNDERCLAY	19.8	249.0	
181.2			COAL	0.3	268.8	
181.0			UNDERCLAY	2.0	269.0	
179.0			SHALE	14.0	271.0	
165.0			LIMESTONE	1.0	285.0	
164.0			UNDERCLAY	2.0	286.0	
162.0			SHALE	11.0	288.0	
151.0			BLACK SHALE	2.0	299.0	
149.0			LIMESTONE	1.5	301.0	
147.5			BLACK SHALE	0.3	302.5	
147.2	SPOON	MURPHYSBORO	COAL	0.8	302.8	UNCERTAIN CORRELATION
146.5			SHALE	17.0	303.5	

129.5	COAL	0.5	320.5
129.0	SHALE	2.0	321.0
127.0	SANDSTONE	4.0	323.0
123.0	SHALE	2.0	327.0
121.0	COAL	0.5	329.0
120.5	UNDERCLAY	0.5	329.5
120.0	SHALE	69.0	330.0

MAPID: 07700149000C VERSION: 3

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 12 QUARTERS/FOOTAGES: 1' S line, 1' E line
 QUADRANGLE: VERGENNES LONGITUDE: -89.26307 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.921407 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 399.1 LOG TYPE: Drillers Log
 SOURCE: HALLIDAY ESTATE 21 WELL TYPE: Coal Test
 COMMENT: NO WORKABLE VEIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
431.0	PLEISTOCENE		UNCONSOLIDATED	2.0	19.0	COALY; LOG NOTES COAL
429.0	PLEISTOCENE		UNCONSOLIDATED	8.0	21.0	
421.0			SANDSTONE	14.0	29.0	
407.0			SANDY SHALE	20.0	43.0	
387.0			SHALE	29.5	63.0	
357.5			LIMESTONE	1.5	92.5	
356.0			SHALE	3.0	94.0	
353.0			COAL	2.0	97.0	
351.0			UNDERCLAY	8.0	99.0	
343.0			SHALE	11.0	107.0	
332.0			SANDY SHALE	21.0	118.0	
311.0			SANDY SHALE	17.0	139.0	
294.0			LIMESTONE	2.0	156.0	
292.0			SHALE	5.0	158.0	
287.0			COAL	0.5	163.0	
286.5			UNDERCLAY	2.5	163.5	
284.0			SANDSTONE	15.0	166.0	
269.0			SANDY SHALE	17.3	181.0	
251.7			COAL	1.8	198.3	DEKOVEN
250.0			SHALE	1.0	200.0	
249.0			SANDSTONE	11.0	201.0	
238.0			SANDY SHALE	7.0	212.0	
231.0			SHALE	5.8	219.0	
225.2			COAL	1.0	224.8	DAVIS?
224.2			UNDERCLAY	1.0	225.8	
223.2			COAL	1.5	226.8	
221.7			UNDERCLAY	2.8	228.3	
219.0			SANDY SHALE	12.0	231.0	
207.0			SHALE	5.0	243.0	
202.0			SHALE	0.5	248.0	
201.5			COAL	0.5	248.5	
201.0			UNDERCLAY	11.0	249.0	
190.0			UNDERCLAY	4.0	260.0	
186.0			UNDERCLAY	4.8	264.0	
181.2			COAL	0.3	268.8	
181.0			UNDERCLAY	2.0	269.0	
179.0			SANDY SHALE	14.0	271.0	
165.0			LIMESTONE	1.0	285.0	

164.0	CLAYSTONE	2.0	286.0
162.0	SANDY SHALE	11.0	288.0
151.0	SHALE	2.0	299.0
149.0	LIMESTONE	1.5	301.0
147.5	SHALE	0.3	302.5
147.2	COAL	0.8	302.8
146.5	SHALE	6.5	303.5
140.0	SANDY SHALE	10.5	310.0
129.5	COAL	0.5	320.5
129.0	SHALE	2.0	321.0
127.0	SANDSTONE	4.0	323.0
123.0	SANDY SHALE	2.0	327.0
121.0	COAL	0.5	329.0
120.5	UNDERCLAY	0.5	329.5
120.0	SHALE	3.0	330.0
117.0	CLAYSTONE	2.0	333.0
115.0	SANDY SHALE	3.0	335.0
112.0	SANDY SHALE	17.0	338.0
95.0	SANDY SHALE	13.0	355.0
82.0	SANDY SHALE	31.0	368.0

MAPID: 07700150000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 12 QUARTERS/FOOTAGES: NW NW NE

QUADRANGLE: VERGENNES LONGITUDE: -89.271298 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.93561 DATE COLLECTED:

SURFACE ELEVATION (FT.): 455.6 LOGGED (FT.): 153.0 LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 5 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.6	PLEISTOCENE		CLAY	23.0	0.0	
432.6			SHALE	7.5	23.0	YELLOW
425.1			COAL	0.5	30.5	SPRINGFIELD - CADY
424.6			UNDERCLAY	3.0	31.0	
421.6			SANDSTONE	9.0	34.0	
412.6			SHALE	29.0	43.0	BLUE
383.6			SHALE	12.0	72.0	BLUE
371.6			SHALE	8.0	84.0	SOME LIMESTONE NOTED; BLUE
363.6			SHALE	3.3	92.0	
360.3			COAL	2.5	95.3	
357.8			UNDERCLAY	2.3	97.8	
355.6			SANDY CLAYSTONE	2.0	100.0	
353.6			LIMESTONE	2.0	102.0	BLUE
351.6			SHALE	16.0	104.0	BLUE
335.6			SANDSTONE	17.0	120.0	SHALE PARTINGS
318.6			SANDY SHALE	16.0	137.0	DARK

MAPID: 07700151000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 12 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: VERGENNES LONGITUDE: -89.279794 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.93526 DATE COLLECTED: 0 / 0 / 1917

SURFACE ELEVATION (FT.): 442.2 LOGGED (FT.): 128.0 LOG TYPE: Drillers Log

SOURCE: UNION COLLIERY CO. 12 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
442.2	PLEISTOCENE		UNCONSOLIDATED	44.0	0.0	
398.2			SHALE	6.0	44.0	BLUE
392.2			SHALE	15.0	50.0	BLUE
377.2			LIMESTONE	1.8	65.0	DARK
375.4			SHALE	3.0	66.8	
372.4			LIMESTONE	1.0	69.8	CONGLOMERATE
371.4			COAL	0.5	70.8	
370.9			UNDERCLAY	3.8	71.3	
367.2			LIMESTONE	3.0	75.0	
364.2			SHALE	20.0	78.0	BLUE
344.2			SHALE	1.0	98.0	DARK
343.2			COAL	1.0	99.0	
342.2			UNDERCLAY	3.0	100.0	
339.2			SANDY SHALE	3.0	103.0	
336.2			SANDSTONE	4.0	106.0	
332.2			SANDSTONE	5.0	110.0	WITH DARK SHALE PARTINGS
327.2			SHALE	7.8	115.0	
319.4			COAL	2.8	122.8	
316.7			UNDERCLAY	2.5	125.5	

MAPID: 07700573000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 12 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: VERGENNES LONGITUDE: -89.265461 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.923338 DATE COLLECTED: 0 / 0 / 1938

SURFACE ELEVATION (FT.): 454.0 LOGGED (FT.): 110.4 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER COAL CO. 4 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
454.0	PLEISTOCENE		SOIL	19.9	0.0
434.1			SANDSTONE	2.7	19.9
431.4			SHALE	1.7	22.6
429.7			SANDSTONE	0.7	24.3
429.1			SHALE	47.9	24.9
381.2			LIMESTONE	0.5	72.8
380.7			SHALE	3.3	73.3
377.4			COAL	2.3	76.6
375.1			SHALE	1.7	78.9
373.4			LIMESTONE	7.0	80.6
366.4			SHALE	10.3	87.6
356.1			SHALE	10.9	97.9
345.2			SANDSTONE	1.5	108.8

MAPID: 07700602000C VERSION: 1 PROJECT: CUSMAP

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 12 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: VERGENNES LONGITUDE: -89.26413 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.929649 DATE COLLECTED: 0 / 0 / 1938

SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 665.0 LOG TYPE: Electric Log

SOURCE: EASON OIL CO. WELL TYPE: Dry Hole

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-227.0	BASE OF PENN.		UNCLASSIFIED	-	665.0

MAPID: 07700152000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: VERGENNES LONGITUDE: -89.264269 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.909698 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 436.5 LOGGED (FT.): 28.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
436.5	PLEISTOCENE		CLAY	22.0	0.0	
414.5	CARBONDALE	HERRIN	COAL	6.0	22.0	TOP OF COAL ERODED

MAPID: 07700152000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: VERGENNES LONGITUDE: -89.264269 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.909698 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 436.5 LOGGED (FT.): 28.0 LOG TYPE:

SOURCE: BLK SERVCC0001 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
414.5	CARBONDALE	HERRIN	COAL	6.3	22.0	

MAPID: 07700153000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: VERGENNES LONGITUDE: -89.264269 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.909698 DATE COLLECTED:

SURFACE ELEVATION (FT.): 437.2 LOGGED (FT.): 29.2 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 2 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
437.2	PLEISTOCENE		CLAY	23.0	0.0	
414.2	CARBONDALE	HERRIN	COAL	6.2	23.0	TOP OF COAL ERODED

MAPID: 07700153000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NE SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.264269 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.909698 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 437.2 LOGGED (FT.): 29.0 LOG TYPE:
SOURCE: BLK SERVCC0002 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
414.2	CARBONDALE	HERRIN	COAL	6.2	23.0	

MAPID: 07700154000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NE SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.264269 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.909698 DATE COLLECTED:
SURFACE ELEVATION (FT.): 442.0 LOGGED (FT.): 33.6 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 3 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
442.0	PLEISTOCENE		CLAY	20.0	0.0	
422.0	CARBONDALE		SHALE	7.0	20.0	
415.0	CARBONDALE	HERRIN	COAL	6.6	27.0	

MAPID: 07700154000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NE SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.264269 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.909698 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 442.0 LOGGED (FT.): 34.0 LOG TYPE:
SOURCE: BLK SERVCC0003 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
415.0	CARBONDALE	HERRIN	COAL	6.6	27.0	

MAPID: 07700155000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 13 **QUARTERS/FOOTAGES:** NW SE SE
QUADRANGLE: VERGENNES **LONGITUDE:** -89.266701 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.909745 **DATE COLLECTED:** 0 / 0 / 1926
SURFACE ELEVATION (FT.): 444.1 **LOGGED (FT.):** 35.0 **LOG TYPE:** Drillers Log
SOURCE: BLACK SERVANT COAL CO. 5 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
444.1	PLEISTOCENE		CLAY	18.3	0.0	
425.8	CARBONDALE	BRERETON	LIMESTONE	4.8	18.3	BLUE
421.1	CARBONDALE	BRERETON	CLAYSTONE & SILTSTONE	0.5	23.0	
420.6	CARBONDALE	BRERETON	LIMESTONE	2.0	23.5	
418.6	CARBONDALE	ANNA	SHALE	1.5	25.5	
417.1	CARBONDALE	HERRIN	COAL	8.0	27.0	

MAPID: 07700155000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 13 **QUARTERS/FOOTAGES:** NW SE SE
QUADRANGLE: VERGENNES **LONGITUDE:** -89.266701 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.909745 **DATE COLLECTED:** 0 / 0 / 1926
SURFACE ELEVATION (FT.): 444.1 **LOGGED (FT.):** 35.0 **LOG TYPE:**
SOURCE: BLK SERVCC0005 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
417.1	CARBONDALE	HERRIN	COAL	8.0	27.0	

MAPID: 07700156000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 13 **QUARTERS/FOOTAGES:** NE SW SE
QUADRANGLE: VERGENNES **LONGITUDE:** -89.269133 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.909794 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 443.0 **LOGGED (FT.):** 26.0 **LOG TYPE:** Drillers Log
SOURCE: BLACK SERVANT COAL CO. 6 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
443.0	PLEISTOCENE		CLAY	23.0	0.0	
420.0	CARBONDALE	HERRIN	COAL	3.0	23.0	TOP OF COAL ERODED

MAPID: 07700156000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NE SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.269133 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.909794 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 442.5 LOGGED (FT.): 26.0 LOG TYPE:

SOURCE: BLK SERVCC0006 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
419.5	CARBONDALE	HERRIN	COAL	3.0	23.0	

MAPID: 07700157000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.269135 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.907964 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 441.0 LOGGED (FT.): 40.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL 7 WELL TYPE: Coal Test

COMMENT: NO COAL, BEYOND OUTCROP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
441.0	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0	NO COAL, BEYOND OUTCROP

MAPID: 07700157000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.269135 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.907964 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 441.3 LOGGED (FT.): 40.0 LOG TYPE:

SOURCE: BLK SERVCC0007 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED

MAPID: 07700158000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.266701 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.909745 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 442.1 LOGGED (FT.): 33.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 8 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
442.1	PLEISTOCENE		CLAY	20.5	0.0	
421.6	PLEISTOCENE		SAND	2.0	20.5	
419.6	CARBONDALE	HERRIN	COAL	3.0	22.5	WITH BLACK SHALE BLUE
416.6	CARBONDALE	HERRIN	SHALE	2.5	25.5	
414.1	CARBONDALE	HERRIN	COAL	5.0	28.0	

MAPID: 07700158000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.266701 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.909745 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 442.1 LOGGED (FT.): 33.0 LOG TYPE:
SOURCE: BLK SERVCC0008 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
414.1	CARBONDALE	HERRIN	COAL	5.0	28.0	

MAPID: 07700159000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SW SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.266703 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.907926 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 441.0 LOGGED (FT.): 38.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 9 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
441.0	PLEISTOCENE		CLAY	28.5	0.0	
412.5	CARBONDALE		SHALE	1.5	28.5	
411.0	CARBONDALE	HERRIN	COAL	8.0	30.0	

MAPID: 07700159000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SW SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.266703 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.907926 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 441.0 LOGGED (FT.): 38.0 LOG TYPE:
SOURCE: BLK SERVCC0009 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
411.0	CARBONDALE	HERRIN	COAL	8.0	30.0	

MAPID: 07700160000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SE SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.264268 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.90789 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 439.2 LOGGED (FT.): 46.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 17 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
439.2	PLEISTOCENE		CLAY	17.0	0.0	
422.2	CARBONDALE		SANDY SHALE	4.0	17.0	
418.2	CARBONDALE		SHALE	5.0	21.0	
413.2	CARBONDALE	BRERETON	LIMESTONE	7.0	26.0	GRAY
406.2	CARBONDALE	ANNA	SHALE	2.5	33.0	
403.7	CARBONDALE	ENERGY	SHALE	2.5	35.5	
401.2	CARBONDALE	HERRIN	COAL	8.0	38.0	

MAPID: 07700160000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SE SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.264268 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.90789 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 439.2 LOGGED (FT.): 46.0 LOG TYPE:
SOURCE: BLK SERVCC0017 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
401.2	CARBONDALE	HERRIN	COAL	8.0	38.0	

MAPID: 07700161000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SE NE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.264273 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.911507 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 438.6 LOGGED (FT.): 27.5 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 18 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
438.6	PLEISTOCENE		CLAY	24.0	0.0	
414.6	CARBONDALE	HERRIN	COAL	3.5	24.0	TOP OF COAL ERODED

MAPID: 07700161000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SE NE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.264273 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.911507 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 438.6 LOGGED (FT.): 28.0 LOG TYPE:
SOURCE: BLK SERVCC0018 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
414.6	CARBONDALE	HERRIN	COAL	3.5	24.0	

MAPID: 07700162000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SE NE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.264273 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.911507 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 444.0 LOGGED (FT.): 31.2 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 19 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
444.0	PLEISTOCENE		CLAY	21.0	0.0	
423.0	CARBONDALE		SHALE	4.0	21.0	
419.0	CARBONDALE	HERRIN	COAL	6.2	25.0	

MAPID: 07700162000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SE NE SE

QUADRANGLE: VERGENNES LONGITUDE: -89.264273 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.911507 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 444.0 LOGGED (FT.): 31.0 LOG TYPE:

SOURCE: BLK SERVCC0019 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
419.0	CARBONDALE	HERRIN	COAL	6.2	25.0	

MAPID: 07700163000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SW NE SE

QUADRANGLE: VERGENNES LONGITUDE: -89.266702 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.911564 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 441.3 LOGGED (FT.): 29.8 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 20 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
441.3	PLEISTOCENE		CLAY	24.0	0.0	
417.3	CARBONDALE	HERRIN	COAL	5.8	24.0	TOP OF COAL ERODED

MAPID: 07700163000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SW NE SE

QUADRANGLE: VERGENNES LONGITUDE: -89.266702 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.911564 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 441.3 LOGGED (FT.): 30.0 LOG TYPE:

SOURCE: BLK SERVCC0020 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
417.3	CARBONDALE	HERRIN	COAL	5.8	24.0	

MAPID: 07700164000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: VERGENNES LONGITUDE: -89.264275 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.913318 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 439.0 LOGGED (FT.): 23.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 21 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
439.0	PLEISTOCENE		CLAY	18.0	0.0	
421.0	CARBONDALE	HERRIN	SMUT	1.0	18.0	TOP OF COAL ERODED
420.0	CARBONDALE	HERRIN	COAL	4.0	19.0	TOP OF COAL ERODED

MAPID: 07700164000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: VERGENNES LONGITUDE: -89.264275 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.913318 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 439.0 LOGGED (FT.): 23.0 LOG TYPE:

SOURCE: BLK SERVCC0021 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
421.0	CARBONDALE	HERRIN	COAL	5.0	18.0	

MAPID: 07700165000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: VERGENNES LONGITUDE: -89.264275 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.913318 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 442.8 LOGGED (FT.): 29.8 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 22 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
442.8	PLEISTOCENE		CLAY	21.0	0.0	
421.8	CARBONDALE		SMUT	1.0	21.0	
420.8	CARBONDALE		ROCK	1.0	22.0	SOFT
419.8	CARBONDALE	HERRIN	COAL	6.8	23.0	

MAPID: 07700165000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 13 **QUARTERS/FOOTAGES:** NE NE SE
QUADRANGLE: VERGENNES **LONGITUDE:** -89.264275 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.913318 **DATE COLLECTED:** 0 / 0 / 1926
SURFACE ELEVATION (FT.): 442.8 **LOGGED (FT.):** 30.0 **LOG TYPE:**
SOURCE: BLK SERVCC0022 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
419.8	CARBONDALE	HERRIN	COAL	6.8	23.0	

MAPID: 07700166000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 13 **QUARTERS/FOOTAGES:** SE NW SE
QUADRANGLE: VERGENNES **LONGITUDE:** -89.269134 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.911621 **DATE COLLECTED:** 0 / 0 / 1926
SURFACE ELEVATION (FT.): 446.2 **LOGGED (FT.):** 36.5 **LOG TYPE:** Drillers Log
SOURCE: BLACK SERVANT COAL CO. 23 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
446.2	PLEISTOCENE		CLAY	19.0	0.0	
427.2	CARBONDALE		SHALE	3.0	19.0	
424.2	CARBONDALE		SHALE	1.0	22.0	BLUE
423.2	CARBONDALE		ROCK	1.0	23.0	
422.2	CARBONDALE	BRERETON	LIMESTONE	4.0	24.0	GRAY
418.2	CARBONDALE	HERRIN	COAL	8.5	28.0	

MAPID: 07700166000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 13 **QUARTERS/FOOTAGES:** SE NW SE
QUADRANGLE: VERGENNES **LONGITUDE:** -89.269134 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.911621 **DATE COLLECTED:** 0 / 0 / 1926
SURFACE ELEVATION (FT.): 446.2 **LOGGED (FT.):** 37.0 **LOG TYPE:**
SOURCE: BLK SERVCC0023 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
418.2	CARBONDALE	HERRIN	COAL	8.5	28.0	

MAPID: 07700167000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269134 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.911621 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 441.4 LOGGED (FT.): 28.5 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 24 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
441.4	PLEISTOCENE		CLAY	18.0	0.0	
423.4	PLEISTOCENE		SANDSTONE	1.0	18.0	
422.4	PLEISTOCENE		SHALE	2.5	19.0	BLUE
419.9	CARBONDALE	HERRIN	COAL	7.0	21.5	

MAPID: 07700167000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269134 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.911621 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 441.4 LOGGED (FT.): 29.0 LOG TYPE:
SOURCE: BLK SERVCC0024 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
419.4	CARBONDALE	HERRIN	COAL	7.0	22.0	

MAPID: 07700168000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NE NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269135 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.913449 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 440.7 LOGGED (FT.): 26.5 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 25 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.7	PLEISTOCENE		CLAY	21.5	0.0	
419.2	CARBONDALE	HERRIN	COAL	5.0	21.5	TOP OF COAL ERODED

MAPID: 07700168000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.269135 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.913449 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 440.7 LOGGED (FT.): 27.0 LOG TYPE:

SOURCE: BLK SERVCC0025 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
418.7	CARBONDALE	HERRIN	COAL	5.0	22.0	

MAPID: 07700169000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SW NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271566 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.911679 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 444.8 LOGGED (FT.): 30.3 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 26 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
444.8	PLEISTOCENE		CLAY	21.0	0.0	
423.8	CARBONDALE		SHALE	2.3	21.0	BLUE
421.5	CARBONDALE	HERRIN	COAL	7.0	23.3	

MAPID: 07700169000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SW NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271566 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.911679 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 444.8 LOGGED (FT.): 30.0 LOG TYPE:

SOURCE: BLK SERVCC0026 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
421.8	CARBONDALE	HERRIN	COAL	7.0	23.0	

MAPID: 07700170000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271564 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.913515 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 439.5 LOGGED (FT.): 26.7 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 27 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
439.5	PLEISTOCENE		CLAY	20.0	0.0	
419.5	CARBONDALE		SHALE	1.0	20.0	BLUE
418.5	CARBONDALE	HERRIN	COAL	5.7	21.0	

MAPID: 07700170000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271564 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.913515 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 439.5 LOGGED (FT.): 22.0 LOG TYPE:

SOURCE: BLK SERVCC0027 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
418.5	CARBONDALE	HERRIN	COAL	5.7	21.0	

MAPID: 07700171000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271564 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.913515 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 435.2 LOGGED (FT.): 18.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 28 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.2	PLEISTOCENE		CLAY	15.0	0.0	
420.2	CARBONDALE	HERRIN	COAL	3.0	15.0	TOP OF COAL ERODED

MAPID: 07700171000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271564 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.913515 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 435.2 LOGGED (FT.): 18.0 LOG TYPE:
SOURCE: BLK SERVCC0028 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.2	CARBONDALE	HERRIN	COAL	3.0	15.0	

MAPID: 07700172000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271564 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.913515 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 436.2 LOGGED (FT.): 22.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 29 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
436.2	PLEISTOCENE		CLAY	15.0	0.0	
421.2	CARBONDALE	HERRIN	COAL	7.0	15.0	TOP OF COAL ERODED

MAPID: 07700172000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271564 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.913515 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 436.6 LOGGED (FT.): 22.0 LOG TYPE:
SOURCE: BLK SERVCC0029 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
421.6	CARBONDALE	HERRIN	COAL	7.0	15.0	

MAPID: 07700173000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271564 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.913515 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 437.7 LOGGED (FT.): 26.5 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 30 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
437.7	PLEISTOCENE		CLAY	20.0	0.0	
417.7	CARBONDALE	ANNA	SHALE	1.5	20.0	
416.2	CARBONDALE	HERRIN	COAL	5.0	21.5	

MAPID: 07700173000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271564 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.913515 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 437.7 LOGGED (FT.): 27.0 LOG TYPE:

SOURCE: BLK SERVCC0030 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
415.7	CARBONDALE	HERRIN	COAL	5.0	22.0	

MAPID: 07700174000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NE NE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.273996 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.913583 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 436.0 LOGGED (FT.): 25.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 31 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
436.0	PLEISTOCENE		CLAY	20.0	0.0	
416.0	CARBONDALE	HERRIN	COAL	5.0	20.0	TOP OF COAL ERODED

MAPID: 07700174000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.273996 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.913583 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 436.0 LOGGED (FT.): 25.0 LOG TYPE:
SOURCE: BLK SERVCC0031 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
416.0	CARBONDALE	HERRIN	COAL	5.0	20.0	

MAPID: 07700175000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271566 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.911679 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 439.6 LOGGED (FT.): 22.5 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 32 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
439.6	PLEISTOCENE		CLAY	16.0	0.0	
423.6	PLEISTOCENE		SHALE	1.5	16.0	
422.1	CARBONDALE	HERRIN	COAL	5.0	17.5	

MAPID: 07700175000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271566 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.911679 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 439.6 LOGGED (FT.): 23.0 LOG TYPE:
SOURCE: BLK SERVCC0032 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
421.6	CARBONDALE	HERRIN	COAL	5.0	18.0	

MAPID: 07700176000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SW NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271566 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.911679 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 438.8 LOGGED (FT.): 23.5 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 33 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
438.8	PLEISTOCENE		CLAY	19.5	0.0	
419.3	CARBONDALE	HERRIN	COAL	4.0	19.5	TOP OF COAL ERODED

MAPID: 07700176000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SW NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271566 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.911679 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 438.8 LOGGED (FT.): 24.0 LOG TYPE:

SOURCE: BLK SERVCC0033 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
418.8	CARBONDALE	HERRIN	COAL	4.0	20.0	

MAPID: 07700177000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271565 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.90984 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 443.6 LOGGED (FT.): 31.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 34 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
443.6	PLEISTOCENE		SHALE	24.3	0.0	CLAY; BLUE
419.3	CARBONDALE	HERRIN	COAL	6.8	24.3	TOP OF COAL ERODED

MAPID: 07700177000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271565 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.90984 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 443.6 LOGGED (FT.): 31.0 LOG TYPE:

SOURCE: BLK SERVCC0034 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
419.6	CARBONDALE	HERRIN	COAL	6.8	24.0	

MAPID: 07700178000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NE SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.269133 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.909794 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 442.7 LOGGED (FT.): 58.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 35 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
442.7	PLEISTOCENE	HERRIN	CLAY	21.0	0.0	
421.7	PLEISTOCENE		SANDSTONE	1.0	21.0	
420.7	PLEISTOCENE		SHALE	2.0	22.0	BLUE
418.7	PLEISTOCENE		SHALE	27.8	24.0	BLUE
390.9	CARBONDALE		COAL	6.3	51.8	

MAPID: 07700178000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NE SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.269133 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.909794 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 442.7 LOGGED (FT.): 59.0 LOG TYPE:

SOURCE: BLK SERVCC0035 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
389.7	CARBONDALE	HERRIN	COAL	6.3	53.0	

MAPID: 07700179000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271565 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.90984 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 438.2 LOGGED (FT.): 35.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 36 WELL TYPE: Coal Test
COMMENT: NO COAL; BEYOND OUTCROP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
438.2	PLEISTOCENE		CLAY	35.0	0.0	NO COAL; BEYOND OUTCROP

MAPID: 07700179000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271565 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.90984 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 438.2 LOGGED (FT.): 35.0 LOG TYPE:
SOURCE: BLK SERVCC0036 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED

MAPID: 07700369000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271565 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.90984 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: BLK SERVCC0088 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	COAL	4.0	20.0	

MAPID: 07700370000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NE SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269133 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.909794 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: BLK SERVCC0083 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	COAL	3.5	24.0	

MAPID: 07700371000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271565 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.90984 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: BLK SERVCC0085 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	COAL	4.0	22.0	

MAPID: 07700372000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SE SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269135 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.907964 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): LOGGED (FT.): 28.0 LOG TYPE:
SOURCE: BLK SERVCC0084 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED

MAPID: 07700373000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271567 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.908002 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: BLK SERVCC0087 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	COAL	5.5	25.0	

MAPID: 07700374000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271567 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.908002 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: BLK SERVCC0086 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	COAL	5.5	29.0	

MAPID: 07700570000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW NE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.276424 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.913648 DATE COLLECTED: 0 / 0 / 1938

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 31.5 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER COAL CO. 1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0	PLEISTOCENE		SOIL	0.7	0.0	
409.3	PLEISTOCENE		SAND	3.0	0.7	
406.3			SHALE	5.5	3.7	
400.8			SANDSTONE	0.4	9.2	
400.4			SHALE	1.1	9.6	
399.3			LIMESTONE	5.0	10.7	
394.3			SHALE	3.8	15.7	
390.6			SHALE	5.2	19.4	
385.4			LIMESTONE	0.6	24.6	
384.8			SHALE	0.5	25.2	
384.3			COAL	3.8	25.7	GOOD
380.5			UNDERCLAY	0.5	29.5	
380.0			SHALE	1.5	30.0	

MAPID: 07700570000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW NE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.276424 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.913648 DATE COLLECTED: 0 / 0 / 1938

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 32.0 LOG TYPE:

SOURCE: TRUAX-TRAER 1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	-		

MAPID: 07700571000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 13 **QUARTERS/FOOTAGES:** SW SE SW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.276431 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.908077 **DATE COLLECTED:** 0 / 0 / 1938
SURFACE ELEVATION (FT.): 436.0 **LOGGED (FT.):** 67.1 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER COAL CO. 2 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
436.0	PLEISTOCENE		CLAY	27.8	0.0	
408.2			SHALE	1.3	27.8	
406.9			SHALE	3.1	29.1	
403.8			COAL	1.8	32.2	ROTTEN
402.0			SHALE	2.0	34.0	
400.0			LIMESTONE	7.0	36.0	
393.0			SHALE	10.8	43.0	WHITE
382.2			SHALE	2.5	53.8	
379.7			SHALE	0.9	56.3	
378.8			SHALE	3.7	57.2	
375.2			COAL	3.9	60.8	SPRINGFIELD - CADY
371.2			UNDERCLAY	0.7	64.8	
370.6			SHALE	1.7	65.4	

MAPID: 07700571000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 13 **QUARTERS/FOOTAGES:** SW SE SW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.276431 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.908077 **DATE COLLECTED:** 0 / 0 / 1938
SURFACE ELEVATION (FT.): 436.0 **LOGGED (FT.):** 67.0 **LOG TYPE:**
SOURCE: TRUAX-TRAER 2 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
404.0	CARBONDALE	HERRIN	COAL	1.8	32.0	
375.0	CARBONDALE	SPRINGFIELD	COAL	3.9	61.0	

MAPID: 07700572000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW SE NE

QUADRANGLE: VERGENNES LONGITUDE: -89.266705 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.917019 DATE COLLECTED: 0 / 0 / 1938

SURFACE ELEVATION (FT.): 437.0 LOGGED (FT.): 91.0 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER COAL CO. F3 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
437.0	PLEISTOCENE		SOIL	24.0	0.0	
413.0			SHALE	12.2	24.0	
400.8			SANDSTONE	6.3	36.2	
394.5			SHALE	8.6	42.5	
385.9			SANDY SHALE	4.0	51.1	
381.9			SHALE	20.3	55.1	
361.6			SHALE	15.6	75.4	NO COAL HERE, EXPECTED

MAPID: 07700572000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 13 QUARTERS/FOOTAGES: NW SE NE

QUADRANGLE: VERGENNES LONGITUDE: -89.266705 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.917019 DATE COLLECTED: 0 / 0 / 1938

SURFACE ELEVATION (FT.): 437.0 LOGGED (FT.): 91.0 LOG TYPE:

SOURCE: TRUAX-TRAER 3 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	-		

MAPID: 07700180000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 14 QUARTERS/FOOTAGES: SW/c SE SE

QUADRANGLE: VERGENNES LONGITUDE: -89.284936 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.909159 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 401.0 LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 22 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
400.0	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0
372.0			SHALE	35.0	28.0
337.0			SHALE	19.5	63.0
317.5			LIMESTONE	0.5	82.5
317.0			SHALE	4.0	83.0
313.0			COAL	2.0	87.0
311.0			UNDERCLAY	2.0	89.0
309.0			SHALE	48.5	91.0
260.5			LIMESTONE	2.5	139.5
258.0			SHALE	3.8	142.0
254.2			COAL	0.3	145.8
254.0			SANDSTONE	14.0	146.0
240.0			SHALE	44.0	160.0
196.0			COAL	1.8	204.0
194.2			SHALE	16.3	205.8
178.0			SHALE	5.5	222.0
172.5			COAL	1.5	227.5
171.0			UNDERCLAY	2.0	229.0
169.0			SHALE	0.5	231.0
168.5			COAL	3.5	231.5
165.0			UNDERCLAY	2.0	235.0
163.0			SHALE	16.0	237.0
147.0			SANDSTONE	13.0	253.0
134.0			SHALE	12.0	266.0
122.0			LIMESTONE	2.0	278.0
120.0			UNDERCLAY	1.0	280.0
119.0			SHALE	16.0	281.0
103.0			LIMESTONE	3.3	297.0
99.7			SHALE	0.3	300.3
99.5			COAL	0.8	300.5
98.7			SHALE	9.8	301.3
89.0			SHALE	1.0	311.0
88.0			COAL	1.0	312.0
87.0			UNDERCLAY	2.0	313.0
85.0			SHALE	10.0	315.0
75.0			SHALE	3.0	325.0
72.0			COAL	1.5	328.0
70.5			UNDERCLAY	3.5	329.5
67.0			SHALE	15.0	333.0

52.0

SHALE

53.0

348.0

MAPID: 07700180000C VERSION: 2

PROJECT: CUSMAP

COUNTY: JACKSON

TWP/RNG: 7S 2W

SECTION: 14

QUARTERS/FOOTAGES: SW/c SE SE

QUADRANGLE: VERGENNES

LONGITUDE: -89.284936

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.909159

DATE COLLECTED: 0 / 0 / 1900

SURFACE ELEVATION (FT.): 400.0

LOGGED (FT.): 231.5

LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
254.2	CARBONDALE	COLCHESTER	UNCLASSIFIED	-	145.8	
168.5	SPOON	DAVIS	UNCLASSIFIED	-	231.5	

MAPID: 07722534000C VERSION: 1

PROJECT: CUSMAP

COUNTY: JACKSON

TWP/RNG: 7S 2W

SECTION: 15

QUARTERS/FOOTAGES: 330' N line, 330' E line of NE NE

QUADRANGLE: VERGENNES

LONGITUDE: -89.302829

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.921584

DATE COLLECTED:

SURFACE ELEVATION (FT.): 439.0

LOGGED (FT.): 713.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Dry Hole

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
193.0	SPOON	DAVIS	UNCLASSIFIED	-	246.0	
-274.0	BASE OF PENN.		UNCLASSIFIED	-	713.0	

MAPID: 07701702000C VERSION: 1

PROJECT: CUSMAP

COUNTY: JACKSON

TWP/RNG: 7S 2W

SECTION: 18

QUARTERS/FOOTAGES: 660' N line, 660' E line of NE

QUADRANGLE: VERGENNES

LONGITUDE: -89.361217

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.921339

DATE COLLECTED: 8 / 0 / 1970

SURFACE ELEVATION (FT.): 399.0

LOGGED (FT.): 401.0

LOG TYPE: Electric Log

SOURCE: TEXACO, INC.

WELL TYPE: Producer-Oil and Gas

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-2.0	BASE OF PENN.		UNCLASSIFIED	-	401.0	

MAPID: 07700181000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 20 QUARTERS/FOOTAGES: NW

QUADRANGLE: VERGENNES LONGITUDE: -89.354288 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.90441 DATE COLLECTED: 1 / 12 / 1923

SURFACE ELEVATION (FT.): 385.0 LOGGED (FT.): 233.1 LOG TYPE: Drillers Log

SOURCE: TAYLOR COAL CO. 1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	PLEISTOCENE		SOIL	2.0	0.0	
383.0	PLEISTOCENE		CLAY	64.0	2.0	
319.0	PLEISTOCENE		SAND	6.0	66.0	
313.0			SHALE	3.0	72.0	SOFT
310.0			SHALE	10.0	75.0	
300.0			SANDSTONE	17.0	85.0	
283.0			SANDSTONE	5.0	102.0	SOME LIMESTONE NOTED
278.0			SHALE	8.0	107.0	BLUE
270.0			SANDSTONE	30.0	115.0	WITH LIMESTONE
240.0			SANDSTONE	10.0	145.0	
230.0			SANDSTONE	13.0	155.0	
217.0			CONGLOMERATE	2.0	168.0	
215.0			SANDSTONE	40.0	170.0	
175.0			SHALY SANDSTONE	7.0	210.0	
168.0			SHALE	10.0	217.0	BLUE
158.0			SHALE	6.0	227.0	

MAPID: 07722747000C VERSION: 1 PROJECT: CUSMAP

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 23 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NW

QUADRANGLE: VERGENNES LONGITUDE: -89.298257 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.906669 DATE COLLECTED:

SURFACE ELEVATION (FT.): 411.0 LOGGED (FT.): 773.0 LOG TYPE: Electric Log

SOURCE:

COMMENT:

WELL TYPE: Dry Hole

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
149.0	SPOON	DAVIS	UNCLASSIFIED	-	262.0	
-362.0	BASE OF PENN.		UNCLASSIFIED	-	773.0	

MAPID: 07700183000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.269155 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.906133 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 10 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	35.3	0.0
359.7			SMUT	0.8	35.3
358.9			COAL	4.8	36.1

MAPID: 07700183000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.269155 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.906133 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 440.4 LOGGED (FT.): 41.0 LOG TYPE:
SOURCE: BLK SERVCC0010 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
405.4	CARBONDALE	HERRIN	COAL	5.6	35.0

MAPID: 07700184000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.269155 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.906133 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 11 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	29.8	0.0
365.2	PLEISTOCENE		SMUT	2.1	29.8
363.2	PLEISTOCENE		SHALE	4.6	31.8
358.6	PLEISTOCENE		SHALE	4.6	36.4
354.0	CARBONDALE	HERRIN	COAL	6.8	41.0

MAPID: 07700184000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.269155 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.906133 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 438.2 LOGGED (FT.): 42.0 LOG TYPE:
SOURCE: BLK SERVCC0011 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
397.2	CARBONDALE	HERRIN	COAL	6.8	41.0	

MAPID: 07700185000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269341 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.896974 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 12 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	21.0	0.0	
374.0	CARBONDALE		SHALE	7.5	21.0	
366.5	CARBONDALE		ROCK	2.8	28.5	SOFT
363.7	CARBONDALE	BRERETON	LIMESTONE	4.0	31.3	
359.7	CARBONDALE	ANNA	SHALE	3.5	35.3	
356.2	CARBONDALE	HERRIN	COAL	7.3	38.8	

MAPID: 07700185000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269341 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.896974 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 48.0 LOG TYPE:
SOURCE: BLK SERVCC0012 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
399.0	CARBONDALE	HERRIN	COAL	7.3	39.0	

MAPID: 07700186000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.269341 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.896974 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 13 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		SILTY CLAY	30.0	0.0	
365.0	CARBONDALE	HERRIN	COAL	7.0	30.0	TOP OF COAL ERODED

MAPID: 07700186000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.269341 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.896974 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 434.3 LOGGED (FT.): 37.0 LOG TYPE:

SOURCE: BLK SERVCC0013 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
404.3	CARBONDALE	HERRIN	COAL	7.0	30.0	

MAPID: 07700187000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271822 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.897004 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 14 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	35.8	0.0	
359.2	CARBONDALE	HERRIN	COAL	5.0	35.8	TOP OF COAL ERODED

MAPID: 07700187000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271822 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.897004 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 434.3 LOGGED (FT.): 41.0 LOG TYPE:
SOURCE: BLK SERVCC0014 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
398.3	CARBONDALE	HERRIN	COAL	5.0	36.0	

MAPID: 07700188000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.266716 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.906101 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 15 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	18.5	0.0	
376.5	PLEISTOCENE		SHALE	22.5	18.5	BLUE BLACK
354.0	CARBONDALE	HERRIN	COAL	6.8	41.0	

MAPID: 07700188000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.266716 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.906101 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 438.8 LOGGED (FT.): 48.0 LOG TYPE:
SOURCE: BLK SERVCC0015 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
397.8	CARBONDALE	HERRIN	COAL	6.8	41.0	

MAPID: 07700189000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.266716 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.906101 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 16 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	21.0	0.0	
374.0	PLEISTOCENE		SHALE	7.0	21.0	BLUE
367.0	PLEISTOCENE		ROCK	8.6	28.0	BLACK
358.4	PLEISTOCENE		SHALE	5.0	36.6	BLUE
353.4	CARBONDALE	HERRIN	COAL	7.0	41.6	

MAPID: 07700189000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.266716 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.906101 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 440.3 LOGGED (FT.): 49.0 LOG TYPE:
SOURCE: BLK SERVCC0016 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
398.3	CARBONDALE	HERRIN	COAL	7.0	42.0	

MAPID: 07700190000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE SW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.26923 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.90247 DATE COLLECTED:
SURFACE ELEVATION (FT.): 432.3 LOGGED (FT.): 49.3 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 66 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
432.3	PLEISTOCENE		CLAY	34.0	0.0	
398.3	CARBONDALE	BRERETON	LIMESTONE	5.0	34.0	
393.3	CARBONDALE		SHALE	3.8	39.0	BLUE
389.5	CARBONDALE	HERRIN	COAL	6.5	42.8	

MAPID: 07700190000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE SW NE

QUADRANGLE: VERGENNES LONGITUDE: -89.26923 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.90247 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 438.6 LOGGED (FT.): 49.0 LOG TYPE:

SOURCE: BLK SERVCC0066 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.6	CARBONDALE	HERRIN	COAL	6.5	43.0	

MAPID: 07700191000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE SW NE

QUADRANGLE: VERGENNES LONGITUDE: -89.26923 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.90247 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 432.3 LOGGED (FT.): 49.0 LOG TYPE:

SOURCE: BLK SERVCC0065 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
389.3	CARBONDALE	HERRIN	COAL	5.9	43.0	

MAPID: 07700191000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE SW NE

QUADRANGLE: VERGENNES LONGITUDE: -89.26923 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.90247 DATE COLLECTED:

SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 48.9 LOG TYPE: Survey Core Study

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
403.8	CARBONDALE	BRERETON	LIMESTONE	4.3	34.2	
399.5	CARBONDALE	ANNA	BLACK SHALE	4.5	38.5	
395.0	CARBONDALE	HERRIN	COAL	5.9	43.0	

MAPID: 07700191000C **VERSION:** 3 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 24 **QUARTERS/FOOTAGES:** NE SW NE
QUADRANGLE: VERGENNES **LONGITUDE:** -89.26923 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.90247 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 438.6 **LOGGED (FT.):** 48.8 **LOG TYPE:** Drillers Log
SOURCE: BLACK SERVANT COAL CO. 65 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
438.6	PLEISTOCENE		CLAY	34.0	0.0
404.6	CARBONDALE	BRERETON	LIMESTONE	4.3	34.0
400.3	CARBONDALE	ANNA	SHALE	4.5	38.3
395.8	CARBONDALE	HERRIN	COAL	5.9	42.8

MAPID: 07700192000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 24 **QUARTERS/FOOTAGES:** NE SW NE
QUADRANGLE: VERGENNES **LONGITUDE:** -89.26923 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.90247 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: BLACK SERVANT COAL CO. 67 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	20.0	0.0
375.0	PLEISTOCENE		SHALE	14.5	20.0
360.5	PLEISTOCENE		SHALE	2.5	34.5
358.0	PLEISTOCENE		UNCLASSIFIED	12.0	37.0
346.0	CARBONDALE	HERRIN	COAL	8.5	49.0

MAPID: 07700192000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 24 **QUARTERS/FOOTAGES:** NE SW NE
QUADRANGLE: VERGENNES **LONGITUDE:** -89.26923 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.90247 **DATE COLLECTED:** 0 / 0 / 1926
SURFACE ELEVATION (FT.): 437.0 **LOGGED (FT.):** 58.0 **LOG TYPE:**
SOURCE: BLK SERVCC0067 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
388.0	CARBONDALE	HERRIN	COAL	8.5	49.0

MAPID: 07700193000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE SE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.274138 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.902532 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 68 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	22.0	0.0	
373.0	CARBONDALE	BRERETON	LIMESTONE	4.0	22.0	
369.0	CARBONDALE	ANNA	SHALE	6.0	26.0	
363.0	CARBONDALE	ENERGY	SHALE	2.8	32.0	
360.2	CARBONDALE	HERRIN	COAL	7.5	34.8	

MAPID: 07700193000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE SE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.274138 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.902532 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 427.2 LOGGED (FT.): 42.0 LOG TYPE:
SOURCE: BLK SERVCC0068 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
392.2	CARBONDALE	HERRIN	COAL	7.2	35.0	

MAPID: 07700194000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.269267 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.900637 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 69 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	16.0	0.0	
379.0	CARBONDALE		ROCK	6.5	16.0	
372.5	CARBONDALE		CLAYSTONE & SILTSTONE	2.0	22.5	
370.5	CARBONDALE		ROCK	3.3	24.5	
367.2	CARBONDALE		SHALE	17.2	27.8	BLUE
350.1	CARBONDALE		SHALE	6.2	44.9	
343.9	CARBONDALE		SHALE	11.1	51.1	
332.8	CARBONDALE	HERRIN	COAL	6.8	62.2	

MAPID: 07700194000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.269267 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.900637 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 437.0 LOGGED (FT.): 69.0 LOG TYPE:
SOURCE: BLK SERVCC0069 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.0	CARBONDALE	HERRIN	COAL	6.8	62.0	

MAPID: 07700195000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.274193 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.900699 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 70 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	22.0	0.0	
373.0	PLEISTOCENE		SANDSTONE	2.5	22.0	
370.5	PLEISTOCENE		CLAYSTONE & SILTSTONE	8.7	24.5	
361.8	PLEISTOCENE		LIMESTONE	2.5	33.2	
359.3	PLEISTOCENE		UNCLASSIFIED	13.6	35.7	
345.7	CARBONDALE	HERRIN	COAL	6.8	49.3	

MAPID: 07700195000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.274193 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.900699 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 429.2 LOGGED (FT.): 56.0 LOG TYPE:
SOURCE: BLK SERVCC0070 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.2	CARBONDALE	HERRIN	COAL	6.8	49.0	

MAPID: 07700196000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.269267 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.900637 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 71 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	20.0	0.0	
375.0	CARBONDALE		SHALE	3.0	20.0	
372.0	CARBONDALE	BANKSTON FORK	LIMESTONE	12.3	23.0	
359.7	CARBONDALE		SHALE	15.7	35.3	
344.0	CARBONDALE	BRERETON	LIMESTONE	2.0	51.0	BLACK
342.0	CARBONDALE	ANNA	SHALE	5.3	53.0	
336.7	CARBONDALE	ENERGY	SHALE	12.7	58.3	
324.0	CARBONDALE	HERRIN	COAL	7.0	71.0	

MAPID: 07700196000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.269267 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.900637 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 437.0 LOGGED (FT.): 78.0 LOG TYPE:
SOURCE: BLK SERVCC0071 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
366.0	CARBONDALE	HERRIN	COAL	7.0	71.0	

MAPID: 07700197000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.266773 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.902438 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 72 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	19.4	0.0	
375.6	PLEISTOCENE		SANDSTONE	2.5	19.4	
373.1	PLEISTOCENE		SHALE	15.3	21.9	
357.8	PLEISTOCENE		SHALE	6.2	37.2	
351.7	PLEISTOCENE		SHALE	16.0	43.3	BLUE
335.7	CARBONDALE	HERRIN	COAL	6.4	59.3	

MAPID: 07700197000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.266773 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.902438 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 436.8 LOGGED (FT.): 66.0 LOG TYPE:
SOURCE: BLK SERVCC0072 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
377.8	CARBONDALE	HERRIN	COAL	6.4	59.0	

MAPID: 07700198000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.264321 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.902408 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 73 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	20.0	0.0	
375.0	PLEISTOCENE		SAND	2.0	20.0	
373.0	PLEISTOCENE		CLAYSTONE & SILTSTONE	5.0	22.0	
368.0	CARBONDALE		SHALE	12.0	27.0	BLUE
356.0	CARBONDALE	ANNA	SHALE	2.5	39.0	
353.5	CARBONDALE	ENERGY	SHALE	17.5	41.5	
336.0	CARBONDALE	HERRIN	COAL	6.3	59.0	

MAPID: 07700198000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.264321 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.902408 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 436.0 LOGGED (FT.): 65.0 LOG TYPE:
SOURCE: BLK SERVCC0073 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
377.0	CARBONDALE	HERRIN	COAL	6.3	59.0	

MAPID: 07700199000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.266918 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.893284 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 100 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	16.0	0.0
379.0	PLEISTOCENE		SANDSTONE	1.0	16.0
378.0	PLEISTOCENE		CLAYSTONE & SILTSTONE	21.0	17.0
357.0	PLEISTOCENE		SHALE	3.0	38.0
354.0	CARBONDALE	HERRIN	COAL	8.0	41.0

MAPID: 07700199000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.266918 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893284 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 419.0 LOGGED (FT.): 49.0 LOG TYPE:
SOURCE: BLK SERVCC0100 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
378.0	CARBONDALE	HERRIN	COAL	8.0	41.0

MAPID: 07700200000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.26442 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.893254 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 101 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	16.0	0.0
379.0	PLEISTOCENE		LIMESTONE	9.0	16.0
370.0	PLEISTOCENE		UNCLASSIFIED	22.0	25.0
348.0	PLEISTOCENE		COAL	0.7	47.0
347.3	PLEISTOCENE		SHALE	5.7	47.7
341.7	PLEISTOCENE		SHALE	13.0	53.3
328.7	CARBONDALE	HERRIN	COAL	5.5	66.3

MAPID: 07700200000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.26442 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893254 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 428.0 LOGGED (FT.): 72.0 LOG TYPE:
SOURCE: BLK SERVCC0101 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
362.0	CARBONDALE	HERRIN	COAL	5.5	66.0	

MAPID: 07700201000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269379 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.895141 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 102 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	33.0	0.0	
362.0	PLEISTOCENE		SANDSTONE	7.0	33.0	
355.0	PLEISTOCENE		SHALE	35.5	40.0	
319.5	CARBONDALE	HERRIN	COAL	7.0	75.5	

MAPID: 07700201000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269379 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.895141 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 429.0 LOGGED (FT.): 83.0 LOG TYPE:
SOURCE: BLK SERVCC0102 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
353.0	CARBONDALE	HERRIN	COAL	7.0	76.0	

MAPID: 07700202000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.274411 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.893368 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 103 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	18.0	0.0	
377.0	PLEISTOCENE		UNCLASSIFIED	22.0	18.0	
355.0	CARBONDALE	HERRIN	COAL	5.0	40.0	

MAPID: 07700202000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.274411 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.893368 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 45.0 LOG TYPE:

SOURCE: BLK SERVCC0103 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	CARBONDALE	HERRIN	COAL	5.0	40.0	

MAPID: 07700203000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271913 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.893338 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 104 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	35.0	0.0	
360.0	CARBONDALE	HERRIN	COAL	4.3	35.0	TOP OF COAL ERODED

MAPID: 07700203000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271913 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.893338 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 424.0 LOGGED (FT.): 39.0 LOG TYPE:

SOURCE: BLK SERVCC0104 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
389.0	CARBONDALE	HERRIN	COAL	4.3	35.0	

MAPID: 07700204000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW SE SE

QUADRANGLE: VERGENNES LONGITUDE: -89.266888 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.895114 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 105 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	24.0	0.0	
371.0	CARBONDALE	HERRIN	COAL	1.0	24.0	SMUTTY; TOP OF COAL ERODED
370.0	CARBONDALE	HERRIN	COAL	3.5	25.0	TOP OF COAL ERODED

MAPID: 07700204000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW SE SE

QUADRANGLE: VERGENNES LONGITUDE: -89.266888 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.895114 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 29.0 LOG TYPE:

SOURCE: BLK SERVCC0105 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
398.0	CARBONDALE	HERRIN	COAL	3.5	25.0	

MAPID: 07700205000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.274411 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.893368 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 106 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	25.0	0.0	
370.0	CARBONDALE	HERRIN	COAL	1.5	25.0	TOP OF COAL ERODED

MAPID: 07700205000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.274411 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893368 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 421.0 LOGGED (FT.): 27.0 LOG TYPE:
SOURCE: BLK SERVCC0106 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
396.0	CARBONDALE	HERRIN	COAL	1.5	25.0	

MAPID: 07700206000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271913 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.893338 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 107 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	30.0	0.0	
365.0	PLEISTOCENE		LIMESTONE	4.0	30.0	
361.0	PLEISTOCENE		SHALE	3.0	34.0	
358.0	PLEISTOCENE		CLAYSTONE	1.3	37.0	
356.7	PLEISTOCENE		SHALE	6.8	38.3	BLUE
350.0	CARBONDALE	HERRIN	COAL	4.0	45.0	

MAPID: 07700206000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271913 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893338 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 413.0 LOGGED (FT.): 49.0 LOG TYPE:
SOURCE: BLK SERVCC0107 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
368.0	CARBONDALE	HERRIN	COAL	4.0	45.0	

MAPID: 07700207000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.274411 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.893368 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 108 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	26.5	0.0	
368.5	PLEISTOCENE		SHALE	2.0	26.5	BLUE
366.5	PLEISTOCENE		LIMESTONE	1.5	28.5	
365.0	PLEISTOCENE		CLAYSTONE & SILTSTONE	1.0	30.0	
364.0	PLEISTOCENE		SHALE	2.7	31.0	
361.3	PLEISTOCENE		SHALE	1.0	33.7	
360.3	PLEISTOCENE		SHALE	4.3	34.7	BLUE
356.0	CARBONDALE	HERRIN	COAL	6.0	39.0	

MAPID: 07700207000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.274411 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893368 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 45.0 LOG TYPE:
SOURCE: BLK SERVCC0108 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
383.0	CARBONDALE	HERRIN	COAL	6.0	39.0	

MAPID: 07700208000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271913 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.893338 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 109 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	27.5	0.0	
367.5	CARBONDALE		LIMESTONE	4.0	27.5	
363.5	CARBONDALE		SHALE	3.0	31.5	
360.5	CARBONDALE		SHALE	1.0	34.5	
359.5	CARBONDALE	HERRIN	COAL	7.0	35.5	

MAPID: 07700208000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271913 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893338 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 43.0 LOG TYPE:
SOURCE: BLK SERVCC0109 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
382.0	CARBONDALE	HERRIN	COAL	7.0	36.0	

MAPID: 07700209000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.274411 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.893368 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 110 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	25.0	0.0	
370.0	CARBONDALE	ANNA	SHALE	2.0	25.0	
368.0	CARBONDALE	ENERGY	SHALE	24.0	27.0	
344.0	CARBONDALE	HERRIN	COAL	5.7	51.0	

MAPID: 07700209000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.274411 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893368 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 57.0 LOG TYPE:
SOURCE: BLK SERVCC0110 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
372.0	CARBONDALE	HERRIN	COAL	5.7	51.0	

MAPID: 07700210000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW NE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.276782 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.897063 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 118 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	27.0	0.0	
368.0	CARBONDALE	HERRIN	COAL	6.0	27.0	TOP OF COAL ERODED
362.0	PLEISTOCENE		UNDERCLAY	1.5	33.0	

MAPID: 07700210000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW NE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.276782 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.897063 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 35.0 LOG TYPE:
SOURCE: BLK SERVCC0118 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	CARBONDALE	HERRIN	COAL	6.0	27.0	

MAPID: 07700211000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.276782 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.897063 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 119 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE	ST. DAVID	CLAY	24.0	0.0	YELLOW
371.0	PLEISTOCENE		CLAY	2.0	24.0	BLUE
369.0	PLEISTOCENE		CLAY	2.0	26.0	YELLOW
367.0	PLEISTOCENE		LIMESTONE	8.5	28.0	
358.5	PLEISTOCENE		SHALE	1.0	36.5	WHITE
357.5	PLEISTOCENE		SANDSTONE	5.5	37.5	WHITE
352.0	PLEISTOCENE		SHALE	10.5	43.0	BLUE
341.5	CARBONDALE		LIMESTONE	1.5	53.5	
340.0	CARBONDALE		SHALE	1.0	55.0	BLUE
339.0	CARBONDALE		SHALE	0.5	56.0	BLUE
338.5	CARBONDALE	SPRINGFIELD	COAL	4.0	56.5	
334.5	CARBONDALE		UNDERCLAY	1.0	60.5	

MAPID: 07700211000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.276782 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.897063 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 421.0 LOGGED (FT.): 62.0 LOG TYPE:

SOURCE: BLK SERVCC0119 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
364.0	CARBONDALE	SPRINGFIELD	COAL	4.0	57.0	

MAPID: 07700212000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.276782 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.897063 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 120 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
395.0	PLEISTOCENE		CLAY	24.0	0.0	YELLOW
371.0	PLEISTOCENE		CLAY	2.0	24.0	BLUE
369.0	PLEISTOCENE		CLAY	2.5	26.0	YELLOW
366.5			LIMESTONE	1.5	28.5	

MAPID: 07700212000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.276782 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.897063 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 424.0 LOGGED (FT.): 30.0 LOG TYPE:

SOURCE: BLK SERVCC0120 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED

MAPID: 07700213000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.276782 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.897063 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 121 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
395.0	PLEISTOCENE		CLAY	27.0	0.0	YELLOW
368.0			LIMESTONE	0.5	27.0	

MAPID: 07700213000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.276782 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.897063 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 426.0 LOGGED (FT.): 28.0 LOG TYPE:

SOURCE: BLK SERVCC0121 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED

MAPID: 07700214000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.275511 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.897963 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 122 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0			UNCLASSIFIED	31.0	0.0	
364.0			LIMESTONE	0.5	31.0	

MAPID: 07700215000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE NE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.274247 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.898866 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 123 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	25.0	0.0	
370.0	CARBONDALE	HERRIN	COAL	4.5	25.0	TOP OF COAL ERODED
365.5	CARBONDALE		UNDERCLAY	1.0	29.5	

MAPID: 07700215000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.274247 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.898866 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 429.0 LOGGED (FT.): 31.0 LOG TYPE:
SOURCE: BLK SERVCC0123 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
404.0	CARBONDALE	HERRIN	COAL	4.5	25.0	

MAPID: 07700216000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.274247 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.898866 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 124 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE	HERRIN	CLAY	25.0	0.0	
370.0	PLEISTOCENE		UNCLASSIFIED	1.0	25.0	
369.0	CARBONDALE		COAL	5.0	26.0	
364.0	PLEISTOCENE		UNDERCLAY	1.5	31.0	

MAPID: 07700216000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.274247 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.898866 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 33.0 LOG TYPE:
SOURCE: BLK SERVCC0124 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	CARBONDALE	HERRIN	COAL	6.0	25.0	

MAPID: 07700217000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271774 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.898837 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 125 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	25.0	0.0
370.0	CARBONDALE		SHALE	3.5	25.0
366.5	CARBONDALE	ANNA	SHALE	2.5	28.5
364.0	CARBONDALE	ENERGY	SHALE	15.0	31.0
349.0	CARBONDALE	HERRIN	COAL	7.2	46.0
341.8	CARBONDALE	HERRIN	COAL	1.0	53.2

MAPID: 07700217000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271774 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.898837 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 431.0 LOGGED (FT.): 54.0 LOG TYPE:

SOURCE: BLK SERVCC0125 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
385.0	CARBONDALE	HERRIN	COAL	7.2	46.0

MAPID: 07700218000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271774 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.898837 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 126 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	23.0	0.0	
372.0	CARBONDALE	HERRIN	COAL	4.5	23.0	TOP OF COAL ERODED
367.5	CARBONDALE		SHALE	5.0	27.5	
362.5	CARBONDALE		LIMESTONE	10.5	32.5	
352.0	CARBONDALE		SHALE	2.0	43.0	WHITE
350.0	CARBONDALE		SHALY SANDSTONE	4.0	45.0	
346.0	CARBONDALE		SHALE	7.0	49.0	BLUE
339.0	CARBONDALE		SHALE	2.8	56.0	
336.2	CARBONDALE	TURNER MINE	SHALE	0.5	58.8	
335.7	CARBONDALE	SPRINGFIELD	COAL	4.0	59.3	
331.7	CARBONDALE		UNDERCLAY	0.8	63.3	

MAPID: 07700218000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271774 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.898837 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 431.0 LOGGED (FT.): 64.0 LOG TYPE:

SOURCE: BLK SERVCC0126 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
408.0	CARBONDALE	HERRIN	COAL	4.5	23.0	
372.0	CARBONDALE	SPRINGFIELD	COAL	4.0	59.0	

MAPID: 07700219000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.269304 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.898807 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 127 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	35.5	0.0
359.5	CARBONDALE		LIMESTONE	11.0	35.5
348.5	CARBONDALE		SHALE	18.5	46.5
330.0	CARBONDALE	BRERETON	LIMESTONE	12.8	65.0
317.2	CARBONDALE	ANNA	SHALE	2.3	77.8
315.0	CARBONDALE	HERRIN	COAL	7.0	80.0
308.0	CARBONDALE		UNDERCLAY	1.0	87.0

MAPID: 07700219000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.269304 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.898807 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 88.0 LOG TYPE:

SOURCE: BLK SERVCC0127 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
350.0	CARBONDALE	HERRIN	COAL	7.0	80.0

MAPID: 07700220000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271866 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.895171 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 128 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
377.0	PLEISTOCENE		CLAY	6.0	18.0	
371.0	PLEISTOCENE		CLAY	3.0	24.0	
368.0	CARBONDALE	ANNA	SHALE	4.0	27.0	
364.0	CARBONDALE	HERRIN	COAL	4.0	31.0	
360.0	CARBONDALE		SHALE	4.0	35.0	
356.0	CARBONDALE		LIMESTONE	10.0	39.0	
346.0	CARBONDALE		SHALE	1.5	49.0	WHITE
344.5	CARBONDALE		SANDSTONE	4.5	50.5	WHITE
340.0	CARBONDALE		SHALE	8.0	55.0	BLUE
332.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	63.0	
330.0	CARBONDALE	TURNER MINE	SHALE	1.0	65.0	
329.0	CARBONDALE	SPRINGFIELD	COAL	4.5	66.0	
324.5	CARBONDALE		UNDERCLAY	1.0	70.5	

MAPID: 07700220000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: VERGENNES LONGITUDE: -89.271866 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.895171 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 72.0 LOG TYPE:

SOURCE: BLK SERVCC0128 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
399.0	CARBONDALE	HERRIN	COAL	4.0	31.0	
364.0	CARBONDALE	SPRINGFIELD	COAL	4.5	66.0	

MAPID: 07700375000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.264301 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.904238 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0289 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
396.0	CARBONDALE	HERRIN	COAL	6.3	42.0	

MAPID: 07700376000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.266747 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.904271 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0292 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
378.0	CARBONDALE	HERRIN	COAL	6.0	60.0	

MAPID: 07700377000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.264301 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.904238 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 437.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0287 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
389.0	CARBONDALE	HERRIN	COAL	6.8	48.0	

MAPID: 07700378000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.266773 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.902438 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 436.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 314 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0	CARBONDALE	HERRIN	COAL	7.5	56.0	

MAPID: 07700379000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.266773 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.902438 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 437.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 318 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
381.0	CARBONDALE	HERRIN	COAL	7.2	56.0	

MAPID: 07700380000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.264321 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.902408 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 435.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 285 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0	CARBONDALE	HERRIN	COAL	7.5	55.0	

MAPID: 07700381000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.266804 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.900607 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 434.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 297 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
368.0	CARBONDALE	HERRIN	COAL	6.6	66.0	

MAPID: 07700382000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.264341 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.900577 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 434.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 295 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
373.0	CARBONDALE	HERRIN	COAL	6.1	61.0	

MAPID: 07700383000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.27173 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.90067 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 433.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 306 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
379.0	CARBONDALE	HERRIN	COAL	7.5	54.0	

MAPID: 07700384000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.27173 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.90067 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 432.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 308 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
373.0	CARBONDALE	HERRIN	COAL	6.3	59.0	

MAPID: 07700385000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.27173 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.90067 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 433.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 307 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
366.0	CARBONDALE	HERRIN	COAL	6.8	67.0	

MAPID: 07700386000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.269267 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.900637 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 431.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 309 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
379.0	CARBONDALE	HERRIN	COAL	7.0	52.0	

MAPID: 07700387000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271774 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.898837 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 431.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 001 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
369.0	CARBONDALE	HERRIN	COAL	6.9	62.0	

MAPID: 07700388000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271774 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.898837 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 432.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 003 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
369.0	CARBONDALE	HERRIN	COAL	5.7	63.0	

MAPID: 07700390000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271774 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.898837 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 432.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 004 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
366.0	CARBONDALE	HERRIN	COAL	6.7	66.0	

MAPID: 07700391000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269304 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.898807 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 433.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 005 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
364.0	CARBONDALE	HERRIN	COAL	7.0	69.0	

MAPID: 07700392000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269304 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.898807 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 432.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 006 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
372.0	CARBONDALE	HERRIN	COAL	6.7	60.0	

MAPID: 07700393000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269341 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.896974 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 136 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
376.0	CARBONDALE	HERRIN	COAL	4.2	54.0	

MAPID: 07700394000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269341 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.896974 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 432.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 139 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
382.0	CARBONDALE	HERRIN	COAL	6.5	50.0	

MAPID: 07700395000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271822 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.897004 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 135 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
403.0	CARBONDALE	HERRIN	COAL	5.0	27.0	

MAPID: 07700396000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271822 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.897004 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 431.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 138 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
383.0	CARBONDALE	HERRIN	COAL	6.3	48.0	

MAPID: 07700397000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269341 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.896974 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 142 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
359.0	CARBONDALE	HERRIN	COAL	6.0	68.0	

MAPID: 07700398000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271774 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.898837 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 431.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 002 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
387.0	CARBONDALE	HERRIN	COAL	5.2	44.0	

MAPID: 07700399000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE NE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.264361 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.898747 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 434.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 011 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
355.0	CARBONDALE	HERRIN	COAL	7.0	79.0	

MAPID: 07700400000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE NE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.264361 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.898747 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 013 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
351.0	CARBONDALE	HERRIN	COAL	6.8	79.0	

MAPID: 07700401000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE NE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.264361 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.898747 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 432.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 017 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
360.0	CARBONDALE	HERRIN	COAL	7.0	72.0	

MAPID: 07700402000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW NE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.266861 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.896944 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 429.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 088 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
350.0	CARBONDALE	HERRIN	COAL	7.0	79.0	

MAPID: 07700403000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW NE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.266861 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.896944 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 087 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
352.0	CARBONDALE	HERRIN	COAL	6.2	73.0	

MAPID: 07700404000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW NE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.266861 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.896944 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 084 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
348.0	CARBONDALE	HERRIN	COAL	7.0	79.0	

MAPID: 07700405000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE NE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.264381 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.896914 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 429.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 080 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
360.0	CARBONDALE	HERRIN	COAL	7.0	69.0	

MAPID: 07700406000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271866 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.895171 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 429.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 134 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
393.0	CARBONDALE	HERRIN	COAL	6.7	36.0	

MAPID: 07700407000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271866 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.895171 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 137 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
384.0	CARBONDALE	HERRIN	COAL	6.3	43.0	

MAPID: 07700408000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271866 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.895171 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 426.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 131 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
387.0	CARBONDALE	HERRIN	COAL	6.8	39.0	

MAPID: 07700409000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271866 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.895171 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 130 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	CARBONDALE	HERRIN	COAL	6.3	38.0	

MAPID: 07700410000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269379 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.895141 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 127 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
379.0	CARBONDALE	HERRIN	COAL	6.2	44.0	

MAPID: 07700411000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269379 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.895141 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 125 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
383.0	CARBONDALE	HERRIN	COAL	7.1	39.0	

MAPID: 07700412000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271913 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893338 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 133 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
378.0	CARBONDALE	HERRIN	COAL	6.8	45.0	

MAPID: 07700413000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271913 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893338 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 421.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 132 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
384.0	CARBONDALE	HERRIN	COAL	7.7	37.0	

MAPID: 07700414000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271913 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893338 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 117 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
376.0	CARBONDALE	HERRIN	COAL	6.3	44.0	

MAPID: 07700415000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.271913 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893338 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 119 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
379.0	CARBONDALE	HERRIN	COAL	6.6	36.0	

MAPID: 07700416000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269416 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893311 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 123 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
376.0	CARBONDALE	HERRIN	COAL	6.8	49.0	

MAPID: 07700417000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269416 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893311 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 126 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0	CARBONDALE	HERRIN	COAL	7.3	38.0	

MAPID: 07700418000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.266888 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.895114 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 090 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
351.0	CARBONDALE	HERRIN	COAL	7.3	74.0	

MAPID: 07700419000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NW SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.266888 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.895114 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 428.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 093 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
361.0	CARBONDALE	HERRIN	COAL	6.5	67.0	

MAPID: 07700420000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: NE SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.264401 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.895084 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0097 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
362.0	CARBONDALE	HERRIN	COAL	6.0	65.0	

MAPID: 07700421000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.266918 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893284 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0109 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
368.0	CARBONDALE	HERRIN	COAL	7.2	59.0	

MAPID: 07700422000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.266918 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893284 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0112 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
379.0	CARBONDALE	HERRIN	COAL	6.0	44.0	

MAPID: 07700423000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.26442 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893254 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0102 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
367.0	CARBONDALE	HERRIN	COAL	6.9	60.0	

MAPID: 07700424000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.26442 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893254 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0099 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
367.0	CARBONDALE	HERRIN	COAL	7.3	56.0	

MAPID: 07700425000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.276909 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893395 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 428.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 00T2 WELL TYPE: Coal Test
COMMENT: ELEV ADDED, FROM DEM

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
393.0	CARBONDALE	HERRIN	COAL	4.0	35.0	

MAPID: 07700426000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.276909 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893395 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 428.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 00T3 WELL TYPE: Coal Test
COMMENT: ELEV ADDED, FROM DEM

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
386.0	CARBONDALE	HERRIN	COAL	-	42.0	

MAPID: 07700427000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.276909 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893395 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 428.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 00T4 WELL TYPE: Coal Test
COMMENT: ELEV ADDED, FROM DEM

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
370.0	CARBONDALE	HERRIN	COAL	-	58.0	

MAPID: 07700428000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.276909 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893395 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 428.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0T21 WELL TYPE: Coal Test
COMMENT: ELEV ADDED, FROM DEM

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
396.0	CARBONDALE	HERRIN	COAL	6.0	32.0	

MAPID: 07700429000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SW SE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.276909 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893395 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 428.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0T30 WELL TYPE: Coal Test
COMMENT: ELEV ADDED, FROM DEM

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
396.0	CARBONDALE	HERRIN	COAL	5.8	32.0	

MAPID: 07700430000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.274411 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893368 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 00T1 WELL TYPE: Coal Test
COMMENT: ELEV ADDED, FROM DEM

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
394.0	CARBONDALE	HERRIN	COAL	1.5	36.0	

MAPID: 07700431000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 24 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.274411 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.893368 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0T20 WELL TYPE: Coal Test
COMMENT: ELEV ADDED, FROM DEM

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
394.0	CARBONDALE	HERRIN	COAL	6.5	36.0	

MAPID: 07700432000C **VERSION:** 1 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 24 **QUARTERS/FOOTAGES:** SE SE SW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.274411 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.893368 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 430.0 **LOGGED (FT.):** 0.0 **LOG TYPE:**
SOURCE: TRUAX-TRAER 0T18 **WELL TYPE:** Coal Test
COMMENT: ELEV ADDED, FROM DEM

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
391.0	CARBONDALE	HERRIN	COAL	6.8	39.0	

MAPID: 07700433000C **VERSION:** 1 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 24 **QUARTERS/FOOTAGES:** SE SE SW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.274411 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.893368 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 430.0 **LOGGED (FT.):** 0.0 **LOG TYPE:**
SOURCE: TRUAX-TRAER 00T5 **WELL TYPE:** Coal Test
COMMENT: ELEV ADDED, FROM DEM

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
391.0	CARBONDALE	HERRIN	COAL	6.5	39.0	

MAPID: 07700221000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 25 **QUARTERS/FOOTAGES:** NE NE NW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.274455 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.891526 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: BLACK SERVANT COAL CO. 111 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	27.0	0.0	
368.0	CARBONDALE	ANNA	SHALE	4.0	27.0	
364.0	CARBONDALE	ENERGY	SHALE	18.0	31.0	
346.0	CARBONDALE	HERRIN	COAL	6.7	49.0	

MAPID: 07700221000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NE NE NW

QUADRANGLE: VERGENNES LONGITUDE: -89.274455 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.891526 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 56.0 LOG TYPE:

SOURCE: BLK SERVCC0111 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
374.0	CARBONDALE	HERRIN	COAL	6.7	49.0	

MAPID: 07700222000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: VERGENNES LONGITUDE: -89.276983 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.889706 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 112 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	33.0	0.0	
362.0	CARBONDALE	ANNA	SHALE	2.0	33.0	
360.0	CARBONDALE	HERRIN	COAL	1.0	35.0	
359.0	CARBONDALE	HERRIN	UNCLASSIFIED	1.5	36.0	DIRTY
357.5	CARBONDALE	HERRIN	COAL	4.3	37.5	
353.2	CARBONDALE		UNDERCLAY	1.3	41.8	

MAPID: 07700222000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: VERGENNES LONGITUDE: -89.276983 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.889706 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 421.0 LOGGED (FT.): 43.0 LOG TYPE:

SOURCE: BLK SERVCC0112 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
386.0	CARBONDALE	HERRIN	COAL	6.8	35.0	

MAPID: 07700223000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: VERGENNES LONGITUDE: -89.276983 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.889706 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 113 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	34.5	0.0	
360.5	CARBONDALE	HERRIN	COAL	4.5	34.5	TOP OF COAL ERODED

MAPID: 07700223000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: VERGENNES LONGITUDE: -89.276983 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.889706 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 39.0 LOG TYPE:

SOURCE: BLK SERVCC0113 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
383.0	CARBONDALE	HERRIN	COAL	4.5	35.0	

MAPID: 07700224000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NE SE NW

QUADRANGLE: VERGENNES LONGITUDE: -89.274522 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.887838 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 59.0 LOG TYPE:

SOURCE: BLK SERVCC0114 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
366.0	CARBONDALE	HERRIN	COAL	6.7	52.0	

MAPID: 07700224000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NE SE NW

QUADRANGLE: VERGENNES LONGITUDE: -89.274522 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.887838 DATE COLLECTED:

SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 58.7 LOG TYPE: Survey Core Study

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
391.2	CARBONDALE		SHALE	11.0	26.8
380.2	CARBONDALE	BRERETON	LIMESTONE	11.5	37.8
368.7	CARBONDALE	ANNA	BLACK SHALE	2.7	49.3
366.0	CARBONDALE	HERRIN	COAL	6.7	52.0

MAPID: 07700224000C VERSION: 3 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NE SE NW

QUADRANGLE: VERGENNES LONGITUDE: -89.274522 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.887838 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 114 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	19.0	0.0
376.0	PLEISTOCENE		BOULDER	1.5	19.0
374.5	PLEISTOCENE		CLAY	6.5	20.5
368.0	CARBONDALE		SHALE	6.0	27.0 BLUE
362.0	CARBONDALE		SHALE	5.0	33.0
357.0	CARBONDALE	BRERETON	LIMESTONE	11.5	38.0
345.5	CARBONDALE	ANNA	SHALE	2.7	49.5
342.8	CARBONDALE	HERRIN	COAL	1.2	52.2
341.7	CARBONDALE	HERRIN	CLAYSTONE & SILTSTONE	0.3	53.3
341.3	CARBONDALE	HERRIN	COAL	5.2	53.7

MAPID: 07700225000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NE SE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.274522 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.887838 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 115 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
395.0	PLEISTOCENE		CLAY	38.0	0.0	YELLOW
357.0	PLEISTOCENE		CLAY	2.0	38.0	BLUE
355.0	PLEISTOCENE		CLAY	4.0	40.0	BROWN
351.0	CARBONDALE	HERRIN	COAL	5.8	44.0	TOP OF COAL ERODED

MAPID: 07700225000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NE SE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.274522 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.887838 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 413.0 LOGGED (FT.): 50.0 LOG TYPE:
SOURCE: BLK SERVCC0115 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
369.0	CARBONDALE	HERRIN	COAL	5.8	44.0	

MAPID: 07700226000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SE SE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.274553 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.885994 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BLACK SERVANT COAL CO. 116 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
395.0	PLEISTOCENE		CLAY	33.5	0.0	YELLOW
361.5	PLEISTOCENE		BOULDER	2.5	33.5	
359.0	PLEISTOCENE		CLAY	5.5	36.0	YELLOW
353.5	CARBONDALE	ANNA	SHALE	1.5	41.5	
352.0	CARBONDALE	ANNA	SHALE	1.0	43.0	BLUE
351.0	CARBONDALE	HERRIN	COAL	6.3	44.0	
344.7	CARBONDALE		UNDERCLAY	0.5	50.3	

MAPID: 07700226000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: VERGENNES LONGITUDE: -89.274553 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.885994 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 411.0 LOGGED (FT.): 51.0 LOG TYPE:

SOURCE: BLK SERVCC0116 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
367.0	CARBONDALE	HERRIN	COAL	6.3	44.0	

MAPID: 07700227000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: VERGENNES LONGITUDE: -89.275779 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.886924 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BLACK SERVANT COAL CO. 117 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	39.0	0.0	
356.0	PLEISTOCENE		CLAY	2.0	39.0	BROWN
354.0	PLEISTOCENE		CLAY	5.0	41.0	HARD
349.0			LIMESTONE	5.5	46.0	
343.5			LIMESTONE	3.2	51.5	
340.3			UNDERCLAY	1.0	54.7	
339.3			SANDSTONE	3.3	55.7	WHITE

MAPID: 07700229000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 25 **QUARTERS/FOOTAGES:** NW SW SE
QUADRANGLE: VERGENNES **LONGITUDE:** -89.272188 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.880449 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: WESTERN COAL & MINING CO. 14 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
375.0	PLEISTOCENE		SHALE	22.5	20.0	
352.5	PLEISTOCENE		LIMESTONE	2.0	42.5	
350.5	PLEISTOCENE		SHALE	1.0	44.5	
349.5	PLEISTOCENE		SHALY LIMESTONE	6.0	45.5	
343.5	PLEISTOCENE		SHALE	12.5	51.5	
331.0	PLEISTOCENE		SHALE	1.0	64.0	GRAY
330.0	CARBONDALE	TURNER MINE	SHALE	2.5	65.0	
327.5	CARBONDALE	SPRINGFIELD	COAL	4.0	67.5	

MAPID: 07700229000C **VERSION:** 2 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 25 **QUARTERS/FOOTAGES:** NW SW SE
QUADRANGLE: VERGENNES **LONGITUDE:** -89.272188 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.880449 **DATE COLLECTED:** 0 / 0 / 1927
SURFACE ELEVATION (FT.): 405.0 **LOGGED (FT.):** 72.0 **LOG TYPE:**
SOURCE: WESTERN CM0014 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
337.0	CARBONDALE	SPRINGFIELD	COAL	4.0	68.0	

MAPID: 07700230000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 25 **QUARTERS/FOOTAGES:** NE SW SW
QUADRANGLE: VERGENNES **LONGITUDE:** -89.279585 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.880474 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: WESTERN COAL & MINING CO. 18 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	20.7	0.0	
374.3			LIMESTONE	8.0	20.7	
366.3			SHALE	4.0	28.7	
362.3			LIMESTONE	3.0	32.7	

MAPID: 07700231000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SW SE SW
QUADRANGLE: VERGENNES LONGITUDE: -89.277146 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.87862 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. 20 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
375.0			SANDSTONE	6.0	20.0
369.0			SANDSTONE	-	26.0

MAPID: 07700232000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SE SW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.279605 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.878625 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. 19 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
387.0			SHALE	2.7	8.0
384.3			UNDERCLAY	5.3	10.7

MAPID: 07700232000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SE SW SW
QUADRANGLE: VERGENNES LONGITUDE: -89.279605 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.878625 DATE COLLECTED: 0 / 0 / 1927
SURFACE ELEVATION (FT.): 402.0 LOGGED (FT.): 16.0 LOG TYPE:
SOURCE: WESTERN CM0019 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
391.0	CARBONDALE	HERRIN	COAL	5.3	11.0

MAPID: 07700434000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.266959 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.891448 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0111 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
378.0	CARBONDALE	HERRIN	COAL	4.2	45.0	

MAPID: 07700435000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.266959 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.891448 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 424.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER COAL CO. 0108 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
341.0	CARBONDALE	SPRINGFIELD	COAL	3.8	83.0	

MAPID: 07700436000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.266959 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.891448 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0106 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
344.0	CARBONDALE	SPRINGFIELD	COAL	3.3	76.0	

MAPID: 07700437000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.266959 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.891448 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 424.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0631 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
336.0	CARBONDALE	SPRINGFIELD	COAL	3.8	88.0	

MAPID: 07700438000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.266959 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.891448 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 424.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0624 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
335.0	CARBONDALE	SPRINGFIELD	COAL	4.2	89.0	

MAPID: 07700439000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.266959 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.891448 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0636 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
377.0	CARBONDALE	HERRIN	COAL	7.1	46.0	

MAPID: 07700440000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NE NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.264461 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.891423 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 429.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0101 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
373.0	CARBONDALE	HERRIN	COAL	7.3	56.0	

MAPID: 07700441000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NE NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.264461 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.891423 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 432.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0638 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
366.0	CARBONDALE	HERRIN	COAL	6.6	66.0	

MAPID: 07700442000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SW NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.267007 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.889612 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 417.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0616 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
354.0	CARBONDALE	HERRIN	COAL	6.8	63.0	

MAPID: 07700443000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SW NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.267007 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.889612 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0643 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
374.0	CARBONDALE	HERRIN	COAL	7.0	49.0	

MAPID: 07700444000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SE NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.264516 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.889588 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 426.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0641 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
341.0	CARBONDALE	HERRIN	COAL	6.8	85.0	

MAPID: 07700445000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NW NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.271958 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.891502 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0116 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
378.0	CARBONDALE	HERRIN	COAL	7.2	45.0	

MAPID: 07700446000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NW NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.271958 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.891502 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 413.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0118 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
372.0	CARBONDALE	HERRIN	COAL	7.0	41.0	

MAPID: 07700447000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NW NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.271958 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.891502 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 421.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0671 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
368.0	CARBONDALE	HERRIN	COAL	6.7	53.0	

MAPID: 07700448000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NE NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.269456 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.891475 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 416.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0122 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
371.0	CARBONDALE	HERRIN	COAL	6.8	45.0	

MAPID: 07700449000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NE NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.269456 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.891475 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0621 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
365.0	CARBONDALE	HERRIN	COAL	6.3	55.0	

MAPID: 07700450000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.272147 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.88229 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 411.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0627 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
365.0	CARBONDALE	HERRIN	COAL	5.7	46.0	

MAPID: 07700451000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.272147 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.88229 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 414.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0673 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
363.0	CARBONDALE	HERRIN	COAL	6.9	51.0	

MAPID: 07700452000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269678 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.88228 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 419.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0619 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
364.0	CARBONDALE	HERRIN	COAL	6.3	55.0	

MAPID: 07700453000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NW SW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.272032 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.887817 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 411.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0613 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
360.0	CARBONDALE	HERRIN	COAL	7.9	51.0	

MAPID: 07700454000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NW SW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.272032 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.887817 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 417.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0610 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
363.0	CARBONDALE	HERRIN	COAL	6.9	54.0	

MAPID: 07700455000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NE SW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.269545 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.887798 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 411.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0609 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
360.0	CARBONDALE	HERRIN	COAL	6.9	51.0	

MAPID: 07700456000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SE SW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.269589 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.885957 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0599 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
355.0	CARBONDALE	HERRIN	COAL	5.3	60.0	

MAPID: 07700457000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NW SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.267058 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.887776 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0656 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
354.0	CARBONDALE	HERRIN	COAL	7.6	64.0	

MAPID: 07700458000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NE SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.264571 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.887755 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0649 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
354.0	CARBONDALE	HERRIN	COAL	7.3	68.0	

MAPID: 07700459000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SW SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.267106 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.885941 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 416.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0604 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
357.0	CARBONDALE	HERRIN	COAL	7.0	59.0	

MAPID: 07700460000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SW SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.267106 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.885941 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 417.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0659 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
359.0	CARBONDALE	HERRIN	COAL	7.5	58.0	

MAPID: 07700461000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SE SE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.264626 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.885922 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 421.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0652 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
356.0	CARBONDALE	HERRIN	COAL	7.7	65.0	

MAPID: 07700462000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NE NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269633 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.884118 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 406.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0596 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
356.0	CARBONDALE	HERRIN	COAL	6.5	50.0	

MAPID: 07700463000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269678 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.88228 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0588 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
355.0	CARBONDALE	HERRIN	COAL	6.2	45.0	

MAPID: 07700464000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NE NE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.26468 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.884089 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 413.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0662 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
353.0	CARBONDALE	HERRIN	COAL	7.5	60.0	

MAPID: 07700465000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NE NE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.26468 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.884089 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0667 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
363.0	CARBONDALE	HERRIN	COAL	7.3	57.0	

MAPID: 07700466000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SW NE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.267205 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.882269 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 414.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0584 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
369.0	CARBONDALE	HERRIN	COAL	7.2	45.0	

MAPID: 07700467000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SW NE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.267205 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.882269 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 417.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0572 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
372.0	CARBONDALE	HERRIN	COAL	7.6	45.0	

MAPID: 07700468000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SE NE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.264735 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.882256 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0574 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
373.0	CARBONDALE	HERRIN	COAL	7.8	45.0	

MAPID: 07700469000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.272188 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.880449 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 413.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0534 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
366.0	CARBONDALE	HERRIN	COAL	3.7	47.0	

MAPID: 07700470000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NE SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269722 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.880441 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 409.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0550 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
368.0	CARBONDALE	HERRIN	COAL	6.8	41.0	

MAPID: 07700471000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.272225 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.878608 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 407.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0523 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.0	CARBONDALE	HERRIN	COAL	6.8	32.0	

MAPID: 07700472000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SE SW SE
QUADRANGLE: VERGENNES LONGITUDE: -89.269766 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.878603 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 413.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0537 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
368.0	CARBONDALE	HERRIN	COAL	7.5	45.0	

MAPID: 07700473000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NW SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.267256 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.880431 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 414.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0578 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
370.0	CARBONDALE	HERRIN	COAL	6.8	44.0	

MAPID: 07700474000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: NE SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.26479 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.880423 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0569 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.0	CARBONDALE	HERRIN	COAL	7.3	52.0	

MAPID: 07700475000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SW SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.267304 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.878595 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 416.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0544 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
372.0	CARBONDALE	HERRIN	COAL	6.8	44.0	

MAPID: 07700476000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SW SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.267304 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.878595 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 424.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0548 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
373.0	CARBONDALE	HERRIN	COAL	7.5	51.0	

MAPID: 07700477000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 25 QUARTERS/FOOTAGES: SE SE SE
QUADRANGLE: VERGENNES LONGITUDE: -89.264845 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.87859 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 426.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0562 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
368.0	CARBONDALE	HERRIN	COAL	7.5	58.0	

MAPID: 07700233000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 29 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: VERGENNES LONGITUDE: -89.350984 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.886451 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: TAYLOR COAL CO. 2 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	51.0	0.0	
344.0	PLEISTOCENE		SAND	37.0	51.0	
307.0			SHALE	8.0	88.0	
299.0			UNCLASSIFIED	6.4	96.0	
292.6			COAL	1.1	102.4	
291.5			SHALE	12.5	103.5	
279.0			SHALE	6.0	116.0	
273.0			SHALE	2.4	122.0	BLUE
270.6			COAL	1.3	124.4	
269.3			SHALE	2.3	125.7	
267.0			SHALE	1.3	128.0	DARK
265.7			COAL	4.5	129.3	
261.2			UNDERCLAY	2.2	133.8	

MAPID: 07700233000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 29 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: VERGENNES LONGITUDE: -89.350984 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.886451 DATE COLLECTED: 0 / 0 / 1923

SURFACE ELEVATION (FT.): 385.0 LOGGED (FT.): 136.0 LOG TYPE:

SOURCE: FRAN CO CC0002 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	-		

MAPID: 07700674000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 29 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: VERGENNES LONGITUDE: -89.352143 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.883633 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: H. E. WILSON 2 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	51.0	0.0	
344.0	PLEISTOCENE		SAND	37.0	51.0	
307.0			SHALE	8.0	88.0	
299.0			UNCLASSIFIED	6.4	96.0	
292.6			COAL	1.1	102.4	
291.5			SHALE	18.5	103.5	
273.0			SHALE	2.4	122.0	BLUE
270.6			COAL	1.3	124.4	
269.3			SHALE	2.3	125.7	
267.0			SHALE	1.3	128.0	DARK
265.7			COAL	4.2	129.3	MURPHYSBORO - CADY
261.5			UNDERCLAY	2.2	133.5	

MAPID: 07700234000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 31 QUARTERS/FOOTAGES: 1352' N line, 43' W line of NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.367382 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.874064 DATE COLLECTED: 0 / 0 / 1923

SURFACE ELEVATION (FT.): 398.0 LOGGED (FT.): 168.0 LOG TYPE:

SOURCE: FRAN CO CC0003 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	-		

MAPID: 07700234000C

VERSION: 2

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 7S 2W

SECTION: 31

QUARTERS/FOOTAGES: 1352' N line, 43' W line of NE

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.367382

GEOLOGIST: BARGH,M

CONFIDENTIAL: N

LATITUDE: 37.874064

DATE COLLECTED: 2 / 23 / 1923

SURFACE ELEVATION (FT.): 400.0

LOGGED (FT.): 168.0

LOG TYPE: Survey Core Study

SOURCE: ROTRAMAL,DRILLER

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0			UNCONSOLIDATED	74.0	0.0	
326.0			SHALE	20.0	74.0	
306.0			COAL WITH SHALE	3.0	94.0	COAL AND SHALE MIXED
303.0			UNDERCLAY	1.0	97.0	
302.0			ROCK	24.0	98.0	
278.0	SPOON	MURPHYSBORO	COAL	1.0	122.0	
277.0			ROCK	45.0	123.0	

MAPID: 07700234000C VERSION: 3 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 31 QUARTERS/FOOTAGES: 1352' N line, 43' W line of NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.367382 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.874064 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: ROTRAMMEL 3 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0	
367.0	PLEISTOCENE		SAND	24.0	28.0	
343.0	PLEISTOCENE		CLAY	22.0	52.0	BLUE
321.0			SHALE	2.0	74.0	
319.0			SHALE	7.0	76.0	
312.0			SHALE	10.0	83.0	
302.0			SHALE	1.0	93.0	DARK
301.0			SHALY COAL	3.0	94.0	
298.0			UNDERCLAY	1.0	97.0	
297.0			SHALE	6.0	98.0	
291.0			SHALE	12.0	104.0	
279.0			SHALE	6.0	116.0	
273.0			COAL	1.0	122.0	
272.0			SHALE	0.5	123.0	DARK
271.5			UNDERCLAY	1.5	123.5	
270.0			SHALE	15.0	125.0	
255.0			SANDSTONE	6.0	140.0	
249.0			SHALE	5.0	146.0	BLUE
244.0			SHALE	12.5	151.0	BLUE
231.5			SHALE	4.5	163.5	NUMERICAL ERROR IN LOG; DARK

MAPID: 07700236000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 34 QUARTERS/FOOTAGES: NW SW SE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.316221 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.871636 DATE COLLECTED: 0 / 0 / 1912

SURFACE ELEVATION (FT.): 380.0 LOGGED (FT.): 235.0 LOG TYPE:

SOURCE: MURPHYSB O0001 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	-		

MAPID: 07700236000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 34 QUARTERS/FOOTAGES: NW SW SE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.316221 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.871636 DATE COLLECTED:

SURFACE ELEVATION (FT.): 380.0 LOGGED (FT.): 1300.0 LOG TYPE: Drillers Log

SOURCE: MURPHYSBORO OIL & GAS WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0			UNCONSOLIDATED	90.0	0.0	
290.0			ROCK	10.0	90.0	
280.0			COAL	1.0	100.0	
279.0			ROCK	1199.0	101.0	

MAPID: 07700236000C VERSION: 3 PROJECT: CUSMAP

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 34 QUARTERS/FOOTAGES: NW SW SE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.316221 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.871636 DATE COLLECTED: 0 / 0 / 1900

SURFACE ELEVATION (FT.): 380.0 LOGGED (FT.): 795.0 LOG TYPE: Drillers Log

SOURCE: MURPHYSBORO OIL&GAS WELL TYPE: Producer-Oil and Gas

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-415.0	BASE OF PENN.		UNCLASSIFIED	-	795.0	

MAPID: 07700237000C VERSION: 1 PROJECT: CUSMAP

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 35 QUARTERS/FOOTAGES: NW NW NE

QUADRANGLE: VERGENNES LONGITUDE: -89.291609 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.876789 DATE COLLECTED: 0 / 0 / 1900

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 238.6 LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
233.0	CARBONDALE	COLCHESTER	UNCLASSIFIED	-	162.0	
156.4	SPOON	DAVIS	UNCLASSIFIED	-	238.6	

MAPID: 07700237000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 2W

SECTION: 35

QUARTERS/FOOTAGES: NW NW NE

QUADRANGLE: VERGENNES

LONGITUDE: -89.291609

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.876789

DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0

LOGGED (FT.): 400.0

LOG TYPE:

SOURCE: HALLIDAY 0023

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	-		

MAPID: 07700237000C VERSION: 3 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 35 QUARTERS/FOOTAGES: NW NW NE

QUADRANGLE: VERGENNES LONGITUDE: -89.291609 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.876789 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 23 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	75.0	0.0	
320.0			SHALE	54.0	75.0	
266.0			LIMESTONE	2.0	129.0	
264.0			SHALE	6.0	131.0	
258.0			SHALE	17.0	137.0	
241.0			LIMESTONE	2.0	154.0	
239.0			SHALE	6.0	156.0	
233.0			COAL	0.5	162.0	
232.5			UNDERCLAY	0.5	162.5	
232.0			SHALE	0.6	163.0	
231.4			SANDSTONE	12.0	163.6	
219.4			SHALE	29.5	175.6	
189.9			COAL	1.0	205.1	
188.9			UNDERCLAY	0.5	206.1	
188.4			SHALE	31.0	206.6	
157.4			SHALE	1.0	237.6	
156.4			COAL	2.0	238.6	
154.4			UNDERCLAY	1.0	240.6	
153.4			SHALE	78.0	241.6	
75.4			COAL	0.3	319.6	
75.2			SANDSTONE	0.5	319.8	
74.7			COAL	0.3	320.3	
74.4			SANDSTONE	4.3	320.6	
70.2			COAL	0.3	324.8	
69.9			SANDSTONE	8.5	325.1	
61.4			SHALE	11.0	333.6	
50.4			CLAYSTONE	9.0	344.6	
41.4			SANDSTONE	12.0	353.6	
29.4			SHALE	9.0	365.6	
20.4			SHALE	25.0	374.6	SANDY

MAPID: 07700238000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 35 QUARTERS/FOOTAGES: SW SE SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.286967 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.863773 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. 8 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0	
365.0			SHALE	4.0	30.0	
361.0			SHALE	4.0	34.0	DARK
357.0			SHALE	2.0	38.0	
355.0			SHALE	11.0	40.0	
344.0			SANDSTONE	10.0	51.0	
334.0			SHALE	4.0	61.0	

MAPID: 07700060600M VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: 1320' N line, 465' E line of NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.265399 GEOLOGIST: BARGH,M
CONFIDENTIAL: N LATITUDE: 37.874031 DATE COLLECTED: 0 / 0 / 1948
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: MINE NOTES-TRUAX-TRAER C C WELL TYPE: Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	COAL	3.1		

MAPID: 07700068400M VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.27495 GEOLOGIST: BARGH,M
CONFIDENTIAL: N LATITUDE: 37.863816 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 7.0 LOG TYPE:
SOURCE: MINE NOTES- TRUAX-TRAER C C WELL TYPE: Strip Mine
COMMENT: TIPPLE LOCATION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	COAL	7.0		AVERAGE THICKNESS
-	CARBONDALE		UNKNOWN	-		
-	CARBONDALE	SPRINGFIELD	COAL	3.2		

MAPID: 07700068401M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES:

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.27362 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.870295 DATE COLLECTED: 7 / 9 / 1933

SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 5.8 LOG TYPE:

SOURCE: MINE NOTES-MCCABE, FORSYTHE C C WELL TYPE: Strip Mine

COMMENT: OTHER SAMPLES AVAILABLE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	0.5		ROOF REMOVED.
-	CARBONDALE	HERRIN	COAL	5.3		BLUE BAND .14'

MAPID: 07700239000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.27251 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.865677 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 3 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0	
370.0	CARBONDALE		SHALE	5.5	25.0	
364.5	CARBONDALE	BRERETON	LIMESTONE	2.0	30.5	
362.5	CARBONDALE	ANNA	SHALE	2.5	32.5	
360.0	CARBONDALE	HERRIN	COAL	6.8	35.0	

MAPID: 07700239000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.27251 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.865677 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 42.0 LOG TYPE:

SOURCE: WESTERN CM0003 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
370.0	CARBONDALE	HERRIN	COAL	6.8	35.0	

MAPID: 07700240000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES:

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.27362 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.870295 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 37.0 LOG TYPE:

SOURCE: WESTERN CM0004 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
384.0	CARBONDALE	HERRIN	COAL	6.0	31.0	

MAPID: 07700240000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES:

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.27362 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.870295 DATE COLLECTED: 8 / 18 / 1926

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 37.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MNG WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
415.0			UNCONSOLIDATED	31.0	0.0	
384.0			COAL	6.0	31.0	
378.0			UNDERCLAY	-	37.0	

MAPID: 07700241000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SE SW SW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.281539 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.863313 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 407.0 LOGGED (FT.): 58.0 LOG TYPE:

SOURCE: WESTERN CM0005 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
357.0	CARBONDALE	HERRIN	COAL	8.0	50.0	

MAPID: 07700241000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SE SW SW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.281539 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.863313 DATE COLLECTED: 8 / 28 / 1926

SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 57.5 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MNG WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.0			UNCONSOLIDATED	28.5	0.0	
441.5			BLACK SHALE	21.0	28.5	
420.5			COAL	8.0	49.5	SOME SHALE MIXED
412.5			ROCK	-	57.5	

MAPID: 07700241000C VERSION: 3 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SE SW SW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.281539 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.863313 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 5 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		SOIL	28.5	0.0	
366.5			SHALE	21.0	28.5	
345.5			SHALE	8.0	49.5	

MAPID: 07700242000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NW SW NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.272948 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.87353 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 56.0 LOG TYPE:

SOURCE: WESTERN CM0006 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.0	CARBONDALE	HERRIN	COAL	6.0	50.0	

MAPID: 07700242000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NW SW NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.272948 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.87353 DATE COLLECTED: 8 / 28 / 1926

SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 55.5 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MNG WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
425.0			UNCONSOLIDATED	26.0	0.0
399.0			LIMESTONE	11.0	26.0
388.0			BLACK SHALE	3.0	37.0
385.0			LIMESTONE	6.5	40.0
378.5			BLACK SHALE	3.0	46.5
375.5			COAL	6.0	49.5
369.5			UNDERCLAY	-	55.5

MAPID: 07700242000C VERSION: 3 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NW SW NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.272948 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.87353 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 6 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		SOIL	26.0	0.0
369.0	PLEISTOCENE		SHALE	11.0	26.0
358.0	PLEISTOCENE		SHALE	3.0	37.0
355.0	PLEISTOCENE		SHALE	2.0	40.0
353.0	CARBONDALE	BRERETON	LIMESTONE	4.5	42.0
348.5	CARBONDALE	ANNA	SHALE	3.0	46.5
345.5	CARBONDALE	HERRIN	COAL	6.0	49.5

MAPID: 07700243000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SW SE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.277246 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.871211 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 7 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		SOIL	18.8	0.0	
376.2	CARBONDALE	HERRIN	COAL	5.5	18.8	

MAPID: 07700243000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SW SE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.277246 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.871211 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 24.0 LOG TYPE:

SOURCE: WESTERN CM0007 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
386.0	CARBONDALE	HERRIN	COAL	5.5	19.0	

MAPID: 07700244000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SE SE NW NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.279036 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.874452 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 31.0 LOG TYPE:

SOURCE: WESTERN CM0009 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	CARBONDALE	HERRIN	COAL	6.2	25.0	

MAPID: 07700244000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SE SE NW NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.279036 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.874452 DATE COLLECTED: 8 / 28 / 1926

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 31.2 LOG TYPE: Survey Core Study

SOURCE: WESTERN COAL & MNG WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			UNCONSOLIDATED	13.0	0.0	
397.0			LIMESTONE	11.0	13.0	
386.0			SHALE	1.0	24.0	
385.0			COAL	6.2	25.0	
378.8			ROCK	-	31.2	

MAPID: 07700244000C VERSION: 3 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SE SE NW NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.279036 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.874452 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 9 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
382.0	CARBONDALE		LIMESTONE	11.0	13.0	
371.0	CARBONDALE		SHALE	1.0	24.0	
370.0	CARBONDALE	HERRIN	COAL	6.2	25.0	
363.8	CARBONDALE		UNDERCLAY	-	31.2	

MAPID: 07700245000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NW SE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.277916 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.866113 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 36.0 LOG TYPE:

SOURCE: WESTERN CM0011 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
379.0	CARBONDALE	HERRIN	COAL	5.0	31.0	

MAPID: 07700245000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NW SE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.277916 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.866113 DATE COLLECTED: 8 / 28 / 1926

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 36.2 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MNG WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			UNCONSOLIDATED	24.0	0.0	
386.0			LIMESTONE	4.0	24.0	
382.0			BLACK SHALE	3.0	28.0	
379.0			COAL	5.2	31.0	
373.8			UNDERCLAY	-	36.2	

MAPID: 07700245000C VERSION: 3 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NW SE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.277916 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.866113 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 11 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0	
371.0	PLEISTOCENE		LIMESTONE	1.0	24.0	
370.0	PLEISTOCENE		SHALE	3.0	25.0	
367.0	PLEISTOCENE		SHALE	3.0	28.0	
364.0	CARBONDALE	HERRIN	COAL	5.2	31.0	

MAPID: 07700246000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: VERGENNES LONGITUDE: -89.279625 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.876773 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 34.0 LOG TYPE:

SOURCE: WESTERN CM0012 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
373.0	CARBONDALE	HERRIN	COAL	6.8	27.0	

MAPID: 07700247000C

VERSION: 1

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 7S 2W

SECTION: 36

QUARTERS/FOOTAGES: NE SE NE

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.265037

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.873075

DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 425.0

LOGGED (FT.): 69.0

LOG TYPE:

SOURCE: WESTERN CM0013

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
365.0	CARBONDALE	HERRIN	COAL	8.5	60.0	

MAPID: 07700247000C

VERSION: 2

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 7S 2W

SECTION: 36

QUARTERS/FOOTAGES: NE SE NE

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.265037

GEOLOGIST: BARGH,M

CONFIDENTIAL: N

LATITUDE: 37.873075

DATE COLLECTED: 8 / 28 / 1926

SURFACE ELEVATION (FT.): 425.0

LOGGED (FT.): 68.5

LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MNG

WELL TYPE: Coal Test

COMMENT: OTHER LOGS AVAILABLE IN THIS AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0			UNCONSOLIDATED	32.0	0.0	
393.0			LIMESTONE	8.0	32.0	
385.0			BLACK SHALE	4.0	40.0	
381.0			LIMESTONE	9.0	44.0	
372.0			SHALE	1.5	53.0	
370.5			BLACK SHALE	5.5	54.5	
365.0			COAL	8.5	60.0	
356.5			UNDERCLAY	0.0	68.5	

MAPID: 07700247000C VERSION: 3 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE SE NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.265037 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.873075 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 13 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0
363.0	PLEISTOCENE		SHALE	8.0	32.0
355.0	PLEISTOCENE		SHALE	4.0	40.0
351.0	PLEISTOCENE		SHALE	9.0	44.0
342.0	PLEISTOCENE		SHALE	1.5	53.0
340.5	CARBONDALE	ANNA	SHALE	5.5	54.5
335.0	CARBONDALE	HERRIN	COAL	8.5	60.0

MAPID: 07700248000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NW NE

QUADRANGLE: VERGENNES LONGITUDE: -89.272266 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.876764 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 16 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		UNCONSOLIDATED	27.5	0.0
367.5	CARBONDALE	BRERETON	LIMESTONE	9.5	27.5
358.0	CARBONDALE	ANNA	SHALE	4.0	37.0
354.0	CARBONDALE	HERRIN	COAL	5.5	41.0

MAPID: 07700248000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NW NE

QUADRANGLE: VERGENNES LONGITUDE: -89.272266 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.876764 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 47.0 LOG TYPE:

SOURCE: WESTERN CM0016 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
374.0	CARBONDALE	HERRIN	COAL	5.5	41.0

MAPID: 07700355000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SW SE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.277345 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.863801 DATE COLLECTED:
SURFACE ELEVATION (FT.): 413.1 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER WELL TYPE: Strip Mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
383.1	CARBONDALE	HERRIN	COAL	6.0	30.0	

MAPID: 07700478000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.267358 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.876757 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 424.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0550 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
374.0	CARBONDALE	HERRIN	COAL	6.8	50.0	

MAPID: 07700479000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.267358 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.876757 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 432.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0464 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
376.0	CARBONDALE	HERRIN	COAL	7.3	56.0	

MAPID: 07700480000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.267358 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.876757 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0456 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.0	CARBONDALE	HERRIN	COAL	6.9	55.0	

MAPID: 07700481000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.264903 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.876754 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0556 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
368.0	CARBONDALE	HERRIN	COAL	7.2	55.0	

MAPID: 07700482000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE NE NE
QUADRANGLE: VERGENNES LONGITUDE: -89.264903 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.876754 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 436.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0449 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
363.0	CARBONDALE	HERRIN	COAL	7.2	73.0	

MAPID: 07700483000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SW NE NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.267417 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.874915 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 433.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0456 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
379.0	CARBONDALE	HERRIN	COAL	7.0	54.0	

MAPID: 07700484000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SW NE NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.267417 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.874915 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 432.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0450 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
366.0	CARBONDALE	HERRIN	COAL	5.3	66.0	

MAPID: 07700486000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.272266 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.876764 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 421.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0522 WELL TYPE: Coal Test
COMMENT: ELEV ADDED, FROM DEM

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
374.0	CARBONDALE	HERRIN	COAL	7.0	47.0	

MAPID: 07700487000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.272266 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.876764 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0529 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
373.0	CARBONDALE	HERRIN	COAL	6.3	49.0	

MAPID: 07700488000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.272266 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.876764 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 419.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0480 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
374.0	CARBONDALE	HERRIN	COAL	6.2	45.0	

MAPID: 07700489000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.272266 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.876764 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 426.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0473 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
376.0	CARBONDALE	HERRIN	COAL	6.4	50.0	

MAPID: 07700490000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.26981 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.876759 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0540 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
372.0	CARBONDALE	HERRIN	COAL	6.8	48.0	

MAPID: 07700491000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE NW NE
QUADRANGLE: VERGENNES LONGITUDE: -89.26981 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.876759 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 426.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0472 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
373.0	CARBONDALE	HERRIN	COAL	6.5	53.0	

MAPID: 07700492000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.272469 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.867527 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 414.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0484 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
372.0	CARBONDALE	HERRIN	COAL	6.4	42.0	

MAPID: 07700493000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.272469 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.867527 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0476 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
372.0	CARBONDALE	HERRIN	COAL	5.9	53.0	

MAPID: 07700494000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.270056 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.867536 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 435.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0467 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
376.0	CARBONDALE	HERRIN	COAL	6.6	59.0	

MAPID: 07700495000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE SW NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.269909 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.873071 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0373 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
378.0	CARBONDALE	HERRIN	COAL	6.5	45.0	

MAPID: 07700496000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SW SW NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.272388 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.871221 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0385 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
381.0	CARBONDALE	HERRIN	COAL	5.0	37.0	

MAPID: 07700497000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SW SW NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.272388 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.871221 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0379 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
384.0	CARBONDALE	HERRIN	COAL	6.5	36.0	

MAPID: 07700498000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SE SW NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.26996 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.871224 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 417.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
377.0	CARBONDALE	HERRIN	COAL	6.5	40.0	

MAPID: 07700499000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW SE NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.267471 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.873071 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 434.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0455 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
379.0	CARBONDALE	HERRIN	COAL	6.3	55.0	

MAPID: 07700500000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW SE NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.267471 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.873071 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 432.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0371 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
383.0	CARBONDALE	HERRIN	COAL	6.8	49.0	

MAPID: 07700501000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE SE NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.265037 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.873075 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 428.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0447 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
370.0	CARBONDALE	HERRIN	COAL	7.1	58.0	

MAPID: 07700502000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE SE NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.265037 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.873075 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0361 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
374.0	CARBONDALE	HERRIN	COAL	6.5	56.0	

MAPID: 07700503000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE SE NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.265037 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.873075 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 431.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0368 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
364.0	CARBONDALE	HERRIN	COAL	7.2	67.0	

MAPID: 07700504000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SW SE NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.267529 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.87123 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0366 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
378.0	CARBONDALE	HERRIN	COAL	6.5	44.0	

MAPID: 07700505000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SE SE NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.265102 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.871233 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 431.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0356 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
366.0	CARBONDALE	HERRIN	COAL	7.3	65.0	

MAPID: 07700506000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NE NW
QUADRANGLE: VERGENNES LONGITUDE: -89.277173 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.876768 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 411.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0497 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
372.0	CARBONDALE	HERRIN	COAL	6.3	39.0	

MAPID: 07700507000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SW NE NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.277196 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.874915 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 408.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0499 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
372.0	CARBONDALE	HERRIN	COAL	6.4	36.0	

MAPID: 07700508000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SW NE NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.277196 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.874915 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 398.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0495 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
378.0	CARBONDALE	HERRIN	COAL	6.6	20.0	

MAPID: 07700509000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SE NE NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.274751 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.874916 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 409.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0487 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
376.0	CARBONDALE	HERRIN	COAL	6.9	33.0	

MAPID: 07700510000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW SE NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.277223 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.873063 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 413.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0494 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
382.0	CARBONDALE	HERRIN	COAL	6.1	31.0	

MAPID: 07700511000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE SE NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.274785 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.873067 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 413.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0387 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
378.0	CARBONDALE	HERRIN	COAL	7.0	35.0	

MAPID: 07700512000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SE SE NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.274818 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.871217 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 416.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0391 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
377.0	CARBONDALE	HERRIN	COAL	6.0	39.0	

MAPID: 07700513000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.277269 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.869358 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0397 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0	CARBONDALE	HERRIN	COAL	6.7	35.0	

MAPID: 07700514000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.274849 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.869367 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 417.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0419 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
382.0	CARBONDALE	HERRIN	COAL	5.9	35.0	

MAPID: 07700515000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SE NE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.274882 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.867515 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0400 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
374.0	CARBONDALE	HERRIN	COAL	6.5	44.0	

MAPID: 07700516000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW SE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.277319 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.865654 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 417.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0404 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
377.0	CARBONDALE	HERRIN	COAL	6.3	40.0	

MAPID: 07700517000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW SE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.277319 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.865654 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 416.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0407 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0	CARBONDALE	HERRIN	COAL	6.0	36.0	

MAPID: 07700518000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE SE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.274916 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.865666 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 411.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0406 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
378.0	CARBONDALE	HERRIN	COAL	4.3	33.0	

MAPID: 07700519000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE SE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.274916 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.865666 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 417.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0410 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0	CARBONDALE	HERRIN	COAL	6.6	37.0	

MAPID: 07700520000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.272428 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.869374 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 419.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0423 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
383.0	CARBONDALE	HERRIN	COAL	1.0	36.0	

MAPID: 07700521000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.272428 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.869374 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 424.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0425 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	CARBONDALE	HERRIN	COAL	6.3	39.0	

MAPID: 07700522000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE NW SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.270008 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.86938 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0431 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
384.0	CARBONDALE	HERRIN	COAL	6.7	39.0	

MAPID: 07700523000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.272469 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.867527 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0427 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
388.0	CARBONDALE	HERRIN	COAL	2.3	37.0	

MAPID: 07700524000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.272469 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.867527 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 417.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0416 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
386.0	CARBONDALE	HERRIN	COAL	6.5	31.0	

MAPID: 07700525000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.272469 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.867527 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 417.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0415 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
381.0	CARBONDALE	HERRIN	COAL	6.1	36.0	

MAPID: 07700526000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.272469 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.867527 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0430 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0	COAL ABSENT OR ERODED

MAPID: 07700527000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.270056 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.867536 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0433 WELL TYPE: Coal Test
COMMENT: ELEV ADDED, FROM DEM

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0	COAL ABSENT OR ERODED

MAPID: 07700529000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE NE SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.265167 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.869395 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0436 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
377.0	CARBONDALE	HERRIN	COAL	6.3	43.0

MAPID: 07700530000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE NE SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.265167 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.869395 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0347 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
370.0	CARBONDALE	HERRIN	COAL	6.5	52.0

MAPID: 07700531000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE NE SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.265167 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.869395 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0351 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
358.0	CARBONDALE	HERRIN	COAL	7.3	64.0	

MAPID: 07700532000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SW NE SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.267646 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.867545 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 416.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0442 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
371.0	CARBONDALE	HERRIN	COAL	6.0	45.0	

MAPID: 07700533000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SE NE SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.265233 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.867554 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 421.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0345 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
366.0	CARBONDALE	HERRIN	COAL	7.0	55.0	

MAPID: 07700534000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW SW SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.27251 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.865677 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 416.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0413 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
383.0	CARBONDALE	HERRIN	COAL	6.8	33.0	

MAPID: 07700535000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW SE SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.267701 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.865701 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 421.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0439 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0	CARBONDALE	HERRIN	COAL	6.5	41.0	

MAPID: 07700536000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NW SE SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.267701 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.865701 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 419.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0444 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
370.0	CARBONDALE	HERRIN	COAL	6.8	49.0	

MAPID: 07700537000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE SE SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.265298 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.865715 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 419.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0341 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
365.0	CARBONDALE	HERRIN	COAL	4.0	54.0	

MAPID: 07700538000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: NE SE SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.265298 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.865715 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0335 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
365.0	CARBONDALE	HERRIN	COAL	7.0	50.0	

MAPID: 07700539000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SE SE SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.265363 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.863874 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 409.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0333 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED

MAPID: 07700540000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: SE SE SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.265363 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.863874 DATE COLLECTED: 0 / 0 / 1928
SURFACE ELEVATION (FT.): 407.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: TRUAX-TRAER 0331 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
359.0	CARBONDALE	HERRIN	COAL	7.0	48.0	

MAPID: 07700666000C VERSION: 1 PROJECT: CUSMAP
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: 604' S line, 2948' E line
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.274404 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.864563 DATE COLLECTED: 0 / 0 / 1941
SURFACE ELEVATION (FT.): 413.0 LOGGED (FT.): 948.0 LOG TYPE: Electric Log
SOURCE: TRUAX-TRAER COAL CO. WELL TYPE: Producer-Oil and Gas
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
181.0	CARBONDALE	COLCHESTER	UNCLASSIFIED	-	232.0	
117.0	SPOON	DAVIS	UNCLASSIFIED	-	296.0	
-535.0	BASE OF PENN.		UNCLASSIFIED	-	948.0	

MAPID: 07726111000C VERSION: 1 PROJECT: LUMP98
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: 630' S line, 2420' E line of SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.272482 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.864638 DATE COLLECTED: 9 / 5 / 1988
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 38.0 LOG TYPE: Drillers Log
SOURCE: U.S. MINERALS AND MINING CO. 1 WELL TYPE: Coal Test
COMMENT: PERMIT #125 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-	PLEISTOCENE		UNKNOWN	5.0		
415.0	PLEISTOCENE		GLACIAL DRIFT	20.5	5.0	
394.5	SHELBURN	BRERETON	LIMESTONE	4.7	25.5	
389.8	CARBONDALE	HERRIN	SMUT	0.8	30.2	CLAY
389.0	CARBONDALE	HERRIN	SMUT	2.0	31.0	
387.0	CARBONDALE	HERRIN	COAL	2.3	33.0	
384.8	CARBONDALE		UNDERCLAY	2.8	35.2	

MAPID: 07726130000C VERSION: 1 PROJECT: LUMP98
COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: 250' S line, 1970' W line of SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.276511 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.863574 DATE COLLECTED: 9 / 5 / 1988
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 51.8 LOG TYPE: Drillers Log
SOURCE: U.S. MINERALS AND MINING CO. 2 WELL TYPE: Coal Test
COMMENT: PERMIT #125 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-	PLEISTOCENE		UNKNOWN	10.0		
410.0	PLEISTOCENE		GLACIAL DRIFT	9.8	10.0	
400.2	CARBONDALE		GRAY SHALE	19.3	19.8	
380.8	CARBONDALE		DARK SHALE	5.8	39.2	
375.0	CARBONDALE	HERRIN	COAL	6.8	45.0	

MAPID: 07726131000C VERSION: 1

PROJECT: LUMP98

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: 1675' S line, 2600' E line of SE
 QUADRANGLE: MURPHYSBORO LONGITUDE: -89.273005 GEOLOGIST: NORTH
 CONFIDENTIAL: N LATITUDE: 37.867502 DATE COLLECTED: 9 / 5 / 1988
 SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 51.0 LOG TYPE: Drillers Log
 SOURCE: U.S. MINERALS AND MINING CO 3 WELL TYPE: Coal Test
 COMMENT: PERMIT #125 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNKNOWN	5.0		
405.0	PLEISTOCENE		CLAY	7.0	5.0	
398.0	PLEISTOCENE		GLACIAL DRIFT	24.5	12.0	
373.5	SHELBURN	BRERETON	LIMESTONE	5.1	36.5	
368.4	CARBONDALE	HERRIN	COAL	6.3	41.6	
362.1	CARBONDALE		UNDERCLAY	3.2	47.9	

MAPID: 07779011000C VERSION: 1

PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: 200' S line, 425' E line of SE SW
 QUADRANGLE: MURPHYSBORO LONGITUDE: -89.275236 GEOLOGIST: NORTH
 CONFIDENTIAL: N LATITUDE: 37.863441 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 413.0 LOGGED (FT.): 83.8 LOG TYPE: Drillers Log
 SOURCE: ILLINI ENERGY RESOURCES BC0002 WELL TYPE: Coal Test
 COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
413.0			UNCONSOLIDATED	33.2	0.0	
379.8	CARBONDALE	HERRIN	COAL	3.5	33.2	SMUT; TOP ERODED
376.3	CARBONDALE		UNKNOWN	42.8	36.7	
333.5	CARBONDALE	SPRINGFIELD	COAL	3.4	79.5	
330.1	CARBONDALE		UNKNOWN	0.9	82.9	

MAPID: 07790106000C VERSION: 1

PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: 125' N line, 525' E line of SE NW
 QUADRANGLE: MURPHYSBORO LONGITUDE: -89.275382 GEOLOGIST: NORTH
 CONFIDENTIAL: N LATITUDE: 37.873645 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 414.0 LOGGED (FT.): 97.0 LOG TYPE: Drillers Log
 SOURCE: ILLINI ENERGY RESOURCES JC-10 WELL TYPE: Coal Test
 COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
414.0			MINE OPENING	42.0	0.0	SPOILS #6 MINED OUT
372.0	CARBONDALE		UNKNOWN	42.5	42.0	
329.5	CARBONDALE	SPRINGFIELD	COAL	3.6	84.5	
325.9	CARBONDALE		UNKNOWN	8.9	88.1	

MAPID: 07790107000C VERSION: 1

PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: 400' S line, 550' W line of NW NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.271609 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.875095 DATE COLLECTED:
SURFACE ELEVATION (FT.): 435.0 LOGGED (FT.): 120.0 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES JC-3 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.0			MINE OPENING	71.5	0.0	SPOILS #6 MINED OUT
363.5	CARBONDALE		UNKNOWN	34.5	71.5	
329.0	CARBONDALE	SPRINGFIELD	COAL	4.0	106.0	
325.0	CARBONDALE		UNKNOWN	10.0	110.0	

MAPID: 07790109000C VERSION: 1

PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: 250' S line, 150' W line of SW SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.282813 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.86353 DATE COLLECTED:
SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 301.5 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES BSIS7-2 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE		UNCONSOLIDATED	25.5	0.0	
379.5	CARBONDALE		UNKNOWN	23.5	25.5	
356.0	CARBONDALE	SPRINGFIELD	COAL	3.8	49.0	
352.2	CARBONDALE		UNKNOWN	76.7	52.8	
275.5	CARBONDALE	HOUCHIN CREEK	COAL	1.6	129.5	
273.9	CARBONDALE		UNKNOWN	9.3	131.1	
264.6	CARBONDALE	SURVANT	COAL	2.4	140.4	
262.2	CARBONDALE		UNKNOWN	57.5	142.8	
204.7	CARBONDALE	COLCHESTER	COAL	0.2	200.3	
204.5	CARBONDALE		UNKNOWN	101.0	200.5	

MAPID: 07790110000C VERSION: 1 PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: 650' S line, 450' W line of SW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.281765 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.864641 DATE COLLECTED:

SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 64.8 LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES B00003 WELL TYPE: Coal Test

COMMENT: PERMIT#309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
490.0	PLEISTOCENE	SPRINGFIELD	UNCONSOLIDATED	23.1	0.0	
466.9	CARBONDALE		UNKNOWN	34.1	23.1	
432.8	CARBONDALE		COAL	3.3	57.2	
429.5	CARBONDALE		UNKNOWN	4.3	60.5	

MAPID: 07790112000C VERSION: 1 PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: 550' S line, 350' W line of NW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.282106 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.868076 DATE COLLECTED:

SURFACE ELEVATION (FT.): 424.0 LOGGED (FT.): 111.5 LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES JC-7 WELL TYPE: Coal Test

COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
424.0		SPRINGFIELD	MINE OPENING	47.0	0.0	SPOILS,#6 MINED-OUT
377.0	CARBONDALE		UNKNOWN	51.0	47.0	
326.0	CARBONDALE		COAL	3.9	98.0	
322.1	CARBONDALE		UNKNOWN	9.6	101.9	

MAPID: 07790113000C VERSION: 1 PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: 650' S line, 600' E line of SW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.271022 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.864711 DATE COLLECTED:

SURFACE ELEVATION (FT.): 414.0 LOGGED (FT.): 300.0 LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES JC-47 WELL TYPE: Coal Test

COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
414.0	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0
374.0	CARBONDALE		UNKNOWN	38.0	40.0
336.0	CARBONDALE	SPRINGFIELD	COAL	3.3	78.0
332.7	CARBONDALE		UNKNOWN	74.2	81.3
258.5	CARBONDALE	HOUCHIN CREEK	COAL	1.5	155.5
257.0	CARBONDALE		UNKNOWN	55.0	157.0
202.0	CARBONDALE	COLCHESTER	COAL	7.0	212.0
195.0	CARBONDALE		UNKNOWN	81.0	219.0

MAPID: 07790114000C VERSION: 1 PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: 250' S line, 700' E line of SE SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.26661 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.863636 DATE COLLECTED:

SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 120.0 LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES JC-2 WELL TYPE: Coal Test

COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
418.0	PLEISTOCENE		UNCONSOLIDATED	48.0	0.0
370.0	CARBONDALE		UNKNOWN	48.5	48.0
321.5	CARBONDALE	SPRINGFIELD	COAL	3.7	96.5
317.8	CARBONDALE		UNKNOWN	19.8	100.2

MAPID: 07790115000C **VERSION:** 1 **PROJECT:** LUMP
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 36 **QUARTERS/FOOTAGES:** NW SE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.27124 **GEOLOGIST:** NORTH
CONFIDENTIAL: N **LATITUDE:** 37.868455 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 118.0 **LOG TYPE:** Drillers Log
SOURCE: ILLINI ENERGY RESOURCES JC-4 **WELL TYPE:** Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	42.0	0.0
-	CARBONDALE		UNKNOWN	9.0	42.0
-	CARBONDALE	HERRIN	COAL	5.5	51.0
-	CARBONDALE		UNKNOWN	45.0	56.5
-	CARBONDALE	SPRINGFIELD	COAL	3.8	101.5
-	CARBONDALE		UNKNOWN	12.7	105.3

MAPID: 07790116000C **VERSION:** 1 **PROJECT:** LUMP
COUNTY: JACKSON **TWP/RNG:** 7S 2W **SECTION:** 36 **QUARTERS/FOOTAGES:** 450' S line, 1' W line of NW SE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.273666 **GEOLOGIST:** NORTH
CONFIDENTIAL: N **LATITUDE:** 37.867839 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 428.0 **LOGGED (FT.):** 107.0 **LOG TYPE:** Drillers Log
SOURCE: ILLINI ENERGY RESOURCES JC-1 **WELL TYPE:** Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
428.0	PLEISTOCENE		UNCONSOLIDATED	38.0	0.0
390.0	CARBONDALE		UNKNOWN	5.5	38.0
384.5	CARBONDALE	HERRIN	COAL	6.0	43.5
378.5	CARBONDALE		UNKNOWN	42.0	49.5
336.5	CARBONDALE	SPRINGFIELD	COAL	3.8	91.5
332.7	CARBONDALE		UNKNOWN	11.7	95.3

MAPID: 07790117000C VERSION: 1

PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: 175' S line, 175' W line of SW NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.273002 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.870777 DATE COLLECTED:
SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 96.4 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES B00001 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
427.0			MINE OPENING	48.1	0.0	SPOILS, #6 MINED- OUT
378.9	CARBONDALE		UNKNOWN	43.0	48.1	
335.9	CARBONDALE	SPRINGFIELD	COAL	4.0	91.1	
331.9	CARBONDALE		UNKNOWN	1.3	95.1	

MAPID: 07790118000C VERSION: 1

PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: 10' S line, 550' E line of NE NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.265696 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.87402 DATE COLLECTED:
SURFACE ELEVATION (FT.): 411.0 LOGGED (FT.): 320.0 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES JC-6 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
411.0			MINE OPENING	50.0	0.0	SPOILS, #6 MINED OUT
361.0	CARBONDALE		UNKNOWN	28.7	50.0	
332.3	CARBONDALE	SPRINGFIELD	COAL	4.3	78.7	
328.0	CARBONDALE		UNKNOWN	73.5	83.0	
254.5	CARBONDALE	HOUCHIN CREEK	COAL	1.5	156.5	
253.0	CARBONDALE		UNKNOWN	112.0	158.0	
141.0	CARBONDALE	DEKOVEN	COAL	1.0	270.0	
140.0	CARBONDALE		UNKNOWN	38.0	271.0	
102.0	CARBONDALE	DAVIS	COAL	1.9	309.0	
100.1	SPOON		UNKNOWN	9.1	310.9	

MAPID: 07790126000C VERSION: 1

PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: 450' S line, 575' W line of SW NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.281316 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.871517 DATE COLLECTED:
SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 75.0 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES JC-4 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
405.0	PLEISTOCENE		UNCONSOLIDATED	26.0	0.0
379.0	CARBONDALE		UNKNOWN	36.0	26.0
343.0	CARBONDALE	SPRINGFIELD	COAL	3.3	62.0
339.7	CARBONDALE		UNKNOWN	9.7	65.3

MAPID: 07790127000C VERSION: 1

PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: 50' S line, 25' W line of NW NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.283223 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.874126 DATE COLLECTED:
SURFACE ELEVATION (FT.): 401.0 LOGGED (FT.): 58.6 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES 47-127 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
401.0	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0
374.0	CARBONDALE		UNKNOWN	28.0	27.0
346.0	CARBONDALE	SPRINGFIELD	COAL	3.6	55.0

MAPID: 07790128000C VERSION: 1

PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 2W SECTION: 36 QUARTERS/FOOTAGES: 650' N line, 25' W line of NW NW
QUADRANGLE: VERGENNES LONGITUDE: -89.283221 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.875913 DATE COLLECTED:
SURFACE ELEVATION (FT.): 404.0 LOGGED (FT.): 54.1 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES 47-124 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
404.0	PLEISTOCENE		UNCONSOLIDATED	36.5	0.0
367.5	CARBONDALE		UNKNOWN	14.2	36.5
353.3	CARBONDALE	SPRINGFIELD	COAL	3.4	50.7

MAPID: 07790102000C VERSION: 1 PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 0 QUARTERS/FOOTAGES:

QUADRANGLE: AVA LONGITUDE: -89.414998 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.931661 DATE COLLECTED: 6 / 25 / 1993

SURFACE ELEVATION (FT.): 485.0 LOGGED (FT.): 58.0 LOG TYPE: Drillers Log

SOURCE: KNIGHT HAWK COAL SA-9310 WELL TYPE: Coal Test

COMMENT: PERMIT #317 CREEK PAUM MINE STATE PLANE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
485.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	11.0	0.0	
474.0	TRADEWATER		SANDSTONE	17.0	11.0	
457.0	TRADEWATER		UNKNOWN	1.0	28.0	CORE LOSS
456.0	TRADEWATER		CLAYSTONE	2.0	29.0	
454.0	TRADEWATER		GRAY SHALE	11.7	31.0	
442.3	TRADEWATER		COAL	3.7	42.7	
438.7	TRADEWATER		GRAY SHALE	11.7	46.3	

MAPID: 07701478000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 1 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: AVA LONGITUDE: -89.390617 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.942813 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 127 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	
392.0	PLEISTOCENE		CLAY	22.0	3.0	
370.0	PLEISTOCENE		MUD	30.0	25.0	
340.0	PLEISTOCENE		SAND	20.0	55.0	
320.0	PLEISTOCENE		SAND	6.0	75.0	
314.0	PLEISTOCENE		SAND	22.0	81.0	
292.0			SHALE	9.0	103.0	BLUE
283.0			SANDSTONE	2.0	112.0	
281.0			SHALE	2.0	114.0	
279.0			COAL	0.5	116.0	
278.5			UNDERCLAY	0.5	116.5	
278.0			SHALE	2.0	117.0	BLUE

MAPID: 07700905000C VERSION: 1 PROJECT: CUSMAP
COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 6 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE NW
QUADRANGLE: AVA LONGITUDE: -89.4789 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.952705 DATE COLLECTED: 6 / 0 / 1952
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 420.0 LOG TYPE: Electric Log
SOURCE: STEPHENS OIL CO WELL TYPE: Producer-Oil and Gas
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-5.0	BASE OF PENN.		UNCLASSIFIED	-	420.0

MAPID: 07700911000C VERSION: 1 PROJECT: CUSMAP
COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 8 QUARTERS/FOOTAGES: NE NW
QUADRANGLE: AVA LONGITUDE: -89.459925 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.936884 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 533.9 LOGGED (FT.): 470.0 LOG TYPE: Drillers Log
SOURCE: MID EGYPT OIL & GAS WELL TYPE: Producer-Oil and Gas
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
63.9	BASE OF PENN.		UNCLASSIFIED	-	470.0

MAPID: 07700915000C VERSION: 1 PROJECT: CUSMAP
COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 9 QUARTERS/FOOTAGES: W2
QUADRANGLE: AVA LONGITUDE: -89.443997 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.931096 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 534.0 LOGGED (FT.): 225.0 LOG TYPE: Drillers Log
SOURCE: N ALLAND PETRO CO WELL TYPE: Producer-Oil and Gas
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
309.0	BASE OF PENN.		UNCLASSIFIED	-	225.0

MAPID: 07701475000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 10 QUARTERS/FOOTAGES: NE NE
QUADRANGLE: AVA LONGITUDE: -89.413905 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.935773 DATE COLLECTED:
SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BIG MUDDY IRON & COAL CO. 132 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
449.0			SANDSTONE	16.0	6.0	
433.0			SANDSTONE	44.0	22.0	YELLOW
389.0			SANDSTONE	5.0	66.0	RED
384.0			SANDSTONE	3.0	71.0	YELLOW

MAPID: 07701477000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 10 QUARTERS/FOOTAGES: SW NE
QUADRANGLE: AVA LONGITUDE: -89.418678 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.932252 DATE COLLECTED:
SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: BIG MUDDY IRON & COAL CO. 128 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	
452.0	PLEISTOCENE		CLAY	12.0	3.0	YELLOW
440.0			SANDSTONE	61.0	15.0	BROWN
379.0			SHALE	44.0	76.0	BLUE
335.0			SANDSTONE	4.0	120.0	WHITE

MAPID: 07790100000C VERSION: 1 PROJECT: LUMP
COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 10 QUARTERS/FOOTAGES:
QUADRANGLE: AVA LONGITUDE: -89.411957 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.932534 DATE COLLECTED: 6 / 28 / 1993
SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 53.0 LOG TYPE: Drillers Log
SOURCE: KNIGHT HAWK COAL SA-9320 WELL TYPE: Coal Test
COMMENT: PERMIT #317 CREEK PAUM MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
475.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
455.0	TRADEWATER		GRAY SHALE	18.6	20.0	
436.4	TRADEWATER	MURPHYSBORO	COAL	3.6	38.6	
432.8	TRADEWATER		GRAY SHALE	2.8	42.2	COAL
430.0	TRADEWATER		GRAY SHALE	8.0	45.0	

MAPID: 07790103000C VERSION: 1 PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 10 QUARTERS/FOOTAGES:

QUADRANGLE: AVA LONGITUDE: -89.414942 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.928845 DATE COLLECTED: 6 / 26 / 1993

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 96.0 LOG TYPE: Drillers Log

SOURCE: KNIGHT HAWK COAL SA-9316 WELL TYPE: Coal Test

COMMENT: PERMIT #317 CREEK PAUM MINE STATE PLANE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	23.0	0.0	
437.0	TRADEWATER		GRAY SHALE	9.0	23.0	
428.0	TRADEWATER		SANDY SHALE	20.0	32.0	
408.0	TRADEWATER		GRAY SHALE	27.7	52.0	
380.3	TRADEWATER		COAL	4.3	79.7	
376.0	TRADEWATER		GRAY SHALE	3.4	84.0	COAL
372.6	TRADEWATER		GRAY SHALE	8.6	87.4	

MAPID: 07700916000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 11 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: AVA LONGITUDE: -89.40036 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.928074 DATE COLLECTED:

SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER 9 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0	PLEISTOCENE		SOIL	1.0	0.0	
424.0	PLEISTOCENE		UNCONSOLIDATED	3.3	1.0	
420.7			SANDSTONE	9.8	4.3	
411.0			SANDSTONE	4.5	14.0	HARD
406.5			CLAYSTONE & SILTSTONE	6.3	18.5	
400.2			SANDSTONE	3.0	24.8	HARD
397.2			SHALE	1.1	27.8	BLUE
396.1			SANDSTONE	9.7	28.9	GRAY
386.4			SHALE	18.3	38.6	
368.2			SHALE	0.3	56.8	BROWN
367.8			CLAYSTONE	1.0	57.2	
366.8			SANDSTONE	0.5	58.2	

MAPID: 07701476000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 3W **SECTION:** 11 **QUARTERS/FOOTAGES:** SE NW
QUADRANGLE: AVA **LONGITUDE:** -89.404827 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.931857 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 455.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 130 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	
452.0	PLEISTOCENE		CLAY	27.0	3.0	
425.0			SANDSTONE	6.0	30.0	BROWN
419.0			CLAYSTONE & SILTSTONE	4.0	36.0	YELLOW
415.0			SHALE	16.3	40.0	BLUE
398.7			COAL	0.2	56.3	
398.5			SHALE	0.5	56.5	BLUE
398.0			SANDSTONE	5.0	57.0	
393.0			SANDSTONE	5.5	62.0	

MAPID: 07790101000C **VERSION:** 1 **PROJECT:** LUMP
COUNTY: JACKSON **TWP/RNG:** 7S 3W **SECTION:** 11 **QUARTERS/FOOTAGES:**
QUADRANGLE: AVA **LONGITUDE:** -89.404407 **GEOLOGIST:** NORTH
CONFIDENTIAL: N **LATITUDE:** 37.933171 **DATE COLLECTED:** 6 / 22 / 1993
SURFACE ELEVATION (FT.): 500.0 **LOGGED (FT.):** 88.0 **LOG TYPE:** Drillers Log
SOURCE: KNIGHT HAWK COAL SA-9304 **WELL TYPE:** Coal Test
COMMENT: PERMIT #317 CREEK PAUM MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
487.0	TRADEWATER		SANDSTONE	33.3	13.0	
453.7	TRADEWATER		SHALE	1.5	46.3	BROWN
452.2	TRADEWATER		GRAY SHALE	25.6	47.8	
426.6	TRADEWATER	MURPHYSBORO	COAL	4.0	73.4	
422.6	TRADEWATER		GRAY SHALE	10.6	77.4	

MAPID: 07790104000C VERSION: 1 PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 11 QUARTERS/FOOTAGES:

QUADRANGLE: AVA LONGITUDE: -89.409488 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.928054 DATE COLLECTED: 6 / 25 / 1993

SURFACE ELEVATION (FT.): 453.0 LOGGED (FT.): 89.0 LOG TYPE: Drillers Log

SOURCE: KNIGHT HAWK COAL SA-9311 WELL TYPE: Coal Test

COMMENT: PERMIT #317 CREEK PAUM MINE STATE PLANE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
453.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	23.0	0.0
430.0	TRADEWATER		SANDSTONE	6.0	23.0
424.0	TRADEWATER		GRAY SHALE	45.2	29.0
378.8	TRADEWATER		COAL	4.1	74.2
374.7	TRADEWATER		GRAY SHALE	10.7	78.3

MAPID: 07790105000C VERSION: 1 PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 11 QUARTERS/FOOTAGES:

QUADRANGLE: AVA LONGITUDE: -89.406068 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.923637 DATE COLLECTED: 6 / 28 / 1993

SURFACE ELEVATION (FT.): 457.0 LOGGED (FT.): 71.0 LOG TYPE: Drillers Log

SOURCE: KNIGHT HAWK COAL SA-9318 WELL TYPE: Coal Test

COMMENT: PERMIT #317 CREEK PAUM MINE STATE PLANE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
457.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	30.0	0.0
427.0	TRADEWATER		SANDY SHALE	20.0	30.0
407.0	TRADEWATER		GRAY SHALE	5.4	50.0
401.6	TRADEWATER		COAL	4.6	55.4
397.0	TRADEWATER		GRAY SHALE	5.0	60.0
392.0	TRADEWATER		SANDSTONE	6.0	65.0

MAPID: 07701474000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 3W **SECTION:** 12 **QUARTERS/FOOTAGES:** SW NE
QUADRANGLE: AVA **LONGITUDE:** -89.38174 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.931612 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 435.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 126 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
431.0	PLEISTOCENE		CLAY	3.0	4.0	YELLOW
428.0	PLEISTOCENE		CLAY	5.0	7.0	SANDY
423.0			SANDSTONE	11.0	12.0	WITH CLAY
412.0			SANDSTONE	38.0	23.0	BROWN
374.0			SANDSTONE	25.0	61.0	WITH CLAY
349.0			SHALY SANDSTONE	8.0	86.0	
341.0			SANDSTONE	9.0	94.0	
332.0			SHALE	24.0	103.0	BLUE
308.0			SANDSTONE	33.0	127.0	WHITE
275.0			SANDSTONE	11.0	160.0	
264.0			SHALE	8.0	171.0	BLUE
256.0			SANDSTONE	4.0	179.0	WHITE

MAPID: 07700919000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 3W **SECTION:** 14 **QUARTERS/FOOTAGES:** NW NW
QUADRANGLE: AVA **LONGITUDE:** -89.4098 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.920973 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 445.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER 7A **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0	PLEISTOCENE		SOIL	1.5	0.0	
443.5	PLEISTOCENE		SANDY CLAY	9.1	1.5	
434.4	PLEISTOCENE		BOULDER	0.7	10.6	
433.7	PLEISTOCENE		UNCONSOLIDATED	3.3	11.3	
430.4	PLEISTOCENE		SANDY CLAY	2.8	14.6	
427.7	TRADEWATER		SANDSTONE	6.3	17.3	
421.4	TRADEWATER		COAL	0.1	23.6	
421.3	TRADEWATER		UNDERCLAY	0.4	23.7	
420.9	TRADEWATER		SHALE	33.3	24.1	
387.7	TRADEWATER	MURPHYSBORO	COAL	4.4	57.3	
383.2	TRADEWATER		ROCK	0.4	61.8	
382.8	TRADEWATER		SANDSTONE	1.0	62.2	GRAY

MAPID: 07700920000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 14 QUARTERS/FOOTAGES: NW NE
QUADRANGLE: AVA LONGITUDE: -89.400615 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.920742 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: TRUAX-TRAER 8 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		SOIL	1.0	0.0	
394.0	PLEISTOCENE		SANDY CLAY	15.0	1.0	YELLOW
379.0	PLEISTOCENE		CLAY	1.5	16.0	GRAVELLY
377.5	PLEISTOCENE		CLAY	3.5	17.5	YELLOW
374.0			SANDSTONE	0.4	21.0	
373.6			CLAYSTONE	0.2	21.4	
373.4			SANDSTONE	0.4	21.6	HARD
373.0			SANDSTONE	0.3	22.0	
372.7			SANDSTONE	0.2	22.3	HARD

MAPID: 07700921000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 14 QUARTERS/FOOTAGES: SE SE
QUADRANGLE: AVA LONGITUDE: -89.396463 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.909613 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: TRUAX-TRAER 14 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		SOIL	3.0	0.0	
392.0	PLEISTOCENE		CLAY	9.8	3.0	GRAY
382.2	PLEISTOCENE		CLAY	2.7	12.8	YELLOW
379.5	PLEISTOCENE		CLAY	9.1	15.5	YELLOW
370.4	PLEISTOCENE		SAND	1.2	24.6	
369.2	PLEISTOCENE		CLAY	6.9	25.8	YELLOW
362.3	PLEISTOCENE		HARD PAN	2.0	32.7	
360.3	PLEISTOCENE		BOULDER	0.6	34.7	
359.7			SHALE	3.1	35.3	
356.7			SANDSTONE	3.7	38.3	

MAPID: 07700922000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 14 QUARTERS/FOOTAGES: SW SE
QUADRANGLE: AVA LONGITUDE: -89.401031 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.909744 DATE COLLECTED:
SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: TRUAX-TRAER 15 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE		SOIL	2.0	0.0	
403.0	PLEISTOCENE		CLAY	17.3	2.0	YELLOW
385.7	PLEISTOCENE		CLAY	1.2	19.3	GRAY
384.5	PLEISTOCENE		CLAY	4.6	20.5	
379.9	PLEISTOCENE		SAND	0.6	25.1	GRAVELLY
379.3			COAL	1.0	25.7	
378.3			UNDERCLAY	0.8	26.7	
377.6			SHALE	4.2	27.4	

MAPID: 07700923000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 14 QUARTERS/FOOTAGES: SW SE
QUADRANGLE: AVA LONGITUDE: -89.401031 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.909744 DATE COLLECTED:
SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: TRUAX-TRAER 13 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE		SOIL	1.5	0.0	
403.5	PLEISTOCENE		CLAY	6.0	1.5	BROWN
397.5	PLEISTOCENE		CLAY	1.9	7.5	YELLOW
395.6	PLEISTOCENE		CLAY	11.2	9.4	YELLOW
384.4	PLEISTOCENE		CLAY	0.3	20.6	BROWN
384.2	TRADEWATER	MURPHYSBORO	COAL	2.6	20.8	DIRT; TOP OF COAL ERODED
381.6	TRADEWATER		CLAYSTONE & SILTSTONE	2.2	23.4	GRAY
379.4	TRADEWATER		CLAYSTONE & SILTSTONE	3.2	25.6	YELLOW
376.2	TRADEWATER	MURPHYSBORO	COAL	3.9	28.8	SOFT
372.3	TRADEWATER		UNDERCLAY	4.3	32.7	

MAPID: 07701634000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 3W **SECTION:** 14 **QUARTERS/FOOTAGES:** NW NE
QUADRANGLE: AVA **LONGITUDE:** -89.400615 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.920742 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER 8A **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		SOIL	1.0	0.0	
394.0	PLEISTOCENE		UNCONSOLIDATED	15.0	1.0	
379.0	PLEISTOCENE		CLAY	1.5	16.0	BROWN
377.5	PLEISTOCENE		CLAY	3.5	17.5	YELLOW
374.0			SANDSTONE	2.3	21.0	
371.7			CLAYSTONE & SILTSTONE	6.2	23.3	BROWN
365.5			SANDSTONE	1.5	29.5	
364.0			SHALE	0.5	31.0	
363.5			SANDSTONE	3.5	31.5	GRAY

MAPID: 07700729000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 3W **SECTION:** 15 **QUARTERS/FOOTAGES:** NE NE SE
QUADRANGLE: AVA **LONGITUDE:** -89.413457 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.914673 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 455.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER COAL CO. 4 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		SOIL	0.8	0.0	
454.2	PLEISTOCENE		CLAY	16.0	0.8	YELLOW
438.2	PLEISTOCENE		CLAY	17.3	16.8	YELLOW
420.9	PLEISTOCENE		SAND	1.3	34.1	
419.6	PLEISTOCENE		CLAYSTONE & SILTSTONE	2.2	35.4	YELLOW
417.4	PLEISTOCENE		CLAYSTONE & SILTSTONE	15.2	37.6	YELLOW
402.2			SHALE	0.6	52.8	
401.7			COAL	3.4	53.3	COAL EXTRA HARD,NO BAND;MURPHYSBORO?
398.2			UNDERCLAY	1.3	56.8	
397.0			SHALE	2.0	58.0	

MAPID: 07700730000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 15 QUARTERS/FOOTAGES: NW NE NW
QUADRANGLE: AVA LONGITUDE: -89.424847 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.922353 DATE COLLECTED:
SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: TRUAX-TRAER COAL CO. 17 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		SOIL	1.0	0.0	
454.0	PLEISTOCENE		CLAY	7.2	1.0	YELLOW
446.8			SANDSTONE	10.8	8.2	
436.1			CLAYSTONE & SILTSTONE	1.7	18.9	YELLOW
434.4			COAL	1.3	20.6	DIRT
433.1			CLAYSTONE & SILTSTONE	6.2	21.9	GRAY
426.9			CLAYSTONE & SILTSTONE	2.1	28.1	YELLOW
424.8			CLAYSTONE & SILTSTONE	5.4	30.2	GRAY
419.4			CLAYSTONE & SILTSTONE	11.6	35.6	YELLOW

MAPID: 07700731000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 15 QUARTERS/FOOTAGES: SE SE
QUADRANGLE: AVA LONGITUDE: -89.414748 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.910144 DATE COLLECTED:
SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: TRUAX-TRAER COAL CO. 2 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0	PLEISTOCENE		SOIL	1.0	0.0	
444.0	PLEISTOCENE		CLAY	11.1	1.0	YELLOW
432.9	PLEISTOCENE		CLAY	10.9	12.1	YELLOW
422.0	PLEISTOCENE		CLAY	11.8	23.0	PINK
410.2			SANDSTONE	0.5	34.8	
409.7			SANDSTONE	15.9	35.3	HARD

MAPID: 07700924000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 3W **SECTION:** 15 **QUARTERS/FOOTAGES:** NE NE
QUADRANGLE: AVA **LONGITUDE:** -89.414421 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.921106 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 455.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER COAL CO. 16 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		SOIL	1.0	0.0	
454.0	PLEISTOCENE		UNCONSOLIDATED	14.6	1.0	
439.4	PLEISTOCENE		CLAY	6.5	15.6	YELLOW
432.9	PLEISTOCENE		CLAY	10.0	22.1	BROWN
422.9	PLEISTOCENE		CLAY	5.2	32.1	BLUE
417.7	TRADEWATER		COAL	0.2	37.3	
417.6	TRADEWATER		SHALE	32.6	37.4	
385.0	TRADEWATER	MURPHYSBORO	COAL	4.0	70.0	
381.0	TRADEWATER		PYRITE	0.3	74.0	BND
380.7	TRADEWATER	MURPHYSBORO	COAL	0.3	74.3	
380.4	TRADEWATER		UNDERCLAY	1.0	74.6	

MAPID: 07700925000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 3W **SECTION:** 15 **QUARTERS/FOOTAGES:** SE NW
QUADRANGLE: AVA **LONGITUDE:** -89.423789 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.917756 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 455.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER COAL CO. 5 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		SOIL	1.0	0.0	
454.0	PLEISTOCENE		CLAY	4.8	1.0	YELLOW
449.2	PLEISTOCENE		SAND	1.2	5.8	SOFT
448.0	PLEISTOCENE		CLAY	3.9	7.0	YELLOW
444.1	PLEISTOCENE		SAND	2.6	10.9	HARD
441.5	PLEISTOCENE		CLAY	4.5	13.5	YELLOW
437.0	TRADEWATER		SHALE	1.2	18.0	BROWN
435.8	TRADEWATER		SHALE	6.3	19.2	
429.5	TRADEWATER	MURPHYSBORO	COAL	4.3	25.5	COAL VERY LOOSE, 1 OR 2 SOLID STREAKS
425.2	TRADEWATER		UNDERCLAY	2.0	29.8	

MAPID: 07700926000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 3W **SECTION:** 15 **QUARTERS/FOOTAGES:** NW NE
QUADRANGLE: AVA **LONGITUDE:** -89.419063 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.921253 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 455.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER COAL CO. 6 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE	MURPHYSBORO	SOIL	1.5	0.0	
453.5	PLEISTOCENE		UNCONSOLIDATED	10.8	1.5	YELLOW
442.7	TRADEWATER		SANDSTONE	1.5	12.3	
441.2	TRADEWATER		CLAYSTONE & SILTSTONE	4.3	13.8	YELLOW
437.0	TRADEWATER		SHALE	6.7	18.0	
430.3	TRADEWATER		SHALE	1.5	24.7	BROWN
428.8	TRADEWATER		SHALE	7.1	26.2	
421.7	TRADEWATER		SHALE	1.6	33.3	
420.2	TRADEWATER		COAL	3.6	34.8	COAL EXTRA HARD, NO DIRT BANDS
416.6	TRADEWATER		UNDERCLAY	1.0	38.4	
415.6	TRADEWATER		SHALE	1.0	39.4	

MAPID: 07700927000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 3W **SECTION:** 15 **QUARTERS/FOOTAGES:** NW SE
QUADRANGLE: AVA **LONGITUDE:** -89.419256 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.913954 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 455.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER COAL CO. 3 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE	MURPHYSBORO	SOIL	1.2	0.0	
453.8	PLEISTOCENE		CLAY	11.6	1.2	YELLOW
442.2	PLEISTOCENE		CLAY	10.2	12.8	YELLOW
432.1	PLEISTOCENE		SAND	1.3	22.9	
430.7	PLEISTOCENE		CLAY	15.0	24.3	YELLOW
415.7	TRADEWATER		SHALE	1.0	39.3	BROWN
414.7	TRADEWATER		COAL	5.0	40.3	EXTRA SOFT DIRTY COAL
409.7	TRADEWATER		UNDERCLAY	4.2	45.3	
405.6	TRADEWATER		SHALE	6.2	49.4	
399.4	TRADEWATER		SANDSTONE	0.7	55.6	GRAY

MAPID: 07700928000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 15 QUARTERS/FOOTAGES: SW SW

QUADRANGLE: AVA LONGITUDE: -89.428567 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.910615 DATE COLLECTED:

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER COAL CO. 1 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		SOIL	0.8	0.0	
454.2	PLEISTOCENE		CLAY	1.3	0.8	YELLOW
452.8	PLEISTOCENE		SAND	1.0	2.2	SOFT
451.8	PLEISTOCENE		SAND	4.5	3.2	
447.3	PLEISTOCENE		CLAYSTONE & SILTSTONE	18.1	7.7	YELLOW
429.2	PLEISTOCENE		CLAYSTONE & SILTSTONE	4.6	25.8	BROWN
424.7	PLEISTOCENE		CLAYSTONE & SILTSTONE	1.1	30.3	YELLOW
423.6			SHALE	9.7	31.4	
413.9			SANDSTONE	0.3	41.1	GRAY
413.6			SHALE	8.6	41.4	

MAPID: 07701527000C VERSION: 1 PROJECT: CUSMAP

COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 18 QUARTERS/FOOTAGES: 330' S line, 380' E line of NE SE

QUADRANGLE: AVA LONGITUDE: -89.468786 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.914368 DATE COLLECTED: 5 / 0 / 1965

SURFACE ELEVATION (FT.): 528.0 LOGGED (FT.): 350.0 LOG TYPE: Electric Log

SOURCE: HOSKINS, J. E. WELL TYPE: Producer-Oil and Gas

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
178.0	BASE OF PENN.		UNCLASSIFIED	-	350.0	

MAPID: 07701531000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 19 QUARTERS/FOOTAGES:

QUADRANGLE: AVA LONGITUDE: -89.476933 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.902659 DATE COLLECTED:

SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: JOHN E. HOSKINS 1 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
525.0	PLEISTOCENE		UNCONSOLIDATED	41.0	0.0	
484.0			SHALE	21.0	41.0	
463.0			COAL	1.0	62.0	
462.0			CLAYSTONE & SILTSTONE	2.0	63.0	
460.0			SHALE	25.0	65.0	
435.0			SANDSTONE	72.0	90.0	
363.0			SHALE	28.0	162.0	
335.0			SHALY SANDSTONE	174.0	190.0	
161.0			LIMESTONE	16.0	364.0	
145.0			SHALE	7.0	380.0	
138.0			SANDSTONE	27.0	387.0	
111.0			SANDY SHALE	46.0	414.0	
65.0			COAL	1.0	460.0	
64.0			CLAYSTONE & SILTSTONE	2.0	461.0	

MAPID: 07701531000C VERSION: 2 PROJECT: NCRDS87

COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 19 QUARTERS/FOOTAGES:

QUADRANGLE: AVA LONGITUDE: -89.476933 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 37.902659 DATE COLLECTED: 0 / 0 / 1965

SURFACE ELEVATION (FT.): 562.0 LOGGED (FT.): 463.0 LOG TYPE: Drillers Log

SOURCE: JOHN E. HOPKINS WELL TYPE: Coal Test

COMMENT: LOCATION CENTER OF SECTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
562.0			UNCONSOLIDATED	41.0	0.0	
521.0			SHALE	21.0	41.0	
500.0	SPOON	MURPHYSBORO	COAL	1.0	62.0	
499.0			CLAYSTONE	2.0	63.0	
497.0			SHALE	25.0	65.0	
472.0			SANDSTONE	72.0	90.0	
400.0			SHALE	28.0	162.0	
372.0			SANDSTONE	174.0	190.0	
198.0			LIMESTONE	16.0	364.0	
182.0			SHALE	7.0	380.0	
175.0			SANDSTONE	27.0	387.0	
148.0			UNCLASSIFIED	46.0	414.0	
102.0			COAL	1.0	460.0	
101.0			UNDERCLAY	2.0	461.0	

MAPID: 07700931000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 23 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: AVA LONGITUDE: -89.405711 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.906198 DATE COLLECTED:

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER COAL CO. 12 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE		SOIL	1.2	0.0	
403.8	PLEISTOCENE		CLAY	4.4	1.2	GRAY
399.4	PLEISTOCENE		CLAY	6.9	5.6	BROWN
392.5	PLEISTOCENE		CLAY	10.5	12.5	YELLOW
382.0	PLEISTOCENE		CLAY	6.2	23.0	BROWN
375.8	PLEISTOCENE		SAND	1.0	29.2	
374.8	PLEISTOCENE		CLAY	5.0	30.2	
369.8	PLEISTOCENE		CLAY	10.3	35.2	PINK
359.5	PLEISTOCENE		CLAY	6.8	45.5	BROWN
352.7	TRADEWATER		SHALE	23.0	52.3	
329.7	TRADEWATER	MURPHYSBORO	COAL	4.0	75.3	COAL MEDIUM HARD; NO DIRT PARTINGS
325.7	TRADEWATER		UNDERCLAY	2.3	79.3	

MAPID: 07700932000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 26 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: AVA LONGITUDE: -89.410632 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.891612 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO. 2 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
395.0	PLEISTOCENE		CLAY	10.0	0.0	YELLOW
385.0	PLEISTOCENE		SAND	15.0	10.0	YELLOW
370.0	PLEISTOCENE		CLAY	8.0	25.0	BLUE
362.0	PLEISTOCENE		SAND	14.0	33.0	GRAVELLY; BLUE
348.0			SANDSTONE	2.0	47.0	YELLOW
346.0			SANDSTONE	5.0	49.0	CONGLOMERATE

MAPID: 07700933000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 26 QUARTERS/FOOTAGES:

QUADRANGLE: AVA LONGITUDE: -89.403659 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.885938 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 3 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
395.0	PLEISTOCENE		CLAY	20.0	0.0	YELLOW
375.0	PLEISTOCENE		SAND	10.0	20.0	YELLOW
365.0	PLEISTOCENE		CLAY	12.0	30.0	BLUE
353.0			SANDSTONE	8.0	42.0	RED
345.0			SANDSTONE	6.0	50.0	GRAY

MAPID: 07700934000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 3W **SECTION:** 26 **QUARTERS/FOOTAGES:** NE SE
QUADRANGLE: AVA **LONGITUDE:** -89.396779 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.883901 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER COAL CO. 10 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		SOIL	1.0	0.0	
394.0	PLEISTOCENE		CLAY	14.7	1.0	YELLOW
379.3	PLEISTOCENE		CLAY	6.5	15.7	GRAY
372.8	PLEISTOCENE		SAND	12.5	22.2	GRAVELLY
360.3			COAL	0.6	34.7	SOFT; MURPHYSBORO?
359.7			UNDERCLAY	2.3	35.3	
357.5			SHALE	3.3	37.5	
354.2			SANDSTONE	1.0	40.8	

MAPID: 07700935000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 3W **SECTION:** 26 **QUARTERS/FOOTAGES:** NE NW
QUADRANGLE: AVA **LONGITUDE:** -89.406034 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.891475 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER COAL CO. 11 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		SOIL	1.1	0.0	
394.0	PLEISTOCENE		CLAY	7.2	1.0	GRAY
386.8	PLEISTOCENE		CLAY	6.8	8.2	BROWN
380.0	PLEISTOCENE		UNCONSOLIDATED	7.0	15.0	
373.0			SANDSTONE	0.7	22.0	BROKEN
372.3			CLAYSTONE & SILTSTONE	2.3	22.7	BROWN
370.0			SHALE	2.5	25.0	
367.5			COAL	0.2	27.5	
367.3			UNDERCLAY	0.7	27.7	
366.7			SANDSTONE	1.1	28.3	
365.6			CLAYSTONE & SILTSTONE	8.9	29.4	
356.7			SANDSTONE	1.0	38.3	HARD

MAPID: 07700936000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 27 QUARTERS/FOOTAGES:
QUADRANGLE: AVA LONGITUDE: -89.421997 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.88656 DATE COLLECTED:
SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: WILLIS COAL AND MINING 1 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0	PLEISTOCENE		CLAY	10.0	0.0	YELLOW
435.0	PLEISTOCENE		SAND	8.0	10.0	YELLOW
427.0	PLEISTOCENE		SAND	4.0	18.0	GRAY
423.0	PLEISTOCENE		SAND	20.0	22.0	YELLOW
403.0			SANDSTONE	14.0	42.0	YELLOW
389.0			SANDSTONE	10.0	56.0	GRAY
379.0			SHALE	24.0	66.0	BLUE

MAPID: 07700938000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 28 QUARTERS/FOOTAGES: NW SW SE NE
QUADRANGLE: AVA LONGITUDE: -89.435186 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.888382 DATE COLLECTED:
SURFACE ELEVATION (FT.): 465.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: WILLIS COAL CO. 12 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.0			UNCLASSIFIED	122.0	0.0	
343.0			COAL	1.0	122.0	

MAPID: 07700940000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 29 QUARTERS/FOOTAGES: NW SE
QUADRANGLE: AVA LONGITUDE: -89.45636 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.885783 DATE COLLECTED:
SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: WILLIS COAL COMPANY 11 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0			UNCLASSIFIED	122.0	0.0	
473.0			COAL	1.0	122.0	

MAPID: 077265C0001F VERSION: 1 PROJECT: BLM
 COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 33 QUARTERS/FOOTAGES: SE NW SE NW
 QUADRANGLE: ORAVILLE LONGITUDE: -89.443292 GEOLOGIST: BARGH,M
 CONFIDENTIAL: N LATITUDE: 37.875049 DATE COLLECTED: 0 / 0 / 1933
 SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 13.4 LOG TYPE: Measured section
 SOURCE: FLD NOTES-FULLER WELL TYPE: Outcrop
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			SANDSTONE	-	
-			SHALE	5.4	
-			COAL	4.5	WEATHERED, POORLY EXPOSED
-			SHALE	3.5	

MAPID: 07701469000C VERSION: 1 PROJECT: BLM
 COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 35 QUARTERS/FOOTAGES: SW NW NW SE
 QUADRANGLE: ORAVILLE LONGITUDE: -89.403168 GEOLOGIST: BARGH,M
 CONFIDENTIAL: N LATITUDE: 37.870034 DATE COLLECTED: 6 / 0 / 1960
 SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 72.0 LOG TYPE: Survey Core Study
 SOURCE: SMITH & CLEGG WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
423.0			UNKNOWN	28.9	0.0
394.1			ROCK	16.4	28.9
377.7	SPOON	MURPHYSBORO	COAL	2.8	45.3 SH PTG .14'
374.9			ROCK	23.9	48.1

MAPID: 077265C0002F VERSION: 1 PROJECT: BLM
 COUNTY: JACKSON TWP/RNG: 7S 3W SECTION: 35 QUARTERS/FOOTAGES: NW NW NW SE
 QUADRANGLE: ORAVILLE LONGITUDE: -89.403149 GEOLOGIST: BARGH,M
 CONFIDENTIAL: N LATITUDE: 37.870939 DATE COLLECTED: 0 / 0 / 1936
 SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 6.5 LOG TYPE: Measured section
 SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			SHALE	3.0	WEATHERED
-			COAL	3.5	UPPER .66'BONEY
-			SHALE/UNDERCLAY	-	BONEY

MAPID: 07700946000C

VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 7S 4W

SECTION: 5

QUARTERS/FOOTAGES: SE

QUADRANGLE: WILLISVILLE

LONGITUDE: -89.562529

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.944756

DATE COLLECTED:

SURFACE ELEVATION (FT.): 525.0

LOGGED (FT.): 0.0

LOG TYPE: Drillers Log

SOURCE: DIAMOND DRILL COAL CO.

WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
525.0	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0	
498.0			COAL	1.0	27.0	
497.0			CLAYSTONE & SILTSTONE	2.0	28.0	
495.0			SHALE	4.0	30.0	
491.0			SHALE	9.0	34.0	BLUE
482.0			SHALE	7.0	43.0	
475.0			SANDSTONE	4.0	50.0	COALY PARTINGS NOTED
471.0			SHALE	3.0	54.0	
468.0			SHALE	5.0	57.0	

MAPID: 07700946000C

VERSION: 2

PROJECT: NCRDS87

COUNTY: JACKSON

TWP/RNG: 7S 4W

SECTION: 5

QUARTERS/FOOTAGES: SE

QUADRANGLE: WILLISVILLE

LONGITUDE: -89.562529

GEOLOGIST: WEIBEL

CONFIDENTIAL: N

LATITUDE: 37.944756

DATE COLLECTED:

SURFACE ELEVATION (FT.): 500.0

LOGGED (FT.): 62.0

LOG TYPE: Drillers Log

SOURCE: MURPHYSBORO PAVING BRICK CO.

WELL TYPE: Diamond Drill

COMMENT: LOCATION & ELEVATION IMPRECISE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.0			UNCONSOLIDATED	27.0	0.0	
473.0			COAL	1.0	27.0	
472.0			CLAYSTONE	2.0	28.0	
470.0			GRAY SHALE	4.0	30.0	
466.0			SHALE	9.0	34.0	
457.0			BLACK SHALE	7.0	43.0	
450.0			SANDSTONE	4.0	50.0	
446.0			GRAY SHALE	3.0	54.0	
443.0			SHALE	5.0	57.0	

MAPID: 07700947000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 4W **SECTION:** 5 **QUARTERS/FOOTAGES:** NE SE
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.560195 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.946535 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 515.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: MURPHYSBORO PAVING BRICK CO. **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
515.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
507.0			SANDY SHALE	8.0	8.0	
499.0			SANDY SHALE	29.0	16.0	

MAPID: 07701442000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 7S 4W **SECTION:** 9 **QUARTERS/FOOTAGES:** 70' S line, 185' E line
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.540892 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.926255 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 525.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: C. W. HAVERSTOCK **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
525.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
513.0			SANDSTONE	11.0	12.0	
502.0			SHALE	2.0	23.0	
500.0			SANDSTONE	7.0	25.0	
493.0			LIMESTONE	5.0	32.0	BROKEN
488.0			SHALE	2.0	37.0	BROKEN
486.0			COAL	2.0	39.0	
484.0			UNDERCLAY	12.0	41.0	
472.0			SHALE	41.0	53.0	
431.0		TRADEWATER	COAL	4.0	94.0	SEAHORNE?
427.0			UNDERCLAY	12.0	98.0	
415.0			SHALE	60.0	110.0	
355.0			SANDSTONE	2.0	170.0	
353.0			SHALE	35.0	172.0	
318.0			SANDSTONE	19.0	207.0	
299.0			SHALE	2.0	226.0	
297.0			SHALE	15.0	228.0	
282.0			SHALE	6.0	243.0	
276.0			SANDSTONE	9.0	249.0	
267.0			SHALE	5.0	258.0	

MAPID: 07701492000C VERSION: 1 PROJECT: CUSMAP
COUNTY: JACKSON TWP/RNG: 7S 4W SECTION: 12 QUARTERS/FOOTAGES: 50' N line, 350' W line of SW NE
QUADRANGLE: AVA LONGITUDE: -89.492998 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.93572 DATE COLLECTED: 0 / 0 / 1963
SURFACE ELEVATION (FT.): 572.0 LOGGED (FT.): 210.0 LOG TYPE: Electric Log
SOURCE: ESTATE OF N.A. BALDRIDGE WELL TYPE: Water Well
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
362.0	BASE OF PENN.		UNCLASSIFIED	-	210.0	

MAPID: 077266D0001F VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 7S 4W SECTION: 32 QUARTERS/FOOTAGES: SE
QUADRANGLE: RADDLE LONGITUDE: -89.565106 GEOLOGIST: BARGH,M
CONFIDENTIAL: N LATITUDE: 37.870788 DATE COLLECTED: 0 / 0 / 1961
SURFACE ELEVATION (FT.): LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: FLD NOTES-PARHAM WELL TYPE: Underground mine
COMMENT: "OLD MINED OUT COAL"

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

MAPID: 077266D0002F VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 7S 4W SECTION: 33 QUARTERS/FOOTAGES: NE SW SW
QUADRANGLE: RADDLE LONGITUDE: -89.557019 GEOLOGIST: BARGH,M
CONFIDENTIAL: N LATITUDE: 37.869713 DATE COLLECTED: 0 / 0 / 1933
SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 23.0 LOG TYPE: Measured section
SOURCE: FLD NOTES-MCCABE WELL TYPE: Underground mine
COMMENT: ABANDONED SLOPE MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SANDSTONE	20.0		
-			COAL	3.0		REPORTED, NOT SEEN

MAPID: 077265C0003F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 7S 4W SECTION: 36 QUARTERS/FOOTAGES: NE NE SE SW

QUADRANGLE: ORAVILLE LONGITUDE: -89.49679 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.869711 DATE COLLECTED: 0 / 0 / 1961

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 8.7 LOG TYPE: Measured section

SOURCE: FLD NOTES-PARKHAM WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0			UNCONSOLIDATED	2.0	0.0	
-			ROCK	3.7		
-			COAL	1.5		
-			UNDERCLAY	1.5		

MAPID: 077266D0004F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 7S 4W SECTION: 36 QUARTERS/FOOTAGES: SE SE SW SW

QUADRANGLE: RADDLE LONGITUDE: -89.501453 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.867066 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-FULLER WELL TYPE: Outcrop

COMMENT: SEVERAL OLD SLOPE MINES IN THIS SECTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.0			ROCK	12.5	0.0	
-			COAL	2.0		BONY,LAMINATED
-			ROCK	4.0		

MAPID: 077266D0003F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 7S 4W SECTION: 36 QUARTERS/FOOTAGES: SW NW NE SW

QUADRANGLE: RADDLE LONGITUDE: -89.500154 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.872505 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 18.4 LOG TYPE: Measured section

SOURCE: FLD NOTES-CULVER WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
530.0			UNKNOWN	-	0.0	
-			ROCK	12.4		
-			COAL	2.0		BONY
-			ROCK	4.0		

MAPID: 07700250000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 1 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: DE SOTO LONGITUDE: -89.168938 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.848847 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 4 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	7.0	0.0	
388.0	PLEISTOCENE		CLAY	7.0	7.0	YELLOW
381.0	CARBONDALE	ANVIL ROCK	SANDSTONE	12.0	14.0	GRAY
369.0	CARBONDALE	ANVIL ROCK	SANDSTONE	13.0	26.0	YELLOW
356.0	CARBONDALE		SHALE	6.0	39.0	BLUE
350.0	CARBONDALE		SHALE	53.0	45.0	BLUE
297.0	CARBONDALE	HERRIN	COAL	2.2	98.0	
294.8	CARBONDALE	HERRIN	SHALY COAL	7.7	100.2	
287.2	CARBONDALE	HERRIN	COAL	7.0	107.8	
280.2	CARBONDALE		UNDERCLAY	1.2	114.8	

MAPID: 07700250000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 1 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: DE SOTO LONGITUDE: -89.168938 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.848847 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 435.0 LOGGED (FT.): 116.0 LOG TYPE:

SOURCE: WESTERN CM0004 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
327.0	CARBONDALE	HERRIN	COAL	7.0	108.0	

MAPID: 07700251000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 1 QUARTERS/FOOTAGES: SW NE NE

QUADRANGLE: DE SOTO LONGITUDE: -89.154579 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.859212 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 35 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		SOIL	25.0	0.0	
370.0	CARBONDALE	ANVIL ROCK	SHALY SANDSTONE	15.0	25.0	
355.0	CARBONDALE	ANVIL ROCK	SANDSTONE	43.0	40.0	
312.0	CARBONDALE		SHALE	22.0	83.0	BLUE
290.0	CARBONDALE		SHALE	5.0	105.0	
285.0	CARBONDALE		SHALE	16.0	110.0	
269.0	CARBONDALE		SHALE	1.0	126.0	
268.0	CARBONDALE	HERRIN	COAL	5.5	127.0	
262.5	CARBONDALE	HERRIN	SMUT	0.3	132.5	BAND
262.2	CARBONDALE	HERRIN	COAL	1.5	132.8	
260.7	CARBONDALE	HERRIN	SHALE	0.3	134.3	BLUE BAND
260.3	CARBONDALE	HERRIN	COAL	2.0	134.7	
258.3	CARBONDALE		UNDERCLAY	2.0	136.7	
256.3	CARBONDALE		LIMESTONE	0.3	138.7	

MAPID: 07700251000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 1 QUARTERS/FOOTAGES: SW NE NE

QUADRANGLE: DE SOTO LONGITUDE: -89.154579 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.859212 DATE COLLECTED: 0 / 0 / 1918

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 139.0 LOG TYPE:

SOURCE: WESTERN CM0035 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
273.0	CARBONDALE	HERRIN	COAL	9.7	127.0	

MAPID: 07700252000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 1 QUARTERS/FOOTAGES: SW SE NE

QUADRANGLE: DE SOTO LONGITUDE: -89.154621 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.855571 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 37 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		SOIL	25.0	0.0	CLAY
370.0	CARBONDALE		SHALE	27.0	25.0	BLUE
343.0	CARBONDALE	ANVIL ROCK	SANDSTONE	2.0	52.0	GRAVELLY
341.0	CARBONDALE	ANVIL ROCK	SANDSTONE	20.0	54.0	
321.0	CARBONDALE	ANVIL ROCK	SANDSTONE	2.0	74.0	
319.0	CARBONDALE	ANVIL ROCK	SANDSTONE	25.0	76.0	
294.0	CARBONDALE		SHALE	6.0	101.0	BLUE
288.0	CARBONDALE		SHALE	20.0	107.0	
268.0	CARBONDALE	HERRIN	COAL	8.6	127.0	TOTAL THICKNESS OF PTGS. = 8 INCHES
259.4	CARBONDALE		UNDERCLAY	1.4	135.6	
258.0	CARBONDALE		LIMESTONE	1.0	137.0	

MAPID: 07700252000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 1 QUARTERS/FOOTAGES: SW SE NE

QUADRANGLE: DE SOTO LONGITUDE: -89.154621 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.855571 DATE COLLECTED: 0 / 0 / 1918

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 138.0 LOG TYPE:

SOURCE: WESTERN CM0037 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
273.0	CARBONDALE	HERRIN	COAL	8.6	127.0	

MAPID: 07700253000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 1 QUARTERS/FOOTAGES: NW SE SE
QUADRANGLE: DE SOTO LONGITUDE: -89.154682 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.850108 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. 38 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		SOIL	38.0	0.0	
357.0	CARBONDALE	ANVIL ROCK	SANDSTONE	12.0	38.0	
345.0	CARBONDALE	ANVIL ROCK	SANDSTONE	38.0	50.0	
307.0	CARBONDALE		SHALE	5.0	88.0	BLUE
302.0	CARBONDALE		SHALE	30.5	93.0	
271.5	CARBONDALE	HERRIN	COAL	9.7	123.5	TOTAL THICKNESS OF PTGS. = 7 INCHES
261.8	CARBONDALE		UNDERCLAY	1.3	133.2	
260.6	CARBONDALE		LIMESTONE	0.6	134.4	

MAPID: 07700253000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 1 QUARTERS/FOOTAGES: NW SE SE
QUADRANGLE: DE SOTO LONGITUDE: -89.154682 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.850108 DATE COLLECTED: 0 / 0 / 1918
SURFACE ELEVATION (FT.): 401.0 LOGGED (FT.): 135.0 LOG TYPE:
SOURCE: WESTERN CM0038 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
277.0	CARBONDALE	HERRIN	COAL	9.7	124.0	

MAPID: 07701415000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 1 QUARTERS/FOOTAGES: SE NW
QUADRANGLE: DE SOTO LONGITUDE: -89.162863 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.85681 DATE COLLECTED:
SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 114.0 LOG TYPE: Drillers Log
SOURCE: STONEFORT COAL CORP 5 WELL TYPE: Coal Test
COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
397.5	CARBONDALE	LAWSON	SANDSTONE	77.0	2.5	
320.5	CARBONDALE	BRERETON	LIMESTONE	3.0	79.5	
317.5	CARBONDALE	ENERGY	UNCLASSIFIED	24.5	82.5	
293.0	CARBONDALE	HERRIN	COAL	7.0	107.0	

MAPID: 07701472000C VERSION: 1 PROJECT: CUSMAP

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 1 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE

QUADRANGLE: DE SOTO LONGITUDE: -89.159402 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.85394 DATE COLLECTED: 8 / 0 / 1960

SURFACE ELEVATION (FT.): 399.0 LOGGED (FT.): 1426.0 LOG TYPE: Electric Log

SOURCE: LESTER JOHN L WELL TYPE: Producer-Oil and Gas

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
59.0	CARBONDALE	COLCHESTER	UNCLASSIFIED	-	340.0
-7.0	SPOON	DAVIS	UNCLASSIFIED	-	406.0
-1027.0	BASE OF PENN.		UNCLASSIFIED	-	1426.0

MAPID: 07701436000C VERSION: 1 PROJECT: ROOF STUDY

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 2 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DE SOTO LONGITUDE: -89.172381 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.853487 DATE COLLECTED:

SURFACE ELEVATION (FT.): 397.0 LOGGED (FT.): 124.1 LOG TYPE: Drillers Log

SOURCE: STONEFORT COAL CORP 27 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
387.0	CARBONDALE	LAWSON	SANDSTONE	92.0	10.0
295.0	CARBONDALE	ENERGY	SILTY SHALE	10.0	102.0
285.0	CARBONDALE	ENERGY	GRAY SHALE	5.0	112.0
280.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	7.1	117.0

MAPID: 07721934000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 2 **QUARTERS/FOOTAGES:** 1420' S line, 2688' E line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.179364 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 37.852037 **DATE COLLECTED:** 7 / 17 / 1970
SURFACE ELEVATION (FT.): 380.3 **LOGGED (FT.):** 161.5 **LOG TYPE:** Drillers Log
SOURCE: CONSOLIDATION COAL CO. C-798 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
380.3	PLEISTOCENE		SANDY CLAY	40.0	0.0
340.3			GRAY SHALE	5.4	40.0
334.9			GRAY SHALE	10.4	45.4
324.9			SANDY CLAY	10.0	55.4
314.9			SANDY SHALE	12.0	65.4
302.9			SANDSTONE/SHALE	55.0	77.4
247.9			SANDSTONE	14.0	132.4
233.9			LIMESTONE & SHALE	2.5	146.4
231.4			DARK SHALE	7.4	148.9
224.0			COAL	4.2	156.3
219.8			UNDERCLAY	1.5	160.5

MAPID: 07701697000C **VERSION:** 1 **PROJECT:** ROOF STUDY
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 3 **QUARTERS/FOOTAGES:** NW NE NW
QUADRANGLE: DE SOTO **LONGITUDE:** -89.20144 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.861489 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 387.0 **LOGGED (FT.):** 140.5 **LOG TYPE:** Survey Core Study
SOURCE: TRUAX-TRAER COAL CO C-819 **WELL TYPE:** Coal Test
COMMENT: GOOD DESCRIPTION; ELEV ADDED, FROM DEM

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
284.2	CARBONDALE	ENERGY	SILTY SHALE	6.8	102.8
277.4	CARBONDALE	ENERGY	GRAY SHALE	6.3	109.6
271.1	CARBONDALE	ENERGY	MOTTLED SHALE	8.2	115.9
262.9	CARBONDALE	ENERGY	CARBONACEOUS SHALE	2.0	124.1
260.9	CARBONDALE	ENERGY	GRAY SHALE	10.9	126.1
250.0	CARBONDALE	HERRIN	COAL	3.5	137.0

MAPID: 07721935000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 3 **QUARTERS/FOOTAGES:** 1276' S line, 117' E line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.189319 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 37.851805 **DATE COLLECTED:** 7 / 20 / 1970
SURFACE ELEVATION (FT.): 384.9 **LOGGED (FT.):** 214.5 **LOG TYPE:** Drillers Log
SOURCE: CONSOLIDATION COAL CO. C-799 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
384.9	PLEISTOCENE		CLAY	25.0	0.0	BROWN
359.9	PLEISTOCENE		CLAY	49.3	25.0	GRAY
310.6	PLEISTOCENE		MUD	10.0	74.3	
300.6	PLEISTOCENE		SAND & GRAVEL	16.7	84.3	
283.9			SANDSTONE	3.3	101.0	
280.6			SANDSTONE/SHALE	10.0	104.3	
270.6			SANDSTONE	10.0	114.3	
260.6			SANDSTONE WITH COAL	10.0	124.3	
250.6			SANDSTONE	10.0	134.3	
240.6			SHALY SANDSTONE	10.0	144.3	
230.6			SANDSTONE	20.0	154.3	
210.6			SANDSTONE/SHALE	32.0	174.3	
178.6			BLACK SHALE	3.7	206.3	
174.9			COAL	2.0	210.0	
172.9			CLAYSTONE	2.5	212.0	

MAPID: 07721936000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 3 **QUARTERS/FOOTAGES:** 1109' S line, 2620' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.198211 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 37.851541 **DATE COLLECTED:** 7 / 29 / 1970
SURFACE ELEVATION (FT.): 371.7 **LOGGED (FT.):** 150.0 **LOG TYPE:** Drillers Log
SOURCE: CONSOLIDATION COAL CO. C-823 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
371.7	PLEISTOCENE		CLAY	18.8	0.0	
352.9	PLEISTOCENE		GLACIAL DRIFT	52.6	18.8	
300.3			SANDY SHALE	36.1	71.4	
264.2			SHALY SANDSTONE	12.1	107.5	
252.1			SANDSTONE WITH COAL	8.1	119.6	
244.0			SHALY SANDSTONE	7.6	127.7	
236.4			SANDSTONE WITH COAL	8.1	135.3	
228.3			SANDSTONE	4.9	143.4	
223.4			SHALY SANDSTONE	1.7	148.3	

MAPID: 07721937000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 3 **QUARTERS/FOOTAGES:** 1323' S line, 1081' E line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.192657 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 37.852006 **DATE COLLECTED:** 7 / 22 / 1970
SURFACE ELEVATION (FT.): 395.3 **LOGGED (FT.):** 150.0 **LOG TYPE:** Drillers Log
SOURCE: CONSOLIDATION COAL CO. C-810 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.3	PLEISTOCENE		CLAY	37.0	0.0	
358.3	PLEISTOCENE		CLAY	40.0	37.0	
318.3			DARK SHALE	23.0	77.0	SS STREAKS
295.3			SANDSTONE WITH COAL	10.1	100.0	
285.2			SANDSTONE	10.0	110.1	
275.2			SANDSTONE	10.0	120.1	
265.2			SANDSTONE WITH COAL	10.0	130.1	
255.2			SANDSTONE WITH COAL	3.9	140.1	
251.3			SHALY SANDSTONE	6.0	144.0	

MAPID: 07721938000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 3 **QUARTERS/FOOTAGES:** 728' N line, 1295' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.202732 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 37.860373 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 377.1 **LOGGED (FT.):** 240.0 **LOG TYPE:** Drillers Log
SOURCE: CONSOLIDATION COAL CO. C-770 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
377.1	PLEISTOCENE		SOIL	5.0	0.0	
372.1	PLEISTOCENE		CLAY	31.8	5.0	
340.3	PLEISTOCENE		GLACIAL DRIFT	46.2	36.8	
294.1			SHALY SANDSTONE	6.4	83.0	
287.7			SANDY SHALE	27.6	89.4	
260.1			BLACK SHALE	0.1	117.0	
260.0			COAL	3.1	117.1	
256.9			UNDERCLAY	1.0	120.2	
255.9			SANDY SHALE	10.3	121.2	
245.6			GRAY SANDSTONE	48.7	131.5	
196.9			SANDSTONE	59.8	180.2	

MAPID: 07721978000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 3 **QUARTERS/FOOTAGES:** 24' N line, 1514' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.201961 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 37.862295 **DATE COLLECTED:** 5 / 21 / 1970
SURFACE ELEVATION (FT.): 393.3 **LOGGED (FT.):** 202.5 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER C-728 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
393.3	PLEISTOCENE		SOIL	5.0	0.0
388.3	PLEISTOCENE		CLAY	26.7	5.0
361.6	PLEISTOCENE		GLACIAL DRIFT	72.4	31.7
289.2			GRAY SHALE	24.9	104.1
264.3	CARBONDALE		COAL	0.1	129.0
264.2	CARBONDALE	ENERGY	SHALE W/ COAL STREAKS	6.9	129.1
257.3	CARBONDALE	HERRIN	COAL	4.2	136.0
253.1	CARBONDALE		UNDERCLAY	3.7	140.2
249.4	CARBONDALE		GRAY LIMESTONE	0.4	143.9
249.0	CARBONDALE		GRAY SHALE	9.2	144.3
239.8	CARBONDALE		SANDY SHALE	22.3	153.5
217.5	CARBONDALE		GRAY LIMESTONE	0.9	175.8
216.6	CARBONDALE		GRAY SHALE & LIMESTONE	19.4	176.7
197.2	CARBONDALE		SANDSTONE	6.4	196.1 W/ COAL STREAKS

MAPID: 07725625000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 3 **QUARTERS/FOOTAGES:** 2125' S line, 1350' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.202563 **GEOLOGIST:** J MCBETH
CONFIDENTIAL: N **LATITUDE:** 37.854458 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 122.9 **LOG TYPE:** Drillers Log
SOURCE: CONSOLIDATION COAL CO. R-5292 **WELL TYPE:** Coal Test
COMMENT: PERMIT 179; BURNING STAR #5

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	67.0	0.0
-	CARBONDALE	BRERETON	LIMESTONE	3.0	67.0
-	CARBONDALE	HERRIN	COAL	9.1	70.0
-	CARBONDALE		GRAY SHALE	29.4	79.1
-	CARBONDALE	BRIAR HILL	COAL	2.6	108.5
-	CARBONDALE		GRAY SHALE	11.8	111.1

MAPID: 07701497000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 4 QUARTERS/FOOTAGES: SW NW
QUADRANGLE: DE SOTO LONGITUDE: -89.223631 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.857937 DATE COLLECTED:
SURFACE ELEVATION (FT.): 392.0 LOGGED (FT.): 99.5 LOG TYPE: Drillers Log
SOURCE: CONSOLIDATION C.C.-TRUAX-TRAERR-6-57 WELL TYPE: Coal Test
COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
363.2	CARBONDALE		MOTTLED SHALE	13.0	28.8	
350.2	CARBONDALE	BANKSTON FORK	LIMESTONE	9.8	41.8	
340.4	CARBONDALE		GRAY SHALE	25.0	51.6	
315.4	CARBONDALE	BRERETON	LIMESTONE	0.7	76.6	
314.7	CARBONDALE	ANNA	BLACK SHALE	3.8	77.3	
310.9	CARBONDALE	ENERGY	DARK GRAY SHALE	2.8	81.1	
308.1	CARBONDALE	ENERGY	GRAY SHALE	9.1	83.9	
299.0	CARBONDALE	HERRIN	COAL	6.5	93.0	

MAPID: 07725626000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 4 QUARTERS/FOOTAGES: 400' S line, 1200' E line
QUADRANGLE: DE SOTO LONGITUDE: -89.211474 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.849835 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: CONSOLIDATED COAL CO. R5293 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	25.0	0.0	BROWN
370.0	CARBONDALE	ANVIL ROCK	SANDSTONE	45.0	25.0	BROWN
325.0	CARBONDALE		SHALE	15.0	70.0	
310.0	CARBONDALE	BRERETON	LIMESTONE	2.0	85.0	
308.0	CARBONDALE	ANNA	SHALE	3.0	87.0	
305.0	CARBONDALE	ENERGY	SHALE	13.0	90.0	
292.0	CARBONDALE	HERRIN	COAL	5.2	103.0	
286.8	CARBONDALE	HERRIN	SHALE	5.1	108.2	
281.7	CARBONDALE	HERRIN	COAL	1.9	113.3	
279.8	CARBONDALE		SHALE	4.3	115.2	

MAPID: 07725627000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 4 **QUARTERS/FOOTAGES:** 1500' N line, 1225' E line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.211499 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.858354 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: CONSOLIDATED COAL CO. R5294 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	10.0	0.0	BROWN
385.0	PLEISTOCENE		CLAY	5.0	10.0	GRAY
380.0	PLEISTOCENE		CLAY	5.0	15.0	BROWN
375.0	PLEISTOCENE		CLAY	4.0	20.0	BROWN
371.0	CARBONDALE	ANVIL ROCK	SANDSTONE	59.7	24.0	GRAY
311.3	CARBONDALE	ENERGY	SHALE	35.5	83.7	
275.8	CARBONDALE	HERRIN	COAL	7.0	119.2	
268.8	CARBONDALE		SHALE	5.5	126.2	
263.3	CARBONDALE	HERRIN	COAL	3.3	131.7	
260.0	CARBONDALE		SHALE	1.0	135.0	
259.0	CARBONDALE		LIMESTONE	3.0	136.0	

MAPID: 07725628000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 4 **QUARTERS/FOOTAGES:** 75' S line, 1200' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.221939 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.849021 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: CONSOLIDATED COAL CO. R5295 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	47.0	0.0	BROWN
348.0	CARBONDALE		SHALE	15.0	47.0	
333.0	CARBONDALE	BRERETON	LIMESTONE	5.0	62.0	BLACK
328.0	CARBONDALE	ANNA	SHALE	3.5	67.0	
324.5	CARBONDALE	HERRIN	COAL	6.2	70.5	
318.3	CARBONDALE	HERRIN	SHALE	1.2	76.7	
317.1	CARBONDALE	HERRIN	COAL	3.6	77.9	
313.5	CARBONDALE		SHALE	1.5	81.5	
312.0	CARBONDALE		LIMESTONE	6.0	83.0	

MAPID: 07725862000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 4 QUARTERS/FOOTAGES:

QUADRANGLE: DE SOTO LONGITUDE: -89.216631

GEOLOGIST: J MCBETH

CONFIDENTIAL: N LATITUDE: 37.855667

DATE COLLECTED: 4 / 12 / 1972

SURFACE ELEVATION (FT.): 387.6 LOGGED (FT.): 157.0

LOG TYPE: Drillers Log

SOURCE: CONSOLIDATION C.C. C-1156

WELL TYPE: Coal Test

COMMENT: PERMIT 179; BURNING STAR #5

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
387.6	PLEISTOCENE		SOIL	5.0	0.0	
382.6	PLEISTOCENE		SAND	18.3	5.0	
364.3	CARBONDALE		SANDSTONE	59.4	23.3	
304.9	CARBONDALE		SHALE	6.2	82.7	DARK GRAY
298.7	CARBONDALE	ANNA	BLACK SHALE	1.5	88.9	BLACK
297.2	CARBONDALE	ENERGY	SHALE	9.6	90.4	DARK
287.6	CARBONDALE	ENERGY	SHALE	15.7	100.0	DARK GRAY WITH LIMESTONE STREAKS
271.9	CARBONDALE	HERRIN	COAL	7.9	115.7	
264.0	CARBONDALE		SHALE	10.2	123.6	WITH COAL
253.8	CARBONDALE		CLAYSTONE	3.7	133.8	
250.1	CARBONDALE		GRAY SHALE	4.1	137.5	WITH COAL
246.0	CARBONDALE		LIMESTONE	3.8	141.6	CONGLOMERATE
242.2	CARBONDALE		GRAY SHALE	5.9	145.4	WITH COAL
236.3	CARBONDALE	SPRINGFIELD	COAL	4.1	151.3	
232.2	CARBONDALE		UNDERCLAY	1.6	155.4	

MAPID: 07700254000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 5 QUARTERS/FOOTAGES: NE SW SW

QUADRANGLE: DE SOTO LONGITUDE: -89.241359

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.8517

DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0

LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER COAL CO. 22

WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	45.0	0.0	
350.0	CARBONDALE	BRERETON	LIMESTONE	2.0	45.0	
348.0	CARBONDALE	ANNA	SHALE	5.7	47.0	
342.3	CARBONDALE	ANNA	SHALE	4.0	52.7	
338.3	CARBONDALE	ENERGY	SHALE	4.0	56.7	
334.3	CARBONDALE	HERRIN	COAL	9.0	60.7	
325.3	CARBONDALE		UNDERCLAY	1.0	69.7	

MAPID: 07700254000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 5 QUARTERS/FOOTAGES: NE SW SW

QUADRANGLE: DE SOTO LONGITUDE: -89.241359 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.8517 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 403.0 LOGGED (FT.): 71.0 LOG TYPE:

SOURCE: FORSYTH CC0022 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
342.0	CARBONDALE	HERRIN	COAL	9.0	61.0	

MAPID: 07700255000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 5 QUARTERS/FOOTAGES: SE SW SW

QUADRANGLE: DE SOTO LONGITUDE: -89.241393 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.849879 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER COAL CO. 23 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE	HERRIN	CLAY	45.0	0.0	
350.0	PLEISTOCENE		SHALE	25.0	45.0	
325.0	CARBONDALE		COAL	7.5	70.0	
317.5	PLEISTOCENE		UNDERCLAY	1.0	77.5	

MAPID: 07700255000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 5 QUARTERS/FOOTAGES: SE SW SW

QUADRANGLE: DE SOTO LONGITUDE: -89.241393 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.849879 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 402.0 LOGGED (FT.): 79.0 LOG TYPE:

SOURCE: FORSYTH CC0023 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
332.0	CARBONDALE	HERRIN	COAL	7.5	70.0	

MAPID: 07700256000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 5 QUARTERS/FOOTAGES: NE SW SW

QUADRANGLE: DE SOTO LONGITUDE: -89.241359 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.8517 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 26 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	47.0	0.0
348.0	CARBONDALE		SHALE	2.0	47.0
346.0	CARBONDALE	BRERETON	LIMESTONE	10.3	49.0
335.7	CARBONDALE	ANNA	SHALE	2.7	59.3
333.0	CARBONDALE	HERRIN	COAL	10.6	62.0
322.4	CARBONDALE		UNDERCLAY	3.0	72.6

MAPID: 07700256000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 5 QUARTERS/FOOTAGES: NE SW SW

QUADRANGLE: DE SOTO LONGITUDE: -89.241359 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.8517 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 396.0 LOGGED (FT.): 76.0 LOG TYPE:

SOURCE: FORSYTH CC0026 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
334.0	CARBONDALE	HERRIN	COAL	10.6	62.0

MAPID: 07700257000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 5 QUARTERS/FOOTAGES: NW SW SW
QUADRANGLE: DE SOTO LONGITUDE: -89.243712 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.85172 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: FORSYTHE COAL CO. 27 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	25.0	0.0	
370.0			LIMESTONE	3.0	25.0	
367.0			SHALE	29.0	28.0	
338.0			SHALE	4.0	57.0	
334.0			LIMESTONE	6.0	61.0	
328.0			SHALE	6.0	67.0	
322.0			SHALE	2.0	73.0	
320.0			COAL	10.5	75.0	
309.5			UNDERCLAY	3.0	85.5	

MAPID: 07700257000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 5 QUARTERS/FOOTAGES: NW SW SW
QUADRANGLE: DE SOTO LONGITUDE: -89.243712 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.85172 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 401.0 LOGGED (FT.): 89.0 LOG TYPE:
SOURCE: FORSYTH CC0027 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
326.0	CARBONDALE	HERRIN	COAL	10.5	75.0	

MAPID: 07700259000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 5 QUARTERS/FOOTAGES: NW NE
QUADRANGLE: DE SOTO LONGITUDE: -89.232972 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.860976 DATE COLLECTED:
SURFACE ELEVATION (FT.): 401.0 LOGGED (FT.): 112.0 LOG TYPE:
SOURCE: HALLIDAY 0030 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
341.0	CARBONDALE	HERRIN	COAL	7.3	60.0	
295.0	CARBONDALE	SPRINGFIELD	COAL	4.5	106.0	

MAPID: 07700259000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 5 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DE SOTO LONGITUDE: -89.232972 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.860976 DATE COLLECTED:

SURFACE ELEVATION (FT.): 385.0 LOGGED (FT.): 66.3 LOG TYPE: Survey Core Study

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
370.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	14.5
368.5	CARBONDALE		SHALE	28.0	16.5
340.5	CARBONDALE	BRERETON	LIMESTONE	1.0	44.5
339.5	CARBONDALE	ANNA	BLACK SHALE	5.0	45.5
334.5	CARBONDALE	ENERGY	SILTY SHALE	6.0	50.5
328.5	CARBONDALE	ENERGY	SHALE	2.5	56.5
326.0	CARBONDALE	HERRIN	COAL	7.3	59.0

MAPID: 07700259000C VERSION: 3

PROJECT: NCRDS87

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 5 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DE SOTO LONGITUDE: -89.232972 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 37.860976 DATE COLLECTED:

SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 111.5 LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE (FARM) WELL TYPE: Coal Test

COMMENT: LOCATION IMPRECISE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
390.0			UNCONSOLIDATED	15.0	0.0
375.0	CARBONDALE		LIMESTONE	2.0	15.0
373.0	CARBONDALE		SHALE	28.0	17.0
345.0	CARBONDALE	BRERETON	LIMESTONE	1.0	45.0
344.0	CARBONDALE	ANNA	BLACK SHALE	5.0	46.0
339.0	CARBONDALE		SHALE	8.5	51.0
330.5	CARBONDALE	HERRIN	COAL	7.3	59.5
323.2	CARBONDALE		UNDERCLAY	2.0	66.8
321.2	CARBONDALE		LIMESTONE	11.8	68.8
309.5	CARBONDALE		UNDERCLAY	0.5	80.5
309.0	CARBONDALE		SHALE	1.5	81.0
307.5	CARBONDALE		SANDSTONE	7.0	82.5
300.5	CARBONDALE		SHALE	10.0	89.5
290.5	CARBONDALE		LIMESTONE	2.0	99.5
288.5	CARBONDALE	TURNER MINE	BLACK SHALE	4.5	101.5
284.0	CARBONDALE	SPRINGFIELD	COAL	4.5	106.0
279.5	CARBONDALE		UNDERCLAY	1.0	110.5

MAPID: 07700259000C VERSION: 4 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 5 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DE SOTO LONGITUDE: -89.232972 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.860976 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 30 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
380.0	CARBONDALE		LIMESTONE	2.0	15.0	
378.0	CARBONDALE		SHALE	1.0	17.0	
377.0	CARBONDALE		SHALE	27.0	18.0	
350.0	CARBONDALE	BRERETON	LIMESTONE	1.0	45.0	
349.0	CARBONDALE	ANNA	SHALE	5.0	46.0	
344.0	CARBONDALE	ENERGY	SHALE	6.0	51.0	
338.0	CARBONDALE	ENERGY	SHALE	2.5	57.0	
335.5	CARBONDALE	HERRIN	COAL	7.3	59.5	
328.2	CARBONDALE		UNDERCLAY	2.0	66.8	
326.2	CARBONDALE		LIMESTONE	3.8	68.8	DARK
322.5	CARBONDALE		LIMESTONE	8.0	72.5	GRAY
314.5	CARBONDALE		CLAYSTONE	0.5	80.5	
314.0	CARBONDALE		SHALE	1.5	81.0	
312.5	CARBONDALE		SANDSTONE	7.0	82.5	
305.5	CARBONDALE		SHALE	2.0	89.5	
303.5	CARBONDALE		SHALE	8.0	91.5	
295.5	CARBONDALE	ST. DAVID	LIMESTONE	2.0	99.5	
293.5	CARBONDALE	TURNER MINE	SHALE	4.5	101.5	
289.0	CARBONDALE	SPRINGFIELD	COAL	4.5	106.0	
284.5	CARBONDALE		UNDERCLAY	1.0	110.5	

MAPID: 07700260000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 5 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: DE SOTO LONGITUDE: -89.234243 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.85529 DATE COLLECTED:

SURFACE ELEVATION (FT.): 407.0 LOGGED (FT.): 0.0 LOG TYPE:

SOURCE: MIDWAY CM WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
322.0	CARBONDALE	HERRIN	COAL	7.7	85.0	

MAPID: 07700368000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 5 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: DE SOTO LONGITUDE: -89.231924 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.853448 DATE COLLECTED:
SURFACE ELEVATION (FT.): 385.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: M M CC WELL TYPE: Underground mine
COMMENT: SURFACE ELEVATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
300.0	CARBONDALE	HERRIN	COAL	-	85.0

MAPID: 07700258000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SE SW SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260725 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.850169 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 26.0 LOG TYPE:
SOURCE: FORSYTH CC0002 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
391.0	CARBONDALE	HERRIN	COAL	7.2	19.0

MAPID: 07700258000C VERSION: 2 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SE SW SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260725 GEOLOGIST: BARGH,M
CONFIDENTIAL: N LATITUDE: 37.850169 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 26.2 LOG TYPE: Drillers Log
SOURCE: FORSYTHE C C WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
410.0			CLAYSTONE	19.0	0.0
391.0			COAL	7.2	19.0

MAPID: 07700258000C VERSION: 3 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SE SW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260725 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.850169 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 2 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	19.0	0.0	
376.0	CARBONDALE	HERRIN	COAL	7.2	19.0	

MAPID: 07700261000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: DE SOTO LONGITUDE: -89.246104 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.851747 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 28 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	42.0	0.0	
353.0			SHALE	4.0	42.0	
349.0			SHALE	8.0	46.0	DARK
341.0			LIMESTONE	0.5	54.0	
340.5			SHALE	20.0	54.5	DARK
320.5			SHALE	1.0	74.5	
319.5			COAL	2.7	75.5	
316.8			UNDERCLAY	3.0	78.2	

MAPID: 07700261000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: DE SOTO LONGITUDE: -89.246104 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.851747 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 402.0 LOGGED (FT.): 81.0 LOG TYPE:

SOURCE: FORSYTH CC0028 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
326.0	CARBONDALE	HERRIN	COAL	2.7	76.0	

MAPID: 07700262000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SE NE SE

QUADRANGLE: DE SOTO LONGITUDE: -89.24607 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.853569 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 29 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	41.0	0.0	
354.0	CARBONDALE		SHALE	4.0	41.0	
350.0	CARBONDALE		SHALE	7.0	45.0	DARK
343.0	CARBONDALE	BRERETON	LIMESTONE	6.0	52.0	
337.0	CARBONDALE	ANNA	SHALE	1.0	58.0	
336.0	CARBONDALE	HERRIN	COAL	9.5	59.0	
326.5	CARBONDALE		LIMESTONE	3.0	68.5	

MAPID: 07700262000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SE NE SE

QUADRANGLE: DE SOTO LONGITUDE: -89.24607 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.853569 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 408.0 LOGGED (FT.): 72.0 LOG TYPE:

SOURCE: FORSYTH CC0029 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
349.0	CARBONDALE	HERRIN	COAL	9.5	59.0	

MAPID: 07700263000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SE NE SE
QUADRANGLE: DE SOTO LONGITUDE: -89.24607 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.853569 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: FORSYTHE COAL CO. 30 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	27.0	0.0	
368.0	CARBONDALE		SHALE	18.0	27.0	
350.0	CARBONDALE		SHALE	4.5	45.0	DARK
345.5	CARBONDALE	BRERETON	LIMESTONE	1.7	49.5	
343.8	CARBONDALE	ANNA	SHALE	5.0	51.2	
338.8	CARBONDALE	ENERGY	SHALE	6.0	56.2	
332.8	CARBONDALE	HERRIN	COAL	7.4	62.2	
325.4	CARBONDALE		LIMESTONE	3.0	69.6	

MAPID: 07700263000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SE NE SE
QUADRANGLE: DE SOTO LONGITUDE: -89.24607 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.853569 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 411.0 LOGGED (FT.): 73.0 LOG TYPE:
SOURCE: FORSYTH CC0030 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
349.0	CARBONDALE	HERRIN	COAL	7.4	62.0	

MAPID: 07700264000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE SE SE
QUADRANGLE: DE SOTO LONGITUDE: -89.246104 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.851747 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: FORSYTHE COAL CO. 31 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	35.0	0.0	
360.0	CARBONDALE	BRERETON	LIMESTONE	6.0	35.0	
354.0	CARBONDALE		SHALE	1.0	41.0	
353.0	CARBONDALE	HERRIN	COAL	9.0	42.0	
344.0	CARBONDALE		UNDERCLAY	1.0	51.0	
343.0	CARBONDALE		LIMESTONE	2.0	52.0	

MAPID: 07700264000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: DE SOTO LONGITUDE: -89.246104 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.851747 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 397.0 LOGGED (FT.): 54.0 LOG TYPE:

SOURCE: FORSYTH CC0031 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
355.0	CARBONDALE	HERRIN	COAL	9.0	42.0	

MAPID: 07700265000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW SE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258261 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.85195 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 26.0 LOG TYPE:

SOURCE: FORSYTH CC0003 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
389.0	CARBONDALE	HERRIN	COAL	5.0	21.0	

MAPID: 07700265000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW SE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258261 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.85195 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 26.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE C C WELL TYPE: Coal Test

COMMENT: OTHER LOGS IN THIS QUARTER SECTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			CLAYSTONE	21.0	0.0	
389.0			COAL	5.0	21.0	

MAPID: 07700265000C VERSION: 3 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW SE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258261 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.85195 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 3 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	21.0	0.0	
374.0	CARBONDALE	HERRIN	COAL	5.0	21.0	

MAPID: 07700266000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW NE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.2582 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.855594 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 4 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	16.0	0.0	
379.0			SHALE	5.0	16.0	

MAPID: 07700266000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW NE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.2582 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.855594 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 21.0 LOG TYPE:

SOURCE: FORSYTH CC0004 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	-		

MAPID: 07700267000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.255767 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.855553 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 42.0 LOG TYPE:
SOURCE: FORSYTH CC0006 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
381.0	CARBONDALE	HERRIN	COAL	7.8	34.0

MAPID: 07700267000C VERSION: 2 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.255767 GEOLOGIST: BARGH,M
CONFIDENTIAL: N LATITUDE: 37.855553 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 41.8 LOG TYPE: Drillers Log
SOURCE: FORSYTHE C C WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
415.0			CLAYSTONE	20.0	0.0
395.0			SHALE	14.0	20.0
381.0			COAL	7.8	34.0

MAPID: 07700267000C VERSION: 3 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.255767 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.855553 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: FORSYTHE COAL CO. 6 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPISO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	20.0	0.0
375.0	PLEISTOCENE		SHALE	14.0	20.0
361.0	CARBONDALE	HERRIN	COAL	7.8	34.0

MAPID: 07700268000C **VERSION:** 1 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 6 **QUARTERS/FOOTAGES:** SE NE SE SW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.25523 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.851444 **DATE COLLECTED:** 0 / 0 / 1924
SURFACE ELEVATION (FT.): 410.0 **LOGGED (FT.):** 49.0 **LOG TYPE:**
SOURCE: FORSYTH CC0008 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
368.0	CARBONDALE	HERRIN	COAL	7.1	42.0

MAPID: 07700268000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 6 **QUARTERS/FOOTAGES:** SE NE SE SW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.25523 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.851444 **DATE COLLECTED:** 0 / 0 / 1924
SURFACE ELEVATION (FT.): 410.0 **LOGGED (FT.):** 48.8 **LOG TYPE:** Drillers Log
SOURCE: FORSYTHE C C **WELL TYPE:** Coal Test
COMMENT: OTHER LOGS AVAILABLE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
410.0			CLAYSTONE	30.0	0.0
380.0			SHALE	11.0	30.0
369.0			BLACK SHALE	0.8	41.0
368.2			COAL	7.1	41.8

MAPID: 07700268000C **VERSION:** 3 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 6 **QUARTERS/FOOTAGES:** SE NE SE SW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.25523 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.851444 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: FORSYTHE COAL CO. 8 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	30.0	0.0
365.0	PLEISTOCENE		SHALE	11.0	30.0
354.0	PLEISTOCENE		SHALE	0.8	41.0
353.2	CARBONDALE	HERRIN	COAL	7.1	41.8

MAPID: 07700269000C VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE NE NW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.250285 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.855919 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 47.9 LOG TYPE: Drillers Log

SOURCE: FORSYTHE C C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0			CLAYSTONE	25.0	0.0	
375.0			SHALE	2.0	25.0	
373.0			LIMESTONE	1.3	27.0	
371.7			BLACK SHALE	14.5	28.3	
357.2			COAL	5.1	42.8	

MAPID: 07700269000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE NE NW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.250285 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.855919 DATE COLLECTED:

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 48.1 LOG TYPE: Survey Core Study

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
389.8	CARBONDALE		SHALE	2.0	25.2	
387.8	CARBONDALE	BRERETON	LIMESTONE	1.3	27.2	
386.5	CARBONDALE	ANNA	BLACK SHALE	5.5	28.5	
381.0	CARBONDALE	ENERGY	UNKNOWN	9.0	34.0	
372.0	CARBONDALE	HERRIN	COAL	5.1	43.0	

MAPID: 07700269000C VERSION: 3 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE NE NW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.250285 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.855919 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 48.0 LOG TYPE:

SOURCE: FORSYTH CC0013 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
372.0	CARBONDALE	HERRIN	COAL	5.1	43.0	

MAPID: 07700270000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW NW SW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.253998 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.852336 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 50.0 LOG TYPE:

SOURCE: FORSYTH CC0014 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
373.0	CARBONDALE	HERRIN	COAL	8.0	42.0	

MAPID: 07700270000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW NW SW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.253998 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.852336 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE C C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
415.0			CLAYSTONE	32.0	0.0	
383.0			SHALE	10.0	32.0	
373.0			COAL	8.0	42.0	

MAPID: 07700270000C VERSION: 3 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW NW SW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.253998 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.852336 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 14 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONO DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	32.0	0.0	
363.0	CARBONDALE		SHALE	10.0	32.0	
353.0	CARBONDALE	HERRIN	COAL	8.0	42.0	

MAPID: 07700271000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SW SE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258292 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.850128 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 61 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	20.0	0.0	
375.0	CARBONDALE	BRERETON	LIMESTONE	2.5	20.0	
372.5	CARBONDALE		SHALE	2.0	22.5	
370.5	CARBONDALE	HERRIN	COAL	6.0	24.5	
364.5	CARBONDALE		UNDERCLAY	0.5	30.5	

MAPID: 07700271000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SW SE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258292 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.850128 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 31.0 LOG TYPE:

SOURCE: FORSYTH CC0061 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	CARBONDALE	HERRIN	COAL	6.0	25.0	

MAPID: 07700272000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SW SE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258292 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.850128 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 43.0 LOG TYPE:

SOURCE: FORSYTH CC0062 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.0	CARBONDALE	HERRIN	COAL	7.3	35.0	

MAPID: 07700272000C

VERSION: 2

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 8S 1W

SECTION: 6

QUARTERS/FOOTAGES: SW SE SW

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.258292

GEOLOGIST: BARGH,M

CONFIDENTIAL: N

LATITUDE: 37.850128

DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0

LOGGED (FT.): 43.0

LOG TYPE: Drillers Log

SOURCE: FORSYTHE C C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
410.0			CLAYSTONE	29.0	0.0
381.0			SHALE	2.0	29.0
379.0			LIMESTONE	3.0	31.0
376.0			BLACK SHALE	0.7	34.0
375.3			COAL	7.3	34.7
368.0			UNDERCLAY	1.0	42.0

MAPID: 07700272000C

VERSION: 3

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 8S 1W

SECTION: 6

QUARTERS/FOOTAGES: SW SE SW

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.258292

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.850128

DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0

LOGGED (FT.): 0.0

LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 62

WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	29.0	0.0
366.0	CARBONDALE		SHALE	2.0	29.0
364.0	CARBONDALE	BRERETON	LIMESTONE	3.0	31.0
361.0	CARBONDALE		SHALE	0.7	34.0
360.3	CARBONDALE	HERRIN	COAL	7.3	34.7
353.0	CARBONDALE		UNDERCLAY	1.0	42.0

MAPID: 07700273000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW SE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258261 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.85195 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: FORSYTHE COAL CO. 63 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	30.0	0.0	
365.0	CARBONDALE	BRERETON	LIMESTONE	2.5	30.0	
362.5	CARBONDALE		SHALE	1.7	32.5	
360.8	CARBONDALE		SHALE	2.0	34.2	
358.8	CARBONDALE	HERRIN	COAL	7.5	36.2	
351.3	CARBONDALE		UNDERCLAY	0.8	43.7	

MAPID: 07700273000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW SE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258261 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.85195 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 45.0 LOG TYPE:
SOURCE: FORSYTH CC0063 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
379.0	CARBONDALE	HERRIN	COAL	7.5	36.0	

MAPID: 07700274000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE SE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.255831 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.851909 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: FORSYTHE COAL CO. 64 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	30.0	0.0	
365.0	CARBONDALE	BRERETON	LIMESTONE	1.0	30.0	
364.0	CARBONDALE		SHALE	11.0	31.0	
353.0	CARBONDALE		SHALE	8.3	42.0	
344.7	CARBONDALE	HERRIN	COAL	7.2	50.3	
337.5	CARBONDALE		UNDERCLAY	1.0	57.5	

MAPID: 07700274000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE SE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.255831 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.851909 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 59.0 LOG TYPE:
SOURCE: FORSYTH CC0064 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
365.0	CARBONDALE	HERRIN	COAL	7.2	50.0	

MAPID: 07700275000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.255767 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.855553 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: FORSYTHE COAL CO. 65 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	20.0	0.0	
375.0	CARBONDALE		SHALE	5.5	20.0	
369.5	CARBONDALE	BRERETON	LIMESTONE	2.0	25.5	
367.5	CARBONDALE		SHALE	1.5	27.5	
366.0	CARBONDALE		SHALE	3.0	29.0	
363.0	CARBONDALE		CLAYSTONE & SILTSTONE	4.0	32.0	
359.0	CARBONDALE		SHALE	8.0	36.0	
351.0	CARBONDALE	HERRIN	COAL	7.4	44.0	
343.6	CARBONDALE		UNDERCLAY	0.8	51.4	

MAPID: 07700275000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.255767 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.855553 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 52.0 LOG TYPE:
SOURCE: FORSYTH CC0065 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
371.0	CARBONDALE	HERRIN	COAL	7.4	44.0	

MAPID: 07700276000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 6 **QUARTERS/FOOTAGES:** NE NE SW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.255767 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.855553 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: FORSYTHE COAL CO. 66 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	21.0	0.0
374.0	PLEISTOCENE		MUD	16.0	21.0
358.0			LIMESTONE	2.5	37.0
355.5			SHALE	2.5	39.5
353.0			MUDSTONE	7.0	42.0
346.0			SHALE	11.0	49.0

MAPID: 07700277000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 6 **QUARTERS/FOOTAGES:** NW NE SW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.2582 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.855594 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: FORSYTHE COAL CO. 67 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	35.0	0.0

MAPID: 07700278000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 6 **QUARTERS/FOOTAGES:** SW SE SW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.258292 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.850128 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: FORSYTHE COAL CO. 68 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	30.0	0.0
365.0	CARBONDALE	BRERETON	LIMESTONE	7.3	30.0
357.7	CARBONDALE		SHALE	2.2	37.3
355.5	CARBONDALE	HERRIN	COAL	6.5	39.5
349.0	CARBONDALE		UNDERCLAY	1.0	46.0

MAPID: 07700278000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SW SE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258292 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.850128 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 47.0 LOG TYPE:
SOURCE: FORSYTH CC0068 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
370.0	CARBONDALE	HERRIN	COAL	6.5	40.0

MAPID: 07700279000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SW SE SE
QUADRANGLE: DE SOTO LONGITUDE: -89.248568 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.849966 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: FORSYTHE COAL CO. 69 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	41.5	0.0
353.5			SHALE	3.0	41.5
350.5			LIMESTONE	0.5	44.5

MAPID: 07700280000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.255767 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.855553 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: FORSYTHE COAL CO. 70 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	26.0	0.0
369.0			SHALE	3.0	26.0
366.0			MUDSTONE	3.0	29.0
363.0			SHALE	12.0	32.0
351.0			SANDSTONE/SHALE	8.0	44.0
343.0			CLAYSTONE	1.0	52.0

MAPID: 07700280000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE NE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.255767 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.855553 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 53.0 LOG TYPE:

SOURCE: FORSYTH CC0070 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
371.0	CARBONDALE	HERRIN	COAL	8.0	44.0	

MAPID: 07700281000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SE SW NE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.25763 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.853307 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 43.0 LOG TYPE:

SOURCE: FORSYTH CC0071 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
376.0	CARBONDALE	HERRIN	COAL	7.4	34.0	

MAPID: 07700281000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SE SW NE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.25763 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.853307 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 42.5 LOG TYPE: Drillers Log

SOURCE: FORSYTHE C C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			CLAYSTONE	26.0	0.0	
384.0			LIMESTONE	3.0	26.0	
381.0			SHALE	4.8	29.0	
376.2			COAL	7.4	33.8	
368.8			UNDERCLAY	1.3	41.2	

MAPID: 07700281000C VERSION: 3 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SE SW NE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.25763 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.853307 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: FORSYTHE COAL CO. 71 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	26.0	0.0
369.0	CARBONDALE	BRERETON	LIMESTONE	3.0	26.0
366.0	CARBONDALE		SHALE	1.5	29.0
364.5	CARBONDALE		SHALE	2.0	30.5
362.5	CARBONDALE		SHALE	1.3	32.5
361.2	CARBONDALE	HERRIN	COAL	7.4	33.8
353.8	CARBONDALE		UNDERCLAY	1.3	41.2

MAPID: 07700282000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SW SE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258292 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.850128 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: FORSYTHE COAL CO. 81 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	22.0	0.0
373.0	CARBONDALE		SHALE	2.0	22.0
371.0	CARBONDALE	BRERETON	LIMESTONE	1.5	24.0
369.5	CARBONDALE		SHALE	4.0	25.5
365.5	CARBONDALE	HERRIN	COAL	7.4	29.5

MAPID: 07700282000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SW SE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258292 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.850128 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 37.0 LOG TYPE:
SOURCE: FORSYTH CC0081 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
380.0	CARBONDALE	HERRIN	COAL	7.4	30.0

MAPID: 07700283000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE SE NW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260046 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.854259 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 17.0 LOG TYPE:

SOURCE: FORSYTH CC0082 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	CARBONDALE	HERRIN	COAL	2.3	15.0	

MAPID: 07700283000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE SE NW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260046 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.854259 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 16.8 LOG TYPE: Drillers Log

SOURCE: FORSYTHE C C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			CLAYSTONE	14.5	0.0	
395.5			COAL	2.3	14.5	

MAPID: 07700284000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW NE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.2582 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.855594 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 21.0 LOG TYPE:

SOURCE: FORSYTH CC 83 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED

MAPID: 07700285000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW NE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.2582 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.855594 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 84 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	16.0	0.0
379.0			SHALE	8.0	16.0
371.0			MUDSTONE	4.0	24.0

MAPID: 07700286000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW NE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.2582 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.855594 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 85 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	19.0	0.0
376.0	PLEISTOCENE		SHALE	6.0	19.0
370.0	CARBONDALE	HERRIN	COAL	7.2	25.0

MAPID: 07700286000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW NE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.2582 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.855594 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 32.0 LOG TYPE:

SOURCE: FORSYTH CC0085 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
385.0	CARBONDALE	HERRIN	COAL	7.2	25.0

MAPID: 07700287000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258231 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.853772 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 86 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE	HERRIN	CLAY	22.0	0.0	
373.0	CARBONDALE		COAL	5.1	22.0	TOP 22" SOFT

MAPID: 07700287000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258231 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.853772 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 27.0 LOG TYPE:

SOURCE: FORSYTH CC0086 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
388.0	CARBONDALE	HERRIN	COAL	5.1	22.0	

MAPID: 07700288000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW SW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.263125 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.852032 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 87 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE	HERRIN	CLAY	17.0	0.0	
378.0	CARBONDALE		COAL	6.0	17.0	
372.0	PLEISTOCENE		UNDERCLAY	7.5	23.0	

MAPID: 07700288000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW SW SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.263125 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.852032 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 31.0 LOG TYPE:
SOURCE: FORSYTH CC0087 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
393.0	CARBONDALE	HERRIN	COAL	6.0	17.0	

MAPID: 07700289000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SE SW SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260725 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.850169 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: FORSYTHE COAL CO. 88 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	19.0	0.0	
376.0	PLEISTOCENE		SHALE	1.5	19.0	
374.5	PLEISTOCENE		SHALE	3.6	20.5	
370.9	CARBONDALE	HERRIN	COAL	3.4	24.1	

MAPID: 07700289000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SE SW SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260725 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.850169 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 28.0 LOG TYPE:
SOURCE: FORSYTH CC0088 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
386.0	CARBONDALE	HERRIN	COAL	3.4	24.0	

MAPID: 07700290000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.263155 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.85021 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 89 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE	HERRIN	CLAY	19.0	0.0	
376.0	CARBONDALE		COAL	2.5	19.0	SMUT
373.5	CARBONDALE		UNDERCLAY	5.0	21.5	

MAPID: 07700290000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.263155 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.85021 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 27.0 LOG TYPE:

SOURCE: FORSYTH CC0089 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
391.0	CARBONDALE	HERRIN	COAL	2.5	19.0	

MAPID: 07700291000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SE SW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260725 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.850169 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 90 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE	HERRIN	CLAY	18.0	0.0	
377.0	PLEISTOCENE		SHALE	5.0	18.0	
372.0	CARBONDALE		COAL	6.4	23.0	TOP 15" SOFT

MAPID: 07700291000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SE SW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260725 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.850169 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 29.0 LOG TYPE:

SOURCE: FORSYTH CC0090 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
387.0	CARBONDALE	HERRIN	COAL	6.4	23.0	

MAPID: 07700292000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW NW SE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258862 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.852415 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 31.0 LOG TYPE:

SOURCE: FORSYTH CC0099 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
386.0	CARBONDALE	HERRIN	COAL	7.0	24.0	

MAPID: 07700292000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW NW SE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258862 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.852415 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 31.3 LOG TYPE: Drillers Log

SOURCE: FORSYTHE C C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			CLAYSTONE	20.0	0.0	
390.0			SHALE	4.3	20.0	
385.7			COAL	7.0	24.3	

MAPID: 07700292000C VERSION: 3 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NW NW SE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258862 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.852415 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: FORSYTHE COAL CO. 99 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	20.0	0.0	
375.0	PLEISTOCENE		SHALE	3.5	20.0	
371.5	PLEISTOCENE		SHALE	0.8	23.5	
370.7	CARBONDALE	HERRIN	COAL	7.0	24.3	

MAPID: 07700319000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SW NE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258231 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.853772 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: FORSYTHE COAL CO. 5 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	19.0	0.0	
376.0	CARBONDALE	HERRIN	COAL	6.6	19.0	

MAPID: 07700319000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SW NE SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258231 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.853772 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 26.0 LOG TYPE:
SOURCE: FORSYTH CC0005 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
391.0	CARBONDALE	HERRIN	COAL	6.6	19.0	

MAPID: 07700356000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: NE NW SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.250903 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.855473 DATE COLLECTED:
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: FORSYTH CC WELL TYPE: Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
372.0	CARBONDALE	HERRIN	COAL	5.5	43.0	

MAPID: 07700357000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SE SW SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260725 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.850169 DATE COLLECTED:
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: TRUAX-TRAER WELL TYPE: Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
374.0	CARBONDALE	HERRIN	COAL	7.0	36.0	

MAPID: 07700424500M VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: SE SE SW SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260124 GEOLOGIST: BARGH,M
CONFIDENTIAL: N LATITUDE: 37.849704 DATE COLLECTED: 0 / 0 / 1927
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 43.0 LOG TYPE: Measured section
SOURCE: MINE NOTES-SAVAGE WELL TYPE: Underground mine
COMMENT: LOCAL MINE ON A. CROW LAND

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			UNKNOWN	36.0	0.0	
-	CARBONDALE	HERRIN	COAL	7.0		AVERAGE THICKNESS

MAPID: 07790141000C VERSION: 1

PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: 1' S line, 375' E line of SW NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260707 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.856549 DATE COLLECTED:
SURFACE ELEVATION (FT.): 414.0 LOGGED (FT.): 80.0 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES JC-35 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
414.0			MINE OPENING	46.0	0.0	SPOILS #6 MINED OUT
368.0	CARBONDALE		UNKNOWN	20.2	46.0	
347.8	CARBONDALE	SPRINGFIELD	COAL	4.0	66.2	
343.8	CARBONDALE		UNKNOWN	9.8	70.2	

MAPID: 07790142000C VERSION: 1

PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 6 QUARTERS/FOOTAGES: 100' S line, 375' W line of SW NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.253224 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.856699 DATE COLLECTED:
SURFACE ELEVATION (FT.): LOGGED (FT.): 308.5 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES JC-48 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	
-	CARBONDALE		UNKNOWN	50.0	21.0	
-	CARBONDALE	HERRIN	COAL	7.0	71.0	
-	CARBONDALE		UNKNOWN	43.0	78.0	
-	CARBONDALE	SPRINGFIELD	COAL	4.0	121.0	
-	CARBONDALE		UNKNOWN	76.5	125.0	
-	CARBONDALE	HOUCHIN CREEK	COAL	1.5	201.5	
-	CARBONDALE		UNKNOWN	15.2	203.0	
-	CARBONDALE	SURVANT	COAL	2.8	218.2	
-	CARBONDALE		UNKNOWN	87.5	221.0	

MAPID: 07700293000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NW NE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258333 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.848287 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 7 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	21.0	0.0
374.0	PLEISTOCENE		SHALE	11.0	21.0
363.0	CARBONDALE	HERRIN	COAL	6.7	32.0

MAPID: 07700293000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NW NE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258333 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.848287 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 39.0 LOG TYPE:

SOURCE: FORSYTH CC0007 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
378.0	CARBONDALE	HERRIN	COAL	6.7	32.0

MAPID: 07700294000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NW NE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258333 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.848287 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 10 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	29.0	0.0
366.0	PLEISTOCENE		SHALE	2.0	29.0
364.0	PLEISTOCENE		SHALE	2.0	31.0
362.0	CARBONDALE	HERRIN	COAL	6.4	33.0

MAPID: 07700294000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NW NE NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258333 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.848287 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 39.0 LOG TYPE:
SOURCE: FORSYTH CC0010 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
377.0	CARBONDALE	HERRIN	COAL	6.4	33.0	

MAPID: 07700295000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NE NE NE NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.255282 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.848703 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 36.0 LOG TYPE:
SOURCE: FORSYTH CC0011 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
377.0	CARBONDALE	HERRIN	COAL	2.5	33.0	

MAPID: 07700295000C VERSION: 2 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NE NE NE NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.255282 GEOLOGIST: BARGH,M
CONFIDENTIAL: N LATITUDE: 37.848703 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 35.5 LOG TYPE: Drillers Log
SOURCE: FORSYTHE C C WELL TYPE: Coal Test
COMMENT: OTHER LOGS AVAILABLE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			CLAYSTONE	33.0	0.0	
377.0			COAL	2.5	33.0	

MAPID: 07700295000C VERSION: 3 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NE NE NE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.255282 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.848703 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 11 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	33.0	0.0	
362.0	CARBONDALE	HERRIN	COAL	2.5	33.0	

MAPID: 07700296000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: DE SOTO LONGITUDE: -89.246169 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.848092 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 32 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	32.0	0.0	
363.0	CARBONDALE		SHALE	19.0	32.0	
344.0	CARBONDALE		LIMESTONE	2.0	51.0	
342.0	CARBONDALE		SHALE	6.0	53.0	
336.0	CARBONDALE	BRERETON	SHALY LIMESTONE	9.0	59.0	5" OF BLACK SHALE
327.0	CARBONDALE	ANNA	SHALE	3.0	68.0	
324.0	CARBONDALE	ENERGY	SHALE	3.0	71.0	
321.0	CARBONDALE	SPRINGFIELD	COAL	4.3	74.0	
316.7	CARBONDALE		UNDERCLAY	3.0	78.3	

MAPID: 07700296000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: DE SOTO LONGITUDE: -89.246169 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.848092 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 402.0 LOGGED (FT.): 81.0 LOG TYPE:

SOURCE: FORSYTH CC0032 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
328.0	CARBONDALE	SPRINGFIELD	COAL	4.3	74.0	

MAPID: 07700297000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: DE SOTO LONGITUDE: -89.246169 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.848092 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 33 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE	HERRIN	CLAY	24.0	0.0	
371.0	CARBONDALE		COAL	6.0	24.0	
365.0	CARBONDALE		UNDERCLAY	1.5	30.0	
363.5	CARBONDALE		LIMESTONE	1.5	31.5	

MAPID: 07700297000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: DE SOTO LONGITUDE: -89.246169 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.848092 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 399.0 LOGGED (FT.): 33.0 LOG TYPE:

SOURCE: FORSYTH CC0033 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.0	CARBONDALE	HERRIN	COAL	6.0	24.0	

MAPID: 07700298000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: DE SOTO LONGITUDE: -89.246197 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.846248 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 34 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE	HERRIN	CLAY	21.0	0.0	
374.0	CARBONDALE		SHALE	3.5	21.0	DARK
370.5	CARBONDALE		COAL	8.0	24.5	
362.5	CARBONDALE		UNDERCLAY	0.5	32.5	
362.0	CARBONDALE		LIMESTONE	2.0	33.0	

MAPID: 07700298000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: SE NE NE
QUADRANGLE: DE SOTO LONGITUDE: -89.246197 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.846248 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 399.0 LOGGED (FT.): 35.0 LOG TYPE:
SOURCE: FORSYTH CC0034 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
374.0	CARBONDALE	HERRIN	COAL	8.0	25.0	

MAPID: 07700299000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: SE NE NE
QUADRANGLE: DE SOTO LONGITUDE: -89.246197 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.846248 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log
SOURCE: FORSYTHE COAL CO. 35 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	25.0	0.0	
370.0			LIMESTONE	6.5	25.0	
363.5			CLAYSTONE & SILTSTONE	7.0	31.5	
356.5			SHALE	6.0	38.5	
350.5			SHALE	1.5	44.5	DARK
349.0			LIMESTONE	5.7	46.0	
343.3			COAL	5.3	51.7	
338.0			UNDERCLAY	2.0	57.0	

MAPID: 07700299000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: SE NE NE
QUADRANGLE: DE SOTO LONGITUDE: -89.246197 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.846248 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 401.0 LOGGED (FT.): 59.0 LOG TYPE:
SOURCE: FORSYTH CC0035 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
349.0	CARBONDALE	SPRINGFIELD	COAL	5.3	52.0	

MAPID: 07700300000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: SW NE NE

QUADRANGLE: DE SOTO LONGITUDE: -89.248634 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.846284 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 39 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	19.0	0.0
376.0			COAL	4.4	19.0
371.6			UNDERCLAY	0.5	23.4
371.1			LIMESTONE	2.5	23.9

MAPID: 07700300000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: SW NE NE

QUADRANGLE: DE SOTO LONGITUDE: -89.248634 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.846284 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 399.0 LOGGED (FT.): 26.0 LOG TYPE:

SOURCE: FORSYTH CC0039 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
380.0	CARBONDALE	HERRIN	COAL	4.4	19.0

MAPID: 07700301000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NE NE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.255899 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.848249 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 40.0 LOG TYPE:

SOURCE: FORSYTH CC0091 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
373.0	CARBONDALE	HERRIN	COAL	2.9	37.0

MAPID: 07700302000C **VERSION:** 1 **PROJECT:** CIRC 24
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 7 **QUARTERS/FOOTAGES:** SW NE NW NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.261384 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.847868 **DATE COLLECTED:** 0 / 0 / 1924
SURFACE ELEVATION (FT.): 410.0 **LOGGED (FT.):** 21.0 **LOG TYPE:**
SOURCE: FORSYTH CC0092 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
393.0	CARBONDALE	HERRIN	COAL	3.5	17.0	

MAPID: 07700302000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 7 **QUARTERS/FOOTAGES:** SW NE NW NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.261384 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.847868 **DATE COLLECTED:** 0 / 0 / 1924
SURFACE ELEVATION (FT.): 410.0 **LOGGED (FT.):** 20.5 **LOG TYPE:** Drillers Log
SOURCE: FORSYTHE C C **WELL TYPE:** Coal Test
COMMENT: OTHER LOGS AVAILABLE IN THIS LOCATION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			CLAYSTONE	17.0	0.0	
393.0			COAL	3.5	17.0	SOFT

MAPID: 07700302000C **VERSION:** 3 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 7 **QUARTERS/FOOTAGES:** SW NE NW NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.261384 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.847868 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: FORSYTHE COAL CO. 92 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	17.0	0.0	
378.0	CARBONDALE	HERRIN	COAL	3.5	17.0	

MAPID: 07700303000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.263196 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.848363 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 93 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONO DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	26.0	0.0

MAPID: 07700303000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.263196 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.848363 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 408.0 LOGGED (FT.): 26.0 LOG TYPE:

SOURCE: FORSYTH CC0093 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0	COAL ABSENT OR ERODED

MAPID: 07700304000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260763 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.848325 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 94 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONO DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		CLAY	19.0	0.0
376.0	CARBONDALE	HERRIN	COAL	8.4	19.0

MAPID: 07700304000C

VERSION: 2

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 8S 1W

SECTION: 7

QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.260763

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.848325

DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0

LOGGED (FT.): 27.0

LOG TYPE:

SOURCE: FORSYTH CC0094

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
391.0	CARBONDALE	HERRIN	COAL	8.4	19.0	

MAPID: 07700305000C

VERSION: 1

PROJECT: CIRC 24

COUNTY: JACKSON

TWP/RNG: 8S 1W

SECTION: 7

QUARTERS/FOOTAGES: NE NW NW NW

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.262575

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 37.84882

DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0

LOGGED (FT.): 28.0

LOG TYPE:

SOURCE: FORSYTH CC0095

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
389.0	CARBONDALE	HERRIN	COAL	7.3	21.0	

MAPID: 07700305000C

VERSION: 2

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 8S 1W

SECTION: 7

QUARTERS/FOOTAGES: NE NW NW NW

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.262575

GEOLOGIST: BARGH,M

CONFIDENTIAL: N

LATITUDE: 37.84882

DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0

LOGGED (FT.): 28.3

LOG TYPE: Drillers Log

SOURCE: FORSYTHE C C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			CLAYSTONE	21.0	0.0	
389.0			COAL	7.3	21.0	

MAPID: 07700305000C VERSION: 3 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NE NW NW NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.262575 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.84882 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 95 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	21.0	0.0	
374.0	CARBONDALE	HERRIN	COAL	7.3	21.0	

MAPID: 07700306000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260763 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.848325 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 96 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	20.0	0.0	
375.0	CARBONDALE	HERRIN	COAL	5.7	20.0	

MAPID: 07700306000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260763 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.848325 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 26.0 LOG TYPE:

SOURCE: FORSYTH CC0096 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	CARBONDALE	HERRIN	COAL	5.7	20.0	

MAPID: 07700307000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260811 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.846459 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 97 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	15.0	0.0	
380.0	CARBONDALE	HERRIN	COAL	4.6	15.0	

MAPID: 07700307000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260811 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.846459 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 20.0 LOG TYPE:

SOURCE: FORSYTH CC0097 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	CARBONDALE	HERRIN	COAL	4.6	15.0	

MAPID: 07700308000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260811 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.846459 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 98 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	25.0	0.0	
370.0			UNCLASSIFIED	1.5	25.0	

MAPID: 07700308000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.260811 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.846459 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 27.0 LOG TYPE:

SOURCE: FORSYTH CC0098 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED

MAPID: 07700309000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.252484 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.836144 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 21 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0	
371.0			SHALE	7.0	24.0	
364.0			SHALE	3.5	31.0	
360.5			SHALE	19.0	34.5	

MAPID: 07700310000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.253692 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.83708 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 29.0 LOG TYPE:

SOURCE: WESTERN CM0022 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
392.0	CARBONDALE	HERRIN	COAL	6.0	23.0	

MAPID: 07700310000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.253692 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.83708 DATE COLLECTED: 8 / 28 / 1926

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 29.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MNG WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
415.0			UNCONSOLIDATED	23.0	0.0	
392.0			COAL	6.0	23.0	
386.0			UNDERCLAY	-	29.0	

MAPID: 07700311000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: SW SE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.258641 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.835255 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 24 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0	NO COAL

MAPID: 07700312000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 7 QUARTERS/FOOTAGES: SE NW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.261002 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.838997 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 30.0 LOG TYPE:

SOURCE: WESTERN CM0025 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
378.0	CARBONDALE	HERRIN	COAL	3.5	27.0	

MAPID: 07700312000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 7 **QUARTERS/FOOTAGES:** SE NW SW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.261002 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.838997 **DATE COLLECTED:** 8 / 28 / 1926
SURFACE ELEVATION (FT.): 405.0 **LOGGED (FT.):** 30.0 **LOG TYPE:** Drillers Log
SOURCE: WESTERN COAL & MNG **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0			UNCONSOLIDATED	18.0	0.0	
387.0			LIMESTONE	6.0	18.0	
381.0			BLACK SHALE	2.5	24.0	
378.5			COAL	3.5	26.5	
375.0			UNDERCLAY	-	30.0	

MAPID: 07700312000C **VERSION:** 3 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 7 **QUARTERS/FOOTAGES:** SE NW SW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.261002 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.838997 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Drillers Log
SOURCE: WESTERN COAL & MINING CO. 25 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
377.0	CARBONDALE	BRERETON	LIMESTONE	6.0	18.0	
371.0	CARBONDALE	ANNA	SHALE	2.5	24.0	
368.5	CARBONDALE	HERRIN	COAL	3.5	26.5	

MAPID: 07700313000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 8 **QUARTERS/FOOTAGES:** NE NW NW
QUADRANGLE: DE SOTO **LONGITUDE:** -89.241424 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.84804 **DATE COLLECTED:** 0 / 0 / 1924
SURFACE ELEVATION (FT.): 401.0 **LOGGED (FT.):** 79.0 **LOG TYPE:** Drillers Log
SOURCE: FORSYTHE COAL CO. 24 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
401.0	PLEISTOCENE		CLAY	45.0	0.0	
356.0	PLEISTOCENE		SHALE	25.0	45.0	
331.0	PLEISTOCENE		LIMESTONE	4.0	70.0	
327.0	PLEISTOCENE		SHALE	2.0	74.0	
325.0	CARBONDALE	HERRIN	COAL	1.0	76.0	THIN
324.0	PLEISTOCENE		UNDERCLAY	2.0	77.0	

MAPID: 07700313000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 8 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: DE SOTO LONGITUDE: -89.241424 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.84804 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 401.0 LOGGED (FT.): 79.0 LOG TYPE:

SOURCE: FORSYTH CC0024 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
325.0	CARBONDALE	SPRINGFIELD	COAL	1.0	76.0	

MAPID: 07700314000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 8 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: DE SOTO LONGITUDE: -89.241424 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.84804 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 87.0 LOG TYPE:

SOURCE: FORSYTH CC0025 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
325.0	CARBONDALE	SPRINGFIELD	COAL	5.3	80.0	

MAPID: 07700314000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 8 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: DE SOTO LONGITUDE: -89.241424 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.84804 DATE COLLECTED:

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 85.3 LOG TYPE: Survey Core Study

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
365.0	CARBONDALE		SHALE	36.0	40.0	
329.0	CARBONDALE	BRERETON	LIMESTONE	3.0	76.0	
326.0	CARBONDALE	ANNA	BLACK SHALE	1.0	79.0	
325.0	CARBONDALE	HERRIN	COAL	5.3	80.0	

MAPID: 07700314000C VERSION: 3 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 8 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: DE SOTO LONGITUDE: -89.241424 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.84804 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 87.3 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 25 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
405.0	PLEISTOCENE		CLAY	40.0	0.0
365.0	CARBONDALE		SHALE	36.0	40.0
329.0	CARBONDALE	BRERETON	LIMESTONE	3.0	76.0
326.0	CARBONDALE	ANNA	SHALE	1.0	79.0
325.0	CARBONDALE	HERRIN	COAL	5.3	80.0
319.7	CARBONDALE		UNDERCLAY	2.0	85.3

MAPID: 07700315000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 8 QUARTERS/FOOTAGES: SW NW NW

QUADRANGLE: DE SOTO LONGITUDE: -89.243802 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.846218 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 398.0 LOGGED (FT.): 33.5 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 36 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
398.0	PLEISTOCENE		CLAY	25.0	0.0
373.0	CARBONDALE	HERRIN	COAL	5.5	25.0
367.5	CARBONDALE		UNDERCLAY	3.0	30.5

MAPID: 07700315000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 8 QUARTERS/FOOTAGES: SW NW NW

QUADRANGLE: DE SOTO LONGITUDE: -89.243802 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.846218 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 398.0 LOGGED (FT.): 34.0 LOG TYPE:

SOURCE: FORSYTH CC0036 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
373.0	CARBONDALE	HERRIN	COAL	5.5	25.0

MAPID: 07700316000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 8 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: DE SOTO LONGITUDE: -89.241455 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.846188 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 398.0 LOGGED (FT.): 40.5 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 37 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
398.0	PLEISTOCENE	HERRIN	CLAY	31.0	0.0	
367.0	CARBONDALE		COAL	5.8	31.0	
361.2	CARBONDALE		UNDERCLAY	0.7	36.8	
360.5	CARBONDALE		LIMESTONE	3.0	37.5	

MAPID: 07700316000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 8 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: DE SOTO LONGITUDE: -89.241455 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.846188 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 398.0 LOGGED (FT.): 41.0 LOG TYPE:

SOURCE: FORSYTH CC0037 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
367.0	CARBONDALE	HERRIN	COAL	5.8	31.0	

MAPID: 07700317000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 8 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: DE SOTO LONGITUDE: -89.241455 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.846188 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 41.3 LOG TYPE: Drillers Log

SOURCE: FORSYTHE COAL CO. 38 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0	PLEISTOCENE	HERRIN	CLAY	35.0	0.0	
365.0	CARBONDALE		COAL	4.3	35.0	
360.7	CARBONDALE		LIMESTONE	2.0	39.3	

MAPID: 07700317000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 8 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: DE SOTO LONGITUDE: -89.241455 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.846188 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 41.0 LOG TYPE:

SOURCE: FORSYTH CC0038 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
365.0	CARBONDALE	HERRIN	COAL	4.3	35.0	

MAPID: 07700318000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 8 QUARTERS/FOOTAGES: NW NW SW

QUADRANGLE: DE SOTO LONGITUDE: -89.243888 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.84068 DATE COLLECTED: 8 / 26 / 1926

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 23 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	31.0	0.0	
364.0	CARBONDALE		SHALE	9.0	31.0	
355.0	CARBONDALE	ST. DAVID	LIMESTONE	5.5	40.0	
349.5	CARBONDALE	TURNER MINE	SHALE	2.5	45.5	
347.0	CARBONDALE	SPRINGFIELD	COAL	4.0	48.0	

MAPID: 07700318000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 8 QUARTERS/FOOTAGES: NW NW SW

QUADRANGLE: DE SOTO LONGITUDE: -89.243888 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.84068 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 399.0 LOGGED (FT.): 52.0 LOG TYPE:

SOURCE: WESTERN CM0023 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
351.0	CARBONDALE	SPRINGFIELD	COAL	4.0	48.0	

MAPID: 07700358000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 8 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: DE SOTO LONGITUDE: -89.229672 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.847933 DATE COLLECTED:
SURFACE ELEVATION (FT.): 402.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: CHI CARBCC WELL TYPE: Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
319.0	CARBONDALE	HERRIN	COAL	9.0	83.0	

MAPID: 07700359000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 8 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: DE SOTO LONGITUDE: -89.236874 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.84054 DATE COLLECTED:
SURFACE ELEVATION (FT.): 402.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: INLAND CW WELL TYPE: Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
342.0	CARBONDALE	HERRIN	COAL	10.0	60.0	

MAPID: 07700360000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 8 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: DE SOTO LONGITUDE: -89.232241 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.838572 DATE COLLECTED:
SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: INLAND CW 0002 WELL TYPE: Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
342.0	CARBONDALE	HERRIN	COAL	10.0	63.0	

MAPID: 07700364000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 8 QUARTERS/FOOTAGES: SW SE SE
QUADRANGLE: DE SOTO LONGITUDE: -89.23 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.834754 DATE COLLECTED:
SURFACE ELEVATION (FT.): 402.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: PEACOCK CC0001 WELL TYPE: Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
360.0	CARBONDALE	HERRIN	COAL	10.0	42.0	

MAPID: 07700367000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 8 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: DE SOTO LONGITUDE: -89.236874 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.84054 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: MONROE CC 0001 WELL TYPE: Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
360.0	CARBONDALE	HERRIN	COAL	8.0	35.0	
335.0	CARBONDALE	SPRINGFIELD	COAL	3.3	60.0	

MAPID: 07700320000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 9 QUARTERS/FOOTAGES: 1320' N line, 2640' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.217031 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.845131 DATE COLLECTED: 8 / 28 / 1927
SURFACE ELEVATION (FT.): 389.0 LOGGED (FT.): 64.1 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. 29 WELL TYPE: Coal Test
COMMENT: NO COAL; BEYOND OUTCROP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
389.0	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0	
349.0			SHALE	20.0	40.0	
329.0			SANDSTONE	4.0	60.0	GRAVELLY

MAPID: 07700362000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 9 QUARTERS/FOOTAGES: SW SW NW
QUADRANGLE: DE SOTO LONGITUDE: -89.225122 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.842221 DATE COLLECTED:
SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: BENTON BGM WELL TYPE: Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
364.0	CARBONDALE	HERRIN	COAL	10.0	26.0	

MAPID: 07701057000C VERSION: 1 PROJECT: CUSMAP
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 10 QUARTERS/FOOTAGES: 1650' S line, 1650' W line of NW
QUADRANGLE: DE SOTO LONGITUDE: -89.2016 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.845699 DATE COLLECTED: 10 / 0 / 1954
SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 1075.0 LOG TYPE: Electric Log
SOURCE: CALVERT DRILLING, INC. WELL TYPE: Producer-Oil and Gas
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
100.0	CARBONDALE	COLCHESTER	UNCLASSIFIED	-	300.0	
36.0	SPOON	DAVIS	UNCLASSIFIED	-	364.0	
-675.0	BASE OF PENN.		UNCLASSIFIED	-	1075.0	

MAPID: 07721942000C VERSION: 1 PROJECT: NCRDS
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 10 QUARTERS/FOOTAGES: 625' N line, 1248' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.203025 GEOLOGIST: LOUCHIOS
CONFIDENTIAL: N LATITUDE: 37.846887 DATE COLLECTED: 4 / 23 / 1971
SURFACE ELEVATION (FT.): 392.4 LOGGED (FT.): 103.0 LOG TYPE: Drillers Log
SOURCE: CONSOLIDATION COAL CO. C-998 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
392.4	PLEISTOCENE		SOIL	5.0	0.0	
387.4	PLEISTOCENE		CLAY	24.7	5.0	
362.7	PLEISTOCENE		SANDY CLAY	15.7	29.7	
347.0	PLEISTOCENE		GLACIAL DRIFT	37.4	45.4	
309.6			SAND & GRAVEL	10.6	82.8	
299.0	CARBONDALE	HERRIN	COAL WITH SHALE	9.6	93.4	COAL & SLATE IN SAND & GRAVEL

MAPID: 07721983000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 10 **QUARTERS/FOOTAGES:** 268' N line, 805' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.204536 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 37.8479 **DATE COLLECTED:** 4 / 22 / 1971
SURFACE ELEVATION (FT.): 394.2 **LOGGED (FT.):** 143.0 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER C-997 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
394.2	PLEISTOCENE		SOIL	5.0	0.0	
389.2	PLEISTOCENE		CLAY	20.2	5.0	
369.0	PLEISTOCENE		SANDY CLAY	18.2	25.2	
350.8	PLEISTOCENE		GLACIAL DRIFT	48.9	43.4	
301.9			GRAY SHALE	4.5	92.3	
297.4			GRAY SHALE & SANDSTONE	46.2	96.8	

MAPID: 07721984000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 10 **QUARTERS/FOOTAGES:** 308' N line, 47' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.20716 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 37.847848 **DATE COLLECTED:** 4 / 5 / 1971
SURFACE ELEVATION (FT.): 394.4 **LOGGED (FT.):** 210.0 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER C-982 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
394.4	PLEISTOCENE		CLAY	6.0	0.0	
388.4	PLEISTOCENE		CLAY	18.0	6.0	
370.4	PLEISTOCENE		GLACIAL DRIFT	22.4	24.0	
348.0			GRAY SHALE	22.6	46.4	SOFT
325.4	CARBONDALE		SANDSTONE/COAL	25.0	69.0	POSSIBLE HERRIN COAL
300.4	CARBONDALE		GRAY SHALE	18.0	94.0	
282.4	CARBONDALE		SANDY SHALE	38.4	112.0	
244.0	CARBONDALE		GRAY SANDSTONE	49.6	150.4	
194.4	CARBONDALE		DARK SHALE	2.0	200.0	
192.4	CARBONDALE	HOUCHIN CREEK	COAL	1.8	202.0	CORRELATED BY W.J.N.
190.6	CARBONDALE		GRAY SHALE	0.5	203.8	
190.1	CARBONDALE		SANDY SHALE	5.7	204.3	

MAPID: 07721985000C VERSION: 1 PROJECT: NCRDS

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 10 QUARTERS/FOOTAGES: 683' N line, 1209' W line

QUADRANGLE: DE SOTO LONGITUDE: -89.203161 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 37.84673 DATE COLLECTED: 3 / 31 / 1971

SURFACE ELEVATION (FT.): 394.3 LOGGED (FT.): 120.0 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER C-980 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
394.3	PLEISTOCENE		CLAY	4.5	0.0	
389.8	PLEISTOCENE		CLAY	31.9	4.5	
357.9	PLEISTOCENE		GLACIAL DRIFT	25.5	36.4	
332.4	PLEISTOCENE		CLAY	20.5	61.9	
311.9			GRAY SHALE	2.6	82.4	
309.3			SANDSTONE	13.6	85.0	SOFT
295.7			COAL/SANDSTONE	21.4	98.6	POSSIBLY HERRIN, NO CORE RECOVERY

MAPID: 07721986000C VERSION: 1 PROJECT: NCRDS

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 10 QUARTERS/FOOTAGES: 258' N line, 773' W line

QUADRANGLE: DE SOTO LONGITUDE: -89.204646 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 37.847929 DATE COLLECTED: 4 / 1 / 1971

SURFACE ELEVATION (FT.): 394.2 LOGGED (FT.): 100.0 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER C-981 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
394.2	PLEISTOCENE		CLAY	6.5	0.0	
387.7	PLEISTOCENE		CLAY	25.5	6.5	
362.2	PLEISTOCENE		GLACIAL DRIFT	13.0	32.0	
349.2			GRAY SHALE	31.4	45.0	
317.8			SANDY SHALE	8.6	76.4	
309.2			COAL/SANDSTONE	15.0	85.0	NO CORE RECOVERY

MAPID: 07700321000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 11 QUARTERS/FOOTAGES: NE NE NW

QUADRANGLE: DE SOTO LONGITUDE: -89.18073 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.84723 DATE COLLECTED:

SURFACE ELEVATION (FT.): 394.0 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 7 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
394.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
388.0	PLEISTOCENE		CLAY	56.0	6.0	YELLOW
332.0	PLEISTOCENE		SAND	18.0	62.0	
314.0			SANDSTONE	56.0	80.0	
258.0			SANDSTONE	14.0	136.0	SOME LIMESTONE NOTED

MAPID: 07700321000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 11 QUARTERS/FOOTAGES: NE NE NW

QUADRANGLE: DE SOTO LONGITUDE: -89.18073 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.84723 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 394.0 LOGGED (FT.): 150.0 LOG TYPE:

SOURCE: WESTERN CM0007 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	-		

MAPID: 07700322000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 11 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: DE SOTO LONGITUDE: -89.185458 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.845462 DATE COLLECTED:

SURFACE ELEVATION (FT.): 392.0 LOGGED (FT.): 195.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
392.0	PLEISTOCENE		UNCONSOLIDATED	80.0	0.0	
312.0			UNCLASSIFIED	111.0	80.0	
201.0			COAL	4.0	191.0	SPRINGFIELD - CADY

MAPID: 07700322000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 11 QUARTERS/FOOTAGES: SE NW NW
QUADRANGLE: DE SOTO LONGITUDE: -89.185458 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.845462 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 392.0 LOGGED (FT.): 195.0 LOG TYPE:
SOURCE: WESTERN CM WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
201.0	CARBONDALE	SPRINGFIELD	COAL	4.0	191.0	

MAPID: 07700323000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 11 QUARTERS/FOOTAGES: SE NW SW
QUADRANGLE: DE SOTO LONGITUDE: -89.18556 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.838075 DATE COLLECTED: 9 / 28 / 1926
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 37.7 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. 30 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	35.0	0.0	
360.0	PLEISTOCENE		BOULDER	1.7	35.0	
358.3	PLEISTOCENE		CLAY	1.0	36.7	

MAPID: 07700323000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 11 QUARTERS/FOOTAGES: SE NW SW
QUADRANGLE: DE SOTO LONGITUDE: -89.18556 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.838075 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 38.0 LOG TYPE:
SOURCE: WESTERN CM0030 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	-		

MAPID: 07700324000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 11 QUARTERS/FOOTAGES: SW NE SE
QUADRANGLE: DE SOTO LONGITUDE: -89.17366 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.837851 DATE COLLECTED:
SURFACE ELEVATION (FT.): 417.0 LOGGED (FT.): 135.0 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
417.0			UNCLASSIFIED	84.0	0.0	
333.0	CARBONDALE	HERRIN	COAL	6.0	84.0	
327.0			UNCLASSIFIED	40.0	90.0	
287.0	CARBONDALE	SPRINGFIELD	COAL	5.0	130.0	

MAPID: 07700324000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 11 QUARTERS/FOOTAGES: SW NE SE
QUADRANGLE: DE SOTO LONGITUDE: -89.17366 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.837851 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 417.0 LOGGED (FT.): 135.0 LOG TYPE:
SOURCE: WESTERN CM WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
333.0	CARBONDALE	HERRIN	COAL	6.0	84.0	
287.0	CARBONDALE	SPRINGFIELD	COAL	5.0	130.0	

MAPID: 07700325000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 11 QUARTERS/FOOTAGES: NE SE SE
QUADRANGLE: DE SOTO LONGITUDE: -89.17127 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.835954 DATE COLLECTED:
SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 132.0 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
427.0			UNCLASSIFIED	80.0	0.0	
347.0	CARBONDALE	HERRIN	COAL	6.0	80.0	
341.0			UNCLASSIFIED	42.0	86.0	
299.0	CARBONDALE	SPRINGFIELD	COAL	4.0	128.0	

MAPID: 07700325000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 11 QUARTERS/FOOTAGES: NE SE SE
QUADRANGLE: DE SOTO LONGITUDE: -89.17127 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.835954 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 132.0 LOG TYPE:
SOURCE: WESTERN CM WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
347.0	CARBONDALE	HERRIN	COAL	6.0	80.0	
299.0	CARBONDALE	SPRINGFIELD	COAL	4.0	128.0	

MAPID: 07700363000C VERSION: 1 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 11 QUARTERS/FOOTAGES: NE NE SE
QUADRANGLE: DE SOTO LONGITUDE: -89.171288 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.839661 DATE COLLECTED:
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: BRADBRY SC WELL TYPE: Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
333.0	CARBONDALE	HERRIN	COAL	7.0	87.0	

MAPID: 07701850000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 11 QUARTERS/FOOTAGES: 461' N line, 29' E line
QUADRANGLE: DE SOTO LONGITUDE: -89.170236 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.84672 DATE COLLECTED: 0 / 0 / 1973
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 92.3 LOG TYPE: Survey Core Study
SOURCE: CONSOLIDATION C.C. C-1247 WELL TYPE: Coal Test
COMMENT: POOR DESCRIPTION, DEPTHS CORRECTED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	LAWSON	SANDSTONE	71.5		
-	CARBONDALE	ENERGY	GRAY SHALE	5.4		
-	CARBONDALE	ENERGY	CARBONACEOUS SHALE	5.0		

MAPID: 07721947000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 11 **QUARTERS/FOOTAGES:** 764' S line, 2690' E line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.179381 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 37.835432 **DATE COLLECTED:** 2 / 1 / 1972
SURFACE ELEVATION (FT.): 422.0 **LOGGED (FT.):** 137.2 **LOG TYPE:** Drillers Log
SOURCE: CONSOLIDATION COAL CO. R-1129 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
422.0	PLEISTOCENE		CLAY	10.0	0.0
412.0	PLEISTOCENE		CLAY	9.0	10.0
403.0			SHALY SANDSTONE	9.8	19.0
393.1			SANDSTONE	17.1	28.9
376.0			GRAY SHALE	3.0	46.0
373.0			SANDSTONE WITH COAL	50.3	49.0
322.7			GRAY SHALE & SANDSTONE	16.1	99.3
306.6			SHALY SANDSTONE	12.2	115.4
294.4			LIMESTONE	1.8	127.6
292.6	CARBONDALE	SPRINGFIELD	COAL	3.7	129.4
288.9	CARBONDALE		UNDERCLAY	2.6	133.1
286.3	CARBONDALE		SANDSTONE	1.5	135.7

MAPID: 07721989000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 11 **QUARTERS/FOOTAGES:** 1398' S line, 30' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.189048 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 37.837368 **DATE COLLECTED:** / / 1970
SURFACE ELEVATION (FT.): 398.6 **LOGGED (FT.):** 240.3 **LOG TYPE:** Drillers Log
SOURCE: TRUAX-TRAER R-774 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
398.6	PLEISTOCENE		SOIL	5.0	0.0
393.6	PLEISTOCENE		CLAY	15.1	5.0
378.5	PLEISTOCENE		GLACIAL DRIFT	67.8	20.1
310.7			GRAY SANDSTONE	22.6	87.9 COAL STREAKS
288.3			GRAY SANDSTONE	59.6	110.3
228.7			GRAY LIMESTONE	1.7	169.9
227.0			LIMESTONE	7.2	171.6
219.8			BLACK SHALE	3.9	178.8
215.9	CARBONDALE	HOUCHIN CREEK	COAL	3.0	182.7
212.9	CARBONDALE		CLAYSTONE	0.6	185.7
212.3	CARBONDALE		GRAY SHALE	21.1	186.3
191.2	CARBONDALE		SHALY SANDSTONE	32.9	207.4

MAPID: 07700326000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 12 QUARTERS/FOOTAGES: SW SW SW
QUADRANGLE: DE SOTO LONGITUDE: -89.168891 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.834031 DATE COLLECTED:
SURFACE ELEVATION (FT.): 407.0 LOGGED (FT.): 80.0 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
407.0			UNCLASSIFIED	70.0	0.0	
337.0	CARBONDALE	HERRIN	COAL	10.0	70.0	

MAPID: 07700326000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 12 QUARTERS/FOOTAGES: SW SW SW
QUADRANGLE: DE SOTO LONGITUDE: -89.168891 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.834031 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 407.0 LOGGED (FT.): 80.0 LOG TYPE:
SOURCE: WESTERN CM WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
337.0	CARBONDALE	HERRIN	COAL	10.0	70.0	

MAPID: 07700327000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 12 QUARTERS/FOOTAGES: NE SW SW
QUADRANGLE: DE SOTO LONGITUDE: -89.166551 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.835791 DATE COLLECTED: 8 / 28 / 1926
SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 84.9 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. 31 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0	
363.0	PLEISTOCENE		SHALE	19.0	27.0	
344.0	CARBONDALE		SANDSTONE	2.0	46.0	GRAVELLY
342.0	CARBONDALE		CLAYSTONE & SILTSTONE	10.0	48.0	BLUE
332.0	CARBONDALE		SHALE	8.0	58.0	
324.0	CARBONDALE		SHALE	6.0	66.0	
318.0	CARBONDALE		SHALE	2.5	72.0	
315.5	CARBONDALE		SHALE	6.5	74.5	
309.0	CARBONDALE	SPRINGFIELD	COAL	3.8	81.0	

MAPID: 07700327000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 12 QUARTERS/FOOTAGES: NE SW SW
QUADRANGLE: DE SOTO LONGITUDE: -89.166551 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.835791 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 85.0 LOG TYPE:
SOURCE: WESTERN CM0031 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
309.0	CARBONDALE	SPRINGFIELD	COAL	3.8	81.0	

MAPID: 07700328000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 12 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: DE SOTO LONGITUDE: -89.159491 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.837368 DATE COLLECTED: 8 / 28 / 1927
SURFACE ELEVATION (FT.): 385.0 LOGGED (FT.): 101.6 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. 32 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0	
355.0			SHALE	47.0	30.0	
308.0			SANDSTONE	4.0	77.0	GRAVELLY
304.0			CLAYSTONE & SILTSTONE	12.0	81.0	BLUE
292.0			SHALE	1.0	93.0	
291.0			COAL	2.5	94.0	
288.5			UNDERCLAY	0.5	96.5	
288.0			SANDSTONE	4.5	97.0	

MAPID: 07700328000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 12 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: DE SOTO LONGITUDE: -89.159491 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.837368 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 385.0 LOGGED (FT.): 102.0 LOG TYPE:
SOURCE: WESTERN CM0032 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
291.0	CARBONDALE	SPRINGFIELD	COAL	2.5	94.0	

MAPID: 07701522000C VERSION: 1 PROJECT: CUSMAP
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 12 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE
QUADRANGLE: DE SOTO LONGITUDE: -89.159503 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.846652 DATE COLLECTED: 4 / 0 / 1965
SURFACE ELEVATION (FT.): 404.0 LOGGED (FT.): 1360.0 LOG TYPE: Electric Log
SOURCE: R K PETRO CORP WELL TYPE: Producer-Oil and Gas
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
62.0	CARBONDALE	COLCHESTER	UNCLASSIFIED	-	342.0
-18.0	SPOON	DAVIS	UNCLASSIFIED	-	422.0
-956.0	BASE OF PENN.		UNCLASSIFIED	-	1360.0

MAPID: 07701798000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 12 QUARTERS/FOOTAGES: 370' N line, 571' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.168166 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.846892 DATE COLLECTED: 6 / 2 / 1972
SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 103.3 LOG TYPE: Drillers Log
SOURCE: CONSOLIDATION C.C. C-1185 WELL TYPE: Coal Test
COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
408.2	CARBONDALE	LAWSON	SANDSTONE	46.1	14.8
362.1	CARBONDALE	ENERGY	SILTY SHALE	12.3	60.9
349.8	CARBONDALE	ENERGY	GRAY SHALE	9.7	73.2
340.1	CARBONDALE	ENERGY	DARK GRAY SHALE	1.0	82.9
339.1	CARBONDALE	ENERGY	CARBONACEOUS SHALE	13.1	83.9
326.0	CARBONDALE	HERRIN	COAL	6.3	97.0

MAPID: 07700329000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: NW NW NE
QUADRANGLE: DE SOTO LONGITUDE: -89.159507 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.831809 DATE COLLECTED: 8 / 28 / 1926
SURFACE ELEVATION (FT.): 373.0 LOGGED (FT.): 43.5 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. 33 WELL TYPE: Coal Test
COMMENT: NO COAL LISTED IN GEO FILES,1 UNIT ONLY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
373.0	PLEISTOCENE		UNCONSOLIDATED	43.5	0.0 NO COAL LISTED IN LOG, ONLY 1 UNIT

MAPID: 07700330000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: NW NW NW
QUADRANGLE: DE SOTO LONGITUDE: -89.168889 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.832173 DATE COLLECTED:
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 60.3 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. A WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			UNCLASSIFIED	52.0	0.0	
358.0	CARBONDALE	HERRIN	COAL	8.3	52.0	

MAPID: 07700330000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: NW NW NW
QUADRANGLE: DE SOTO LONGITUDE: -89.168889 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.832173 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 60.0 LOG TYPE:
SOURCE: WESTERN CM000A WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
358.0	CARBONDALE	HERRIN	COAL	8.3	52.0	

MAPID: 07700331000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: NW NE NW
QUADRANGLE: DE SOTO LONGITUDE: -89.164198 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.831991 DATE COLLECTED:
SURFACE ELEVATION (FT.): 393.0 LOGGED (FT.): 62.0 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. B WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
393.0			UNCLASSIFIED	54.0	0.0	
339.0	CARBONDALE	HERRIN	COAL	8.0	54.0	

MAPID: 07700331000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: NW NE NW
QUADRANGLE: DE SOTO LONGITUDE: -89.164198 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.831991 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 393.0 LOGGED (FT.): 62.0 LOG TYPE:
SOURCE: WESTERN CM000B WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
339.0	CARBONDALE	HERRIN	COAL	8.0	54.0	

MAPID: 07700332000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: SW NW NW
QUADRANGLE: DE SOTO LONGITUDE: -89.168887 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.830318 DATE COLLECTED:
SURFACE ELEVATION (FT.): 397.0 LOGGED (FT.): 44.5 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. C WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
397.0			UNCLASSIFIED	37.0	0.0	
360.0	CARBONDALE	HERRIN	COAL	7.5	37.0	

MAPID: 07700332000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: SW NW NW
QUADRANGLE: DE SOTO LONGITUDE: -89.168887 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.830318 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 397.0 LOGGED (FT.): 45.0 LOG TYPE:
SOURCE: WESTERN CM000C WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
360.0	CARBONDALE	HERRIN	COAL	7.5	37.0	

MAPID: 07700333000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: NE SW NW

QUADRANGLE: DE SOTO LONGITUDE: -89.166543 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.828373 DATE COLLECTED:

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. D WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0			UNCLASSIFIED	40.0	0.0	
360.0	CARBONDALE	HERRIN	COAL	8.0	40.0	

MAPID: 07700333000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: NE SW NW

QUADRANGLE: DE SOTO LONGITUDE: -89.166543 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.828373 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 48.0 LOG TYPE:

SOURCE: WESTERN CM000D WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
360.0	CARBONDALE	HERRIN	COAL	8.0	40.0	

MAPID: 07700336000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: NW NE NW

QUADRANGLE: DE SOTO LONGITUDE: -89.164198 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.831991 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 402.0 LOGGED (FT.): 225.0 LOG TYPE:

SOURCE: WESTERN CM WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
332.0	CARBONDALE	HERRIN	COAL	1.0	70.0	

MAPID: 07700337000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: NE SW NW
QUADRANGLE: DE SOTO LONGITUDE: -89.166543 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.828373 DATE COLLECTED:
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 52.5 LOG TYPE: Drillers Log
SOURCE: WESTERN COAL & MINING CO. WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
410.0			UNCLASSIFIED	42.0	0.0
368.0	CARBONDALE		SHALE	3.0	42.0
365.0	CARBONDALE	HERRIN	COAL	7.5	45.0

MAPID: 07700337000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: NE SW NW
QUADRANGLE: DE SOTO LONGITUDE: -89.166543 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.828373 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 53.0 LOG TYPE:
SOURCE: WESTERN CM WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
365.0	CARBONDALE	HERRIN	COAL	7.5	45.0

MAPID: 07700675000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: 197' N line, 103' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.169702 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.832589 DATE COLLECTED: 0 / 0 / 1948
SURFACE ELEVATION (FT.): 404.0 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log
SOURCE: DOWNSTATE COAL CO. 1 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
404.0	PLEISTOCENE		CLAY	15.0	0.0
389.0	CARBONDALE		SHALE	12.0	15.0
377.0	CARBONDALE		SANDSTONE	5.0	27.0
372.0	CARBONDALE		SHALE	4.5	32.0
367.5	CARBONDALE		SHALE	5.0	36.5
362.5	CARBONDALE	HERRIN	COAL	7.0	41.5

MAPID: 07700676000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: 155' N line, 140' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.169572 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.832702 DATE COLLECTED: 0 / 0 / 1948
SURFACE ELEVATION (FT.): 389.3 LOGGED (FT.): 53.0 LOG TYPE: Drillers Log
SOURCE: DOWNSTATE COAL CO. 2 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
389.3	PLEISTOCENE		CLAY	10.0	0.0	
379.3	CARBONDALE		SHALE	35.0	10.0	WITH CLAY
344.3	CARBONDALE		SHALE	3.0	45.0	
341.3	CARBONDALE	HERRIN	COAL	5.0	48.0	

MAPID: 07700677000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: 230' N line, 140' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.169573 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.832495 DATE COLLECTED: 0 / 0 / 1948
SURFACE ELEVATION (FT.): 394.2 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log
SOURCE: DOWNSTATE COAL CO. 3 WELL TYPE: Coal Test
COMMENT: NO COAL; BEYOND OUTCROP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
394.2	PLEISTOCENE		CLAY	20.0	0.0	
374.2			SANDSTONE	40.0	20.0	NO COAL

MAPID: 07700678000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: 200' N line, 147' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.169549 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.832575 DATE COLLECTED: 0 / 0 / 1948
SURFACE ELEVATION (FT.): 392.6 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log
SOURCE: DOWNSTATE COAL CO. 4 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
392.6	PLEISTOCENE		CLAY	20.0	0.0	
372.6	PLEISTOCENE		SAND	25.0	20.0	WITH CLAY
347.6			SHALE	4.0	45.0	
343.6			COAL	1.0	49.0	

MAPID: 07700679000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 13 **QUARTERS/FOOTAGES:** 142' N line, 172' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.169461 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.832732 **DATE COLLECTED:** 0 / 0 / 1948
SURFACE ELEVATION (FT.): 679.0 **LOGGED (FT.):** 65.0 **LOG TYPE:** Drillers Log
SOURCE: DOWNSTATE COAL CO. 5 **WELL TYPE:** Coal Test
COMMENT: NO COAL; BEYOND OUTCROP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
679.0	PLEISTOCENE		CLAY	10.0	0.0	
669.0	PLEISTOCENE		SAND	35.0	10.0	WITH CLAY
634.0			SHALE	20.0	45.0	

MAPID: 07700680000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 13 **QUARTERS/FOOTAGES:** 2' N line, 145' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.169556 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.833124 **DATE COLLECTED:** 0 / 0 / 1948
SURFACE ELEVATION (FT.): 392.6 **LOGGED (FT.):** 70.0 **LOG TYPE:** Drillers Log
SOURCE: DOWNSTATE COAL CO. 6 **WELL TYPE:** Coal Test
COMMENT: NO COAL; BEYOND OUTCROP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
392.6	PLEISTOCENE		CLAY	15.0	0.0	
377.6	PLEISTOCENE		SAND	35.0	15.0	WITH CLAY
342.6			SHALE & SANDSTONE	20.0	50.0	NO COAL

MAPID: 07700681000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 13 **QUARTERS/FOOTAGES:** 127' N line, 77' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.169791 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.832788 **DATE COLLECTED:** 0 / 0 / 1948
SURFACE ELEVATION (FT.): 406.7 **LOGGED (FT.):** 61.0 **LOG TYPE:** Drillers Log
SOURCE: DOWNSTATE COAL CO. 6 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
406.7	PLEISTOCENE		CLAY	8.0	0.0	
398.7	PLEISTOCENE		SAND	12.0	8.0	WITH CLAY
386.7	CARBONDALE		ROCK	4.0	20.0	
382.7	CARBONDALE		SHALE	8.0	24.0	SANDY
374.7	CARBONDALE		SANDSTONE	10.0	32.0	
364.7	CARBONDALE		SHALE	3.0	42.0	
361.7	CARBONDALE		ROCK	6.0	45.0	
355.7	CARBONDALE		SHALE	3.0	51.0	
352.7	CARBONDALE	HERRIN	COAL	7.0	54.0	

MAPID: 07700683000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 13 **QUARTERS/FOOTAGES:** 185' N line, 130' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.169608 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.832619 **DATE COLLECTED:** 0 / 0 / 1948
SURFACE ELEVATION (FT.): 395.9 **LOGGED (FT.):** 52.0 **LOG TYPE:** Drillers Log
SOURCE: DOWNSTATE COAL CO. 9 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.9	PLEISTOCENE		CLAY	8.0	0.0	
387.9	PLEISTOCENE		SANDSTONE	17.0	8.0	
370.9	CARBONDALE	ANVIL ROCK	SANDSTONE	20.0	25.0	
350.9	CARBONDALE		SHALE	2.0	45.0	
348.9	CARBONDALE	HERRIN	COAL	5.0	47.0	

MAPID: 07700684000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 13 **QUARTERS/FOOTAGES:** 228' N line, 95' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.16973 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.832507 **DATE COLLECTED:** 0 / 0 / 1948
SURFACE ELEVATION (FT.): 401.8 **LOGGED (FT.):** 43.0 **LOG TYPE:** Drillers Log
SOURCE: DOWNSTATE COAL CO. 10 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
401.8	PLEISTOCENE		CLAY	12.0	0.0	
389.8	PLEISTOCENE		SAND	13.0	12.0	WITH CLAY
376.8	CARBONDALE		SANDSTONE	8.0	25.0	
368.8	CARBONDALE		SHALE	2.0	33.0	
366.8	CARBONDALE	HERRIN	COAL	8.0	35.0	

MAPID: 07700685000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 13 **QUARTERS/FOOTAGES:** 272' N line, 100' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.169713 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.832385 **DATE COLLECTED:** 0 / 0 / 1948
SURFACE ELEVATION (FT.): 393.8 **LOGGED (FT.):** 37.0 **LOG TYPE:** Drillers Log
SOURCE: DOWNSTATE COAL CO. 11 **WELL TYPE:** Coal Test
COMMENT: NO COAL; BEYOND OUTCROP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
393.8	PLEISTOCENE		SAND	37.0	0.0	

MAPID: 07700686000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 13 **QUARTERS/FOOTAGES:** 145' N line, 10' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.170025 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.832748 **DATE COLLECTED:** 0 / 0 / 1948
SURFACE ELEVATION (FT.): 394.4 **LOGGED (FT.):** 41.0 **LOG TYPE:** Drillers Log
SOURCE: DOWNSTATE COAL CO. 12 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
394.4	PLEISTOCENE		CLAY	10.0	0.0
384.4	CARBONDALE	ANVIL ROCK	SANDSTONE	15.0	10.0
369.4	CARBONDALE	BRERETON	LIMESTONE	4.0	25.0
365.4	CARBONDALE		SHALE	6.0	29.0
359.4	CARBONDALE	HERRIN	COAL	6.0	35.0

MAPID: 07700687000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 13 **QUARTERS/FOOTAGES:** 90' N line, 75' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.169801 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.832891 **DATE COLLECTED:** 0 / 0 / 1948
SURFACE ELEVATION (FT.): 407.0 **LOGGED (FT.):** 66.5 **LOG TYPE:** Drillers Log
SOURCE: DOWNSTATE COAL CO. 13 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
407.0	PLEISTOCENE		CLAY	25.0	0.0
382.0			SANDSTONE	20.0	25.0
362.0			SHALE	10.0	45.0
352.0			SANDSTONE	6.0	55.0
346.0			SHALE	2.0	61.0
344.0			COAL	3.5	63.0

MAPID: 07700688000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 13 **QUARTERS/FOOTAGES:** 97' N line, 5' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.170045 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.83288 **DATE COLLECTED:** 0 / 0 / 1948
SURFACE ELEVATION (FT.): 399.3 **LOGGED (FT.):** 47.5 **LOG TYPE:** Drillers Log
SOURCE: DOWNSTATE COAL CO. 14 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
399.3	PLEISTOCENE		CLAY	20.0	0.0
379.3			SANDSTONE	15.0	20.0
364.3			SHALE	8.0	35.0
356.3			COAL	4.5	43.0

MAPID: 07700689000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 13 **QUARTERS/FOOTAGES:** 157' N line, 162' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.169496 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.832694 **DATE COLLECTED:** 0 / 0 / 1948
SURFACE ELEVATION (FT.): 382.7 **LOGGED (FT.):** 65.0 **LOG TYPE:** Drillers Log
SOURCE: DOWNSTATE COAL CO. 15 **WELL TYPE:** Coal Test
COMMENT: NO COAL; BEYOND OUTCROP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
382.7	PLEISTOCENE		CLAY	65.0	0.0	SANDY

MAPID: 07700690000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 13 **QUARTERS/FOOTAGES:** 145' N line, 75' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.169798 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.832739 **DATE COLLECTED:** 0 / 0 / 1948
SURFACE ELEVATION (FT.): 406.0 **LOGGED (FT.):** 57.5 **LOG TYPE:** Drillers Log
SOURCE: DOWNSTATE COAL CO. 16 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
406.0	PLEISTOCENE		SOIL	20.0	0.0	CLAY
386.0	CARBONDALE		SANDSTONE	20.0	20.0	
366.0	CARBONDALE		SHALE	11.0	40.0	
355.0	CARBONDALE	HERRIN	COAL	6.5	51.0	

MAPID: 07700691000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 13 **QUARTERS/FOOTAGES:** 125' N line, 100' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.169711 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.832791 **DATE COLLECTED:** 0 / 0 / 1948
SURFACE ELEVATION (FT.): 402.7 **LOGGED (FT.):** 60.5 **LOG TYPE:** Drillers Log
SOURCE: DOWNSTATE COAL CO. 17 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
402.7	PLEISTOCENE		CLAY	15.0	0.0	
387.7	CARBONDALE		ROCK	20.0	15.0	
367.7	CARBONDALE		SHALE	10.0	35.0	
357.7	CARBONDALE		ROCK	5.0	45.0	
352.7	CARBONDALE		SHALE	5.0	50.0	
347.7	CARBONDALE	HERRIN	COAL	5.5	55.0	

MAPID: 07700692000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: 215' N line, 111' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.169674 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.83254 DATE COLLECTED: 0 / 0 / 1948
SURFACE ELEVATION (FT.): 401.8 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log
SOURCE: DOWNSTATE COAL CO. 18 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
401.8	PLEISTOCENE		CLAY	15.0	0.0	
386.8	PLEISTOCENE		SAND	15.0	15.0	WITH CLAY
371.8	CARBONDALE		SHALE	5.0	30.0	
366.8	CARBONDALE		ROCK	5.0	35.0	
361.8	CARBONDALE		SHALE	6.0	40.0	
355.8	CARBONDALE	HERRIN	COAL	6.0	46.0	

MAPID: 07700693000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: 232' N line, 115' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.16966 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.832493 DATE COLLECTED: 0 / 0 / 1948
SURFACE ELEVATION (FT.): 399.0 LOGGED (FT.): 39.5 LOG TYPE: Drillers Log
SOURCE: DOWNSTATE COAL CO. 19 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
399.0	PLEISTOCENE		CLAY	15.0	0.0	
384.0	CARBONDALE		ROCK	15.0	15.0	
369.0	CARBONDALE		SHALE	3.0	30.0	
366.0	CARBONDALE	HERRIN	COAL	6.5	33.0	

MAPID: 07700694000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: 246' N line, 120' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.169643 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.832454 DATE COLLECTED: 0 / 0 / 1948
SURFACE ELEVATION (FT.): 396.1 LOGGED (FT.): 36.0 LOG TYPE: Drillers Log
SOURCE: DOWNSTATE COAL CO. 20 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
396.1	PLEISTOCENE		CLAY	20.0	0.0	
376.1	CARBONDALE		ROCK	6.0	20.0	
370.1	CARBONDALE		SHALE	4.0	26.0	
366.1	CARBONDALE	HERRIN	COAL	6.0	30.0	

MAPID: 07700695000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: 257' N line, 130' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.169608 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.832421 DATE COLLECTED: 0 / 0 / 1948
SURFACE ELEVATION (FT.): 396.7 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log
SOURCE: DOWNSTATE COAL CO. 21 WELL TYPE: Coal Test
COMMENT: NO COAL; BEYOND OUTCROP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
396.7	PLEISTOCENE		SOIL	35.0	0.0	CLAY
361.7			SANDSTONE	15.0	35.0	NO COAL

MAPID: 07700696000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: 252' N line, 125' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.169626 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.832435 DATE COLLECTED: 0 / 0 / 1948
SURFACE ELEVATION (FT.): 394.3 LOGGED (FT.): 33.0 LOG TYPE: Drillers Log
SOURCE: DOWNSTATE COAL CO. 22 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
394.3	PLEISTOCENE		SOIL	27.0	0.0	CLAY
367.3	CARBONDALE	HERRIN	COAL	6.0	27.0	

MAPID: 07700697000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: 260' N line, 110' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.169678 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.832415 DATE COLLECTED: 0 / 0 / 1948
SURFACE ELEVATION (FT.): 395.2 LOGGED (FT.): 33.0 LOG TYPE: Drillers Log
SOURCE: DOWNSTATE COAL CO. 23 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.2	PLEISTOCENE		SOIL	15.0	0.0	CLAY
380.2	CARBONDALE		SANDSTONE	5.0	15.0	
375.2	CARBONDALE		SHALE	7.0	20.0	SMUT
368.2	CARBONDALE	HERRIN	COAL	6.0	27.0	

MAPID: 07700698000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: 270' N line, 112' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.169671 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.832388 DATE COLLECTED: 0 / 0 / 1948
SURFACE ELEVATION (FT.): 395.7 LOGGED (FT.): 33.0 LOG TYPE: Drillers Log
SOURCE: DOWNSTATE COAL CO. 24 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.7	PLEISTOCENE		SOIL	15.0	0.0	CLAY
380.7	CARBONDALE		SANDSTONE	5.0	15.0	
375.7	CARBONDALE		SHALE	7.0	20.0	SMUT
368.7	CARBONDALE	HERRIN	COAL	6.0	27.0	

MAPID: 07700699000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: 270' N line, 102' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.169706 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.832391 DATE COLLECTED: 0 / 0 / 1948
SURFACE ELEVATION (FT.): 394.5 LOGGED (FT.): 33.0 LOG TYPE: Drillers Log
SOURCE: DOWNSTATE COAL CO. 25 WELL TYPE: Coal Test
COMMENT: NO COAL; BEYOND OUTCROP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
394.5	PLEISTOCENE		CLAY	25.0	0.0	
369.5			SMUT	8.0	25.0	HERRIN

MAPID: 07700700000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: 271' N line, 131' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.169605 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.832382 DATE COLLECTED: 0 / 0 / 1948
SURFACE ELEVATION (FT.): 395.1 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log
SOURCE: DOWNSTATE COAL CO. 26 WELL TYPE: Coal Test
COMMENT: NO COAL; BEYOND OUTCROP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.1	PLEISTOCENE		CLAY	25.0	0.0	
370.1			SANDSTONE	25.0	25.0	

MAPID: 07700701000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: 272' N line, 126' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.169623 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.832379 DATE COLLECTED: 0 / 0 / 1948
SURFACE ELEVATION (FT.): 395.4 LOGGED (FT.): 33.0 LOG TYPE: Drillers Log
SOURCE: DOWNSTATE COAL CO. 27 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.4	PLEISTOCENE		SOIL	25.0	0.0	CLAY
370.4	CARBONDALE		ROCK	5.0	25.0	
365.4	CARBONDALE	HERRIN	COAL	3.0	30.0	SMUT; HERRIN THIN

MAPID: 07700702000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: 248' N line, 132' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.169601 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.832445 DATE COLLECTED: 0 / 0 / 1948
SURFACE ELEVATION (FT.): 394.3 LOGGED (FT.): 32.0 LOG TYPE: Drillers Log
SOURCE: DOWNSTATE COAL CO. 28 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
394.3	PLEISTOCENE		CLAY	15.0	0.0	
379.3	CARBONDALE		SANDSTONE	10.0	15.0	
369.3	CARBONDALE		SMUT	5.0	25.0	
364.3	CARBONDALE	HERRIN	COAL	2.0	30.0	

MAPID: 07700703000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 13 QUARTERS/FOOTAGES: 222' N line, 130' W line
QUADRANGLE: DE SOTO LONGITUDE: -89.169608 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.832517 DATE COLLECTED: 0 / 0 / 1948
SURFACE ELEVATION (FT.): 396.1 LOGGED (FT.): 44.0 LOG TYPE: Drillers Log
SOURCE: DOWNSTATE COAL CO. 29 WELL TYPE: Coal Test
COMMENT: NO COAL; BEYOND OUTCROP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
396.1	PLEISTOCENE		CLAY	25.0	0.0	SANDY
371.1	CARBONDALE		ROCK	15.0	25.0	
356.1	CARBONDALE		SMUT	4.0	40.0	HERRIN

MAPID: 07700704000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 13 **QUARTERS/FOOTAGES:** 192' N line, 135' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.16959 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.8326 **DATE COLLECTED:** 0 / 0 / 1948
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 52.0 **LOG TYPE:** Drillers Log
SOURCE: DOWNSTATE COAL CO. 30 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	30.0	0.0	
365.0	PLEISTOCENE		SAND	10.0	30.0	WITH ROCKS
355.0	CARBONDALE		SHALE	5.0	40.0	
350.0	CARBONDALE		SMUT	2.0	45.0	
348.0	CARBONDALE	HERRIN	COAL	5.0	47.0	

MAPID: 07700705000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 13 **QUARTERS/FOOTAGES:** 215' N line, 272' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.169114 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.832519 **DATE COLLECTED:** 0 / 0 / 1948
SURFACE ELEVATION (FT.): 386.2 **LOGGED (FT.):** 95.1 **LOG TYPE:** Drillers Log
SOURCE: DOWNSTATE COAL CO. 31 **WELL TYPE:** Coal Test
COMMENT: NO COAL; BEYOND OUTCROP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
386.2	PLEISTOCENE		CLAY	65.0	0.0	
321.2			SANDSTONE	20.0	65.0	
301.2			SHALE	5.0	85.0	
296.2			SANDSTONE	5.0	90.0	

MAPID: 07700706000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 1W **SECTION:** 13 **QUARTERS/FOOTAGES:** 92' N line, 20' W line
QUADRANGLE: DE SOTO **LONGITUDE:** -89.169993 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.832891 **DATE COLLECTED:** 0 / 0 / 1948
SURFACE ELEVATION (FT.): 403.8 **LOGGED (FT.):** 56.0 **LOG TYPE:** Drillers Log
SOURCE: DOWNSTATE COAL CO. 32 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
403.8	PLEISTOCENE		CLAY	15.0	0.0	
388.8	CARBONDALE		SANDSTONE	25.0	15.0	
363.8	CARBONDALE		SHALE	10.0	40.0	
353.8	CARBONDALE	HERRIN	COAL	6.0	50.0	

MAPID: 07700339000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 14 QUARTERS/FOOTAGES: NW NE NW
QUADRANGLE: DE SOTO LONGITUDE: -89.183221 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.832476 DATE COLLECTED:
SURFACE ELEVATION (FT.): 429.0 LOGGED (FT.): 115.0 LOG TYPE: Drillers Log
SOURCE: HAY EMILY WELL TYPE: Coal Test
COMMENT: NO COAL; NO. 6 COAL ERODED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
429.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	CLAY
417.0			SANDSTONE	103.0	12.0	

MAPID: 07700339000C VERSION: 2 PROJECT: CIRC 24
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 14 QUARTERS/FOOTAGES: NW NE NW
QUADRANGLE: DE SOTO LONGITUDE: -89.183221 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.832476 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 429.0 LOGGED (FT.): 115.0 LOG TYPE:
SOURCE: WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	-		

MAPID: 07700682000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 14 QUARTERS/FOOTAGES: NE NE NE
QUADRANGLE: DE SOTO LONGITUDE: -89.171259 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.83224 DATE COLLECTED: 8 / 0 / 1948
SURFACE ELEVATION (FT.): 406.5 LOGGED (FT.): 61.0 LOG TYPE: Drillers Log
SOURCE: DOWNSTATE COAL CO. 8 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
406.5	PLEISTOCENE		CLAY	15.0	0.0	SANDY
391.5	CARBONDALE		SHALEY ROCK	20.0	15.0	
371.5	CARBONDALE		SHALE	19.0	35.0	
352.5	CARBONDALE	HERRIN	COAL	7.0	54.0	

MAPID: 07701764000C VERSION: 1 PROJECT: ROOF STUDY

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 14 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: DE SOTO LONGITUDE: -89.171259 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.83224 DATE COLLECTED:

SURFACE ELEVATION (FT.): 416.0 LOGGED (FT.): 60.7 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO C-704 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
385.0	CARBONDALE	ENERGY	SILTY SHALE	10.0	31.0
375.0	CARBONDALE	ENERGY	CARBONACEOUS SHALE	6.0	41.0
369.0	CARBONDALE	ENERGY	SILTY SHALE	4.7	47.0
364.3	CARBONDALE	ENERGY	COAL	0.3	51.7
364.0	CARBONDALE	ENERGY	DARK GRAY SHALE	2.0	52.0
362.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	6.7	54.0

MAPID: 07721991000C VERSION: 1 PROJECT: NCRDS

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 14 QUARTERS/FOOTAGES: 1380' S line, 2679' E line

QUADRANGLE: DE SOTO LONGITUDE: -89.179353 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 37.837124 DATE COLLECTED: 3 / 27 / 1970

SURFACE ELEVATION (FT.): 410.6 LOGGED (FT.): 195.0 LOG TYPE: Drillers Log

SOURCE: TRUAX-TRAER C-703 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
410.6	PLEISTOCENE		CLAY	30.0	0.0
380.6			SANDY SHALE	15.0	30.0 SS LAYERS
365.6			SANDY SHALE	5.0	45.0
360.6			SANDSTONE	50.0	50.0
310.6			SHALY SANDSTONE	26.5	100.0
284.1			SANDSTONE/LIMESTONE	4.2	126.5
279.9			GRAY SHALE	2.0	130.7
277.9			SANDSTONE	3.8	132.7
274.1			SANDY SHALE	58.5	136.5

MAPID: 07700338000C

VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 8S 1W

SECTION: 15

QUARTERS/FOOTAGES: NW NW

QUADRANGLE: DE SOTO

LONGITUDE: -89.205367

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.831919

DATE COLLECTED: 8 / 28 / 1926

SURFACE ELEVATION (FT.): 385.0

LOGGED (FT.): 54.5

LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 28

WELL TYPE: Coal Test

COMMENT: NO COAL LISTED IN LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	PLEISTOCENE		UNCONSOLIDATED	54.5	0.0	

MAPID: 07700340000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 8S 1W

SECTION: 16

QUARTERS/FOOTAGES: NE SW SE

QUADRANGLE: DE SOTO

LONGITUDE: -89.213723

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.821721

DATE COLLECTED:

SURFACE ELEVATION (FT.): 380.0

LOGGED (FT.): 700.0

LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO.

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0	PLEISTOCENE		UNCONSOLIDATED	35.0	0.0	
345.0			SANDSTONE	15.0	35.0	
330.0			SHALE	4.0	50.0	
326.0			SHALE	38.0	54.0	WITH CLAY
288.0			LIMESTONE	1.0	92.0	DARK
287.0			SHALE	4.5	93.0	
282.5			COAL	2.0	97.5	
280.5			UNDERCLAY	1.5	99.5	
279.0			UNDERCLAY	3.0	101.0	
276.0			SHALE	13.3	104.0	BLUE
262.7			COAL	0.8	117.3	
262.0			UNDERCLAY	2.0	118.0	SOME LIMESTONE NOTED
260.0			SANDSTONE	5.0	120.0	
255.0			SHALE	6.0	125.0	
249.0			SHALE	5.0	131.0	DARK
244.0			LIMESTONE	5.0	136.0	
239.0			SHALE	38.0	141.0	
201.0			SHALE	6.0	179.0	
195.0			LIMESTONE	2.0	185.0	
193.0			SHALE	7.0	187.0	
186.0			COAL	1.0	194.0	
185.0			UNDERCLAY	6.0	195.0	
179.0			SHALE	15.0	201.0	
164.0			CLAYSTONE & SILTSTONE	16.0	216.0	SHALE PARTINGS; BLUE
148.0			SHALE	2.0	232.0	
146.0			SHALE	6.0	234.0	
140.0			SANDSTONE	5.0	240.0	
135.0			SHALE	12.0	245.0	SOME LIMESTONE NOTED
123.0			COAL	0.8	257.0	
122.2			SHALE	3.5	257.8	BLUE
118.7			COAL	2.8	261.3	
116.0			SHALE	27.0	264.0	SOME LIMESTONE NOTED
89.0			SHALE	8.0	291.0	WITH CLAY
81.0			SHALE	3.5	299.0	
77.5			COAL	1.5	302.5	
76.0			SHALE	3.0	304.0	BLUE
73.0			LIMESTONE	3.0	307.0	
70.0			CLAYSTONE	17.0	310.0	
53.0			SHALE	1.5	327.0	

51.5	COAL	0.5	328.5	
51.0	SANDY CLAYSTONE	3.0	329.0	
48.0	SANDSTONE	9.0	332.0	
39.0	SHALE	8.0	341.0	
31.0	LIMESTONE	1.3	349.0	
29.7	SANDSTONE	6.8	350.3	
23.0	SANDY SHALE	6.0	357.0	
17.0	LIMESTONE	1.5	363.0	
15.5	SANDSTONE	15.5	364.5	
0.0	SHALE	14.5	380.0	
-14.5	SHALE	5.5	394.5	
-20.0	COAL	1.0	400.0	
-21.0	SANDY CLAYSTONE	10.0	401.0	
-31.0	SHALE	91.0	411.0	
-122.0	SANDSTONE	3.0	502.0	
-125.0	SHALE	15.0	505.0	
-140.0	SANDSTONE	7.0	520.0	
-147.0	SHALE	39.0	527.0	
-186.0	SANDSTONE	18.0	566.0	
-204.0	SANDSTONE	62.0	584.0	WITH SHALE PARTINGS SANDY
-266.0	SHALE	39.0	646.0	
-305.0	SANDSTONE	6.0	685.0	
-311.0	SHALE	9.0	691.0	

MAPID: 07700340000C
VERSION: 2
PROJECT: CIRC 24

COUNTY: JACKSON
TWP/RNG: 8S 1W
SECTION: 16
QUARTERS/FOOTAGES: NE SW SE

QUADRANGLE: DE SOTO
LONGITUDE: -89.213723
GEOLOGIST:

CONFIDENTIAL: N
LATITUDE: 37.821721
DATE COLLECTED:

SURFACE ELEVATION (FT.): 392.0
LOGGED (FT.): 700.0
LOG TYPE:

SOURCE: BG MUDDYCW
WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT OVERBURDEN	COMMENT
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	-		

MAPID: 07700341000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 16 QUARTERS/FOOTAGES: NE SE NW

QUADRANGLE: DE SOTO LONGITUDE: -89.21833 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.82912 DATE COLLECTED: 8 / 28 / 1926

SURFACE ELEVATION (FT.): 375.0 LOGGED (FT.): 21.5 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 26 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
375.0	PLEISTOCENE		UNCONSOLIDATED	16.4	0.0
358.6	CARBONDALE		BLACK SHALE	1.6	16.4
357.0	CARBONDALE	HERRIN	COAL	3.5	18.0

MAPID: 07700341000C VERSION: 2 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 16 QUARTERS/FOOTAGES: NE SE NW

QUADRANGLE: DE SOTO LONGITUDE: -89.21833 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.82912 DATE COLLECTED: 0 / 0 / 1926

SURFACE ELEVATION (FT.): 375.0 LOGGED (FT.): 22.0 LOG TYPE:

SOURCE: WESTERN CM0026 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
357.0	CARBONDALE	HERRIN	COAL	3.5	18.0

MAPID: 07700342000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 16 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: DE SOTO LONGITUDE: -89.218351 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.827264 DATE COLLECTED: 8 / 28 / 1926

SURFACE ELEVATION (FT.): 402.0 LOGGED (FT.): 45.0 LOG TYPE: Drillers Log

SOURCE: WESTERN COAL & MINING CO. 27 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
402.0	PLEISTOCENE		UNCONSOLIDATED	23.3	0.0
378.7			SHALE	3.5	23.3
375.2			BLACK SHALE	6.2	26.8
369.0			UNDERCLAY	6.0	33.0
363.0			SHALE	1.0	39.0
362.0			COAL	0.2	40.0
361.8			UNDERCLAY	4.8	40.2

MAPID: 07700361000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 17 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: DE SOTO LONGITUDE: -89.227706 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.832817 DATE COLLECTED:

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section

SOURCE: DESOTO PEA WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
346.0	CARBONDALE	HERRIN	COAL	10.0	54.0	

MAPID: 07700365000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 17 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: DE SOTO LONGITUDE: -89.241745 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.827596 DATE COLLECTED:

SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section

SOURCE: NEW MUDDYV WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
379.0	CARBONDALE	SPRINGFIELD	COAL	4.0	46.0	

MAPID: 07700366000C VERSION: 1 PROJECT: CIRC 24

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 17 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: DE SOTO LONGITUDE: -89.241745 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.827596 DATE COLLECTED:

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section

SOURCE: WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	0.0		COAL ABSENT OR ERODED
380.0	CARBONDALE	SPRINGFIELD	COAL	4.0	50.0	

MAPID: 07701063000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 1W SECTION: 31 QUARTERS/FOOTAGES:

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.256051

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.781959

DATE COLLECTED: 9 / 1 / 1893

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 200.1

LOG TYPE: Drillers Log

SOURCE: HUNDLEY, MCKINNEYS & BLACE

WELL TYPE: Coal Test

COMMENT: COAL BORING

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0	PLEISTOCENE		CLAY	15.0	0.0	YELLOW
385.0	PLEISTOCENE		SAND	3.0	15.0	WITH LITTLE COAL; YELLOW
382.0	PLEISTOCENE		CLAY	3.0	18.0	
379.0	PLEISTOCENE		SAND	35.0	21.0	QUICKSAND NOTED
344.0	PLEISTOCENE		SANDSTONE	11.0	56.0	WITH SHALE
333.0			SHALE	9.0	67.0	
324.0			BLACK SHALE	2.5	76.0	
321.5			SANDSTONE	21.5	78.5	LOG NOTES QUICKSAND
300.0			SHALE	4.0	100.0	
296.0			CHERT	0.9	104.0	
295.1			SHALE	13.1	104.9	
282.0			BLACK SHALE	0.3	118.0	
281.7			BLACK SHALE	22.2	118.3	
259.5			COAL	0.3	140.5	WITH BLACK SHALE MIXED
259.2			BLACK SHALE	0.5	140.8	WITH COAL AND SULFUR
258.7			BLACK SHALE	6.2	141.3	
252.5	TRADEWATER	MURPHYSBORO	COAL	2.5	147.5	WITH BLACK SHALE ON TOP
250.0			BLACK SHALE	2.0	150.0	WITH LITTLE COAL
248.0			BLACK SHALE	10.0	152.0	
238.0			SANDSTONE	1.0	162.0	
237.0			BLACK SHALE	5.5	163.0	IRON CONCRETIONS
231.5			BLACK SHALE	12.0	168.5	
219.5			SANDSTONE	13.5	180.5	WITH SHALE MIXED
206.0			SANDY SLATE	3.0	194.0	
203.0			BLACK SHALE	3.0	197.0	

MAPID: 07700249000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 1 **QUARTERS/FOOTAGES:** NW NW NE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.272748 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.862028 **DATE COLLECTED:** 8 / 28 / 1926
SURFACE ELEVATION (FT.): 400.0 **LOGGED (FT.):** 40.8 **LOG TYPE:** Drillers Log
SOURCE: WESTERN COAL & MINING CO. 17 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0	
373.0			LIMESTONE	7.8	27.0	
365.2			SHALE	4.2	34.8	
361.0			LIMESTONE	1.8	39.0	

MAPID: 07790119000C **VERSION:** 1 **PROJECT:** LUMP
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 1 **QUARTERS/FOOTAGES:** 75' N line, 575' W line of SW NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.281775 **GEOLOGIST:** NORTH
CONFIDENTIAL: N **LATITUDE:** 37.860169 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 401.0 **LOGGED (FT.):** 49.9 **LOG TYPE:** Drillers Log
SOURCE: ILLINI ENERGY RESOURCES 136-B **WELL TYPE:** Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
401.0	PLEISTOCENE		UNCONSOLIDATED	45.7	0.0	
355.3	CARBONDALE		COAL	4.2	45.7	

MAPID: 07790120000C **VERSION:** 1 **PROJECT:** LUMP
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 1 **QUARTERS/FOOTAGES:** 400' N line, 1' W line of SE NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.278895 **GEOLOGIST:** NORTH
CONFIDENTIAL: N **LATITUDE:** 37.859092 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 404.0 **LOGGED (FT.):** 61.0 **LOG TYPE:** Drillers Log
SOURCE: ILLINI ENERGY RESOURCES 28-B **WELL TYPE:** Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
404.0	PLEISTOCENE		UNCONSOLIDATED	26.4	0.0	
377.6	CARBONDALE		UNKNOWN	31.2	26.4	
346.4	CARBONDALE	SPRINGFIELD	COAL	3.4	57.6	

MAPID: 07790121000C VERSION: 1 PROJECT: LUMP
COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 1 QUARTERS/FOOTAGES: 450' S line, 650' E line of SE NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.276289 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.857621 DATE COLLECTED:
SURFACE ELEVATION (FT.): 403.0 LOGGED (FT.): 49.5 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES 130-B WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
403.0	PLEISTOCENE		UNCONSOLIDATED	30.9	0.0
372.1	CARBONDALE		UNKNOWN	15.6	30.9
356.5	CARBONDALE	SPRINGFIELD	COAL	3.0	46.5

MAPID: 07790122000C VERSION: 1 PROJECT: LUMP
COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 1 QUARTERS/FOOTAGES: 600' N line, 1' W line of NW NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.273979 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.861241 DATE COLLECTED:
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 73.8 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES 134-5 WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
410.0	PLEISTOCENE		UNCONSOLIDATED	33.4	0.0
376.6	CARBONDALE		UNKNOWN	36.7	33.4
339.9	CARBONDALE	SPRINGFIELD	COAL	3.7	70.1

MAPID: 07790123000C VERSION: 1 PROJECT: LUMP
COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 1 QUARTERS/FOOTAGES: 1' S line, 1' W line of SW NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.274037 GEOLOGIST: NORTH
CONFIDENTIAL: N LATITUDE: 37.856236 DATE COLLECTED:
SURFACE ELEVATION (FT.): 398.0 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log
SOURCE: ILLINI ENERGY RESOURCES 133-B WELL TYPE: Coal Test
COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
398.0	PLEISTOCENE		UNCONSOLIDATED	26.7	0.0
371.3	CARBONDALE		UNKNOWN	34.6	26.7
336.7	CARBONDALE	SPRINGFIELD	COAL	3.7	61.3

MAPID: 07790124000C VERSION: 1 PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 1 QUARTERS/FOOTAGES: 500' S line, 1' W line of SW NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.274022 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.857614 DATE COLLECTED:

SURFACE ELEVATION (FT.): 407.0 LOGGED (FT.): 65.4 LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES 131-B WELL TYPE: Coal Test

COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
407.0	PLEISTOCENE		UNCONSOLIDATED	61.8	0.0	
345.2	CARBONDALE	SPRINGFIELD	COAL	3.6	61.8	

MAPID: 07790125000C VERSION: 1 PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 1 QUARTERS/FOOTAGES: 500' S line, 650' E line of SW NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.271408 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 37.857446 DATE COLLECTED:

SURFACE ELEVATION (FT.): 403.0 LOGGED (FT.): 60.1 LOG TYPE: Drillers Log

SOURCE: ILLINI ENERGY RESOURCES 135-B WELL TYPE: Coal Test

COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
403.0	PLEISTOCENE		UNCONSOLIDATED	56.8	0.0	
346.2	CARBONDALE	SPRINGFIELD	COAL	3.3	56.8	

MAPID: 07701065000C VERSION: 1

PROJECT: NCRDS87

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 2 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.295725 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 37.861169 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 596.0 LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE (FARM) WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0			UNCONSOLIDATED	99.0	0.0	
296.0	CARBONDALE		SHALE	51.0	99.0	
245.0	CARBONDALE		LIMESTONE	2.5	150.0	
242.5	CARBONDALE		BLACK SHALE	4.5	152.5	
238.0	CARBONDALE		LIMESTONE	0.5	157.0	
237.5	CARBONDALE	EXCELLO	BLACK SHALE	2.0	157.5	UNCERTAIN CORRELATION
235.5	CARBONDALE	HOUCHIN CREEK	COAL	1.0	159.5	UNCERTAIN CORRELATION
234.5	CARBONDALE		UNDERCLAY	0.5	160.5	
234.0	CARBONDALE		SHALE	9.0	161.0	
225.0	CARBONDALE		SANDSTONE	5.0	170.0	
220.0	CARBONDALE		SHALE	4.0	175.0	
216.0	CARBONDALE		UNDERCLAY	9.0	179.0	
207.0	CARBONDALE		SHALE	2.0	188.0	
205.0	CARBONDALE		COAL	1.0	190.0	
204.0	CARBONDALE		SHALE	26.0	191.0	
178.0	CARBONDALE		BLACK SHALE	8.0	217.0	
170.0	CARBONDALE		COAL	2.0	225.0	
168.0	CARBONDALE		SHALE	9.0	227.0	
159.0	CARBONDALE		SANDSTONE	36.0	236.0	
123.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.5	272.0	UNCERTAIN CORRELATION
120.5	CARBONDALE	COLCHESTER	COAL	2.0	274.5	UNCERTAIN CORRELATION
118.5			UNDERCLAY	3.5	276.5	
115.0			LIMESTONE	5.0	280.0	
110.0			SHALE	5.0	285.0	
105.0			LIMESTONE	5.0	290.0	
100.0			SHALE	3.0	295.0	
97.0			COAL	1.5	298.0	
95.5			UNDERCLAY	0.5	299.5	
95.0			SHALE	36.0	300.0	
59.0			LIMESTONE	1.5	336.0	
57.5			UNDERCLAY	2.5	337.5	
55.0			SANDSTONE	8.0	340.0	
47.0			SHALE	138.0	348.0	
-91.0			SANDSTONE	110.0	486.0	

MAPID: 07701065000C

VERSION: 2

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 8S 2W

SECTION: 2

QUARTERS/FOOTAGES: NE NW

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.295725

GEOLOGIST: BARGH,M

CONFIDENTIAL: N

LATITUDE: 37.861169

DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0

LOGGED (FT.): 596.0

LOG TYPE: Survey Core Study

SOURCE: HALLIDAY ESTATE

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0			UNCONSOLIDATED	99.0	0.0	
296.0			ROCK	60.8	99.0	
235.2			COAL	0.8	159.8	
234.5			ROCK	29.5	160.5	
205.0			COAL	1.0	190.0	
204.0			ROCK	34.0	191.0	
170.0			COAL	2.0	225.0	
168.0			ROCK	47.5	227.0	
120.5			COAL	2.0	274.5	
118.5			ROCK	21.5	276.5	
97.0			COAL	1.5	298.0	
95.5			ROCK	296.5	299.5	

MAPID: 07701065000C VERSION: 3

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 2 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.295725 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.861169 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 596.0 LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 24 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	99.0	0.0	
296.0			SHALE	39.0	99.0	
257.0			SHALE	12.0	138.0	WITH CLAY
245.0			LIMESTONE	2.5	150.0	
242.5			BLACK SHALE	4.5	152.5	
238.0			LIMESTONE	0.5	157.0	
237.5			BLACK SHALE	2.3	157.5	
235.2			COAL	0.8	159.8	
234.5			UNDERCLAY	0.5	160.5	
234.0			SHALE	9.0	161.0	
225.0			SANDSTONE	5.0	170.0	
220.0			SHALE	4.0	175.0	
216.0			UNDERCLAY	9.0	179.0	
207.0			SHALE	2.0	188.0	
205.0			COAL	1.0	190.0	
204.0			SHALE	26.0	191.0	
178.0			BLACK SHALE	8.0	217.0	
170.0			COAL	2.0	225.0	
168.0			SHALE	9.0	227.0	
159.0			SANDSTONE	36.0	236.0	
123.0			BLACK SHALE	2.5	272.0	
120.5			COAL	2.0	274.5	
118.5			UNDERCLAY	3.5	276.5	
115.0			LIMESTONE	5.0	280.0	
110.0			SHALE	5.0	285.0	
105.0			LIMESTONE	5.0	290.0	
100.0			SHALE	3.0	295.0	
97.0			COAL	1.5	298.0	
95.5			UNDERCLAY	0.5	299.5	
95.0			SHALE	36.0	300.0	
59.0			LIMESTONE	1.5	336.0	
57.5			UNDERCLAY	2.5	337.5	
55.0			SANDSTONE	8.0	340.0	
47.0			SHALE	20.0	348.0	
27.0			SHALE	118.0	368.0	WITH PARTINGS
-91.0			SANDSTONE	20.0	486.0	
-111.0			SHALE	90.0	506.0	WITH PARTINGS

MAPID: 07790108000C VERSION: 1

PROJECT: LUMP

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 2 QUARTERS/FOOTAGES: 675' N line, 25' E line of NE NE
 QUADRANGLE: MURPHYSBORO LONGITUDE: -89.28381 GEOLOGIST: NORTH
 CONFIDENTIAL: N LATITUDE: 37.860937 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 401.0 LOGGED (FT.): 54.3 LOG TYPE: Drillers Log
 SOURCE: ILLINI ENERGY RESOURCES 139-B WELL TYPE: Coal Test
 COMMENT: PERMIT #309 BURNING STAR #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
401.0			UNKNOWN	44.9	0.0	
356.1	CARBONDALE		UNKNOWN	6.0	44.9	
350.1	CARBONDALE		COAL	3.4	50.9	SPRINGFIELD?

MAPID: 07701066000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 7 QUARTERS/FOOTAGES: NW SW
 QUADRANGLE: MURPHYSBORO LONGITUDE: -89.375023 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.839822 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 176.0 LOG TYPE: Drillers Log
 SOURCE: BIG MUDDY COAL CO. 68 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
436.0			SANDY SHALE	18.0	4.0	YELLOW
418.0			SHALE	11.0	22.0	BLUE
407.0			SANDSTONE	1.0	33.0	DARK
406.0			SHALY SANDSTONE	27.0	34.0	
379.0			SHALE	2.0	61.0	
377.0			SHALE	3.0	63.0	BLUE
374.0			SANDSTONE	14.0	66.0	GRAY
360.0			SHALE	6.0	80.0	
354.0			SHALE	6.0	86.0	
348.0			COAL	1.0	92.0	
347.0			SHALE	32.0	93.0	BLUE
315.0			LIMESTONE	1.0	125.0	GRAY
314.0			SHALE	11.0	126.0	BLUE
303.0	TRADEWATER	MURPHYSBORO	COAL	2.0	137.0	
301.0			SHALE	10.3	139.0	BLUE
290.7	TRADEWATER	MURPHYSBORO	COAL	2.7	149.3	
288.0			SHALE	12.0	152.0	
276.0			SHALE	10.0	164.0	BLUE
266.0			SANDSTONE	2.0	174.0	GRAY

MAPID: 07701066000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 7 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.375023 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.839822 DATE COLLECTED:

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 176.0 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0			UNCONSOLIDATED	4.0	0.0	
436.0			SHALE	88.0	4.0	
348.0			COAL	1.0	92.0	
347.0			SHALE	32.0	93.0	
315.0			LIMESTONE	1.0	125.0	
314.0			BLACK SHALE	11.0	126.0	
303.0	SPOON	MURPHYSBORO	COAL	2.0	137.0	UPPER BENCH
301.0	SPOON		BLACK SHALE	10.3	139.0	
290.7	SPOON	MURPHYSBORO	COAL	2.7	149.3	LOWER BENCH
288.0			COAL WITH SHALE	12.0	152.0	COAL AND SH MIXED
276.0			ROCK	12.0	164.0	

MAPID: 07701067000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 7 QUARTERS/FOOTAGES: NE NW NW SW

QUADRANGLE: ORAVILLE LONGITUDE: -89.376375 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.841198 DATE COLLECTED:

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 155.5 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 69 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
424.0			SANDY SHALE	26.0	16.0	YELLOW
398.0			SHALY SANDSTONE	19.0	42.0	
379.0			SHALE	4.0	61.0	
375.0			SHALE	4.0	65.0	BITUMINOUS
371.0			SHALE	6.0	69.0	BLUE
365.0			SHALE	15.0	75.0	SANDY
350.0			SHALE	3.0	90.0	
347.0			SHALE	7.0	93.0	BLUE
340.0			LIMESTONE	1.0	100.0	GRAY
339.0			SHALE	4.0	101.0	BLUE
335.0			SHALE	22.0	105.0	SANDY
313.0			SHALE	4.0	127.0	BLUE
309.0	TRADEWATER	MURPHYSBORO	COAL	2.8	131.0	
306.2			SANDY SHALE	5.3	133.8	
301.0			SHALE	14.0	139.0	
287.0			COAL	2.5	153.0	

MAPID: 07701067000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 7 QUARTERS/FOOTAGES: NE NW NW SW

QUADRANGLE: ORAVILLE LONGITUDE: -89.376375 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.841198 DATE COLLECTED:

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 155.5 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0	SPOON	MURPHYSBORO	UNCONSOLIDATED	16.0	0.0	
424.0			ROCK	84.0	16.0	
340.0			LIMESTONE	1.0	100.0	
339.0			BLACK SHALE	30.0	101.0	
309.0			COAL	2.8	131.0	UPPER BENCH
306.2			BLACK SHALE	19.2	133.8	
287.0			COAL	2.5	153.0	LOWER BENCH

MAPID: 07701250000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 8 QUARTERS/FOOTAGES: NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.35493 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.845413 DATE COLLECTED:
SURFACE ELEVATION (FT.): 350.0 LOGGED (FT.): 86.7 LOG TYPE: Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 6 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
350.0	PLEISTOCENE		SAND	6.0	0.0	
344.0	PLEISTOCENE		SAND	2.7	6.0	GREEN
341.3	PLEISTOCENE		CLAY	15.0	8.7	
326.3	PLEISTOCENE		SAND	5.3	23.7	
321.0	PLEISTOCENE		CLAY	2.7	29.0	
318.3	PLEISTOCENE		SAND	3.0	31.7	
315.3	PLEISTOCENE		CLAY	19.0	34.7	
296.3	PLEISTOCENE		CLAY	20.0	53.7	
276.3	PLEISTOCENE		SAND	6.0	73.7	
270.3	PLEISTOCENE		CLAY	3.0	79.7	
267.3	PLEISTOCENE		SAND	1.7	82.7	
265.6	PLEISTOCENE		SAND	2.0	84.4	
263.6			ROCK	0.3	86.4	VERY HARD

MAPID: 07701462000C VERSION: 1 PROJECT: CUSMAP
COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 9 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.323195 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.842694 DATE COLLECTED: 10 / 0 / 1958
SURFACE ELEVATION (FT.): 389.0 LOGGED (FT.): 770.0 LOG TYPE: Electric Log
SOURCE: FOWLEY ANNA MYRLE WELL TYPE: Producer-Oil and Gas
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
264.0	CARBONDALE	COLCHESTER	UNCLASSIFIED	-	125.0	
199.0	SPOON	DAVIS	UNCLASSIFIED	-	190.0	
-381.0	BASE OF PENN.		UNCLASSIFIED	-	770.0	

MAPID: 07701068000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 11 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.30078 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.840056 DATE COLLECTED:

SURFACE ELEVATION (FT.): 360.0 LOGGED (FT.): 393.0 LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 25 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
360.0	PLEISTOCENE		UNCONSOLIDATED	121.0	0.0	
239.0			LIMESTONE	2.0	121.0	
237.0			SHALE	5.0	123.0	
232.0			LIMESTONE	0.5	128.0	
231.5			SHALE	1.5	128.5	
230.0			COAL	0.8	130.0	
229.2			UNDERCLAY	0.3	130.8	
229.0			SHALE	35.0	131.0	SANDY
194.0			SHALE	8.0	166.0	
186.0			COAL	1.0	174.0	
185.0			UNDERCLAY	1.0	175.0	
184.0			SANDY SHALE	18.0	176.0	
166.0			SHALE	5.0	194.0	
161.0			COAL	1.0	199.0	
160.0			UNDERCLAY	0.5	200.0	
159.5			SANDY SHALE	15.5	200.5	
144.0			SANDSTONE	42.0	216.0	
102.0			SHALE	2.0	258.0	
100.0			COAL	0.3	260.0	
99.7			UNDERCLAY	3.8	260.3	
96.0			SANDY SHALE	12.5	264.0	
83.5			COAL	1.3	276.5	
82.2			UNDERCLAY	0.3	277.8	
82.0			SANDY SHALE	6.5	278.0	
75.5			COAL	2.5	284.5	
73.0			UNDERCLAY	5.0	287.0	
68.0			LIMESTONE	1.0	292.0	
67.0			SANDY SHALE	13.0	293.0	
54.0			LIMESTONE	1.5	306.0	
52.5			SANDY SHALE	20.5	307.5	
32.0			SANDY SHALE	12.0	328.0	
20.0			SANDY SHALE	2.3	340.0	
17.7	TRADEWATER	MURPHYSBORO	COAL	2.8	342.3	
15.0			UNDERCLAY	2.0	345.0	
13.0			SANDY SHALE	2.0	347.0	
11.0			SHALE	44.0	349.0	SANDY

MAPID: 07701068000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 11 **QUARTERS/FOOTAGES:** NW SW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.30078 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.840056 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 360.0 **LOGGED (FT.):** 393.0 **LOG TYPE:** Survey Core Study
SOURCE: HALLIDAY ESTATE **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
360.0			UNCONSOLIDATED	121.0	0.0
239.0			ROCK	9.0	121.0
230.0			COAL	0.8	130.0
229.2			ROCK	43.2	130.8
186.0			COAL	1.0	174.0
185.0			ROCK	24.0	175.0
161.0			COAL	1.0	199.0
160.0			ROCK	60.0	200.0
100.0			COAL	0.3	260.0
99.7			UNDERCLAY	3.7	260.3
96.0			SHALE	12.5	264.0
83.5			COAL	1.3	276.5
82.2			UNDERCLAY	0.2	277.8
82.0			SHALE	6.6	278.0
75.4			COAL	2.5	284.6 LOWER BENCH
73.0			UNDERCLAY	5.0	287.0
68.0			ROCK	50.3	292.0
17.7	SPOON	MURPHYSBORO	COAL	2.8	342.3
15.0	SPOON		ROCK	48.0	345.0

MAPID: 07701060000C **VERSION:** 1 **PROJECT:** CUSMAP
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 14 **QUARTERS/FOOTAGES:** 330' S line, 990' W line of NW NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.299829 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.831417 **DATE COLLECTED:** 7 / 0 / 1957
SURFACE ELEVATION (FT.): 405.5 **LOGGED (FT.):** 826.0 **LOG TYPE:** Electric Log
SOURCE: POTSCH, JOHN P. SR. **WELL TYPE:** Producer-Oil and Gas
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
263.5	CARBONDALE	COLCHESTER	UNCLASSIFIED	-	142.0
180.5	SPOON	DAVIS	UNCLASSIFIED	-	225.0
-420.5	BASE OF PENN.		UNCLASSIFIED	-	826.0

MAPID: 07701071000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 14 QUARTERS/FOOTAGES: SW SW NW SW
 QUADRANGLE: MURPHYSBORO LONGITUDE: -89.302716 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.823388 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 380.0 LOG TYPE: Drillers Log
 SOURCE: HALLIDAY ESTATE 27 WELL TYPE: Coal Test
 COMMENT: NOTE IN LOG: NOTHING WORKABLE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		UNCONSOLIDATED	104.0	0.0
291.0			SANDY SHALE	17.0	104.0
274.0			SHALE	1.5	121.0
272.5			COAL	1.0	122.5
271.5			UNDERCLAY	0.5	123.5
271.0			SANDY SHALE	26.0	124.0
245.0			COAL	1.5	150.0
243.5			UNDERCLAY	3.0	151.5
240.5			SANDY SHALE	4.5	154.5
236.0			SANDSTONE	4.0	159.0
232.0			SANDY SHALE	19.0	163.0
213.0			SHALE	3.5	182.0
209.5			COAL	1.0	185.5
208.5			UNDERCLAY	8.5	186.5
200.0			SANDY SHALE	25.3	195.0
174.7			COAL	0.3	220.3
174.5			UNDERCLAY	0.5	220.5
174.0			SANDY SHALE	10.0	221.0
164.0			SHALE	12.6	231.0 WITH CLAY
151.4	TRADEWATER	MURPHYSBORO	COAL	3.1	243.6
148.3			UNDERCLAY	1.3	246.7
147.0			SANDY SHALE	33.8	248.0
113.2			COAL	0.3	281.8
113.0			UNDERCLAY	1.0	282.0
112.0			SANDY SHALE	18.0	283.0
94.0			SHALE	79.0	301.0

MAPID: 07701071000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 14 QUARTERS/FOOTAGES: SW SW NW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.302716 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.823388 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 380.0 LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0			UNCONSOLIDATED	104.0	0.0
291.0			ROCK	18.5	104.0
272.5			COAL	1.0	122.5
271.5			ROCK	26.5	123.5
245.0			COAL	1.5	150.0
243.5			ROCK	34.0	151.5
209.5			COAL	1.0	185.5
208.5			ROCK	33.8	186.5
174.7			COAL	0.3	220.3
174.5			UNDERCLAY	0.5	220.5
174.0			SHALE	22.6	221.0
151.4			COAL	3.1	243.6
148.3			UNDERCLAY	1.3	246.7
147.0			SHALE	33.8	248.0
113.2	SPOON	MURPHYSBORO	COAL	0.3	281.8
113.0	SPOON		ROCK	98.0	282.0

MAPID: 07701072000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 16 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.324569 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.828755 DATE COLLECTED:

SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 349.0 LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 26 WELL TYPE: Coal Test

COMMENT: LOG NOTE: NOTHING WORKABLE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	PLEISTOCENE		UNCONSOLIDATED	82.0	0.0	
308.0			SHALE	2.5	82.0	
305.5			COAL	0.8	84.5	
304.7			SANDSTONE	24.8	85.3	
280.0			SANDY SHALE	18.0	110.0	
262.0			SHALE	1.5	128.0	WITH CLAY
260.5			COAL	0.8	129.5	
259.7			UNDERCLAY	0.8	130.3	
259.0			SANDY SHALE	10.8	131.0	
248.2			COAL	0.3	141.8	
248.0			UNDERCLAY	1.0	142.0	
247.0			SANDY SHALE	16.0	143.0	
231.0			COAL	1.8	159.0	
229.2			UNDERCLAY	2.3	160.8	
227.0			SANDSTONE	3.0	163.0	
224.0			SANDY SHALE	24.0	166.0	
200.0			SHALE	4.5	190.0	
195.5			COAL	0.8	194.5	
194.7			UNDERCLAY	7.8	195.3	
187.0			SANDY SHALE	28.8	203.0	
158.2			COAL	0.8	231.8	
157.5			UNDERCLAY	0.5	232.5	
157.0			COAL	0.8	233.0	
156.2			UNDERCLAY	1.3	233.8	
155.0			SANDY SHALE	13.0	235.0	
142.0			SHALE	5.3	248.0	
136.7	TRADEWATER	MURPHYSBORO	COAL	4.7	253.3	
132.1			UNDERCLAY	0.6	257.9	
131.5			SANDY SHALE	27.5	258.5	
104.0			COAL	0.3	286.0	
103.7			SANDY SHALE	33.8	286.3	
70.0			SANDSTONE	29.0	320.0	

MAPID: 07701072000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 16 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.324569 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.828755 DATE COLLECTED:

SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 349.0 LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0			UNCONSOLIDATED	82.0	0.0	
308.0			ROCK	2.5	82.0	
305.5			COAL	0.8	84.5	
304.7			ROCK	44.2	85.3	
260.5			COAL	0.8	129.5	
259.7			ROCK	11.5	130.3	
248.2			COAL	0.3	141.8	
248.0			ROCK	17.0	142.0	
231.0			COAL	1.8	159.0	
229.2			ROCK	33.7	160.8	
195.5			COAL	0.8	194.5	
194.7			ROCK	36.5	195.3	
158.2			COAL	0.8	231.8	
157.5			UNDERCLAY	0.5	232.5	
157.0			COAL	0.8	233.0	
156.2			UNDERCLAY	1.2	233.8	
155.0			SHALE	13.0	235.0	
142.0			BLACK SHALE	5.3	248.0	
136.7	SPOON	MURPHYSBORO	COAL	4.7	253.3	
132.1	SPOON		UNDERCLAY	0.6	257.9	
131.5	SPOON		SHALE	27.5	258.5	SANDY
104.0	SPOON		COAL	0.3	286.0	
103.7			SHALE	62.8	286.3	

MAPID: 07701074000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 8S 2W

SECTION: 18

QUARTERS/FOOTAGES: SE SW NW NW

QUADRANGLE: ORAVILLE

LONGITUDE: -89.376417

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.831086

DATE COLLECTED:

SURFACE ELEVATION (FT.): 432.0

LOGGED (FT.): 283.1

LOG TYPE: Drillers Log

SOURCE: 6

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
432.0	PLEISTOCENE		UNCONSOLIDATED	31.0	0.0	
401.0	PLEISTOCENE		CLAY	0.5	31.0	BLUE
400.5	PLEISTOCENE		CLAY	5.8	31.5	YELLOW
394.7			SHALE	0.3	37.3	
394.5			COAL	0.3	37.5	
394.2			UNDERCLAY	9.2	37.8	
385.0			SANDY SHALE	12.2	47.0	
372.8			SANDSTONE	0.8	59.2	GRAY
372.1			SHALE	0.3	59.9	
371.8			SANDSTONE	28.8	60.2	
343.1			SHALE	1.1	88.9	DARK
342.0			COAL	0.8	90.0	
341.2			SHALE	3.7	90.8	
337.5			SANDSTONE	5.2	94.5	GRAY
332.3			SANDSTONE	6.4	99.7	WITH SHALE; GRAY
325.9			SHALE	8.7	106.1	
317.2			SHALE	5.8	114.8	
311.5			COAL	1.2	120.5	
310.3			CLAYSTONE & SILTSTONE	4.0	121.7	GRAY
306.3			SHALE	4.0	125.7	GREEN
302.3			SHALE	25.8	129.7	
276.5	TRADEWATER	MURPHYSBORO	COAL	2.8	155.5	
273.7			SHALE	18.6	158.3	
255.2	TRADEWATER	MURPHYSBORO	COAL	1.5	176.8	
253.7			SHALE	14.7	178.3	
239.0			SHALE	18.5	193.0	GRAY
220.5			SHALE	16.3	211.5	
204.2			COAL	0.9	227.8	BONEY
203.2			COAL	2.1	228.8	
201.1			SHALE	1.9	230.9	
199.2			SHALE	2.6	232.8	
196.6			SHALE	1.0	235.4	
195.6			SHALE	30.4	236.4	
165.2			SANDSTONE	0.2	266.8	GRAY
165.0			SHALE	1.7	267.0	
163.3			SANDSTONE	0.3	268.7	GRAY
163.0			SANDY SHALE	10.7	269.0	
152.3			SANDSTONE	1.3	279.7	
151.0			SANDSTONE	1.2	281.0	GRAY

149.8

SANDSTONE

0.8

282.2

MAPID: 07701074000C VERSION: 2

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 8S 2W

SECTION: 18

QUARTERS/FOOTAGES: SE SW NW NW

QUADRANGLE: ORAVILLE

LONGITUDE: -89.376417

GEOLOGIST: BARGH

CONFIDENTIAL: N

LATITUDE: 37.831086

DATE COLLECTED:

SURFACE ELEVATION (FT.): 432.0

LOGGED (FT.): 283.0

LOG TYPE: Survey Core Study

SOURCE: L.HOFFMAN

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
432.0			UNCONSOLIDATED	37.3	0.0
394.7			ROCK	0.2	37.3
394.5			COAL	0.3	37.5
394.2			ROCK	52.2	37.8
342.0			COAL	0.8	90.0
341.2			ROCK	29.7	90.8
311.5			COAL	1.2	120.5
310.3			ROCK	33.8	121.7
276.5			COAL	2.8	155.5
273.7			ROCK	18.5	158.3
255.2			COAL	1.5	176.8
253.7			ROCK	49.5	178.3
204.2			COAL	3.0	227.8
201.2			ROCK	52.2	230.8

MAPID: 07722110000C VERSION: 1

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 8S 2W

SECTION: 18

QUARTERS/FOOTAGES: SW NE SE

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.363312

GEOLOGIST: BARGH,M

CONFIDENTIAL: N

LATITUDE: 37.823999

DATE COLLECTED: 12 / 5 / 1978

SURFACE ELEVATION (FT.): 400.0

LOGGED (FT.): 287.0

LOG TYPE: Drillers Log

SOURCE: FRANK HEPP, DRILLER

WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
400.0			UNCONSOLIDATED	56.0	0.0
344.0			SHALE	23.0	56.0
321.0			COAL	5.0	79.0
316.0			UNDERCLAY	4.0	84.0
312.0			ROCK	14.0	88.0
298.0			COAL	1.0	102.0
297.0			ROCK	52.0	103.0
245.0	SPOON	MURPHYSBORO	COAL	2.0	155.0
243.0			ROCK	130.0	157.0

MAPID: 07701075000C VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 19 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.370185 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.812893 DATE COLLECTED: 0 / 0 / 1947

SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 281.0 LOG TYPE: Drillers Log

SOURCE: L. GWIN, DRILLER WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0			UNCONSOLIDATED	15.0	0.0	
430.0			SHALE	46.0	15.0	
384.0			SANDSTONE	6.0	61.0	
378.0			SHALE	31.0	67.0	
347.0			COAL	3.0	98.0	
344.0			ROCK	125.0	101.0	
219.0			COAL	2.0	226.0	
217.0			ROCK	53.0	228.0	

MAPID: 077265D0001F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 19 QUARTERS/FOOTAGES:

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.36909 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.811942 DATE COLLECTED: 0 / 0 / 1931

SURFACE ELEVATION (FT.): LOGGED (FT.): 1.5 LOG TYPE:

SOURCE: FLD NOTES-WANLESS WELL TYPE: Strip Mine

COMMENT: INFORMATION FROM FARMER.

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

MAPID: 07722008000C VERSION: 1 PROJECT: CUSMAP

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 20 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.34477 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.812612 DATE COLLECTED: 5 / 0 / 1977

SURFACE ELEVATION (FT.): 403.0 LOGGED (FT.): 650.0 LOG TYPE: Electric Log

SOURCE: EMERSON ENTERPRISES, INC WELL TYPE: Producer-Oil and Gas

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-247.0	BASE OF PENN.		UNCLASSIFIED	-	650.0	

MAPID: 07701076000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 21 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.324674 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.817315 DATE COLLECTED:

SURFACE ELEVATION (FT.): 401.0 LOGGED (FT.): 161.5 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 38 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
401.0	PLEISTOCENE		UNCONSOLIDATED	79.0	0.0	
322.0	TRADEWATER		SHALE	10.0	79.0	IRON BANDS NOTED
312.0	TRADEWATER		SHALE	2.8	89.0	BLUE
309.2	TRADEWATER		COAL	1.3	91.8	
308.0	TRADEWATER		SHALE	6.0	93.0	DARK
302.0	TRADEWATER		SHALE	7.0	99.0	
295.0	TRADEWATER		SANDY SHALE	10.0	106.0	
285.0	TRADEWATER		SHALE	13.0	116.0	IRON BANDS NOTED
272.0	TRADEWATER		SANDY SHALE	4.3	129.0	DARK
267.7	TRADEWATER	MURPHYSBORO	COAL	2.5	133.3	
265.2	TRADEWATER		SANDY SHALE	1.3	135.8	
264.0	TRADEWATER	MURPHYSBORO	COAL	2.7	137.0	
261.3	TRADEWATER		SHALE	7.3	139.7	BLUE
254.0	TRADEWATER		SHALE	10.8	147.0	BLUE
243.2	TRADEWATER		COAL	3.8	157.8	MURPHYSBORO?

MAPID: 07701076000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 21 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.324674 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.817315 DATE COLLECTED:

SURFACE ELEVATION (FT.): 401.0 LOGGED (FT.): 161.5 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
401.0			UNCONSOLIDATED	79.0	0.0	
322.0			ROCK	12.8	79.0	
309.2			COAL	1.3	91.8	
308.0			ROCK	40.3	93.0	
267.7			COAL	2.5	133.3	UPPER BENCH
265.2			BLACK SHALE	1.2	135.8	
264.0			COAL	2.7	137.0	LOWER BENCH
261.3			BLACK SHALE	7.3	139.7	
254.0			BLACK SHALE	10.8	147.0	
243.2			COAL	3.8	157.8	

MAPID: 07701078000C VERSION: 1

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 21 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.340055 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.810759 DATE COLLECTED: 3 / 0 / 1953

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 655.0 LOG TYPE: Electric Log

SOURCE: RUSSELL & FRANKLIN WELL TYPE: Producer-Oil and Gas

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-255.0	BASE OF PENN.		UNCLASSIFIED	-	655.0	

MAPID: 07701080000C VERSION: 1

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 22 QUARTERS/FOOTAGES: NW SE SE NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.305166 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.813021 DATE COLLECTED:

SURFACE ELEVATION (FT.): 380.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 82 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0	PLEISTOCENE		UNCONSOLIDATED	101.0	0.0	
279.0	TRADEWATER		SHALE	1.7	101.0	DARK
277.3	TRADEWATER		COAL	1.8	102.7	
275.5	TRADEWATER		SHALE	1.5	104.5	DARK
274.0	TRADEWATER		SHALE	22.0	106.0	BLUE
252.0	TRADEWATER		SANDY SHALE	4.0	128.0	
248.0	TRADEWATER	MURPHYSBORO	SHALY COAL	3.3	132.0	
244.7	TRADEWATER	MURPHYSBORO	COAL	0.8	135.3	
244.0	TRADEWATER		SHALE	2.0	136.0	DARK
242.0	TRADEWATER		SANDY SHALE	1.0	138.0	
241.0	TRADEWATER		CONGLOMERATE	1.0	139.0	

MAPID: 07701080000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 22 **QUARTERS/FOOTAGES:** NW SE SE NE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.305166 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.813021 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 380.0 **LOGGED (FT.):** 140.0 **LOG TYPE:** Survey Core Study
SOURCE: BIG MUDDY COAL & IRON **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0			UNCONSOLIDATED	101.0	0.0	
279.0			ROCK	1.7	101.0	
277.3			COAL	1.8	102.7	
275.5			ROCK	30.8	104.5	
244.7			COAL	0.8	135.3	
244.0			ROCK	4.0	136.0	

MAPID: 07701081000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 22 **QUARTERS/FOOTAGES:** NW NW NE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.311639 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.818211 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 402.0 **LOGGED (FT.):** 175.0 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 84 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
402.0	PLEISTOCENE		UNCONSOLIDATED	110.0	0.0	
292.0			SHALE	10.0	110.0	DARK
282.0			SHALE	5.1	120.0	BITUMINOUS
276.9			COAL	1.7	125.1	
275.2			SHALE	0.3	126.8	
275.0			UNDERCLAY	2.0	127.0	
273.0			SANDY SHALE	3.0	129.0	
270.0			CLAYSTONE	3.0	132.0	
267.0			SHALE	12.0	135.0	
255.0			SHALE	2.0	147.0	BLUE
253.0			SHALE	5.0	149.0	DARK
248.0			SHALE	2.5	154.0	BITUMINOUS
245.5			COAL	0.5	156.5	
245.0			SHALE	1.0	157.0	DARK
244.0			CLAYSTONE	5.0	158.0	
239.0			SHALE	5.0	163.0	
234.0			SANDY SHALE	7.0	168.0	

MAPID: 07701081000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 22 **QUARTERS/FOOTAGES:** NW NW NE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.311639 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.818211 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 402.0 **LOGGED (FT.):** 175.0 **LOG TYPE:** Survey Core Study
SOURCE: BIG MUDDY COAL & IRON **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
402.0			UNCONSOLIDATED	110.0	0.0	
292.0			SHALE	15.0	110.0	
277.0			COAL	1.7	125.0	
275.2			ROCK	29.7	126.8	
245.5			COAL	0.5	156.5	
245.0			ROCK	18.0	157.0	

MAPID: 07701082000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 26 **QUARTERS/FOOTAGES:** SW SW SE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.292813 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.790225 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 337.0 **LOGGED (FT.):** 168.0 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 36 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
337.0	PLEISTOCENE		UNCONSOLIDATED	50.0	0.0	
287.0			CLAYSTONE	7.8	50.0	
279.2			LIMESTONE	1.8	57.8	
277.5			SANDY SHALE	18.5	59.5	
259.0			SHALE	7.3	78.0	DARK
251.7			SANDSTONE	0.8	85.3	BROWN
251.0			SHALE	1.0	86.0	DARK
250.0			COAL	1.5	87.0	
248.5			SHALE	12.5	88.5	
236.0			SANDSTONE	13.0	101.0	LIGHT
223.0			SANDY SHALE	2.0	114.0	
221.0			SHALE	4.7	116.0	DARK
216.3			SANDSTONE	0.5	120.7	DARK
215.8			SHALE	6.5	121.2	DARK
209.3			SHALE	4.3	127.7	DARK
205.0			SANDY SHALE	8.0	132.0	
197.0			SANDSTONE	3.0	140.0	GRAY
194.0			SANDSTONE	25.0	143.0	DARK

MAPID: 07701082000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 26 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.292813 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.790225 DATE COLLECTED:

SURFACE ELEVATION (FT.): 337.0 LOGGED (FT.): 168.0 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
337.0			UNCONSOLIDATED	50.0	0.0	
287.0			ROCK	37.0	50.0	
250.0	SPOON	MURPHYSBORO	COAL	1.5	87.0	
248.5			ROCK	80.0	88.5	

MAPID: 07701083000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 27 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.321651 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.790224 DATE COLLECTED:

SURFACE ELEVATION (FT.): 380.0 LOGGED (FT.): 145.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 35 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0	PLEISTOCENE		UNCONSOLIDATED	43.0	0.0	
337.0			SHALE	9.0	43.0	ROTTEN
328.0			SHALE	13.2	52.0	LIGHT
314.8			COAL	2.1	65.2	
312.7			SHALE	1.0	67.3	WHITE
311.7			SHALE	68.0	68.3	IRON CONCRETIONS
243.7			SHALE	2.0	136.3	DARK
241.7	TRADEWATER	MURPHYSBORO	COAL	5.8	138.3	
236.0			SHALE	1.0	144.0	DARK

MAPID: 07701083000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 27 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.321651 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.790224 DATE COLLECTED:

SURFACE ELEVATION (FT.): 380.0 LOGGED (FT.): 145.0 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0			UNCONSOLIDATED	43.0	0.0	
337.0			SHALE	22.2	43.0	
314.8			COAL	2.1	65.2	
312.8			SHALE	69.1	67.2	
243.7			BLACK SHALE	2.0	136.3	
241.7	SPOON	MURPHYSBORO	COAL	5.8	138.3	
236.0	SPOON		SHALE	1.0	144.0	

MAPID: 07701084000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 27 QUARTERS/FOOTAGES: NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.317791 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.800467 DATE COLLECTED:

SURFACE ELEVATION (FT.): 379.0 LOGGED (FT.): 90.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 44 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
379.0	PLEISTOCENE		UNCONSOLIDATED	68.0	0.0	
311.0			SHALE	9.0	68.0	BLUE
302.0			SHALE	9.0	77.0	BLUE
293.0			COAL	2.5	86.0	
290.5			SHALE	1.5	88.5	DARK

MAPID: 07701084000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 27 **QUARTERS/FOOTAGES:** NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.317791 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.800467 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 379.0 **LOGGED (FT.):** 90.0 **LOG TYPE:** Survey Core Study
SOURCE: BIG MUDDY COAL & IRON **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
379.0			UNCONSOLIDATED	68.0	0.0	
311.0			ROCK	18.0	68.0	
293.0			COAL	2.5	86.0	
290.5			ROCK	1.5	88.5	

MAPID: 07701085000C **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 27 **QUARTERS/FOOTAGES:** NW SW NE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.311879 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.799505 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 402.0 **LOGGED (FT.):** 149.0 **LOG TYPE:** Survey Core Study
SOURCE: BIG MUDDY COAL & IRON **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
402.0			UNCONSOLIDATED	59.0	0.0	
343.0			ROCK	1.0	59.0	
342.0			COAL WITH SHALE	2.5	60.0	COAL AND SHALE MIXED
339.5			COAL	2.5	62.5	
337.0			ROCK	84.0	65.0	

MAPID: 07701605000C **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 27 **QUARTERS/FOOTAGES:**
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.313136 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.796722 **DATE COLLECTED:** 2 / 18 / 1954
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 353.0 **LOG TYPE:** Drillers Log
SOURCE: GWIN, DRILLER **WELL TYPE:** Water Well
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	40.0	0.0	
-			ROCK	85.0	40.0	
-			SHALE	30.0	125.0	
-			COAL	4.0	155.0	
-			ROCK	194.0	159.0	

MAPID: 07701086000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 28 QUARTERS/FOOTAGES: NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.327233 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.800496 DATE COLLECTED:

SURFACE ELEVATION (FT.): 534.1 LOGGED (FT.): 135.8 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 43 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
534.1	PLEISTOCENE		UNCONSOLIDATED	92.0	0.0	
442.1	TRADEWATER		SHALE	11.0	92.0	
431.1	TRADEWATER		SHALE	18.0	103.0	IRON CONCRETIONS NOTED; BLUE
413.1	TRADEWATER		SHALE	1.2	121.0	
411.9	TRADEWATER	MURPHYSBORO	COAL	1.3	122.2	
410.6	TRADEWATER		SHALE	0.9	123.5	BLUE
409.7	TRADEWATER	MURPHYSBORO	COAL	1.4	124.4	
408.3	TRADEWATER		SHALE	8.6	125.8	
399.7	TRADEWATER		SHALE	0.4	134.4	
399.3	TRADEWATER		SHALE	1.0	134.8	

MAPID: 07701086000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 28 QUARTERS/FOOTAGES: NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.327233 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.800496 DATE COLLECTED:

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 135.8 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0			UNCONSOLIDATED	92.0	0.0	
308.0			SHALE	30.2	92.0	
277.8			COAL	1.3	122.2	
276.5			BLACK SHALE	1.0	123.5	
275.5			COAL	1.4	124.5	LOWER BENCH
274.2			ROCK	10.0	125.8	

MAPID: 07701087000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 28 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.334399 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.7949 DATE COLLECTED:

SURFACE ELEVATION (FT.): 541.8 LOGGED (FT.): 166.4 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 47 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
541.8	PLEISTOCENE		UNCONSOLIDATED	66.0	0.0	
475.8			SHALE	6.0	66.0	BLUE
469.8			SHALE	1.0	72.0	BROWN
468.8			SHALE	9.0	73.0	BLUE
459.8			SHALE	5.8	82.0	BLUE
454.0			COAL	2.5	87.8	
451.5			SHALE	3.8	90.3	BLUE
447.8			SHALE	3.0	94.0	
444.8			SHALE	60.0	97.0	BLUE
384.8			SHALE	1.0	157.0	BLUE
383.8			SHALE	1.0	158.0	BLUE BLACK
382.8		MURPHYSBORO	COAL	2.3	159.0	
380.5			SHALE	1.3	161.3	DARK
379.4	TRADEWATER	MURPHYSBORO	COAL	3.9	162.4	

MAPID: 07701087000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 28 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.334399 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.7949 DATE COLLECTED:

SURFACE ELEVATION (FT.): 408.0 LOGGED (FT.): 166.4 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
408.0			UNCONSOLIDATED	66.0	0.0	
342.0			SHALE	21.8	66.0	
320.2			COAL	2.5	87.8	
317.7			SHALE	68.7	90.3	
249.0		MURPHYSBORO	COAL	2.3	159.0	
246.7			SHALE	1.2	161.3	
245.5	SPOON	MURPHYSBORO	COAL	3.9	162.5	LOWER BENCH

MAPID: 07701088000C

VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 8S 2W

SECTION: 28

QUARTERS/FOOTAGES: NW NE NW

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.335396

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.803304

DATE COLLECTED:

SURFACE ELEVATION (FT.): 405.0

LOGGED (FT.): 133.0

LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 73

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	71.7	0.0	
333.3	TRADEWATER		CARBONACEOUS SHALE	1.0	71.7	LOG NOTES SAND, COAL, AND SHALE MIXED
332.3	TRADEWATER		SHALE	2.0	72.7	BLUE
330.3	TRADEWATER		CLAYSTONE	4.0	74.7	
326.3	TRADEWATER		SHALE	4.0	78.7	
322.3	TRADEWATER		SHALE	2.0	82.7	
320.3	TRADEWATER		SANDSTONE	5.0	84.7	
315.3	TRADEWATER		SANDY SHALE	11.3	89.7	BLUE
304.0	TRADEWATER		COAL	2.5	101.0	
301.5	TRADEWATER		SHALE	25.0	103.5	
276.5	TRADEWATER		SHALE/COAL	0.8	128.5	LOG: COAL & SHALE MIXED
275.7	TRADEWATER		COAL	1.6	129.3	
274.1	TRADEWATER		SHALE	2.1	130.9	DARK

MAPID: 07701088000C

VERSION: 2

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 8S 2W

SECTION: 28

QUARTERS/FOOTAGES: NW NE NW

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.335396

GEOLOGIST: BARGH,M

CONFIDENTIAL: N

LATITUDE: 37.803304

DATE COLLECTED:

SURFACE ELEVATION (FT.): 400.0

LOGGED (FT.): 133.0

LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0			UNCONSOLIDATED	71.7	0.0	
328.3			COAL WITH SHALE	1.0	71.7	SANDY COAL AND SHALE MIXED
327.3			ROCK	28.3	72.7	
299.0			COAL	2.5	101.0	
296.5			SHALE	25.0	103.5	
271.5			COAL WITH SHALE	0.8	128.5	COAL AND SHALE MIXED
270.7			COAL	1.6	129.3	
269.1			SHALE	2.1	130.9	

MAPID: 07701089000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 28 QUARTERS/FOOTAGES: NE NE NE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.332444 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.803769 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 169.1 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON 74 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	35.0	0.0	
360.0			SHALE/COAL	3.0	35.0	COAL & SHALE MIXED BLUE
357.0			CLAYSTONE & SILTSTONE	36.0	38.0	
321.0			SHALE	1.7	74.0	
319.3			SHALE	24.5	75.7	IRON CONCRETIONS
294.8	TRADEWATER		COAL	3.0	100.2	
291.8			SHALE	13.8	103.2	IRON CONCRETIONS
278.1			COAL	2.0	116.9	
276.1			SHALE	18.6	118.9	IRON CONCRETIONS BLUE
257.5			SHALE	20.5	137.5	
237.0			SANDSTONE	11.0	158.0	

MAPID: 07701089000C VERSION: 2

PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 28 QUARTERS/FOOTAGES: NE NE NE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.332444 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.803769 DATE COLLECTED:

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 169.0 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			UNCONSOLIDATED	35.0	0.0	
375.0			COAL WITH SHALE	3.0	35.0	COAL AND SHALE MIXED
372.0			CLAYSTONE	36.0	38.0	
336.0			SHALE	26.2	74.0	
309.8			COAL	3.0	100.2	
306.8			SHALE	13.7	103.2	"WITH IRON BALLS"
293.1			COAL	2.0	116.9	
291.1			ROCK	50.1	118.9	

MAPID: 07701090000C

VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 8S 2W

SECTION: 28

QUARTERS/FOOTAGES: SW SW NW

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.340199

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.797705

DATE COLLECTED:

SURFACE ELEVATION (FT.): 398.0

LOGGED (FT.): 134.0

LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO.

75

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
398.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	74.0	0.0	
324.0	TRADEWATER		SHALE	50.0	74.0	BLUE
274.0	TRADEWATER		CARBONACEOUS SHALE	1.4	124.0	SHALE AND COAL MIXED
272.6	TRADEWATER		COAL	5.4	125.4	
267.2	TRADEWATER		SANDY SHALE	3.2	130.8	

MAPID: 07701090000C

VERSION: 2

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 8S 2W

SECTION: 28

QUARTERS/FOOTAGES: SW SW NW

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.340199

GEOLOGIST: BARGH,M

CONFIDENTIAL: N

LATITUDE: 37.797705

DATE COLLECTED:

SURFACE ELEVATION (FT.): 400.0

LOGGED (FT.): 134.0

LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0			UNCONSOLIDATED	74.0	0.0	
326.0			SHALE	51.4	74.0	
274.6			COAL	5.4	125.4	
269.2			ROCK	3.2	130.8	

MAPID: 07701091000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 28 QUARTERS/FOOTAGES: NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.336627 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.800504 DATE COLLECTED:

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 158.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 76 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE		UNCONSOLIDATED	62.0	0.0	
343.0	PLEISTOCENE		SAND	5.0	62.0	GRAVELLY
338.0			SHALE	1.0	67.0	YELLOW
337.0			COAL	3.0	68.0	
334.0			SHALE	1.0	71.0	RED
333.0			SHALE	1.0	72.0	YELLOW
332.0			SHALE	1.0	73.0	DARK
331.0			SHALE	2.0	74.0	
329.0			SHALE	1.0	76.0	BLUE
328.0			CLAYSTONE	3.0	77.0	
325.0			SANDY SHALE	3.0	80.0	
322.0			SANDY SHALE	5.0	83.0	
317.0			SANDSTONE	5.0	88.0	GRAY
312.0			SHALE	35.0	93.0	DARK
277.0			SHALE	20.0	128.0	BLUE
257.0	TRADEWATER	MURPHYSBORO	COAL	2.5	148.0	
254.5			SHALE	2.9	150.5	
251.6	TRADEWATER	MURPHYSBORO	COAL	3.9	153.4	
247.7			SHALE	0.7	157.3	DARK

MAPID: 07701091000C VERSION: 2

PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 28 QUARTERS/FOOTAGES: NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.336627 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.800504 DATE COLLECTED:

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 158.0 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0			UNCONSOLIDATED	67.0	0.0	
338.0			SHALE	1.0	67.0	
337.0			COAL/SANDSTONE	3.0	68.0	COAL, SS AND CLAY MIXED
334.0			SHALE	3.0	71.0	
331.0			COAL WITH SHALE	2.0	74.0	COAL AND SHALE MIXED
329.0			ROCK	44.0	76.0	
285.0			SHALE	8.0	120.0	"SANDY PLIES"
277.0			BLACK SHALE	20.0	128.0	
257.0	SPOON	MURPHYSBORO	COAL	2.5	148.0	
254.5	SPOON		ROCK	2.9	150.5	"PARTING"
251.6	SPOON	MURPHYSBORO	COAL	3.9	153.4	LOWER BENCH
247.7	SPOON		ROCK	0.7	157.3	

MAPID: 07701092000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 28 QUARTERS/FOOTAGES:

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.332016 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.796765 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 157.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 77 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	83.0	0.0	
312.0			SHALE	2.0	83.0	YELLOW
310.0			SHALE	30.0	85.0	BLUE
280.0			SHALE	34.0	115.0	DARK
246.0			CARBONACEOUS SHALE	0.3	149.0	SHALE & COAL MIXED
245.7	TRADEWATER	MURPHYSBORO	COAL	6.8	149.3	THICKNESS OF PTG. = 2INCHES
239.0			SHALE	1.0	156.0	

MAPID: 07701092000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 28 **QUARTERS/FOOTAGES:**
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.332016 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.796765 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 410.0 **LOGGED (FT.):** 157.0 **LOG TYPE:** Survey Core Study
SOURCE: BIG MUDDY COAL & IRON **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			UNCONSOLIDATED	83.0	0.0	
327.0			ROCK	37.0	83.0	
290.0			BLACK SHALE	25.0	120.0	
265.0			COAL WITH SHALE	4.3	145.0	COAL AND SHALE MIXED
260.7	SPOON	MURPHYSBORO	COAL	6.6	149.3	PTG. 16'
254.0	SPOON		SHALE	1.0	156.0	

MAPID: 07701093000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 28 **QUARTERS/FOOTAGES:** NE NE SE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.323849 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.795825 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 403.0 **LOGGED (FT.):** 130.0 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 81 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
403.0	PLEISTOCENE		UNCONSOLIDATED	95.0	0.0	
308.0	TRADEWATER		SHALE	24.3	95.0	BLUE
283.7	TRADEWATER	MURPHYSBORO	SHALE/COAL	1.3	119.3	SHALE & COAL MIXED
282.5	TRADEWATER	MURPHYSBORO	COAL	2.3	120.5	
280.2	TRADEWATER		CARBONACEOUS SHALE	1.2	122.8	SHALE & COAL MIXED
279.0	TRADEWATER		SANDY SHALE	5.0	124.0	BLACK
274.0	TRADEWATER		CONGLOMERATE	1.0	129.0	

MAPID: 07701093000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 28 **QUARTERS/FOOTAGES:** NE NE SE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.323849 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.795825 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 403.0 **LOGGED (FT.):** 130.0 **LOG TYPE:** Survey Core Study
SOURCE: BIG MUDDY COAL & IRON **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
403.0			UNCONSOLIDATED	95.0	0.0	
308.0			BLACK SHALE	24.3	95.0	
283.7			COAL WITH SHALE	1.2	119.3	COAL AND SHALE MIXED
282.5			COAL	2.3	120.5	
280.2			COAL WITH SHALE	1.2	122.8	COAL AND SHALE MIXED
279.0			ROCK	6.0	124.0	

MAPID: 07700001600M **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 29 **QUARTERS/FOOTAGES:** 1720' N line, 2580' E line
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.350316 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.799573 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 380.0 **LOGGED (FT.):** 135.5 **LOG TYPE:** Measured section
SOURCE: MINE NOTES-CONSOL C C #10 **WELL TYPE:** Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0			UNKNOWN	49.0	0.0	
-			COAL	2.0		
-			UNKNOWN	80.0		
-			COAL	4.5		AVERAGE THICKNESS

MAPID: 07700001601M **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 29 **QUARTERS/FOOTAGES:**
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.350889 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.796813 **DATE COLLECTED:** 11 / 10 / 1909
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 144.8 **LOG TYPE:** Measured section
SOURCE: MINE NOTES-BLAIR C C **WELL TYPE:** Underground mine
COMMENT: ADDITIONAL SAMPLED SECTIONS AVAILABLE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNKNOWN	138.0	0.0	
-	SPOON	MURPHYSBORO	COAL	1.5	138.0	UPPER BENCH. LIGHT
-	SPOON		SHALE	1.4		WITH SULPHUR BALLS
-	SPOON	MURPHYSBORO	COAL	3.8		
-	SPOON		SANDSTONE	-		

MAPID: 07700001401M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES:

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.350889 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.796813 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 9.6 LOG TYPE: Measured section

SOURCE: MINE NOTES-GARTSIDE C C WELL TYPE: Underground mine

COMMENT: SECTION ON MAIN NORTH, WEST SIDE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	-		
-			COAL	0.5		UPPER BENCH
-			SHALE	0.7		WITH COAL STRINGERS
-			COAL	3.4		CLAY PTGS .01', .01'
-			UNDERCLAY	0.5		
-			SHALE	4.3		

MAPID: 07700001400M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: 660' S line, 900' W line of SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.34785 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.791123 DATE COLLECTED:

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 141.0 LOG TYPE: Measured section

SOURCE: MINE NOTES-GARTSIDE C C WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			UNKNOWN	135.0	0.0	
275.0	SPOON	MURPHYSBORO	COAL	6.0	135.0	

MAPID: 07701094000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.343672 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.802394 DATE COLLECTED:

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 109.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 40 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0	PLEISTOCENE		UNCONSOLIDATED	43.8	0.0	
356.2			SHALY SANDSTONE	11.3	43.8	
345.0			SANDY SHALE	2.0	55.0	BLUE
343.0			SHALE	3.8	57.0	
339.2			COAL	0.4	60.8	
338.7			SHALE	5.8	61.3	IRON CONCRETIONS NOTED; BLUE
333.0			SHALE	6.0	67.0	
327.0			SANDY SHALE	5.0	73.0	
322.0			SHALE	19.0	78.0	IRON CONCRETIONS
303.0			SHALE	0.8	97.0	BLUE
302.2			COAL	2.0	97.8	
300.2			SHALE	4.2	99.8	
296.0			SANDY SHALE	5.0	104.0	

MAPID: 07701094000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.343672 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.802394 DATE COLLECTED:

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 109.0 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0			UNCONSOLIDATED	43.7	0.0	
356.3			ROCK	17.1	43.7	
339.2			COAL	0.4	60.8	
338.7			ROCK	36.5	61.3	
302.2			COAL	2.0	97.8	
300.2			ROCK	9.2	99.8	

MAPID: 07701095000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.355577 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.800599 DATE COLLECTED:

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 136.7 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 66 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
396.0			SHALE	6.0	14.0	BLUE
390.0			SANDSTONE	13.0	20.0	GRAY
377.0			SHALE	32.0	33.0	BLUE
345.0			SHALE	1.0	65.0	
344.0			COAL	2.5	66.0	
341.5			SHALE	5.5	68.5	BLUE
336.0			SHALE	3.0	74.0	BLUE
333.0			SHALE	49.0	77.0	CONCRETIONS NOTED
284.0			SHALE	1.0	126.0	
283.0	TRADEWATER	MURPHYSBORO	COAL	9.7	127.0	THICKNESS OF PTG. = 2INCHES

MAPID: 07701095000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.355577 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.800599 DATE COLLECTED:

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 136.7 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT: OTHER LOGS IN THIS AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0			UNCONSOLIDATED	14.0	0.0	
386.0			ROCK	52.0	14.0	
334.0			COAL	2.5	66.0	
331.5			ROCK	31.5	68.5	
300.0			BLACK SHALE	26.0	100.0	
274.0			BLACK SHALE	1.0	126.0	
273.0	SPOON	MURPHYSBORO	COAL	2.4	127.0	
270.6	SPOON		UNKNOWN	2.0	129.4	"PARTING"
268.6	SPOON	MURPHYSBORO	COAL	5.3	131.4	LOWER BENCH

MAPID: 07701096000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: NW NE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.354344 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.803416 DATE COLLECTED: 9 / 30 / 1892

SURFACE ELEVATION (FT.): 402.0 LOGGED (FT.): 139.6 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 101 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
402.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
387.0			SHALE	1.0	15.0	
386.0			SHALE	4.5	16.0	BLUE
381.5			SHALE	2.7	20.5	BITUMINOUS
378.8			COAL	1.0	23.2	NOT GOOD
377.8			UNDERCLAY	2.7	24.2	
375.2			SHALE	2.0	26.8	BLUE
373.2			CONGLOMERATE	0.5	28.8	HARD
372.7			SANDY SHALE	3.5	29.3	
369.2			SANDSTONE	9.4	32.8	GRAY
359.7			SHALE	9.2	42.3	
350.6			SHALE	23.7	51.4	IRON CONCRETIONS
326.9			COAL	2.8	75.1	
324.1			SHALE	0.8	77.9	
323.2			SHALE	8.3	78.8	IRON CONCRETIONS
315.0			SHALE	1.0	87.0	
314.0			SHALE	43.8	88.0	IRON CONCRETIONS
270.2	TRADEWATER	MURPHYSBORO	COAL	3.9	131.8	
266.2			SHALE	2.0	135.8	CONCRETIONS NOTED
264.2			SANDSTONE	1.8	137.8	

MAPID: 07701096000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: NW NE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.354344 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.803416 DATE COLLECTED: 9 / 30 / 1893

SURFACE ELEVATION (FT.): 402.0 LOGGED (FT.): 139.6 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
402.0			UNCONSOLIDATED	15.0	0.0	
387.0			ROCK	8.2	15.0	
378.8			COAL	1.0	23.2	"NOT GOOD"
377.8			ROCK	50.9	24.2	
326.9			COAL	2.8	75.1	
324.1			ROCK	22.1	77.9	
302.0			SHALE	31.8	100.0	WITH IRONSTONE BALLS
270.2	SPOON	MURPHYSBORO	COAL	3.9	131.8	
266.2	SPOON		ROCK	3.8	135.8	

MAPID: 07701097000C

VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 8S 2W

SECTION: 29

QUARTERS/FOOTAGES: 800' N line, 1320' W line

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.35571

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.802159

DATE COLLECTED: 10 / 15 / 1892

SURFACE ELEVATION (FT.): 401.0

LOGGED (FT.): 147.0

LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 102

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
401.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
394.0	PLEISTOCENE		SAND	3.0	7.0	GRAVELLY
391.0			SHALE	4.0	10.0	WITH CLAY
387.0			SHALE	3.3	14.0	BLUE
383.7			COAL	0.9	17.3	NOT GOOD
382.7			UNDERCLAY	3.8	18.3	
379.0			SHALE	5.0	22.0	BLUE
374.0			SANDSTONE	8.3	27.0	GRAY
365.7			SHALE	15.9	35.3	BLUE
349.7			LIMESTONE	0.4	51.3	BLUE
349.3			SHALE	5.3	51.7	BLUE
344.0			SANDY SHALE	10.3	57.0	BLUE
333.7			SHALE	0.4	67.3	
333.3			COAL	2.7	67.7	
330.7			SANDY SHALE	4.3	70.3	
326.3			SHALE	1.8	74.7	
324.5			SHALE	16.5	76.5	IRON CONCRETIONS NOTED; BLUE
308.0			SHALE	25.0	93.0	BLUE
283.0			SHALE	1.5	118.0	
281.5	TRADEWATER	MURPHYSBORO	COAL	3.0	119.5	
278.5			SHALE	15.4	122.5	IRON CONCRETIONS NOTED; BLUE
263.1	TRADEWATER	MURPHYSBORO	COAL	4.8	137.9	
258.3			SANDY SHALE	2.3	142.7	
256.0			SANDSTONE	2.0	145.0	

MAPID: 07701097000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: 800' N line, 1320' W line

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.35571 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.802159 DATE COLLECTED: 10 / 15 / 1892

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 147.0 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0			UNCONSOLIDATED	14.0	0.0	
386.0			ROCK	3.3	14.0	
382.7			COAL	0.9	17.3	
381.7			ROCK	49.4	18.3	
332.3			COAL	2.7	67.7	
329.7			ROCK	22.7	70.3	
307.0			BLACK SHALE	25.0	93.0	
282.0			BLACK SHALE	1.5	118.0	
280.5	SPOON	MURPHYSBORO	COAL	3.0	119.5	UPPER BENCH
277.5	SPOON		BLACK SHALE	15.4	122.5	
262.1	SPOON	MURPHYSBORO	COAL	4.8	137.9	LOWER BENCH
257.3			SHALE	2.3	142.7	
255.0			SANDSTONE	2.0	145.0	

MAPID: 07701098000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.357982 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.79873 DATE COLLECTED: 10 / 31 / 1892

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 167.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 104 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
373.0			SHALE	11.0	22.0	WITH CLAY
362.0			SHALE	2.4	33.0	BLUE
359.6			SHALY COAL	4.4	35.4	
355.2			CLAYSTONE	4.0	39.8	GREEN
351.2			SHALE	2.2	43.8	GREEN
349.0			LIMESTONE	0.8	46.0	DARK
348.2			SANDSTONE	17.5	46.8	
330.7			SANDY SHALE	12.8	64.3	
318.0			SANDY SHALE	23.2	77.0	BLUE
294.8			COAL	3.2	100.2	
291.7			SHALE	11.0	103.3	IRON CONCRETIONS
280.7			SHALE	4.0	114.3	IRON CONCRETIONS
276.7			SHALE	23.8	118.3	BLUE
252.8			CARBONACEOUS SHALE	9.8	142.2	SOFT BLACK SLATE & MOTHER COAL
243.0			SHALE	5.0	152.0	BLUE
238.0			SHALE	3.4	157.0	
234.6			COAL	3.0	160.4	MURPHYSBORO - CADY
231.6			SANDY SHALE	3.6	163.4	

MAPID: 07701099000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: 1320' N line, 620' W line

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.358169 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.800746 DATE COLLECTED: 11 / 12 / 1892

SURFACE ELEVATION (FT.): 399.0 LOGGED (FT.): 136.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 105 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
399.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
391.0	PLEISTOCENE		SAND	4.0	8.0	YELLOW SAND, GRAVEL, COAL MIXED
387.0			SHALE	3.5	12.0	CLAY; YELLOW
383.5			SHALE	1.5	15.5	GREEN GRAY
382.0			SHALE	3.0	17.0	CLAY; GREEN
379.0			SANDSTONE	12.3	20.0	
366.7			SHALE	6.8	32.3	BLUE
360.0			SHALE	25.1	39.0	BLUE
334.9			COAL	2.8	64.1	
332.1			SANDY SHALE	6.1	66.9	
326.0			SHALE	5.4	73.0	
320.6			SHALE	42.6	78.4	IRON CONCRETIONS NOTED; BLUE
278.0			SHALE	6.3	121.0	
271.7			CARBONACEOUS SHALE	1.0	127.3	MIXED
270.7			SHALE	2.0	128.3	
268.7	TRADEWATER	MURPHYSBORO	COAL	4.4	130.3	
264.3			SANDY SHALE	1.3	134.7	

MAPID: 07701099000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: 1320' N line, 620' W line

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.358169 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.800746 DATE COLLECTED: 11 / 12 / 1892

SURFACE ELEVATION (FT.): 399.0 LOGGED (FT.): 136.0 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
399.0			UNCONSOLIDATED	8.0	0.0	
391.0			ROCK	56.1	8.0	"SAND, GRAVEL AND COAL"
334.9			COAL	2.8	64.1	
332.2			SHALE	60.5	66.8	
271.7			COAL WITH SHALE	1.0	127.3	COAL AND SHALE MIXED
270.7			BLACK SHALE	2.0	128.3	
268.7	SPOON	MURPHYSBORO	COAL	4.4	130.3	
264.3	SPOON		SHALE	1.3	134.7	

MAPID: 07701100000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: SE SE SW NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.356224 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.797309 DATE COLLECTED: 11 / 24 / 1892
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 132.0 LOG TYPE: Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 106 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
404.0			ARGILACEOUS SHALE	11.0	16.0	BROWN
393.0			SHALE	13.8	27.0	BLUE
379.2			SHALE/COAL	3.6	40.8	COAL & SLATE MIXED
375.7			SHALE	66.4	44.3	IRON CONCRETIONS NOTED; BLUE
309.2			SHALE	1.4	110.8	
307.8	TRADEWATER	MURPHYSBORO	COAL	8.9	112.2	THICKNESS OF PTG. = 2' 7"
298.9			SANDY SHALE	10.9	121.1	

MAPID: 07701100000C VERSION: 2 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: SE SE SW NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.356224 GEOLOGIST: BARGH,M
CONFIDENTIAL: N LATITUDE: 37.797309 DATE COLLECTED: 11 / 24 / 1892
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 132.0 LOG TYPE: Survey Core Study
SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0			UNCONSOLIDATED	16.0	0.0	
404.0			ROCK	24.8	16.0	
379.2			COAL WITH SHALE	3.5	40.8	COAL AND SHALE MIXED
375.7			SHALE	66.5	44.3	
309.2			BLACK SHALE	1.4	110.8	
307.8			COAL	2.3	112.2	
305.5			SHALE	2.6	114.5	SHALE PARTING
302.9			COAL	4.0	117.1	LOWER BENCH
298.9			SHALE	10.9	121.1	

MAPID: 07701101000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 29 **QUARTERS/FOOTAGES:** 400' S line, 1' W line of SW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.360492 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.790407 **DATE COLLECTED:** 3 / 11 / 1893
SURFACE ELEVATION (FT.): 425.0 **LOGGED (FT.):** 147.1 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 109 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
416.0			SHALE	4.0	9.0	WITH CLAY
412.0			CLAYSTONE & SILTSTONE	3.0	13.0	
409.0			SHALE	6.5	16.0	WITH CLAY
402.5			SHALE	21.5	22.5	BLUE
381.0			COAL	3.0	44.0	
378.0			SHALY COAL	1.2	47.0	
376.8			SHALE	29.8	48.2	IRON CONCRETIONS
347.0			SHALE	6.0	78.0	BLUE
341.0			CARBONACEOUS SHALE	4.2	84.0	SOFT BLACK SHALE WITH MOTHER COAL
336.8			SHALE	18.8	88.2	IRON CONCRETIONS
318.0			SHALE	4.3	107.0	
313.7			SHALE	7.3	111.3	IRON CONCRETIONS
306.4			SHALE	13.4	118.6	
293.0			SANDSTONE	15.0	132.0	GRAY

MAPID: 07701101000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 29 **QUARTERS/FOOTAGES:** 400' S line, 1' W line of SW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.360492 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.790407 **DATE COLLECTED:** 3 / 11 / 1893
SURFACE ELEVATION (FT.): 425.0 **LOGGED (FT.):** 147.0 **LOG TYPE:** Survey Core Study
SOURCE: BIG MUDDY COAL & IRON **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0			UNCONSOLIDATED	22.5	0.0	
402.5			SHALE	21.5	22.5	
381.0			COAL	3.0	44.0	
378.0			COAL WITH SHALE	1.2	47.0	COAL AND SHALE MIXED
376.8			ROCK	35.8	48.2	
341.0			COAL WITH SHALE	4.2	84.0	COAL AND SHALE MIXED. "MOTHER COAL"
336.8			ROCK	59.0	88.2	

MAPID: 07701102000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: 1320' S line, 720' W line of SW
 QUADRANGLE: MURPHYSBORO LONGITUDE: -89.357948 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.792947 DATE COLLECTED: 4 / 13 / 1893
 SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 172.1 LOG TYPE: Drillers Log
 SOURCE: BIG MUDDY COAL & IRON CO. 112 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
422.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	YELLOW
416.0			SHALE	5.5	6.0	WITH CLAY
410.5			SANDY CLAYSTONE	5.5	11.5	YELLOW
405.0			SHALE	6.0	17.0	WITH CLAY
399.0			SANDSTONE	1.0	23.0	YELLOW
398.0			SANDY SHALE	20.0	24.0	BLUE
378.0			SHALE	17.3	44.0	BLUE
360.7			SHALE	0.8	61.3	
359.9			COAL	2.6	62.1	
357.3			SHALE	7.3	64.7	
350.0			SHALE	55.0	72.0	IRON CONCRETIONS NOTED; BLUE
295.0			CARBONACEOUS SHALE	6.5	127.0	BLACK SLATE WITH MOTHER COAL
288.5			SHALE	3.3	133.5	
285.2			SHALE	4.9	136.8	WITH COAL; DARK
280.2			SHALE	11.3	141.8	
269.0			SANDY SHALE	4.0	153.0	BLUE
265.0			SHALE	14.5	157.0	BLUE
250.5			CONGLOMERATE	0.5	171.5	

MAPID: 07701102000C VERSION: 2

PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: 1320' S line, 720' W line of SW
 QUADRANGLE: MURPHYSBORO LONGITUDE: -89.357948 GEOLOGIST: BARGH,M
 CONFIDENTIAL: N LATITUDE: 37.792947 DATE COLLECTED: 4 / 13 / 1893
 SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 172.0 LOG TYPE: Survey Core Study
 SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
422.0			UNCONSOLIDATED	17.0	0.0	
405.0			ROCK	45.1	17.0	
359.9			COAL	2.6	62.1	
357.3			ROCK	62.3	64.7	
295.0			COAL WITH SHALE	6.5	127.0	"MOTHER COAL' COAL AND SHALE MIXED"
288.5			ROCK	0.0	133.5	

MAPID: 07701103000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.3557 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.793068 DATE COLLECTED: 4 / 27 / 1893

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 136.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 113 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	YELLOW
390.0	PLEISTOCENE		CLAY	8.0	5.0	BROWN
382.0	PLEISTOCENE		SANDY CLAY	6.0	13.0	YELLOW
376.0			SANDY SHALE	3.0	19.0	BLUE
373.0			SANDSTONE	1.5	22.0	BROWN
371.5			SANDY SHALE	8.5	23.5	BLUE
363.0			SANDY SHALE	16.8	32.0	
346.2			COAL	2.8	48.8	
343.4			SHALE	7.4	51.6	
336.0			SANDY SHALE	1.6	59.0	
334.4			SANDSTONE	3.4	60.6	GRAY
331.0			SHALE	60.1	64.0	IRON CONCRETIONS NOTED; BLUE
270.9			SHALE	4.6	124.1	
266.2			SHALE	1.4	128.8	
264.8			SHALE	2.7	130.2	
262.2			SHALE	3.2	132.8	BLUE

MAPID: 07701103000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.3557 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.793068 DATE COLLECTED: 4 / 27 / 1893

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 136.0 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0			UNCONSOLIDATED	19.0	0.0	
411.0			SHALE	29.8	19.0	
381.2			COAL	2.8	48.8	
378.4			ROCK	84.4	51.6	

MAPID: 07701650000C VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: 150' S line, 75' E line of NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.341641 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.797188 DATE COLLECTED: 10 / 18 / 1968

SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 36.0 LOG TYPE: Drillers Log

SOURCE: KOHNEN, DRILLER WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0			UNCONSOLIDATED	26.0	0.0	
364.0			LIMESTONE	4.0	26.0	
360.0			COAL	2.0	30.0	
358.0			SHALE	4.0	32.0	

MAPID: 077265D0003F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.347431 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.790239 DATE COLLECTED: 0 / 0 / 1961

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 28.0 LOG TYPE:

SOURCE: FLD NOTES-PARHAM WELL TYPE: Strip Mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			UNCONSOLIDATED	0.0	0.0	
-			ROCK	10.0		
-			COAL	2.0		
-			ROCK	6.0		

MAPID: 077265D0002F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 29 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.347431 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.790239 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 47.0 LOG TYPE:

SOURCE: FLD NOTES-CULVER,BRICK CO. WELL TYPE: Strip Mine

COMMENT: MURPHYSBORO PAVING BRICK CO. PIT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			UNCONSOLIDATED	45.0	0.0	
-			COAL	2.0		
-			ROCK	-		

MAPID: 07701104000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 30 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.367072 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.802529 DATE COLLECTED:

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 85.8 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 46 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
415.0	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0	IRON CONCRETIONS
387.0			BLACK SHALE	7.0	28.0	
380.0			BLACK SHALE	4.0	35.0	
376.0			BLACK SHALE	1.0	39.0	
375.0			BLACK SHALE	5.8	40.0	
369.2			COAL	0.7	45.8	
368.5			BLACK SHALE	1.5	46.5	
367.0			SANDSTONE	0.8	48.0	
366.2			BLACK SHALE	1.0	48.8	
365.2			BLACK SHALE	12.0	49.8	
353.2			BLACK SHALE	19.0	61.8	
334.2			BLACK SHALE	1.0	80.8	
333.2			COAL	2.5	81.8	
330.7			BLACK SHALE	1.5	84.3	

MAPID: 07701104000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 30 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.367072 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.802529 DATE COLLECTED:

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 85.8 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0	SPOON	MURPHYSBORO	UNCONSOLIDATED	28.0	0.0	
402.0			ROCK	17.8	28.0	
384.2			COAL	0.7	45.8	
383.5			ROCK	35.3	46.5	
348.2			COAL	2.5	81.8	
345.7			ROCK	1.5	84.3	

MAPID: 07701105000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 30 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.368424 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.792067 DATE COLLECTED:

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 156.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 110 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0	
382.0			SHALE	2.5	23.0	
379.5			CLAYSTONE & SILTSTONE	1.5	25.5	DARK RED
378.0			CLAYSTONE & SILTSTONE	2.0	27.0	YELLOW
376.0			CLAYSTONE & SILTSTONE	3.0	29.0	RED
373.0			CLAYSTONE & SILTSTONE	4.6	32.0	WITH SHALE MIXED
368.4			CLAYSTONE & SILTSTONE	2.4	36.6	YELLOW
366.0			SANDSTONE	3.0	39.0	YELLOW
363.0			SHALE	9.0	42.0	WITH SANDY LAYERS; YELLOW
354.0			SHALE	2.5	51.0	
351.5			SANDSTONE	5.5	53.5	
346.0			SHALE	4.8	59.0	
341.2			SANDSTONE	5.8	63.8	
335.3			SHALE	3.6	69.7	DARK BLUE
331.7			SANDSTONE	14.6	73.3	
317.2			SHALE	5.0	87.8	DARK BLUE
312.2			SANDSTONE	6.0	92.8	
306.2			SHALE	4.2	98.8	DARK BLUE
302.0			SANDSTONE	2.8	103.0	
299.2			BLACK SHALE	15.0	105.8	
284.2			BLACK SHALE	7.0	120.8	
277.2			SANDSTONE	1.4	127.8	
275.7			BLACK SHALE	10.6	129.3	
265.2			BLACK SHALE	8.2	139.8	
257.0			SHALE	7.0	148.0	DARK BLUE
250.0			LIMESTONE	1.0	155.0	

MAPID: 07701106000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 30 QUARTERS/FOOTAGES: SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.364996 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.793043 DATE COLLECTED: 3 / 31 / 1893

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 136.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL CO. 111 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
387.0	PLEISTOCENE		CLAY	3.0	13.0	
384.0	PLEISTOCENE		CLAY	2.5	16.0	RED
381.5	PLEISTOCENE		SAND	2.0	18.5	WITH LITTLE CLAY
379.5	PLEISTOCENE		CLAY	9.5	20.5	WITH STRAKS OF MOTHER COAL; YELLOW"
370.0			SANDSTONE	4.4	30.0	WITH CLAY MIXED; RED
365.6			SANDSTONE	32.8	34.4	YELLOW
332.8			BLACK SHALE	2.1	67.2	
330.7			SANDSTONE	8.2	69.3	
322.6			BLACK SHALE	1.6	77.4	
321.0			SANDSTONE	4.5	79.0	
316.5			BLACK SHALE	8.5	83.5	WITH SANDY LAYERS
308.0			SANDSTONE	5.0	92.0	
303.0			BLACK SHALE	4.8	97.0	
298.2	TRADEWATER	MURPHYSBORO	COAL	2.5	101.8	
295.7			BLACK SHALE	4.7	104.3	
291.0			BLACK SHALE	15.0	109.0	
276.0			BLACK SHALE	11.2	124.0	
264.8			LIMESTONE	0.8	135.2	

MAPID: 07701106000C VERSION: 2

PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 30 QUARTERS/FOOTAGES: SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.364996 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.793043 DATE COLLECTED:

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 136.0 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0			UNCONSOLIDATED	30.0	0.0	
400.0			ROCK	71.8	30.0	
328.2	SPOON	MURPHYSBORO	COAL	2.5	101.8	
325.7	SPOON		ROCK	31.7	104.3	

MAPID: 07700000101M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 31 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.362812 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.776185 DATE COLLECTED: 0 / 0 / 1930

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 5.2 LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY, BLAIR MINE WELL TYPE: Underground mine

COMMENT: SECTION 500' E, 1000' S. OF SLOPE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0			UNKNOWN	-	0.0	
-			SHALE	-		
-			BLACK SHALE	0.8		CONTAINS SOME STONY PYRITE
-	SPOON	MURPHYSBORO	COAL	4.3		
-	SPOON		SHALE	0.1		
-	SPOON		UNDERCLAY	-		

MAPID: 07700000100M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 31 QUARTERS/FOOTAGES: SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.365118 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.778073 DATE COLLECTED: 0 / 0 / 1931

SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 13.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-WANLESS,BLAIR MINE SLOPE WELL TYPE: Underground mine

COMMENT: COAL REPORTED 55'-65' ABOVE MURPHYSBORO

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	30.1		
-			COAL	4.2		PYRITE PTG .01; .01, CLAY, BONE PTG. .0

MAPID: 07701107000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 31 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.362801 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.783666 DATE COLLECTED:

SURFACE ELEVATION (FT.): 444.0 LOGGED (FT.): 125.0 LOG TYPE: Drillers Log

SOURCE: JNO. WIGLE 3 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
444.0	PLEISTOCENE		UNCONSOLIDATED	50.0	0.0	
394.0			SHALE	2.0	50.0	
392.0			SHALE	3.6	52.0	
388.4			SHALE	4.5	55.6	
383.9			SHALE	2.6	60.1	
381.3			SANDSTONE	0.5	62.7	
380.8			SHALE	2.5	63.2	
378.3			SANDSTONE	10.8	65.7	SOME SHALE LAYERS
367.5			SANDSTONE	0.3	76.5	
367.2			SANDSTONE	0.3	76.8	WITH DARK SHALE PARTINGS
366.9			SANDSTONE	6.0	77.1	
360.9			SANDSTONE	2.3	83.1	LIGHT GRAY
358.6			SANDSTONE	7.0	85.4	
351.6			SANDSTONE	0.6	92.4	WITH SANDY SHALE PEBBLES
351.0			SANDSTONE	5.6	93.0	WITH SHALE AND PEBBLES AT BASE
345.4			SANDSTONE	12.8	98.6	LIGHT GRAY
332.6			SANDSTONE	0.1	111.4	DARK GRAY
332.5			SANDSTONE	2.3	111.5	LIGHT GRAY
330.2			SANDSTONE	1.0	113.8	WITH SCATTERED PEBBLES
329.2			SANDSTONE	3.2	114.8	
326.0	TRADEWATER	MURPHYSBORO	COAL	3.3	118.0	
322.7	TRADEWATER	MURPHYSBORO	BONE COAL	2.0	121.3	
320.7			SHALE	1.3	123.3	
319.5			SHALE	0.5	124.5	

MAPID: 07701107000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 31 **QUARTERS/FOOTAGES:** SE NE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.362801 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.783666 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 430.0 **LOGGED (FT.):** 125.0 **LOG TYPE:** Drillers Log
SOURCE: J. WIGLE, DRILLER **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0			UNCONSOLIDATED	50.0	0.0	
380.0			ROCK	43.0	50.0	
337.0			SANDSTONE	25.0	93.0	
312.0	SPOON	MURPHYSBORO	COAL	5.3	118.0	LOWER 2' BONEY
306.7			BLACK SHALE	75.0	123.3	

MAPID: 07721949000C **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 31 **QUARTERS/FOOTAGES:** SE SE NE SE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.361079 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.77851 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 455.0 **LOGGED (FT.):** 153.0 **LOG TYPE:** Survey Core Study
SOURCE: CULVER **WELL TYPE:** Coal Test
COMMENT: "COPY OF SULLIVAN LOG"

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0			UNCONSOLIDATED	31.0	0.0	
424.0			ROCK	32.6	31.0	
391.4			COAL	0.4	63.6	SOFT, SOME PYRITE
391.0			ROCK	36.0	64.0	
355.0			SHALE	19.0	100.0	
336.0			SANDSTONE	4.0	119.0	
332.0			SHALE	3.2	123.0	
328.8	SPOON	MURPHYSBORO	COAL	5.5	126.2	UPPER .5' AND LOWER 2' BONEY
323.3	SPOON		SHALE	13.3	131.7	
310.0			ROCK	8.0	145.0	

MAPID: 07700001200M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 32 QUARTERS/FOOTAGES: 1020' N line, 100' W line of SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.350794 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.778925 DATE COLLECTED: 0 / 0 / 1919

SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 123.7 LOG TYPE: Measured section

SOURCE: MINE NOTES-W. UNITED GAS & COAL C WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0			UNCONSOLIDATED	30.0	0.0	
-			SHALE	20.0		
-			COAL	1.5		
-			SHALE	61.0		
-			COAL	3.5		
-			SHALE	4.0		
-			COAL	3.7		LOWER BENCH
-			UNDERCLAY	-		

MAPID: 07700001201M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 32 QUARTERS/FOOTAGES:

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.351108 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.781744 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 7.0 LOG TYPE: Measured section

SOURCE: MINE NOTES-WESTERN UNITED GAS & COAL C WELL TYPE: Underground mine

COMMENT: 32RD N E ENTRY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			COAL	2.0		
-			SHALE	1.0		
-			COAL WITH SHALE	0.5		COAL AND SHALE MIXED
-			COAL	3.5		
-			LIMESTONE	-		

MAPID: 07700001202M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 32 QUARTERS/FOOTAGES:

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.351108 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.781744 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 53.1 LOG TYPE: Measured section

SOURCE: MINE NOTES-WESTERN UNITED GAS & COAL WELL TYPE: Underground mine

COMMENT: OTHER MEASURED SECTIONS AVAILABLE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	-		
-			COAL	4.5		SH PTG .05', COAL GONE .16'
-			UNDERCLAY	-		

MAPID: 07700249400M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 32 QUARTERS/FOOTAGES: SE SE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.352373 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.775148 DATE COLLECTED:

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 98.0 LOG TYPE: Measured section

SOURCE: MINE NOTES-SCHMIDGALL C C #1 WELL TYPE: Underground mine

COMMENT: "98' TO BOTTOM OF COAL "

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

MAPID: 07701109000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 32 **QUARTERS/FOOTAGES:** NW NW NE NE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.34567 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.788826 **DATE COLLECTED:** 0 / 0 / 1920
SURFACE ELEVATION (FT.): 410.0 **LOGGED (FT.):** 365.0 **LOG TYPE:** Drillers Log
SOURCE: MURPHYSBORO PAVING BRICK CO. **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0	TRADEWATER	MURPHYSBORO	UNCONSOLIDATED	23.0	0.0	
387.0			SHALE	10.0	23.0	
377.0			COAL	2.0	33.0	
375.0			SHALE	78.0	35.0	
297.0			COAL	7.0	113.0	
290.0			SHALE	6.0	120.0	
284.0			SHALE	4.0	126.0	
280.0			SANDSTONE	9.0	130.0	BLUE
271.0			SHALE	15.0	139.0	
256.0			SANDSTONE	21.0	154.0	WHITE
235.0			SHALE	19.0	175.0	
216.0			SANDSTONE	23.0	194.0	WHITE

MAPID: 07701109000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 32 **QUARTERS/FOOTAGES:** NW NW NE NE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.34567 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.788826 **DATE COLLECTED:** 0 / 0 / 1920
SURFACE ELEVATION (FT.): 410.0 **LOGGED (FT.):** 365.0 **LOG TYPE:** Drillers Log
SOURCE: MURPHYSBORO PAVING BRICK CO. **WELL TYPE:** Water Well
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0	SPOON	MURPHYSBORO	UNCONSOLIDATED	23.0	0.0	
387.0			ROCK	10.0	23.0	
377.0			COAL	2.0	33.0	
375.0			SHALE	78.0	35.0	
297.0			COAL	7.0	113.0	
290.0			LIMESTONE	6.0	120.0	
284.0			ROCK	239.0	126.0	

MAPID: 07701110000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 32 QUARTERS/FOOTAGES:

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.351108 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.781744 DATE COLLECTED:

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 104.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 24 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		UNCONSOLIDATED	35.0	0.0	
415.0	TRADEWATER		BLACK SHALE	9.7	35.0	IRON CONCRETIONS
405.3	TRADEWATER		BLACK SHALE	1.3	44.7	
404.0	TRADEWATER		COAL	2.5	46.0	
401.5	TRADEWATER		BLACK SHALE	29.5	48.5	IRON CONCRETIONS
372.0	TRADEWATER		BLACK SHALE	2.0	78.0	
370.0	TRADEWATER	MURPHYSBORO	COAL	3.0	80.0	
367.0	TRADEWATER		BLACK SHALE	1.0	83.0	
366.0	TRADEWATER		SANDSTONE	10.0	84.0	DARK PARTINGS
356.0	TRADEWATER		SANDSTONE	4.0	94.0	LIGHT PARTINGS
352.0	TRADEWATER		SANDSTONE	6.0	98.0	

MAPID: 07701110000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 32 QUARTERS/FOOTAGES:

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.351108 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.781744 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 104.0 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	35.0	0.0	
-			ROCK	11.0	35.0	
-			COAL	2.5	46.0	
-			SHALE	29.5	48.5	WITH IRON BALLS
-			BLACK SHALE	2.0	78.0	
-	SPOON	MURPHYSBORO	COAL	3.0	80.0	
-	SPOON		SHALE	1.0	83.0	
-			ROCK	20.0	84.0	

MAPID: 07701111000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 32 **QUARTERS/FOOTAGES:** NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.355803 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.785543 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 445.0 **LOGGED (FT.):** 117.8 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 31 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0	PLEISTOCENE		UNCONSOLIDATED	16.7	0.0	
428.3			SHALE	16.3	16.7	BLUE
412.0			SHALE	8.0	33.0	
404.0			SHALE	0.3	41.0	
403.7			COAL	2.5	41.3	
401.2			SHALE	8.0	43.8	
393.2			SHALE	3.0	51.8	BLUE
390.2			SHALE	5.0	54.8	BLUE
385.2			SHALE	48.0	59.8	BLUE
337.2			SHALE	1.0	107.8	
336.2	TRADEWATER	MURPHYSBORO	SHALE	1.5	108.8	
334.7			COAL	3.3	110.3	
331.3			SHALE	4.2	113.7	

MAPID: 07701111000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 32 **QUARTERS/FOOTAGES:** NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.355803 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.785543 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 445.0 **LOGGED (FT.):** 117.8 **LOG TYPE:** Survey Core Study
SOURCE: BIG MUDDY COAL & IRON **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0			UNCONSOLIDATED	16.7	0.0	
428.3			ROCK	24.6	16.7	
403.7			COAL	2.5	41.3	
401.2			ROCK	44.2	43.8	
357.0			BLACK SHALE	19.8	88.0	
337.2			BLACK SHALE	2.5	107.8	
334.7	SPOON	MURPHYSBORO	COAL	3.3	110.3	
331.3	SPOON		ROCK	4.2	113.7	

MAPID: 07701112000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 8S 2W

SECTION: 32

QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.356959

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.788363

DATE COLLECTED: 12 / 6 / 1892

SURFACE ELEVATION (FT.): 390.0

LOGGED (FT.): 121.8

LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 107

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	PLEISTOCENE		UNCONSOLIDATED	10.5	0.0	
379.5			ARGILACEOUS SHALE	6.0	10.5	BROWN
373.5			SANDY SHALE	9.5	16.5	BLUE
364.0			SANDY SHALE	11.6	26.0	BLUE
352.4			COAL	1.0	37.6	WITH BLACK SHALE
351.4			COAL	2.1	38.6	
349.3			SANDY SHALE	6.2	40.7	
343.2			SANDSTONE	5.2	46.8	
338.0			SHALE	58.3	52.0	IRON CONCRETIONS NOTED; BLUE
279.7			SHALE	0.8	110.3	
278.9	TRADEWATER	MURPHYSBORO	COAL	3.4	111.1	
275.5			SHALE	1.8	114.5	
273.7	TRADEWATER	MURPHYSBORO	COAL	3.8	116.3	
269.8			SHALE	1.0	120.2	DARK
268.8			SHALE	0.7	121.2	

MAPID: 07701112000C VERSION: 2

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 8S 2W

SECTION: 32

QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.356959

GEOLOGIST: BARGH,M

CONFIDENTIAL: N

LATITUDE: 37.788363

DATE COLLECTED: 12 / 6 / 1892

SURFACE ELEVATION (FT.): 420.0

LOGGED (FT.): 121.8

LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0			UNCONSOLIDATED	10.5	0.0	
409.5			ROCK	27.1	10.5	
382.4			COAL WITH SHALE	1.0	37.6	COAL AND SHALE MIXED
381.4			COAL	2.1	38.6	
379.3			ROCK	11.3	40.7	
368.0			BLACK SHALE	58.3	52.0	
309.7			BLACK SHALE	3.4	110.3	
308.9	SPOON	MURPHYSBORO	COAL	3.4	111.1	
305.5	SPOON		BLACK SHALE	1.8	114.5	
303.7	SPOON	MURPHYSBORO	COAL	3.8	116.3	LOWER BENCH
299.8	SPOON		BLACK SHALE	1.7	120.2	

MAPID: 07701113000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 32 QUARTERS/FOOTAGES: SE NE SW SW
 QUADRANGLE: MURPHYSBORO LONGITUDE: -89.356492 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.776622 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 103.4 LOG TYPE: Drillers Log
 SOURCE: SCHMIDGALL COAL CO. 1 WELL TYPE: Coal Test
 COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	24.0	0.0	CLAY; YELLOW
431.0	TRADEWATER		SHALE	3.3	24.0	YELLOW
427.7	TRADEWATER		CLAYSTONE & SILTSTONE	4.3	27.3	GRAVELLY
423.3	TRADEWATER		SHALE	5.0	31.7	GRAVELLY; YELLOW
418.3	TRADEWATER		SHALE	11.3	36.7	BLUE
407.0	TRADEWATER		SHALE	0.6	48.0	
406.4	TRADEWATER		COAL	2.4	48.6	UPPER BENCH MURPHYSBORO - CADY
404.0	TRADEWATER		COAL	0.4	51.0	BONEY
403.6	TRADEWATER		SHALE	35.8	51.4	BLUE
367.7	TRADEWATER		COAL	3.2	87.3	
364.6	TRADEWATER		SHALE	4.4	90.4	BLUE
360.2	TRADEWATER		SHALE	4.0	94.8	COAL INDICATIONS
356.2	TRADEWATER		ROCK	4.6	98.8	

MAPID: 07701113000C VERSION: 2

PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 32 QUARTERS/FOOTAGES: SE NE SW SW
 QUADRANGLE: MURPHYSBORO LONGITUDE: -89.356492 GEOLOGIST: BARGH,M
 CONFIDENTIAL: N LATITUDE: 37.776622 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 103.4 LOG TYPE: Survey Core Study
 SOURCE: SCHMIDGALL C C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0		MURPHYSBORO	UNCONSOLIDATED	24.0	0.0	
426.0			CLAYSTONE & SHALE	7.7	24.0	
418.3			SHALE	5.0	31.7	
413.3			BLACK SHALE	11.3	36.7	
402.0			BLACK SHALE	0.6	48.0	
401.4			COAL	2.8	48.6	LOWER .42' BONEY
398.6			BLACK SHALE	35.9	51.4	
362.7	SPOON		COAL	3.2	87.3	
359.6	SPOON		BLACK SHALE	4.4	90.4	
355.2	SPOON		ROCK	8.6	94.8	

MAPID: 07701114000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 32
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.351753
CONFIDENTIAL: N LATITUDE: 37.777499
SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 99.5
SOURCE: SCHMIDGALL COAL CO. 2
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

QUARTERS/FOOTAGES: NE NE SE SW
GEOLOGIST: C.KOROSE
DATE COLLECTED:
LOG TYPE: Drillers Log
WELL TYPE: Coal Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
415.0	PLEISTOCENE		UNCONSOLIDATED	35.9	0.0	
379.1	PLEISTOCENE		GRAVEL	0.5	35.9	WITH CLAY
378.6	TRADEWATER		SHALE	7.1	36.4	WITH CLAY
371.5	TRADEWATER		SHALE	32.5	43.5	BLUE
339.0	TRADEWATER		SHALE	2.0	76.0	INDICATIONS OF FAULT
337.0	TRADEWATER	MURPHYSBORO	COAL	3.8	78.0	BLACK SMUTTY SOFT COAL
333.2	TRADEWATER		SHALE	12.0	81.8	
321.2	TRADEWATER	MURPHYSBORO	COAL	3.3	93.8	MOTHER COAL PER MINERS
317.9	TRADEWATER		UNDERCLAY/SHALE	1.3	97.1	MIXED WITH SHALE
316.7	TRADEWATER		UNDERCLAY	1.2	98.3	

MAPID: 07701114000C VERSION: 2

PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 32
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.351753
CONFIDENTIAL: N LATITUDE: 37.777499
SURFACE ELEVATION (FT.): 380.0 LOGGED (FT.): 99.5
SOURCE: SCHMIDGALL C C
COMMENT:

QUARTERS/FOOTAGES: NE NE SE SW
GEOLOGIST: BARGH,M
DATE COLLECTED:
LOG TYPE: Survey Core Study
WELL TYPE: Coal Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0			UNCONSOLIDATED	36.5	0.0	
343.5			ROCK	13.5	36.5	
330.0			BLACK SHALE	26.0	50.0	
304.0			BLACK SHALE	2.0	76.0	
302.0	SPOON	MURPHYSBORO	COAL	3.8	78.0	SMUTTY, SOFT
298.2			SHALE	11.9	81.8	
286.3	SPOON	MURPHYSBORO	COAL	3.3	93.7	SOFT, SMUTTY, LOWER BENCH
282.9	SPOON		BLACK SHALE	1.2	97.1	
281.7	SPOON		UNDERCLAY	1.2	98.3	

MAPID: 07701115000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 32 QUARTERS/FOOTAGES: SE SW SE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.354152 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.774705 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 103.3 LOG TYPE: Drillers Log

SOURCE: SCHMIDGALL COAL CO. 3 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0	
363.0	TRADEWATER		CLAY	13.0	32.0	
350.0	TRADEWATER		SHALE	25.5	45.0	BLUE
324.5	TRADEWATER	MURPHYSBORO	COAL	3.5	70.5	SMUTTY
321.0	TRADEWATER		SHALE	19.8	74.0	
301.2	TRADEWATER	MURPHYSBORO	COAL	3.3	93.8	
297.8	TRADEWATER		UNDERCLAY/SHALE	4.2	97.2	MIXED WITH SHALE
293.7	TRADEWATER		SANDSTONE	2.0	101.3	

MAPID: 07701115000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 32 QUARTERS/FOOTAGES: SE SW SE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.354152 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.774705 DATE COLLECTED:

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 103.3 LOG TYPE: Survey Core Study

SOURCE: SCHMIDGALL C C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0			UNCONSOLIDATED	45.0	0.0	
385.0			BLACK SHALE	25.5	45.0	
359.5	SPOON	MURPHYSBORO	COAL	3.5	70.5	SMUTTY
356.0	SPOON		SHALE	19.8	74.0	
336.2	SPOON	MURPHYSBORO	COAL	3.3	93.8	LOWER BENCH
332.8	SPOON		SHALE/UNDERCLAY	4.1	97.2	
328.7	SPOON		SANDSTONE	2.0	101.3	

MAPID: 07701116000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 32 **QUARTERS/FOOTAGES:** SE NE SE SW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.351765 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.776555 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 93.3 **LOG TYPE:** Drillers Log
SOURCE: SCHMIDGALL COAL CO. 4 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
379.0	PLEISTOCENE		SAND	3.0	16.0	WITH CLAY
376.0	PLEISTOCENE		CLAY	10.6	19.0	YELLOW
365.4	PLEISTOCENE		CLAY	1.0	29.6	GRAVELLY
364.4	TRADEWATER		SHALE	10.8	30.6	CLAY; YELLOW
353.7	TRADEWATER		SHALE	37.5	41.3	BLUE
316.2	TRADEWATER	MURPHYSBORO	COAL	2.2	78.8	
314.0	TRADEWATER		SHALE	8.3	81.0	
305.7	TRADEWATER	MURPHYSBORO	COAL	3.5	89.3	
302.2	TRADEWATER	MURPHYSBORO	COAL	0.5	92.8	BONY

MAPID: 07701116000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 32 **QUARTERS/FOOTAGES:** SE NE SE SW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.351765 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.776555 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 430.0 **LOGGED (FT.):** 93.3 **LOG TYPE:** Survey Core Study
SOURCE: SCHMIDGALL C C **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0			UNCONSOLIDATED	30.6	0.0	
399.4			SHALE	10.7	30.6	
388.7			BLACK SHALE	37.5	41.3	
351.2	SPOON	MURPHYSBORO	COAL	2.2	78.8	
349.0	SPOON		SHALE	8.3	81.0	
340.7	SPOON	MURPHYSBORO	COAL	4.0	89.3	LOWER BENCH, LOWER .5' BONEY

MAPID: 077265D0004F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 32 QUARTERS/FOOTAGES: NE SE NW NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.346888 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.786928 DATE COLLECTED:

SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 60.6 LOG TYPE:

SOURCE: FLD NOTES-WANLESS WELL TYPE: Strip Mine

COMMENT: BRICK CO SHALE PIT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0			UNCONSOLIDATED	20.0	0.0	
-			ROCK	23.7		
-			COAL	2.4		
-			ROCK	14.5		

MAPID: 07700001500M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 33 QUARTERS/FOOTAGES: NW NE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.335698 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.788345 DATE COLLECTED:

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 162.7 LOG TYPE: Measured section

SOURCE: MINE NOTES-BIG MUDDY COAL & IRON C WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			UNKNOWN	149.0	0.0	
261.0			SHALE	6.0	149.0	
-	SPOON	MURPHYSBORO	COAL	5.7		
-			UNDERCLAY	2.0		

MAPID: 07700026600M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 33 QUARTERS/FOOTAGES: NE SW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.33819 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.776898 DATE COLLECTED:

SURFACE ELEVATION (FT.): 416.0 LOGGED (FT.): 145.0 LOG TYPE: Measured section

SOURCE: MINE NOTES-GARTSIDE C C WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
416.0			UNKNOWN	141.0	0.0	
275.0			COAL	4.0	141.0	AVERAGE THICKNESS

MAPID: 07700026601M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 33 QUARTERS/FOOTAGES:

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.332277 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.781682 DATE COLLECTED: 6 / 7 / 1906

SURFACE ELEVATION (FT.): LOGGED (FT.): 10.0 LOG TYPE: Measured section

SOURCE: MINE NOTES-GARTSIDE C C WELL TYPE: Underground mine

COMMENT: 4TH ROOM OFF 5 WEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			COAL	3.0		
-				2.1		
-			COAL	3.9		LOWER BENCH
-			UNDERCLAY	1.0		

MAPID: 07701118000C VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 33 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.337005 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.777857 DATE COLLECTED:

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 128.0 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0			UNCONSOLIDATED	84.0	0.0	
321.0			BLACK SHALE	34.0	84.0	WITH IRON BALLS
287.0			SHALE	2.0	118.0	
285.0	SPOON	MURPHYSBORO	COAL	6.0	120.0	
279.0	SPOON		SHALE	2.0	126.0	

MAPID: 07701120000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 33 QUARTERS/FOOTAGES: NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.336901 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.785484 DATE COLLECTED:

SURFACE ELEVATION (FT.): 403.0 LOGGED (FT.): 167.5 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 33 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
403.0	PLEISTOCENE		UNCONSOLIDATED	55.0	0.0	
348.0			SHALE	26.0	55.0	
322.0			SHALE	0.8	81.0	
321.2			COAL	2.3	81.8	
318.8			SHALE	77.0	84.2	IRON CONCRETIONS NOTED; BLUE
241.8			SHALE	0.8	161.2	IRON CONCRETIONS NOTED; BLUE
241.0	TRADEWATER	MURPHYSBORO	COAL	5.5	162.0	

MAPID: 07701120000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 33 QUARTERS/FOOTAGES: NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.336901 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.785484 DATE COLLECTED:

SURFACE ELEVATION (FT.): 403.0 LOGGED (FT.): 167.5 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
403.0			UNCONSOLIDATED	55.0	0.0	
348.0			ROCK	26.8	55.0	
321.2			COAL	2.3	81.8	
318.8			BLACK SHALE	77.0	84.2	WITH IRON BALLS
241.8			BLACK SHALE	0.8	161.2	WITH IRON BALLS
241.0	SPOON	MURPHYSBORO	COAL	5.5	162.0	

MAPID: 07701121000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 33 QUARTERS/FOOTAGES: NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.327565 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.785493 DATE COLLECTED:

SURFACE ELEVATION (FT.): 408.0 LOGGED (FT.): 98.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 55 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
408.0	PLEISTOCENE		CLAY	24.0	0.0	YELLOW
384.0			SANDSTONE	7.0	24.0	YELLOW
377.0			SHALE	10.0	31.0	BLUE
367.0			COAL	1.0	41.0	
366.0			SHALE	4.0	42.0	BLUE
362.0			SHALE	3.0	46.0	
359.0			SHALE	18.0	49.0	BLUE
341.0			SHALE	1.5	67.0	
339.5			COAL	2.8	68.5	MURPHYSBORO - CADY
336.7			UNDERCLAY	12.0	71.3	
324.7			SANDSTONE	4.0	83.3	
320.7			CLAYSTONE	8.6	87.3	
312.2			COAL	2.2	95.8	MURPHYSBORO - CADY

MAPID: 07701121000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 33 QUARTERS/FOOTAGES: NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.327565 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.785493 DATE COLLECTED:

SURFACE ELEVATION (FT.): 408.0 LOGGED (FT.): 98.0 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
408.0			UNCONSOLIDATED	24.0	0.0	
384.0			ROCK	17.0	24.0	
367.0			COAL	1.0	41.0	
366.0			BLACK SHALE	4.0	42.0	
362.0			BLACK SHALE	3.0	46.0	
359.0			BLACK SHALE	18.0	49.0	
341.0			BLACK SHALE	1.5	67.0	
339.5			COAL	2.8	68.5	
336.7			UNDERCLAY	12.0	71.3	
324.7			SANDSTONE	4.0	83.3	
320.7			UNDERCLAY	8.5	87.3	
312.2			COAL	2.2	95.8	

MAPID: 07701122000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 33 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.324125 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.776954 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 112.5 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 70 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
380.0	PLEISTOCENE		CLAY	17.0	15.0	BLUE
363.0			SHALE	20.0	32.0	BLUE
343.0			SANDY SHALE	35.0	52.0	
308.0			SHALE	25.5	87.0	BLUE

MAPID: 07701123000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 33 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.32414 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.775055 DATE COLLECTED:

SURFACE ELEVATION (FT.): 402.0 LOGGED (FT.): 107.5 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 71 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
402.0	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
380.0	PLEISTOCENE		CLAY	23.0	22.0	BLUE
357.0	PLEISTOCENE		SAND	15.0	45.0	WITH COAL
342.0	TRADEWATER		SANDY SHALE	34.0	60.0	BLUE
308.0	TRADEWATER		SHALE	5.0	94.0	
303.0	TRADEWATER		SHALE	1.8	99.0	DARK
301.2	TRADEWATER	MURPHYSBORO	COAL	6.7	100.8	

MAPID: 07701123000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 33 **QUARTERS/FOOTAGES:** SE SE SE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.32414 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.775055 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 390.0 **LOGGED (FT.):** 107.5 **LOG TYPE:** Survey Core Study
SOURCE: BIG MUDDY COAL & IRON **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0			UNCONSOLIDATED	22.0	0.0	
368.0			ROCK	23.0	22.0	
345.0			COAL WITH SHALE	15.0	45.0	COAL AND GRAVELY SHALE MIXED
330.0			BLACK SHALE	34.0	60.0	
296.0			COAL WITH SHALE	5.0	94.0	COAL AND SHALE MIXED
291.0			SHALE	1.8	99.0	
289.2	SPOON	MURPHYSBORO	COAL	6.7	100.8	

MAPID: 07701168000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 33 **QUARTERS/FOOTAGES:**
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.332277 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.781682 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 405.0 **LOGGED (FT.):** 128.0 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 25 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE		UNCONSOLIDATED	84.0	0.0	
321.0	TRADEWATER		SHALE	34.0	84.0	IRON CONCRETIONS
287.0	TRADEWATER		SHALE	2.0	118.0	DARK
285.0	TRADEWATER	MURPHYSBORO	COAL	6.0	120.0	
279.0	TRADEWATER		SHALE	2.0	126.0	

MAPID: 07700001501M **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 34 **QUARTERS/FOOTAGES:**
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.313425 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.781746 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 0.0 **LOG TYPE:**
SOURCE: MINE NOTES-BIG MUDDY COAL & IRON **WELL TYPE:** Strip Mine
COMMENT: ROOM 10 OFF MAIN WEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	6.0		
-			COAL	6.3		SH PTG .04'
-			UNDERCLAY	-		

MAPID: 07700001300M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 34 QUARTERS/FOOTAGES: 1600' N line, 400' W line of SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.312097 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.777336 DATE COLLECTED: 8 / 31 / 1924

SURFACE ELEVATION (FT.): 384.0 LOGGED (FT.): 114.0 LOG TYPE: Measured section

SOURCE: MINE NOTES-CONSOL C C #9 WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
384.0			UNKNOWN	108.0	0.0	
276.0			COAL	6.0	108.0	AVERAGE THICKNESS

MAPID: 07700001301M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 34 QUARTERS/FOOTAGES:

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.313425 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.781746 DATE COLLECTED:

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

SOURCE: MINE NOTES-CONSOL C C WELL TYPE: Underground mine

COMMENT: 500' ON SE ENTRY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	31.0		
-			COAL	6.4		PARTING. NO THICKNESS NOTED
-			UNDERCLAY	2.5		

MAPID: 07701124000C VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 34 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.318214 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.777945 DATE COLLECTED:

SURFACE ELEVATION (FT.): 380.0 LOGGED (FT.): 99.0 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT: OTHER LOGS IN THIS AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0			SHALE	6.0	0.0	
374.0			COAL	2.3	6.0	
371.7			ROCK	10.0	8.3	
361.7			SHALE	62.9	18.3	
298.8			BLACK SHALE	2.1	81.2	
296.7	SPOON	MURPHYSBORO	COAL	5.8	83.3	
290.9	SPOON		BLACK SHALE	9.9	89.1	

MAPID: 07701127000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 34 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.318214 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.777945 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 105.9 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 50 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE	MURPHYSBORO	SANDY CLAY	22.0	0.0	
373.0	PLEISTOCENE		SAND	3.0	22.0	GREEN
370.0	PLEISTOCENE		CLAY	23.0	25.0	BLUE
347.0	PLEISTOCENE		SAND	6.0	48.0	YELLOW
341.0	PLEISTOCENE		CLAY	6.0	54.0	YELLOW
335.0	PLEISTOCENE		SAND	7.0	60.0	YELLOW
328.0	TRADEWATER		SHALE	33.0	67.0	
295.0	TRADEWATER		COAL	5.9	100.0	

MAPID: 07701128000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 34 QUARTERS/FOOTAGES: SW SW SW SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.322378 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.774592 DATE COLLECTED:

SURFACE ELEVATION (FT.): 320.0 LOGGED (FT.): 95.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 72 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
320.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	15.0	0.0	
305.0			SHALE	26.0	15.0	
279.0			SANDY SHALE	20.0	41.0	BLUE
259.0			SANDY SHALE	10.0	61.0	
249.0			SHALE	15.0	71.0	BLUE
234.0			SHALE	2.3	86.0	
231.7	TRADEWATER		COAL	6.8	88.3	

MAPID: 07701128000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 34 **QUARTERS/FOOTAGES:** SW SW SW SW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.322378 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.774592 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 320.0 **LOGGED (FT.):** 95.0 **LOG TYPE:** Survey Core Study
SOURCE: BIG MUDDY COAL & IRON **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
320.0			UNCONSOLIDATED	15.0	0.0	
305.0			COAL/SANDSTONE	26.0	15.0	COAL AND SANDSTONE MIXED
279.0			ROCK	30.0	41.0	
249.0			BLACK SHALE	17.3	71.0	
231.7	SPOON	MURPHYSBORO	COAL	6.8	88.3	

MAPID: 07701129000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 34 **QUARTERS/FOOTAGES:** NE NE NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.314524 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.788338 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 118.3 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 78 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	68.0	0.0	
327.0	TRADEWATER		COAL	2.0	68.0	
325.0	TRADEWATER		UNDERCLAY	5.0	70.0	
320.0	TRADEWATER		SHALE	2.0	75.0	WITH CLAY
318.0	TRADEWATER		SANDY SHALE	23.0	77.0	
295.0	TRADEWATER		SHALE	9.0	100.0	BLUE
286.0	TRADEWATER	MURPHYSBORO	SHALE/COAL	1.2	109.0	MIXED
284.8	TRADEWATER	MURPHYSBORO	COAL	3.2	110.2	
281.7	TRADEWATER		SHALE	1.0	113.3	BLUE
280.7	TRADEWATER		SANDY SHALE	2.0	114.3	
278.7	TRADEWATER		CONGLOMERATE	2.0	116.3	

MAPID: 07701129000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 34 QUARTERS/FOOTAGES: NE NE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.314524 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.788338 DATE COLLECTED:

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 118.3 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			UNCONSOLIDATED	68.0	0.0	
342.0			COAL	2.0	68.0	
340.0			ROCK	7.0	70.0	
333.0			SHALE	23.0	77.0	
310.0			BLACK SHALE	9.0	100.0	
301.0			COAL WITH SHALE	1.2	109.0	COAL AND SHALE MIXED
299.8			COAL	3.2	110.2	
296.7			BLACK SHALE	1.0	113.3	
295.7			ROCK	4.0	114.3	

MAPID: 07701130000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 34 QUARTERS/FOOTAGES: NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.318135 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.785506 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 152.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 80 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	91.0	0.0	
304.0			SHALE	10.0	91.0	
294.0			SANDY SHALE	42.0	101.0	BLUE
252.0			SHALE	1.0	143.0	DARK
251.0			SHALE	2.0	144.0	
249.0	TRADEWATER	MURPHYSBORO	COAL	5.4	146.0	
243.6			SHALE	0.6	151.4	

MAPID: 07701130000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 34 **QUARTERS/FOOTAGES:** NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.318135 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.785506 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 410.0 **LOGGED (FT.):** 152.0 **LOG TYPE:** Survey Core Study
SOURCE: BIG MUDDY COAL & IRON **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			UNCONSOLIDATED	91.0	0.0	
319.0			ROCK	34.0	91.0	
285.0			BLACK SHALE	19.0	125.0	
266.0			COAL WITH SHALE	2.0	144.0	COAL AND SHALE MIXED
264.0	SPOON	MURPHYSBORO	COAL	5.4	146.0	
258.6	SPOON		SHALE	0.0	151.4	

MAPID: 07701131000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 34 **QUARTERS/FOOTAGES:** 2640' N line, 2040' E line
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.311021 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.781985 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 349.0 **LOGGED (FT.):** 101.1 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 95 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
349.0	PLEISTOCENE		CLAY	10.0	0.0	
339.0	PLEISTOCENE		CLAY	8.0	10.0	YELLOW
331.0	PLEISTOCENE		SANDY CLAY	2.0	18.0	BLUE
329.0	PLEISTOCENE		SAND	6.0	20.0	WITH CLAY
323.0	PLEISTOCENE		SANDY CLAY	4.0	26.0	BLUE
319.0			SHALE	15.0	30.0	WITH CLAY
304.0			SANDSTONE	13.0	45.0	CLAY; YELLOW
291.0			SANDY SHALE	2.0	58.0	
289.0			SHALE	32.0	60.0	IRON CONCRETIONS
257.0			SHALE	3.3	92.0	
253.7	TRADEWATER	MURPHYSBORO	COAL	5.5	95.3	
248.2			SANDSTONE	0.3	100.8	

MAPID: 07701131000C VERSION: 2

PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 34 QUARTERS/FOOTAGES: 2640' N line, 2040' E line
 QUADRANGLE: MURPHYSBORO LONGITUDE: -89.311021 GEOLOGIST: BARGH,M
 CONFIDENTIAL: N LATITUDE: 37.781985 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 349.0 LOGGED (FT.): 101.0 LOG TYPE: Survey Core Study
 SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
349.0			UNCONSOLIDATED	30.0	0.0	
319.0			SHALE	30.0	30.0	
289.0			SHALE	32.0	60.0	WITH IRONSTONE BALLS
257.0			SHALE	3.3	92.0	
253.7	SPOON	MURPHYSBORO	COAL	5.5	95.3	
248.2			SANDSTONE	0.3	100.8	

MAPID: 07701132000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 34 QUARTERS/FOOTAGES: 1' N line, 700' E line of SE
 QUADRANGLE: MURPHYSBORO LONGITUDE: -89.306364 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.781773 DATE COLLECTED: 6 / 30 / 1892
 SURFACE ELEVATION (FT.): 356.0 LOGGED (FT.): 91.0 LOG TYPE: Drillers Log
 SOURCE: BIG MUDDY COAL & IRON CO. 96 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
356.0	PLEISTOCENE		CLAY	10.0	0.0	
346.0	PLEISTOCENE		CLAY	5.0	10.0	RED
341.0	PLEISTOCENE		SANDY CLAY	13.0	15.0	
328.0	PLEISTOCENE		CLAY	2.0	28.0	BLUE
326.0	PLEISTOCENE		SAND	4.0	30.0	CLAY; BLACK
322.0	PLEISTOCENE		SANDY CLAY	6.0	34.0	BLUE
316.0	PLEISTOCENE		SANDY CLAY	3.0	40.0	RED
313.0	PLEISTOCENE		CLAY	6.0	43.0	SANDY; BLUE
307.0	PLEISTOCENE		SAND	1.0	49.0	
306.0	PLEISTOCENE		CLAY	2.0	50.0	BLUE
304.0	PLEISTOCENE		CLAY	7.0	52.0	RED
297.0	PLEISTOCENE		SAND	1.0	59.0	
296.0	PLEISTOCENE		GRAVEL	6.0	60.0	WITH CLAY
290.0	TRADEWATER		SHALE	14.0	66.0	IRON CONCRETIONS NOTED; BLUE
276.0	TRADEWATER		SHALE	1.1	80.0	DARK
274.9	TRADEWATER		COAL	4.7	81.1	
270.2	TRADEWATER		SHALE	1.3	85.8	DARK
269.0	TRADEWATER		SANDY SHALE	4.0	87.0	

MAPID: 07701132000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 34 QUARTERS/FOOTAGES: 1' N line, 700' E line of SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.306364 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.781773 DATE COLLECTED:

SURFACE ELEVATION (FT.): 356.0 LOGGED (FT.): 91.0 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
356.0			UNCONSOLIDATED	66.0	0.0	
290.0			BLACK SHALE	14.0	66.0	SANDY, WITH IRONSTONE BALLS
276.0			SHALE	1.1	80.0	
274.9	SPOON	MURPHYSBORO	COAL	4.7	81.1	
270.2			SHALE	5.3	85.8	

MAPID: 07701133000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 34 QUARTERS/FOOTAGES: SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.308746 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.778015 DATE COLLECTED: 6 / 30 / 1892

SURFACE ELEVATION (FT.): 356.2 LOGGED (FT.): 108.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 97 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
356.2	PLEISTOCENE		CLAY	10.0	0.0	
346.2	PLEISTOCENE		CLAY	3.0	10.0	RED
343.2	PLEISTOCENE		CLAY	10.0	13.0	SANDY
333.2	PLEISTOCENE		CLAY	2.0	23.0	BLUE
331.2	PLEISTOCENE		SAND	5.0	25.0	WITH CLAY
326.2	PLEISTOCENE		SANDY CLAY	10.0	30.0	BLUE
316.2	PLEISTOCENE		SAND	9.0	40.0	CLAY AND GRAVEL
307.2	TRADEWATER		SANDY SHALE	1.0	49.0	BLUE
306.2	TRADEWATER		SANDY SHALE	4.0	50.0	YELLOW
302.2	TRADEWATER		SHALE	47.0	54.0	IRON CONCRETIONS NOTED; BLUE
255.2	TRADEWATER		SHALE	1.0	101.0	DARK
254.2	TRADEWATER	MURPHYSBORO	COAL	5.6	102.0	
248.6	TRADEWATER		SHALE	0.4	107.6	

MAPID: 07701133000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 34 **QUARTERS/FOOTAGES:** SE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.308746 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.778015 **DATE COLLECTED:** 6 / 30 / 1892
SURFACE ELEVATION (FT.): 356.0 **LOGGED (FT.):** 108.0 **LOG TYPE:** Survey Core Study
SOURCE: BIG MUDDY COAL & IRON **WELL TYPE:** Coal Test
COMMENT: OTHER LOGS IN THIS LOCATION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
356.0			UNCONSOLIDATED	49.0	0.0	
307.0			SHALE	5.0	49.0	
302.0			BLACK SHALE	47.0	54.0	WITH IRON STONE BALLS
255.0			SHALE	1.0	101.0	
254.0	SPOON	MURPHYSBORO	COAL	5.6	102.0	
248.4			SHALE	0.0	107.6	

MAPID: 07701134000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 34 **QUARTERS/FOOTAGES:** 1' S line, 700' E line of SE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.30653 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.774292 **DATE COLLECTED:** 8 / 1 / 1892
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 104.0 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 98 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	26.0	0.0	YELLOW
369.0	PLEISTOCENE		SANDY CLAY	1.0	26.0	BLUE
368.0	PLEISTOCENE		CLAY	3.0	27.0	MIXED CLAY, SAND, AND COAL
365.0	PLEISTOCENE		SAND	8.0	30.0	
357.0	PLEISTOCENE		GRAVEL	2.0	38.0	
355.0	PLEISTOCENE		CLAY	10.0	40.0	BLUE
345.0	PLEISTOCENE		SAND	5.0	50.0	
340.0	PLEISTOCENE		CLAY	2.0	55.0	BLUE
338.0	PLEISTOCENE		SAND	1.0	57.0	
337.0	PLEISTOCENE		CLAY	2.0	58.0	RED
335.0	PLEISTOCENE		SANDY CLAY	2.0	60.0	BLUE
333.0	PLEISTOCENE		SAND	22.0	62.0	
311.0	TRADEWATER		SANDY SHALE	12.0	84.0	BLUE
299.0	TRADEWATER		SHALE	1.8	96.0	DARK
297.2	TRADEWATER	MURPHYSBORO	COAL	5.9	97.8	
291.2	TRADEWATER		SHALE	0.3	103.8	DARK

MAPID: 07701134000C

VERSION: 2

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 8S 2W

SECTION: 34

QUARTERS/FOOTAGES: 1' S line, 700' E line of SE

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.30653

GEOLOGIST: BARGH,M

CONFIDENTIAL: N

LATITUDE: 37.774292

DATE COLLECTED: 8 / 1 / 1892

SURFACE ELEVATION (FT.): 382.0

LOGGED (FT.): 104.0

LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
382.0			UNCONSOLIDATED	84.0	0.0	CLAY, SAND, GRAVEL
298.0			BLACK SHALE	12.0	84.0	
286.0			SHALE	1.8	96.0	
284.2	SPOON	MURPHYSBORO	COAL	5.9	97.8	
278.2	SPOON		SHALE	0.3	103.8	

MAPID: 07701135000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 8S 2W

SECTION: 34

QUARTERS/FOOTAGES: NW NW NW SW

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.322334

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.781231

DATE COLLECTED: 10 / 0 / 1892

SURFACE ELEVATION (FT.): 405.0

LOGGED (FT.): 881.0

LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 103

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE	MURPHYSBORO	CLAY	86.0	0.0	SANDY
319.0	TRADEWATER		SHALE	30.5	86.0	
288.5	TRADEWATER		SHALE	33.4	116.5	IRON CONCRETIONS NOTED; BLUE
255.1	TRADEWATER		COAL	6.3	149.9	
248.7	TRADEWATER		SHALE	15.8	156.3	BLUE
233.0	TRADEWATER		SANDSTONE	20.0	172.0	GRAY
213.0	TRADEWATER		SANDY SHALE	3.0	192.0	BLACK PARTINGS
210.0	TRADEWATER		SANDY SHALE	13.0	195.0	BLACK PARTINGS
197.0	TRADEWATER		SANDY SHALE	30.0	208.0	BLACK PARTINGS
167.0	TRADEWATER		SHALE	9.0	238.0	BITUMINOUS
158.0	TRADEWATER		SANDY SHALE	7.0	247.0	
151.0	TRADEWATER		SANDSTONE	69.0	254.0	BROWN
82.0	TRADEWATER		SHALE	35.0	323.0	SANDY
47.0	TRADEWATER		SANDSTONE	5.0	358.0	
42.0	TRADEWATER		SANDY SHALE	81.0	363.0	
-39.0	TRADEWATER		SANDSTONE	51.0	444.0	
-90.0	TRADEWATER		SHALY COAL	0.1	495.0	
-90.1	TRADEWATER		SANDSTONE	34.9	495.1	
-125.0	TRADEWATER		SANDY SHALE	3.0	530.0	
-128.0	TRADEWATER		CLAYSTONE & SILTSTONE	67.0	533.0	BLUE
-195.0	TRADEWATER		CLAYSTONE & SILTSTONE	0.5	600.0	BLUE
-195.5	TRADEWATER		SHALY SANDSTONE	1.5	600.5	
-197.0	TRADEWATER		SHALE	3.0	602.0	CLAY; BLUE
-200.0	TRADEWATER		SHALY SANDSTONE	45.0	605.0	
-245.0	TRADEWATER		SHALY SANDSTONE	9.0	650.0	
-254.0	TRADEWATER		LIMESTONE	1.0	659.0	
-255.0	TRADEWATER		SHALE	5.0	660.0	CLAY; BLUE
-260.0	TRADEWATER		LIMESTONE	33.0	665.0	
-293.0	TRADEWATER		SHALE	10.0	698.0	CLAY; BLUE
-303.0	TRADEWATER		LIMESTONE	26.0	708.0	
-329.0	TRADEWATER		SHALE	9.0	734.0	WITH CLAY
-338.0	TRADEWATER		SANDY SHALE	23.5	743.0	
-361.5	TRADEWATER		SHALY COAL	1.5	766.5	
-363.0	TRADEWATER		SANDSTONE	0.5	768.0	
-363.5	TRADEWATER		SHALY COAL	1.5	768.5	
-365.0	TRADEWATER		SANDY SHALE	15.0	770.0	
-380.0	TRADEWATER		SANDSTONE	42.0	785.0	
-422.0	MISSISSIPPIAN		LIMESTONE	1.0	827.0	
-423.0	MISSISSIPPIAN		SHALE	5.0	828.0	WITH CLAY

-428.0	MISSISSIPPIAN	LIMESTONE	2.0	833.0	
-430.0	MISSISSIPPIAN	SHALE	5.0	835.0	CLAYEY; DARK
-435.0	MISSISSIPPIAN	LIMESTONE	1.0	840.0	
-436.0	MISSISSIPPIAN	SHALE	3.0	841.0	CLAYEY; DARK
-439.0	MISSISSIPPIAN	LIMESTONE	11.0	844.0	
-450.0	MISSISSIPPIAN	SHALE	5.0	855.0	WITH CLAY
-455.0	MISSISSIPPIAN	SANDY SHALE	2.0	860.0	
-457.0	MISSISSIPPIAN	LIMESTONE	5.0	862.0	
-462.0	MISSISSIPPIAN	SHALE	14.0	867.0	WITH CLAY

MAPID: 07701135000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 34 **QUARTERS/FOOTAGES:** NW NW NW SW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.322334 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.781231 **DATE COLLECTED:** 10 / 0 / 1892
SURFACE ELEVATION (FT.): 405.0 **LOGGED (FT.):** 881.0 **LOG TYPE:** Survey Core Study
SOURCE: BIG MUDDY COAL & IRON **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0			UNCONSOLIDATED	86.0	0.0	
319.0			SHALE	30.5	86.0	
288.5			BLACK SHALE	33.4	116.5	WITH IRON BALLS
255.1	SPOON	MURPHYSBORO	COAL	6.3	149.9	
248.8	SPOON		BLACK SHALE	609.8	156.2	
-361.0			COAL WITH SHALE	2.0	766.0	SOFT COAL AND SHALE MIXED
-363.0			ROCK	0.5	768.0	
-363.5			COAL WITH SHALE	1.5	768.5	COAL AND SHALE MIXED
-365.0			ROCK	111.0	770.0	

MAPID: 07701136000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 34 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.318214 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.777945 DATE COLLECTED: 0 / 0 / 1892

SURFACE ELEVATION (FT.): 295.0 LOGGED (FT.): 600.0 LOG TYPE: Drillers Log

SOURCE: ST. LOUIS ORE & STEEL CO., 34 WELL TYPE: Coal Test

COMMENT: MAY BE DUPLICATE OF 1135

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
295.0	PLEISTOCENE	MURPHYSBORO	CLAY	86.0	0.0	SANDY
209.0	TRADEWATER		SHALE	3.5	86.0	
205.5	TRADEWATER		SHALE	60.4	89.5	IRON CONCRETIONS
145.1	TRADEWATER		COAL	6.3	149.9	
138.7	TRADEWATER		SHALE	15.8	156.3	BLUE
123.0	TRADEWATER		SANDSTONE	20.0	172.0	
103.0	TRADEWATER		SANDY SHALE	3.0	192.0	WITH BLACK PARTINGS
100.0	TRADEWATER		SANDY SHALE	13.0	195.0	WITH BLACK PARTINGS
87.0	TRADEWATER		SANDY SHALE	30.0	208.0	WITH BLACK PARTINGS
57.0	TRADEWATER		BLACK SHALE	9.0	238.0	CARBONACEOUS; BLACK PARTINGS
48.0	TRADEWATER		SANDY SHALE	7.0	247.0	WITH BLACK PARTINGS
41.0	TRADEWATER		SANDSTONE	69.0	254.0	BROWN
-28.0	TRADEWATER		SHALE	35.0	323.0	SANDY
-63.0	TRADEWATER		SANDSTONE	5.0	358.0	
-68.0	TRADEWATER		SHALE	21.0	363.0	SANDY
-89.0	TRADEWATER		SANDSTONE	46.0	384.0	
-135.0	TRADEWATER		SHALE	3.0	430.0	SANDY
-138.0	TRADEWATER		SANDSTONE	6.0	433.0	
-144.0	TRADEWATER		SANDY SHALE	5.0	439.0	
-149.0	TRADEWATER		SANDSTONE	51.0	444.0	
-200.0	TRADEWATER		SANDSTONE/COAL	0.1	495.0	PIECES OF COAL IN CORE
-200.0	TRADEWATER		SANDSTONE	34.9	495.0	
-235.0	TRADEWATER		SANDY SHALE	3.0	530.0	
-238.0	TRADEWATER		SHALE	67.0	533.0	WITH CLAY

MAPID: 07701238000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 34 QUARTERS/FOOTAGES:

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.313425 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.781746 DATE COLLECTED:

SURFACE ELEVATION (FT.): 370.0 LOGGED (FT.): 83.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 87 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
370.0	PLEISTOCENE	MURPHYSBORO	CLAY	11.0	0.0	YELLOW
359.0	PLEISTOCENE		SAND	1.0	11.0	YELLOW
358.0	PLEISTOCENE		CLAY	9.0	12.0	BLUE
349.0	PLEISTOCENE		GRAVEL	1.0	21.0	
348.0	PLEISTOCENE		CLAY	15.0	22.0	GRAVELLY
333.0	PLEISTOCENE		CLAY	1.0	37.0	RED
332.0	PLEISTOCENE		SAND	1.0	38.0	RED
331.0	PLEISTOCENE		CLAY	1.0	39.0	RED
330.0	PLEISTOCENE		CLAY	3.0	40.0	BLUE
327.0	TRADEWATER		SHALE	7.0	43.0	BLUE
320.0	TRADEWATER		SHALE	10.0	50.0	
310.0	TRADEWATER		SHALE	14.8	60.0	BLUE
295.2	TRADEWATER		PYRITE	0.3	74.8	
295.0	TRADEWATER		COAL	7.3	75.0	
287.7	TRADEWATER		SHALE	0.7	82.3	

MAPID: 07701238000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 34 QUARTERS/FOOTAGES:

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.313425 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.781746 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 83.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-		MURPHYSBORO	UNCONSOLIDATED	43.0	0.0	
-			BLACK SHALE	31.8	43.0	
-			PYRITE	0.3	74.8	
-	SPOON		COAL	7.3	75.0	
-	SPOON		SHALE	0.7	82.3	

MAPID: 07701137000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 35 **QUARTERS/FOOTAGES:** NW NW NW NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.303169 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.788796 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 391.9 **LOGGED (FT.):** 167.0 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 37 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
391.9	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	114.0	0.0	
277.9	TRADEWATER		SHALE	3.3	114.0	
274.6	TRADEWATER		COAL	2.7	117.3	
272.0	TRADEWATER		SHALE	1.1	119.9	BLUE
270.9	TRADEWATER		SANDSTONE	4.5	121.0	
266.4	TRADEWATER		SANDY SHALE	13.5	125.5	
252.9	TRADEWATER		SANDY SHALE	9.0	139.0	BLUE
243.9	TRADEWATER		SANDY SHALE	2.0	148.0	BLUE
241.9	TRADEWATER		SANDSTONE	6.0	150.0	
235.9	TRADEWATER		CLAYSTONE	5.3	156.0	
230.6	TRADEWATER		SANDSTONE	1.0	161.3	
229.6	TRADEWATER		SANDY SHALE	4.7	162.3	

MAPID: 07701137000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 35 **QUARTERS/FOOTAGES:** NW NW NW NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.303169 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.788796 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 392.0 **LOGGED (FT.):** 167.0 **LOG TYPE:** Survey Core Study
SOURCE: BIG MUDDY COAL & IRON **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
392.0		MURPHYSBORO	UNCONSOLIDATED	114.0	0.0	
278.0			BLACK SHALE	3.3	114.0	
274.7	SPOON		COAL	2.7	117.3	
272.1	SPOON		ROCK	47.1	119.9	

MAPID: 07701138000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 35 QUARTERS/FOOTAGES: SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.289617 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.778114 DATE COLLECTED:

SURFACE ELEVATION (FT.): 385.0 LOGGED (FT.): 125.8 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 67 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	88.0	0.0	
297.0	TRADEWATER		SHALE	11.5	88.0	BLUE
285.5	TRADEWATER		COAL	2.3	99.5	
283.2	TRADEWATER		SANDY SHALE	6.0	101.8	BLUE
277.2	TRADEWATER		SHALE	8.4	107.8	
268.8	TRADEWATER		COAL	0.8	116.2	
268.0	TRADEWATER		SANDY SHALE	6.8	117.0	
261.2	TRADEWATER		SANDSTONE	2.0	123.8	GRAY

MAPID: 07701138000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 35 QUARTERS/FOOTAGES: SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.289617 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.778114 DATE COLLECTED:

SURFACE ELEVATION (FT.): 385.0 LOGGED (FT.): 125.8 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0		MURPHYSBORO	UNCONSOLIDATED	88.0	0.0	
297.0			BLACK SHALE	11.5	88.0	
285.5	SPOON		COAL	2.3	99.5	
283.2	SPOON		BLACK SHALE	14.4	101.8	
268.8	SPOON		COAL	0.8	116.2	
268.0	SPOON		SHALE	6.8	117.0	
261.2	SPOON		SANDSTONE	2.0	123.8	

MAPID: 07701141000C **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 35 **QUARTERS/FOOTAGES:** NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.299008 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.78554 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 400.0 **LOGGED (FT.):** 234.0 **LOG TYPE:** Drillers Log
SOURCE: GWIN, DRILLER **WELL TYPE:** Water Well
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0			UNCONSOLIDATED	47.0	0.0	
353.0			ROCK	109.0	47.0	
244.0			COAL	2.0	156.0	
242.0			ROCK	76.0	158.0	

MAPID: 07701139000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 36 **QUARTERS/FOOTAGES:** 1000' S line, 500' E line of SE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.267885 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.777431 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 129.0 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 89 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	26.0	0.0	
369.0	PLEISTOCENE		CLAY	15.0	26.0	SANDY
354.0	PLEISTOCENE		CLAY	3.0	41.0	GRAY
351.0	PLEISTOCENE		CLAY	20.0	44.0	RED
331.0	PLEISTOCENE		CLAY	5.0	64.0	SANDY
326.0	TRADEWATER		SHALE	2.0	69.0	DARK
324.0	TRADEWATER		CLAYSTONE	10.0	71.0	
314.0	TRADEWATER		SANDY SHALE	8.0	81.0	
306.0	TRADEWATER		SANDSTONE	2.0	89.0	GRAY
304.0	TRADEWATER		SANDY SHALE	13.7	91.0	BLUE
290.3	TRADEWATER	MURPHYSBORO	COAL	2.3	104.7	
288.0	TRADEWATER		SHALE	1.0	107.0	DARK
287.0	TRADEWATER		SHALE	4.6	108.0	BLUE
282.4	TRADEWATER		COAL	0.3	112.6	
282.2	TRADEWATER		UNDERCLAY	1.2	112.8	
281.0	TRADEWATER		UNDERCLAY	2.0	114.0	
279.0	TRADEWATER		SANDY SHALE	1.0	116.0	
278.0	TRADEWATER		UNDERCLAY	7.0	117.0	
271.0	TRADEWATER		SANDY SHALE	2.5	124.0	BLUE
268.5	TRADEWATER		LIMESTONE	2.5	126.5	

MAPID: 07701139000C

VERSION: 2

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 8S 2W

SECTION: 36

QUARTERS/FOOTAGES: 1000' S line, 500' E line of SE

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.267885

GEOLOGIST: BARGH,M

CONFIDENTIAL: N

LATITUDE: 37.777431

DATE COLLECTED:

SURFACE ELEVATION (FT.): 390.0

LOGGED (FT.): 129.0

LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0			UNCONSOLIDATED	69.0	0.0	
321.0			SHALE	2.0	69.0	
319.0			CLAYSTONE	10.0	71.0	
309.0			SHALE	8.0	81.0	
301.0			SANDSTONE	2.0	89.0	
299.0			BLACK SHALE	13.7	91.0	
285.3	SPOON	MURPHYSBORO	COAL	2.3	104.7	
283.0	SPOON		SHALE	5.6	107.0	
277.4	SPOON		COAL	0.3	112.6	LOWER BENCH
277.2			COAL/CLAYSTONE	1.2	112.8	COAL AND CLAY MIXED
276.0			ROCK	15.0	114.0	

MAPID: 07701140000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 2W SECTION: 36 QUARTERS/FOOTAGES: 900' S line, 100' E line of NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.266328 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.78455 DATE COLLECTED:

SURFACE ELEVATION (FT.): 375.0 LOGGED (FT.): 149.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 90 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.0	PLEISTOCENE		CLAY	13.0	0.0	GRAY
362.0	PLEISTOCENE		SAND	17.0	13.0	YELLOW
345.0	PLEISTOCENE		SANDY CLAY	10.0	30.0	BLUE
335.0	PLEISTOCENE		CLAY	30.0	40.0	SANDY; RED
305.0	PLEISTOCENE		SANDY CLAY	12.0	70.0	DARK
293.0	PLEISTOCENE		SAND	2.0	82.0	
291.0	PLEISTOCENE		SAND	7.0	84.0	WITH COAL
284.0	PLEISTOCENE		CLAYSTONE	6.0	91.0	
278.0			SANDY SHALE	5.0	97.0	BLUE
273.0			LIMESTONE	4.0	102.0	
269.0			SANDY SHALE	12.3	106.0	BLUE
256.7			COAL	1.2	118.3	
255.5			SHALE	4.5	119.5	BLUE
251.0			COAL	0.4	124.0	
250.6			SHALE	1.6	124.4	DARK
249.0			SANDY SHALE	5.0	126.0	
244.0			SANDY SHALE	6.0	131.0	BLACK
238.0			LIMESTONE	0.5	137.0	LITHOLOGY QUESTIONABLE
237.5			SANDY SHALE	0.5	137.5	
237.0			SANDSTONE	1.0	138.0	GRAY
236.0			SANDSTONE	8.0	139.0	BROWN
228.0			SHALY SANDSTONE	2.0	147.0	

MAPID: 07701140000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 2W **SECTION:** 36 **QUARTERS/FOOTAGES:** 900' S line, 100' E line of NE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.266328 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.78455 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 375.0 **LOGGED (FT.):** 149.0 **LOG TYPE:** Survey Core Study
SOURCE: BIG MUDDY COAL & IRON **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.0			UNCONSOLIDATED	84.0	0.0	
291.0			COAL/SANDSTONE	7.0	84.0	COAL AND SANDSTONE MIXED
284.0			ROCK	27.3	91.0	
256.7	SPOON	MURPHYSBORO	COAL	1.2	118.3	
255.5	SPOON		BLACK SHALE	4.5	119.5	
251.0	SPOON	MURPHYSBORO	COAL	0.4	124.0	LOWER BENCH
250.6	SPOON		ROCK	24.6	124.4	

MAPID: 077265C0004F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 3W **SECTION:** 7 **QUARTERS/FOOTAGES:** NE NE NW SW
QUADRANGLE: ORAVILLE **LONGITUDE:** -89.483873 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.844467 **DATE COLLECTED:** 0 / 0 / 1933
SURFACE ELEVATION (FT.): 440.0 **LOGGED (FT.):** 9.3 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-FULLER **WELL TYPE:** Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	5.0		
-			COAL	1.3		
-			ROCK	3.0		

MAPID: 077265C0005F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 3W **SECTION:** 8 **QUARTERS/FOOTAGES:** NW SE NW SW
QUADRANGLE: ORAVILLE **LONGITUDE:** -89.466736 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.842365 **DATE COLLECTED:** 0 / 0 / 1921
SURFACE ELEVATION (FT.): 580.0 **LOGGED (FT.):** 9.5 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-CADY **WELL TYPE:** Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	8.0		
-			COAL	1.5		"BONY COAL OR CARBONACEOUS SH"
-			ROCK	-		

MAPID: 07701621000C **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 3W **SECTION:** 10 **QUARTERS/FOOTAGES:** 2200' S line, 2000' W line
QUADRANGLE: ORAVILLE **LONGITUDE:** -89.425681 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.841462 **DATE COLLECTED:** 0 / 0 / 1966
SURFACE ELEVATION (FT.): 695.0 **LOGGED (FT.):** 503.0 **LOG TYPE:** Drillers Log
SOURCE: GWIN DRILLING CO. **WELL TYPE:** Water Well
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
695.0			UNCONSOLIDATED	27.0	0.0	
668.0			ROCK	410.0	27.0	
258.0			COAL	1.0	437.0	
257.0			ROCK	65.0	438.0	

MAPID: 07701151000C **VERSION:** 1 **PROJECT:** NCRDS87
COUNTY: JACKSON **TWP/RNG:** 8S 3W **SECTION:** 23 **QUARTERS/FOOTAGES:** NE SE NW NW
QUADRANGLE: ORAVILLE **LONGITUDE:** -89.411024 **GEOLOGIST:** WEIBEL
CONFIDENTIAL: N **LATITUDE:** 37.817663 **DATE COLLECTED:** 7 / 9 / 1921
SURFACE ELEVATION (FT.): 465.0 **LOGGED (FT.):** 164.6 **LOG TYPE:** Drillers Log
SOURCE: WEIGLE DRILLING **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.0			UNCONSOLIDATED	22.0	0.0	
443.0			SHALE	25.0	22.0	
418.0			COAL	2.2	47.0	
415.8			SHALE	14.3	49.2	
401.6			BLACK SHALE	5.0	63.4	
396.6			COAL	1.2	68.4	
395.4			SHALE	27.4	69.6	
368.0	SPOON	MT. RORAH	COAL	3.0	97.0	
365.0			SHALE	28.8	100.0	
336.2	SPOON	MURPHYSBORO	COAL WITH SHALE PARTINGS	5.3	128.8	0.58 SH PARTING
330.9			SHALE	14.0	134.1	
316.9			SANDSTONE	3.5	148.1	
313.4			SHALE	9.0	151.6	
304.4			SANDSTONE	4.0	160.6	

MAPID: 07701151000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 3W SECTION: 23 QUARTERS/FOOTAGES: NE SE NW NW

QUADRANGLE: ORAVILLE LONGITUDE: -89.411024 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.817663 DATE COLLECTED: 7 / 9 / 1921

SURFACE ELEVATION (FT.): 465.0 LOGGED (FT.): 164.6 LOG TYPE: Drillers Log

SOURCE: WEIGLE DRILLING CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
465.0			UNCONSOLIDATED	22.0	0.0
443.0			ROCK	25.0	22.0
418.0			COAL	2.2	47.0
415.8			ROCK	19.2	49.2
396.6			COAL	1.2	68.4
395.4			ROCK	27.4	69.6
368.0	SPOON		COAL	3.5	97.0
364.5	SPOON		ROCK	28.3	100.5
336.2	SPOON	MURPHYSBORO	COAL	2.5	128.8
333.7	SPOON		SHALE	0.6	131.3
333.2	SPOON	MURPHYSBORO	COAL	2.3	131.8 LOWER BENCH
330.9	SPOON		CLAYSTONE	14.0	134.1
316.9			ROCK	16.5	148.1

MAPID: 07701151000C VERSION: 3

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 3W SECTION: 23 QUARTERS/FOOTAGES: NE SE NW NW
 QUADRANGLE: ORAVILLE LONGITUDE: -89.411024 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.817663 DATE COLLECTED: 7 / 9 / 1921
 SURFACE ELEVATION (FT.): 465.0 LOGGED (FT.): 164.6 LOG TYPE: Drillers Log
 SOURCE: WEIGLE DRILLING 2 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.0	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
443.0			SHALE	25.0	22.0	
418.0			COAL	2.2	47.0	
415.8			SHALE	14.0	49.2	
401.8			BLACK SHALE	5.3	63.2	
396.6			COAL	1.2	68.4	
395.4			SHALE	27.4	69.6	
368.0			COAL	3.5	97.0	
364.5			BLACK SHALE	0.8	100.5	
363.7			BLACK SHALE	27.5	101.3	
336.2	TRADEWATER	MURPHYSBORO	COAL	2.5	128.8	
333.7			BLACK SHALE	0.6	131.3	
333.2	TRADEWATER	MURPHYSBORO	COAL	2.3	131.8	
330.9			UNDERCLAY	14.0	134.1	WITH SHALE
316.9			SANDSTONE	3.5	148.1	WHITE
313.4			SHALE	9.0	151.6	WHITE
304.4			SANDSTONE	4.0	160.6	

MAPID: 07701152000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 8S 3W SECTION: 24 QUARTERS/FOOTAGES: SE SE NW NW
 QUADRANGLE: ORAVILLE LONGITUDE: -89.392401 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.816063 DATE COLLECTED: 0 / 0 / 1921
 SURFACE ELEVATION (FT.): 464.0 LOGGED (FT.): 226.0 LOG TYPE: Drillers Log
 SOURCE: JNO WIGLE DRILLER WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
464.0	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0	
439.0			SHALE	155.0	25.0	
284.0	TRADEWATER	MURPHYSBORO	COAL	7.0	180.0	BONY & SHALY
277.0			BLACK SHALE	32.5	187.0	
244.5			COAL	4.5	219.5	LOWER BENCH OF MURPHYSBORO - CADY
240.0			SHALE	2.0	224.0	

MAPID: 07701152000C

VERSION: 2

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 8S 3W

SECTION: 24

QUARTERS/FOOTAGES: SE SE NW NW

QUADRANGLE: ORAVILLE

LONGITUDE: -89.392401

GEOLOGIST: BARGH,M

CONFIDENTIAL: N

LATITUDE: 37.816063

DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 464.0

LOGGED (FT.): 226.0

LOG TYPE: Survey Core Study

SOURCE: WEIGLE DRILLING CO

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
464.0			UNCONSOLIDATED	25.0	0.0
439.0			SHALE	155.0	25.0
284.0			COAL	7.0	180.0
277.0			SHALE	32.5	187.0
244.5			COAL	4.5	219.5
240.0			LIMESTONE	2.0	224.0

MAPID: 07701153000C

VERSION: 1

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 8S 3W

SECTION: 24

QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: ORAVILLE

LONGITUDE: -89.38615

GEOLOGIST: BARGH,M

CONFIDENTIAL: N

LATITUDE: 37.812559

DATE COLLECTED:

SURFACE ELEVATION (FT.): 456.0

LOGGED (FT.): 288.0

LOG TYPE: Survey Core Study

SOURCE: MID EGYPT C C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
456.0			UNCONSOLIDATED	40.0	0.0
416.0			ROCK	26.0	40.0
390.0			COAL	1.0	66.0
389.0			ROCK	32.0	67.0
357.0			COAL	0.8	99.0
356.0			ROCK	188.0	100.0

MAPID: 07701154000C VERSION: 1 PROJECT: BLM
 COUNTY: JACKSON TWP/RNG: 8S 3W SECTION: 25 QUARTERS/FOOTAGES: NE SW NE SE
 QUADRANGLE: ORAVILLE LONGITUDE: -89.381493 GEOLOGIST: BARGH,M
 CONFIDENTIAL: N LATITUDE: 37.794307 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 444.0 LOGGED (FT.): 241.0 LOG TYPE: Survey Core Study
 SOURCE: MID EGYPT C C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
444.0			UNCONSOLIDATED	34.0	0.0	
410.0			ROCK	103.0	34.0	
307.0			COAL	2.5	137.0	BONY
304.0			ROCK	101.0	140.0	

MAPID: 07700424400M VERSION: 1 PROJECT: BLM
 COUNTY: JACKSON TWP/RNG: 8S 3W SECTION: 26 QUARTERS/FOOTAGES: NW SW NE NW
 QUADRANGLE: ORAVILLE LONGITUDE: -89.410263 GEOLOGIST: BARGH,M
 CONFIDENTIAL: N LATITUDE: 37.802993 DATE COLLECTED: 9 / 13 / 1933
 SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 16.0 LOG TYPE: Measured section
 SOURCE: FLD NOTES-FULLER, JONGMANS SLOPE WELL TYPE: Underground mine
 COMMENT: "OLD SHAFT, NOW FILLED IN"

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	10.0		
-			COAL	6.0		REPORTED. HAS 2' BONY PARTING.

MAPID: 07700424300M VERSION: 1 PROJECT: BLM
 COUNTY: JACKSON TWP/RNG: 8S 3W SECTION: 26 QUARTERS/FOOTAGES: SE SE NW NE
 QUADRANGLE: ORAVILLE LONGITUDE: -89.40214 GEOLOGIST: BARGH,M
 CONFIDENTIAL: N LATITUDE: 37.801711 DATE COLLECTED: 9 / 13 / 1933
 SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 18.0 LOG TYPE:
 SOURCE: FLD NOTES-FULLER, IMHOFF STRIP MINE WELL TYPE: Strip Mine
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			LIMESTONE	1.3		SPEC.87
-			SHALE	10.2		
-			COAL	4.6		UPPER 3.5' GOOD QUALITY
-			UNDERCLAY	3.0		REPORTED,NOT SEEN

MAPID: 07700424200M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 3W SECTION: 26 QUARTERS/FOOTAGES: SE NW NW NW

QUADRANGLE: ORAVILLE LONGITUDE: -89.41373 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.804058 DATE COLLECTED: 9 / 22 / 1930

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 4.6 LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY, YOUNG MINE WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			COAL	4.6		"MIDDLE 28" VERY BONY COAL"

MAPID: 07701640000C VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 3W SECTION: 26 QUARTERS/FOOTAGES: 150' S line, 1330' E line of NE

QUADRANGLE: ORAVILLE LONGITUDE: -89.401624 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.797989 DATE COLLECTED: 7 / 11 / 1968

SURFACE ELEVATION (FT.): 435.0 LOGGED (FT.): 38.3 LOG TYPE: Multiple log types

SOURCE: J. E. HOSKINS WELL TYPE: Coal Test

COMMENT: 4,1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.0			UNCONSOLIDATED	11.0	0.0	
424.0			ROCK	11.0	11.0	
413.0			SANDSTONE	11.5	22.0	CORE BEGINS
401.5	SPOON	MURPHYSBORO	COAL	4.3	33.5	SH SPLITS WITH THIN COAL
397.2	SPOON	MURPHYSBORO	UNDERCLAY	0.5	37.8	

MAPID: 07701641000C VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 3W SECTION: 26 QUARTERS/FOOTAGES: 720' S line, 1310' E line of NE

QUADRANGLE: ORAVILLE LONGITUDE: -89.401514 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.799557 DATE COLLECTED: 7 / 11 / 1968

SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 62.7 LOG TYPE: Multiple log types

SOURCE: J. E. HOSKINS WELL TYPE: Coal Test

COMMENT: 4,1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0			UNCONSOLIDATED	38.0	0.0	
407.0			ROCK	4.0	38.0	
403.0			ROCK	12.9	42.0	E - CORE BEGINS
390.1	SPOON	MURPHYSBORO	COAL	2.0	54.9	
388.1			ROCK	5.8	56.9	

MAPID: 07701642000C

VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 8S 3W

SECTION: 26

QUARTERS/FOOTAGES: 500' S line, 500' W line of NE

QUADRANGLE: ORAVILLE

LONGITUDE: -89.404548

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.799096

DATE COLLECTED: 7 / 12 / 1968

SURFACE ELEVATION (FT.): 420.0

LOGGED (FT.): 30.0

LOG TYPE: Drillers Log

SOURCE: J. E. HOSKINS

3

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
420.0	PLEISTOCENE	MURPHYSBORO	CLAY & GRAVEL	18.0	0.0
402.0	TRADEWATER		ARGILACEOUS SHALE	4.0	18.0
398.0	TRADEWATER		SHALE	1.0	22.0
397.0	TRADEWATER		COAL	3.0	23.0
394.0	TRADEWATER		UNDERCLAY	2.0	26.0
392.0	TRADEWATER		SANDSTONE	2.0	28.0

MAPID: 07701642000C

VERSION: 2

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 8S 3W

SECTION: 26

QUARTERS/FOOTAGES: 500' S line, 500' W line of NE

QUADRANGLE: ORAVILLE

LONGITUDE: -89.404548

GEOLOGIST: BARGH,M

CONFIDENTIAL: N

LATITUDE: 37.799096

DATE COLLECTED: 7 / 12 / 1968

SURFACE ELEVATION (FT.): 420.0

LOGGED (FT.): 30.0

LOG TYPE: Multiple log types

SOURCE: J. E. HOSKINS

WELL TYPE: Coal Test

COMMENT: 4,1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
420.0		MURPHYSBORO	UNCONSOLIDATED	18.0	0.0
402.0			CLAYSTONE & SHALE	4.0	18.0
398.0			SHALE	1.0	22.0 E - CORE BEGINS
397.0	SPOON		COAL	3.0	23.0
394.0	SPOON		UNDERCLAY	2.0	26.0
392.0			SANDSTONE	2.0	28.0

MAPID: 07701643000C

VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 8S 3W

SECTION: 26

QUARTERS/FOOTAGES: 50' N line, 300' W line of SE

QUADRANGLE: ORAVILLE

LONGITUDE: -89.405284

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.797611

DATE COLLECTED: 7 / 13 / 1968

SURFACE ELEVATION (FT.): 420.0

LOGGED (FT.): 22.4

LOG TYPE: Drillers Log

SOURCE: J. E. HOSKINS

4

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0	PLEISTOCENE	MURPHYSBORO	CLAY	10.0	0.0	WITH SAND AND SOME BOULDERS
410.0	PLEISTOCENE		GRAVEL	5.5	10.0	
404.5	TRADEWATER		ARGILACEOUS SHALE	3.0	15.5	
401.5	TRADEWATER		COAL	2.0	18.5	
399.5	TRADEWATER		UNDERCLAY	2.0	20.5	

MAPID: 07701643000C

VERSION: 2

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 8S 3W

SECTION: 26

QUARTERS/FOOTAGES: 50' N line, 300' W line of SE

QUADRANGLE: ORAVILLE

LONGITUDE: -89.405284

GEOLOGIST: BARGH,M

CONFIDENTIAL: N

LATITUDE: 37.797611

DATE COLLECTED: 7 / 13 / 1968

SURFACE ELEVATION (FT.): 420.0

LOGGED (FT.): 22.5

LOG TYPE: Survey Core Study

SOURCE: J. E. HOSKINS

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0		MURPHYSBORO	UNCONSOLIDATED	15.5	0.0	
404.5			ROCK	3.0	15.5	
401.5	SPOON		COAL	2.0	18.5	
399.5	SPOON		ROCK	2.0	20.5	

MAPID: 07701646000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 8S 3W **SECTION:** 26 **QUARTERS/FOOTAGES:** 660' S line, 550' E line of NE
QUADRANGLE: ORAVILLE **LONGITUDE:** -89.398877 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.799268 **DATE COLLECTED:** 7 / 13 / 1968
SURFACE ELEVATION (FT.): 425.0 **LOGGED (FT.):** 60.0 **LOG TYPE:** Drillers Log
SOURCE: J. E. HOSKINS 7 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	7.0	0.0	
418.0	TRADEWATER		SHALE	31.0	7.0	
387.0	TRADEWATER		SANDSTONE	1.5	38.0	WITH COAL FRAGMENTS
385.5	TRADEWATER		SHALE	14.0	39.5	
371.5	TRADEWATER		COAL	2.3	53.5	
369.2	TRADEWATER		UNDERCLAY	3.5	55.8	
365.7	TRADEWATER		SANDSTONE	0.7	59.3	

MAPID: 07701646000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 3W **SECTION:** 26 **QUARTERS/FOOTAGES:** 660' S line, 550' E line of NE
QUADRANGLE: ORAVILLE **LONGITUDE:** -89.398877 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.799268 **DATE COLLECTED:** 7 / 13 / 1968
SURFACE ELEVATION (FT.): 425.0 **LOGGED (FT.):** 60.0 **LOG TYPE:** Survey Core Study
SOURCE: J. E. HOSKINS **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0		MURPHYSBORO	UNCONSOLIDATED	38.0	0.0	
387.0			ROCK	15.5	38.0	
371.5	SPOON		COAL	2.3	53.5	
369.2	SPOON		ROCK	4.2	55.8	

MAPID: 07722422000C **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 8S 3W **SECTION:** 26 **QUARTERS/FOOTAGES:** NW SW SW
QUADRANGLE: ORAVILLE **LONGITUDE:** -89.414591 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.793646 **DATE COLLECTED:** 5 / 27 / 1980
SURFACE ELEVATION (FT.): 460.0 **LOGGED (FT.):** 250.0 **LOG TYPE:** Drillers Log
SOURCE: FRANK HAPP, DRILLER **WELL TYPE:** Water Well
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0			UNCONSOLIDATED	32.0	0.0	
428.0			ROCK	160.0	32.0	
268.0			COAL	1.0	192.0	
267.0			ROCK	57.0	193.0	

MAPID: 077265C0006F VERSION: 1 PROJECT: BLM
 COUNTY: JACKSON TWP/RNG: 8S 3W SECTION: 26 QUARTERS/FOOTAGES: SE NE NW NW
 QUADRANGLE: ORAVILLE LONGITUDE: -89.411403 GEOLOGIST: BARGH,M
 CONFIDENTIAL: N LATITUDE: 37.803955 DATE COLLECTED: 0 / 0 / 1924
 SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 28.7 LOG TYPE: Measured section
 SOURCE: FLD NOTES-CULVER WELL TYPE: Outcrop
 COMMENT: AREA NOW FLOODED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			ROCK	26.5	
-			COAL	2.2	CLAY PARTING .25'

MAPID: 077265C0008F VERSION: 1 PROJECT: BLM
 COUNTY: JACKSON TWP/RNG: 8S 3W SECTION: 26 QUARTERS/FOOTAGES: SE SE NW NW
 QUADRANGLE: ORAVILLE LONGITUDE: -89.41145 GEOLOGIST: BARGH,M
 CONFIDENTIAL: N LATITUDE: 37.802135 DATE COLLECTED: 0 / 0 / 1933
 SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 39.9 LOG TYPE: Measured section
 SOURCE: FLD NOTES-FULLER WELL TYPE: Outcrop
 COMMENT: CUT BANK WEST SIDE OF CREEK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
400.0			SHALE	20.0	0.0
-	SPOON	MURPHYSBORO	COAL	2.3	
-	SPOON		SHALE	7.0	BLACK,BONEY
-	SPOON	MURPHYSBORO	COAL	0.7	BONY,SHALY,LOWER BENCH
-			SHALE	6.0	
-	SPOON		SANDSTONE	4.0	

MAPID: 077265C0007F VERSION: 1 PROJECT: BLM
 COUNTY: JACKSON TWP/RNG: 8S 3W SECTION: 26 QUARTERS/FOOTAGES: SE NW NE NW
 QUADRANGLE: ORAVILLE LONGITUDE: -89.409075 GEOLOGIST: BARGH,M
 CONFIDENTIAL: N LATITUDE: 37.803851 DATE COLLECTED: 0 / 0 / 1924
 SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 6.0 LOG TYPE: Measured section
 SOURCE: FLD NOTES-CULVER WELL TYPE: Underground mine
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			COAL	6.0	THICK SH PTG 1.5'FROM BASE

MAPID: 07701155000C VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 3W SECTION: 35 QUARTERS/FOOTAGES:

QUADRANGLE: ORAVILLE LONGITUDE: -89.406667 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.78315 DATE COLLECTED: 0 / 0 / 1947

SURFACE ELEVATION (FT.): LOGGED (FT.): 219.0 LOG TYPE: Drillers Log

SOURCE: GWIN, DRILLER WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	19.0	0.0	
-			ROCK	164.0	19.0	
-			COAL	1.0	183.0	
-			ROCK	35.0	184.0	

MAPID: 077265C0009F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 4W SECTION: 1 QUARTERS/FOOTAGES: NW SE NW

QUADRANGLE: RADDLE LONGITUDE: -89.500168 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.862577 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 15.8 LOG TYPE: Measured section

SOURCE: FLD NOTES-CULVER WELL TYPE: Outcrop

COMMENT: EXPOSED IN CREEK BED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	9.8		
-			COAL	1.0		
-			ROCK	5.0		

MAPID: 077266D0005F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 8S 4W SECTION: 17 QUARTERS/FOOTAGES: NE NE NE SW

QUADRANGLE: RADDLE LONGITUDE: -89.571871 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.83104 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 45.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-WHITE WELL TYPE: Outcrop

COMMENT: GENERALIZED SECTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	45.0		
-			COAL	-		THIN STREAK
-			ROCK	-		
-			UNKNOWN	-		
-			ROCK	-		

MAPID: 077265C0012F VERSION: 1 PROJECT: BLM
 COUNTY: JACKSON TWP/RNG: 8S 4W SECTION: 36 QUARTERS/FOOTAGES: NW SW SE SE
 QUADRANGLE: ORAVILLE LONGITUDE: -89.494131 GEOLOGIST: BARGH,M
 CONFIDENTIAL: N LATITUDE: 37.780422 DATE COLLECTED: 9 / 7 / 1933
 SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
 SOURCE: FLD NOTES-FULLER WELL TYPE: Outcrop
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	8.0		
-			UNKNOWN	6.0		
-			ROCK	8.0		
-			UNKNOWN	6.0		
-			ROCK	10.0		
-			UNKNOWN	15.0		
-			ROCK	4.0		
-			COAL	0.5		MISSISSIPPIAN
-			ROCK	1.5		
-			UNKNOWN	2.0		
-			ROCK	50.0		
-			UNKNOWN	5.0		
-			ROCK	-		

MAPID: 077266D0006F VERSION: 1 PROJECT: BLM
 COUNTY: JACKSON TWP/RNG: 8S 5W SECTION: 13 QUARTERS/FOOTAGES: SE SE NW SE
 QUADRANGLE: RADDLE LONGITUDE: -89.603638 GEOLOGIST: BARGH,M
 CONFIDENTIAL: N LATITUDE: 37.828653 DATE COLLECTED: 0 / 0 / 1933
 SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 36.7 LOG TYPE: Measured section
 SOURCE: FLD NOTES-WANLESS WELL TYPE: Outcrop
 COMMENT: POORLY EXPOSED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	5.0		
-			COAL	0.7		LOCALLY WEATHERED. MISSISSIPPIAN
-			ROCK	3.0		
-			UNKNOWN	8.0		
-			ROCK	15.0		
-			UNKNOWN	5.0		

MAPID: 07700763000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 2 QUARTERS/FOOTAGES: 20' N line, 10' W line of NE SW
QUADRANGLE: DE SOTO LONGITUDE: -89.184502 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.767296 DATE COLLECTED: 0 / 0 / 1935
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 105.1 LOG TYPE: Drillers Log
SOURCE: PYRAMID COAL CO. 4 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		UNCONSOLIDATED	42.0	0.0
353.0			CLAYSTONE & SILTSTONE	8.0	42.0
345.0			SHALE	27.0	50.0
318.0			CLAYSTONE & SILTSTONE	23.6	77.0
294.4			BLACK SHALE	1.5	100.6
292.9			COAL	0.8	102.1
292.2			SHALE	2.2	102.8

MAPID: 07700764000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 2 QUARTERS/FOOTAGES: 40' N line, 20' W line of NE SE
QUADRANGLE: DE SOTO LONGITUDE: -89.175055 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.767159 DATE COLLECTED: 0 / 0 / 1935
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 85.0 LOG TYPE: Drillers Log
SOURCE: PYRAMID COAL CO. 2 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.0	PLEISTOCENE		UNCONSOLIDATED	47.0	0.0
348.0	PLEISTOCENE		CLAY	11.0	47.0
337.0			SHALE	5.3	58.0
331.7			BLACK SHALE	1.7	63.3
330.0			COAL	0.3	65.0
329.7			SHALE	19.7	65.3

MAPID: 07700765000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 2 QUARTERS/FOOTAGES: 2' N line, 1' E line of SW NE
QUADRANGLE: DE SOTO LONGITUDE: -89.175065 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.770911 DATE COLLECTED: 0 / 0 / 1935
SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log
SOURCE: PYRAMID COAL CORP. 3 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
425.0	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0
398.0			SHALE	16.5	27.0
381.5			LIMESTONE	2.1	43.5
379.4			BLACK SHALE	2.5	45.6
376.9			COAL	1.8	48.1
375.2			UNDERCLAY	3.6	49.8
371.6			SHALE	11.6	53.4

MAPID: 07700766000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 2 QUARTERS/FOOTAGES: 45' S line, 30' E line of SE NE
QUADRANGLE: DE SOTO LONGITUDE: -89.170515 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.767356 DATE COLLECTED: 0 / 0 / 1935
SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 105.0 LOG TYPE: Drillers Log
SOURCE: PYRAMID COAL CORP. 1 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
425.0	PLEISTOCENE		UNCONSOLIDATED	35.0	0.0
390.0			SHALE	19.6	35.0
370.4			BLACK SHALE	1.2	54.6
369.2			COAL	0.8	55.8
368.4			SHALE	48.4	56.6

MAPID: 07701172000C VERSION: 1 PROJECT: CUSMAP
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 2 QUARTERS/FOOTAGES: 330' N line, 380' W line of NE SE
QUADRANGLE: DE SOTO LONGITUDE: -89.173813 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 37.76635 DATE COLLECTED: 4 / 0 / 1948
SURFACE ELEVATION (FT.): 393.0 LOGGED (FT.): 920.0 LOG TYPE: Electric Log
SOURCE: SULLIVAN W O WELL TYPE: Producer-Oil and Gas
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-527.0	BASE OF PENN.		UNCLASSIFIED	-	920.0

MAPID: 07701177000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 3 QUARTERS/FOOTAGES:

QUADRANGLE: DE SOTO LONGITUDE: -89.198598 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.76703 DATE COLLECTED: 0 / 0 / 1947

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 169.1 LOG TYPE: Drillers Log

SOURCE: L. W. GWIN 1 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	31.0	0.0	YELLOW
364.0			SHALE	9.0	31.0	BLUE
355.0			SHALE	35.0	40.0	RED
320.0			ROCK	10.0	75.0	SANDY; LOG NOTES GRAVEL
310.0			SHALE	7.0	85.0	
303.0			SANDY LIMESTONE	6.0	92.0	
297.0			SHALE	6.0	98.0	BLUE
291.0			SHALE	2.0	104.0	
289.0			SHALE	9.0	106.0	
280.0			SANDY LIMESTONE	2.0	115.0	
278.0			SHALE	22.0	117.0	
256.0			SHALE	7.0	139.0	BLUE
249.0	TRADEWATER	MURPHYSBORO	COAL	4.0	146.0	
245.0			SHALE	19.0	150.0	BLUE

MAPID: 07701178000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 5 QUARTERS/FOOTAGES:
QUADRANGLE: DE SOTO LONGITUDE: -89.236328 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.767121 DATE COLLECTED: 9 / 1 / 1893
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 200.1 LOG TYPE: Drillers Log
SOURCE: HUNDLEY, MCKINNEYS & BLACE WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	YELLOW
374.0	PLEISTOCENE		SAND	20.0	21.0	
354.0			SHALE	7.0	41.0	CLAY; YELLOW
347.0			CLAYSTONE & SILTSTONE	6.0	48.0	RED
341.0			SANDSTONE	10.0	54.0	RED
331.0			SHALE	29.5	64.0	CLAY; RED
301.5			SANDSTONE	37.5	93.5	GRAY
264.0			SHALE	1.5	131.0	
262.5			COAL	2.3	132.5	WITH BLACK SHALE
260.2			SHALE	9.2	134.8	
251.0			SHALE	12.8	144.0	BLUE
238.2			SHALE	1.3	156.8	
237.0	TRADEWATER	MURPHYSBORO	COAL	2.8	158.0	
234.2			SHALE	1.3	160.8	DARK
232.8			SHALE	12.8	162.2	BLUE
220.0			SHALY SANDSTONE	12.0	175.0	
208.0			LIMESTONE	4.8	187.0	BLUE
203.2			SANDY SHALE	7.2	191.8	BLUE
196.0			SANDSTONE	1.0	199.0	GRAY

MAPID: 07701615000C VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 7 QUARTERS/FOOTAGES: NE NE NE NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.25695 GEOLOGIST: BARGH,M
CONFIDENTIAL: N LATITUDE: 37.759788 DATE COLLECTED: 10 / 28 / 1961
SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 134.0 LOG TYPE: Drillers Log
SOURCE: GWIN DRILLING CO. WELL TYPE: Water Well
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0			UNCONSOLIDATED	15.0	0.0	
385.0			ROCK	89.0	15.0	
296.0			COAL	1.0	104.0	
295.0			ROCK	29.0	105.0	

MAPID: 07701183000C VERSION: 1

PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 12 QUARTERS/FOOTAGES: 15' S line, 100' E line
QUADRANGLE: CARBONDALE LONGITUDE: -89.152402 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.744875 DATE COLLECTED: 10 / 0 / 1949
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 219.0 LOG TYPE: Drillers Log
SOURCE: GWIN, DRILLER WELL TYPE: Water Well
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0			UNCONSOLIDATED	10.0	0.0	
420.0			ROCK	140.0	10.0	
280.0			COAL	2.0	150.0	
278.0			ROCK	67.0	152.0	

MAPID: 07701184000C VERSION: 1

PROJECT: NCRDS87

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 13 QUARTERS/FOOTAGES:
QUADRANGLE: CARBONDALE LONGITUDE: -89.161384 GEOLOGIST: WEIBEL
CONFIDENTIAL: N LATITUDE: 37.737678 DATE COLLECTED: 0 / 0 / 1937
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log
SOURCE: CHAS. HAGLER (FARM) WELL TYPE: Coal Test
COMMENT: LOC IN SEC UNKNOWN,ELV IMPRECISE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0			UNCONSOLIDATED	28.0	0.0	
392.0			SANDSTONE	16.0	28.0	
376.0			SHALE	51.0	44.0	
325.0			BLACK SHALE	5.0	95.0	
320.0			SHALE	20.0	100.0	
300.0			SANDSTONE	8.0	120.0	
292.0			UNCLASSIFIED	6.0	128.0	
286.0			BLACK SHALE	3.0	134.0	
283.0			SHALE	8.0	137.0	
275.0			LIMESTONE	3.5	145.0	
271.5			BLACK SHALE	4.0	148.5	
267.5	SPOON	MURPHYSBORO	COAL	1.5	152.5	UNCERTAIN CORRELATION
266.0			UNDERCLAY	6.0	154.0	

MAPID: 07701184000C VERSION: 2

PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 13 QUARTERS/FOOTAGES:

QUADRANGLE: CARBONDALE LONGITUDE: -89.161384

GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.737678

DATE COLLECTED: 0 / 0 / 1937

SURFACE ELEVATION (FT.): LOGGED (FT.): 160.0

LOG TYPE: Drillers Log

SOURCE: HAGLER FARM

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	28.0	0.0	
-			ROCK	124.5	28.0	
-			COAL	1.5	152.5	
-			ROCK	6.0	154.0	

MAPID: 07701184000C VERSION: 3

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 13 QUARTERS/FOOTAGES:

QUADRANGLE: CARBONDALE LONGITUDE: -89.161384

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.737678

DATE COLLECTED: 0 / 0 / 1937

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 160.0

LOG TYPE: Drillers Log

SOURCE: HAGLER CHAS

WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0	
367.0			SANDSTONE	16.0	28.0	
351.0			SHALE	34.0	44.0	
317.0			SHALE	17.0	78.0	
300.0			SHALE	5.0	95.0	
295.0			SHALE	4.0	100.0	BROWN
291.0			SHALE	11.0	104.0	
280.0			SANDY SHALE	5.0	115.0	
275.0			SANDSTONE	8.0	120.0	WHITE
267.0			SHALE	6.0	128.0	
261.0			SHALE	3.0	134.0	
258.0			CLAYSTONE	8.0	137.0	
250.0			LIMESTONE	3.5	145.0	
246.5			SHALE	4.0	148.5	
242.5			COAL	1.5	152.5	
241.0			UNDERCLAY	6.0	154.0	

MAPID: 07701185000C VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 13 QUARTERS/FOOTAGES: 620' S line, 250' E line
QUADRANGLE: CARBONDALE LONGITUDE: -89.15301 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.731894 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 147.0 LOG TYPE: Drillers Log
SOURCE: GWIN, DRILLER WELL TYPE: Water Well
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0			UNCONSOLIDATED	33.0	0.0	
397.0			ROCK	66.0	33.0	
331.0			SHALE	45.0	99.0	
286.0			COAL	3.0	144.0	
283.0			SHALE	3.0	147.0	

MAPID: 07701635000C VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 14 QUARTERS/FOOTAGES:
QUADRANGLE: CARBONDALE LONGITUDE: -89.180168 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.737884 DATE COLLECTED: 0 / 0 / 1964
SURFACE ELEVATION (FT.): LOGGED (FT.): 55.0 LOG TYPE: Drillers Log
SOURCE: ILL DIVISION OF HIGHWAYS WELL TYPE: Engineering Test Holes
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	45.0	0.0	
-			ROCK	0.0	45.0	GRAVEL, COAL, SAND AND CARBONACEOUS CLA
-			COAL	-	45.0	

MAPID: 07701176000C VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 21 QUARTERS/FOOTAGES: 1' S line, 2640' E line
QUADRANGLE: CARBONDALE LONGITUDE: -89.218189 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.715651 DATE COLLECTED: 0 / 0 / 1914
SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 562.5 LOG TYPE: Drillers Log
SOURCE: SO. ILL. UNIV. WELL WELL TYPE: Water Well
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0			UNCONSOLIDATED	32.0	0.0	
408.0			COAL	3.0	32.0	"ROTTEN"
405.0			ROCK	527.5	35.0	

MAPID: 07700249600M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 23 QUARTERS/FOOTAGES: 1420' N line, 1720' E line

QUADRANGLE: CARBONDALE LONGITUDE: -89.176899 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.726479 DATE COLLECTED: 0 / 0 / 1936

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 88.0 LOG TYPE: Measured section

SOURCE: MINE NOTES-EAST SIDE C C WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0			UNCONSOLIDATED	84.0	0.0	
316.0	SPOON	MURPHYSBORO	COAL	4.0	84.0	AVERAGE THICKNESS

MAPID: 07700249700M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 23 QUARTERS/FOOTAGES: SE NE SE

QUADRANGLE: CARBONDALE LONGITUDE: -89.172409 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.720194 DATE COLLECTED:

SURFACE ELEVATION (FT.): 380.0 LOGGED (FT.): 66.0 LOG TYPE: Measured section

SOURCE: MINE NOTES-TREGONING C C WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0			UNCONSOLIDATED	62.0	0.0	
318.0	SPOON	MURPHYSBORO	COAL	4.0	62.0	

MAPID: 07700249800M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 23 QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: CARBONDALE LONGITUDE: -89.177101 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.720222 DATE COLLECTED:

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section

SOURCE: MINE NOTES-CRAB ORCHARD C C WELL TYPE: Underground mine

COMMENT:

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

MAPID: 077271B0009F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 1W **SECTION:** 23 **QUARTERS/FOOTAGES:** SE SE NW SE
QUADRANGLE: CARBONDALE **LONGITUDE:** -89.176536 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.719756 **DATE COLLECTED:** 0 / 0 / 1933
SURFACE ELEVATION (FT.): 400.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-WANLESS **WELL TYPE:** Underground mine
COMMENT: SECTION ON MR. HUNTS COAL MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0			UNCONSOLIDATED	-	0.0	
-			SANDSTONE	35.0		
-			COAL	2.0		"THIN"
-			UNKNOWN	30.0		
-	SPOON	MURPHYSBORO	COAL	4.0		

MAPID: 077271B0007F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 1W **SECTION:** 23 **QUARTERS/FOOTAGES:** NE NE SW NE
QUADRANGLE: CARBONDALE **LONGITUDE:** -89.176247 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.726229 **DATE COLLECTED:** 9 / 12 / 1933
SURFACE ELEVATION (FT.): 380.0 **LOGGED (FT.):** 59.8 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-WANLESS, LAUDER C C **WELL TYPE:** Underground mine
COMMENT: OTHER NOTES AT THIS LOCATION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0			UNCONSOLIDATED	5.0	0.0	
375.0			ROCK	10.1	5.0	INCLUDES CURLEW LS
364.9			COAL	1.3	15.1	
363.7			ROCK	9.0	16.3	
354.7			COAL	0.2	25.3	"MIDDLE BENCH OF MURPHYSBORO"
354.5			SHALE	30.0	25.5	
324.5	SPOON	MURPHYSBORO	COAL	4.3	55.5	

MAPID: 077271B0006F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 23 QUARTERS/FOOTAGES: SW NW NE

QUADRANGLE: CARBONDALE LONGITUDE: -89.179153 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.727642 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 380.0 LOGGED (FT.): 67.5 LOG TYPE: Measured section

SOURCE: FLD NOTES-WANLESS, INDEPENDENT C C WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0			UNCONSOLIDATED	30.0	0.0	
350.0			ROCK	7.5	30.0	5-10'
342.5	SPOON		COAL	2.0	37.5	
340.5	SPOON		UNDERCLAY	1.0	39.5	
339.5	SPOON		SANDSTONE	8.0	40.5	
331.5	SPOON		SHALE	15.0	48.5	
316.5	SPOON	MURPHYSBORO	COAL	4.0	63.5	
312.5	SPOON		UNDERCLAY	-	67.5	

MAPID: 077271B0008F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 23 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: CARBONDALE LONGITUDE: -89.172314 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.722041 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 33.1 LOG TYPE: Measured section

SOURCE: FLD NOTES-WANLESS WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	9.7		
-			COAL	0.9		
-			ROCK	17.5		
-			UNKNOWN	5.0		
-			COAL	-		REPORTED IN CREEK BOTTOM

MAPID: 07700010400M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 27 QUARTERS/FOOTAGES: SW SW NW

QUADRANGLE: CARBONDALE LONGITUDE: -89.207927 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.708843 DATE COLLECTED:

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 33.5 LOG TYPE: Measured section

SOURCE: MINE NOTES-MCCARNES C C WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0			UNCONSOLIDATED	8.0	0.0	
472.0			COAL	1.5	8.0	
470.5			SHALE	20.0	9.5	
450.5			COAL	4.0	29.5	SEVERAL PYRITE LENSES .25'
446.5			SHALE	-	33.5	

MAPID: 07700249500M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 27 QUARTERS/FOOTAGES: SE NE NW

QUADRANGLE: CARBONDALE LONGITUDE: -89.20076 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.712802 DATE COLLECTED: 0 / 0 / 1938

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 64.0 LOG TYPE: Measured section

SOURCE: MINE INDEX-JACKSON COUNTY C C WELL TYPE: Underground mine

COMMENT: LOCATION FROM MINE MAP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0			UNCONSOLIDATED	60.0	0.0	
390.0	SPOON	MURPHYSBORO	COAL	4.0	60.0	

MAPID: 07700250000M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 27 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: CARBONDALE LONGITUDE: -89.200842 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.708971 DATE COLLECTED: 7 / 14 / 1954

SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 24.0 LOG TYPE: Measured section

SOURCE: MINE NOTES-STONEHOUSE, YOUNG C C WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.0			UNCONSOLIDATED	-	0.0	
-			COAL	-		
-			UNKNOWN	20.0		
-	SPOON		COAL	4.0		

MAPID: 07701201000C

VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 9S 1W

SECTION: 27

QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: CARBONDALE

LONGITUDE: -89.203116

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.712789

DATE COLLECTED:

SURFACE ELEVATION (FT.): 425.0

LOGGED (FT.): 84.0

LOG TYPE: Drillers Log

SOURCE: YOUNG EARL

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
425.0	PLEISTOCENE		SHALE	12.0	0.0
413.0			COAL	3.2	12.0
409.8			UNDERCLAY	4.0	15.2
405.8			SANDSTONE	40.0	19.2
365.8			SHALE	20.0	59.2
345.8	TRADEWATER	MURPHYSBORO	COAL	4.8	79.2

MAPID: 07701201000C

VERSION: 2

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 9S 1W

SECTION: 27

QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: CARBONDALE

LONGITUDE: -89.203116

GEOLOGIST: BARGH M.

CONFIDENTIAL: N

LATITUDE: 37.712789

DATE COLLECTED:

SURFACE ELEVATION (FT.): 425.0

LOGGED (FT.): 84.0

LOG TYPE: Drillers Log

SOURCE: EARL YOUNG FARM

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
425.0			UNCONSOLIDATED	12.0	0.0
413.0			COAL	3.2	12.0
409.8			UNDERCLAY	4.0	15.2
405.8			ROCK	40.0	19.2
365.8			SHALE	20.0	59.2
345.8			COAL	4.8	79.2

MAPID: 077271B0010F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 1W **SECTION:** 27 **QUARTERS/FOOTAGES:** NW SE NW
QUADRANGLE: CARBONDALE **LONGITUDE:** -89.203159 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.710859 **DATE COLLECTED:** 0 / 0 / 1933
SURFACE ELEVATION (FT.): 440.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-WANLESS, CARBONDALE C C **WELL TYPE:** Underground mine
COMMENT: SECTION IN SLOPE OF MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	6.0		POORLY EXPOSED
-			COAL	2.5		
-			CLAYSTONE	1.7		
-			SHALE	18.0		
-	SPOON	MURPHYSBORO	COAL	4.0		
-	SPOON		CLAYSTONE	5.0		IN SUMP

MAPID: 077271B0011F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 1W **SECTION:** 27 **QUARTERS/FOOTAGES:** NE NE SE NW
QUADRANGLE: CARBONDALE **LONGITUDE:** -89.200199 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.711373 **DATE COLLECTED:** 0 / 0 / 1933
SURFACE ELEVATION (FT.): 450.0 **LOGGED (FT.):** 62.5 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-WANLESS, JOHNSON COUNTY C C **WELL TYPE:** Underground mine
COMMENT: NEW ENTRY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SANDSTONE	-		
-			UNKNOWN	30.0		
-	SPOON	MURPHYSBORO	COAL	2.5		MINE ENTRY AT THIS LEVEL
-	SPOON		SHALE	25.0		
-	SPOON		COAL	4.0		
-	SPOON		CLAYSTONE	1.0		

MAPID: 077271B0012F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 27 QUARTERS/FOOTAGES: SE NE SW NE

QUADRANGLE: CARBONDALE LONGITUDE: -89.195502 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.71048 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 35.7 LOG TYPE: Measured section

SOURCE: FLD NOTES-WANLESS, O K COAL C WELL TYPE: Underground mine

COMMENT: "SECTION OF MINE"

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SANDSTONE	-		
-			SHALE	30.0		
-			BLACK SHALE	0.1		
-	SPOON	MURPHYSBORO	COAL	4.0		
-	SPOON		UNDERCLAY	1.0		
-			SANDSTONE	0.7		

MAPID: 07700249900M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 35 QUARTERS/FOOTAGES:

QUADRANGLE: CARBONDALE LONGITUDE: -89.180979 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.693626 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 4.2 LOG TYPE: Measured section

SOURCE: MINE NOTES-J. BRUSH C C WELL TYPE: Underground mine

COMMENT: IN ROOM NEAR SHAFT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	0.2		
-			CLAYSTONE	0.2		CLOD
-	SPOON	MURPHYSBORO	COAL	3.9		SULFUR LENS .16'
-	SPOON		UNDERCLAY	-		

MAPID: 07700415500M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 35 QUARTERS/FOOTAGES: NW SW SE SE

QUADRANGLE: CARBONDALE LONGITUDE: -89.175769 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.687815 DATE COLLECTED:

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 5.3 LOG TYPE: Measured section

SOURCE: MINE NOTES-A. PHILLIPS C C WELL TYPE: Underground mine

COMMENT: SAMPLE TAKEN IN MINE IS SEC 36

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	SPOON	MURPHYSBORO	COAL	5.3		SH PTG. .02'

MAPID: 077271B0014F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 35 QUARTERS/FOOTAGES: NE NE SW SE

QUADRANGLE: CARBONDALE LONGITUDE: -89.176918 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.689607 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-FULLER WELL TYPE: Underground mine

COMMENT: ABANDONED ENTRY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			SHALE	1.0	
-			COAL	2.2	
-			SHALE	4.0	

MAPID: 077271B0013F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 35 QUARTERS/FOOTAGES: NW NW SE SE

QUADRANGLE: CARBONDALE LONGITUDE: -89.175747 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.689634 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 12.3 LOG TYPE: Measured section

SOURCE: FLD NOTES-FULLER WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			SANDSTONE	8.0	STRINGERS OF COAL UP TO .25'
-			SHALE	0.3	BASAL SHALY PHASE OF SS
-			COAL	3.1	SH PARTING .08'
-			UNDERCLAY	1.0	
-			SHALE	-	

MAPID: 07700026800M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES:

QUADRANGLE: CARBONDALE LONGITUDE: -89.162089 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.693917 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): LOGGED (FT.): 5.8 LOG TYPE: Measured section

SOURCE: MINE NOTES-WOODS, J. B. WELL TYPE: Underground mine

COMMENT: 3 1/2 MI SE OF CARBONDALE TWP S OF MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	SPOON	MURPHYSBORO	COAL	5.8	AVERAGE THICKNESS

MAPID: 07700026801M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES:

QUADRANGLE: CARBONDALE LONGITUDE: -89.162089 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.693917 DATE COLLECTED: 11 / 24 / 1909

SURFACE ELEVATION (FT.): LOGGED (FT.): 6.0 LOG TYPE: Measured section

SOURCE: MINE NOTES-WOOD, J. B. WELL TYPE: Underground mine

COMMENT: 1ST. WEST OFF NORTH

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	-		
-	SPOON	MURPHYSBORO	COAL	6.0		SULPHUR PTG. .08', .12'
-	SPOON		UNDERCLAY	-		

MAPID: 07700060200M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: 100' S line, 2460' E line

QUADRANGLE: CARBONDALE LONGITUDE: -89.16116 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.68695 DATE COLLECTED: 0 / 0 / 1936

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 50.0 LOG TYPE: Measured section

SOURCE: MINE NOTES-SWOFFORD C C, MINE # 2 WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0			UNCONSOLIDATED	46.0	0.0	
414.0	SPOON	MURPHYSBORO	COAL	4.0	46.0	

MAPID: 07700060700M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: 2240' N line, 2105' E line of NE

QUADRANGLE: CARBONDALE LONGITUDE: -89.159913 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.695004 DATE COLLECTED: 0 / 0 / 1954

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 107.5 LOG TYPE: Measured section

SOURCE: MINE NOTES-PHILLIP C C WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0			UNCONSOLIDATED	100.0	0.0	
340.0			COAL	7.5	100.0	

MAPID: 07700060701M **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 1W **SECTION:** 36 **QUARTERS/FOOTAGES:** SE NW SW
QUADRANGLE: CARBONDALE **LONGITUDE:** -89.168049 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.691133 **DATE COLLECTED:** 7 / 14 / 1954
SURFACE ELEVATION (FT.): 500.0 **LOGGED (FT.):** 34.0 **LOG TYPE:** Measured section
SOURCE: MINE NOTES-STONEHOUSE, PHILLIPS C C **WELL TYPE:** Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			SHALE	4.0	
-			COAL	4.4	
-			UNDERCLAY	0.5	
-			SHALE	1.0	
-			ROCK	17.0	
-	SPOON	MURPHYSBORO	COAL	7.0	

MAPID: 07700089101M **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 1W **SECTION:** 36 **QUARTERS/FOOTAGES:** NE NE SE SW
QUADRANGLE: CARBONDALE **LONGITUDE:** -89.162706 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.689833 **DATE COLLECTED:** 2 / 26 / 1970
SURFACE ELEVATION (FT.): 450.0 **LOGGED (FT.):** 36.1 **LOG TYPE:**
SOURCE: MINE NOTES-DAMBERGER, SEMCO MINE **WELL TYPE:** Strip Mine
COMMENT: SAMPLE # 1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			SANDSTONE	15.0	CHANNEL
-			COAL	1.8	AVERAGE THICKNESS; INTERMITTANT
-			SHALE	15.0	
-	SPOON		COAL	4.3	SH PARTING .08'
-	SPOON		UNDERCLAY	-	

MAPID: 07700089102M **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 1W **SECTION:** 36 **QUARTERS/FOOTAGES:** NW NW SW SE
QUADRANGLE: CARBONDALE **LONGITUDE:** -89.161514 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.689846 **DATE COLLECTED:** 2 / 26 / 1970
SURFACE ELEVATION (FT.): 450.0 **LOGGED (FT.):** 4.3 **LOG TYPE:**
SOURCE: MINE NOTES-DAMBERGER, SIMCO MINE **WELL TYPE:** Strip Mine
COMMENT: SAMPLE #2; 150' EAST OF SAMPLE #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			SHALE	-	
-	SPOON	MURPHYSBORO	COAL	4.3	SH PTG. .21'
-	SPOON		UNDERCLAY	-	

MAPID: 07700089103M **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 1W **SECTION:** 36 **QUARTERS/FOOTAGES:** NW NE SE SW
QUADRANGLE: CARBONDALE **LONGITUDE:** -89.163897 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.68982 **DATE COLLECTED:** 2 / 26 / 1970
SURFACE ELEVATION (FT.): 470.0 **LOGGED (FT.):** 44.2 **LOG TYPE:**
SOURCE: MINE NOTES-DAMBERGER, SIMCO MINE **WELL TYPE:** Strip Mine
COMMENT: SAMPLE #3, 200' W. OF SAMPLE #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SANDSTONE	20.0		
-			SHALE	20.0		
-	SPOON	MURPHYSBORO	COAL	4.1		PYRITE PTGS. .02', .16'
-	SPOON		SHALE	0.1		SIMILAR TO LEAF COAL
-	SPOON		CLAYSTONE	-		

MAPID: 07700250200M **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 1W **SECTION:** 36 **QUARTERS/FOOTAGES:** 700' S line, 1200' E line
QUADRANGLE: CARBONDALE **LONGITUDE:** -89.156789 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.688648 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 430.0 **LOGGED (FT.):** 76.5 **LOG TYPE:** Measured section
SOURCE: MINE NOTES-SWOFFORD C C, MINE #1 **WELL TYPE:** Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0			UNCONSOLIDATED	70.0	0.0	
360.0	SPOON	MURPHYSBORO	COAL	6.5	70.0	AVERAGE THICKNESS

MAPID: 07700250100M **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 1W **SECTION:** 36 **QUARTERS/FOOTAGES:**
QUADRANGLE: CARBONDALE **LONGITUDE:** -89.162089 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.693917 **DATE COLLECTED:** 0 / 0 / 1946
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: MINE NOTES-BEST C C **WELL TYPE:** Underground mine
COMMENT:

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

MAPID: 07700422500M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES:

QUADRANGLE: CARBONDALE LONGITUDE: -89.162089 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.693917 DATE COLLECTED: 0 / 0 / 1938

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

SOURCE: MINE NOTES-CARBON HEIGHTS C C WELL TYPE: Underground mine

COMMENT:

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

MAPID: 07700422600M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: SE NW NE SE

QUADRANGLE: CARBONDALE LONGITUDE: -89.155561 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.692631 DATE COLLECTED: 0 / 0 / 1974

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 5.0 LOG TYPE:

SOURCE: MINE NOTES-DAMBERGER, COOKSEY C C WELL TYPE: Strip Mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	SPOON	MURPHYSBORO	COAL	5.0	AVERAGE THICKNESS

MAPID: 07700422700M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: 2240' S line, 200' W line of SW

QUADRANGLE: CARBONDALE LONGITUDE: -89.170901 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.692753 DATE COLLECTED:

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 91.0 LOG TYPE: Measured section

SOURCE: MINE NOTES-SWOFFORD C C WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
400.0			UNCONSOLIDATED	85.0	0.0
315.0	SPOON	MURPHYSBORO	COAL	6.0	85.0

MAPID: 07700423400M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: SE NE NE NE

QUADRANGLE: CARBONDALE LONGITUDE: -89.153212 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.6999 DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 51.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-NETZEBAND, EATON & WILSON C C WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
520.0			UNCONSOLIDATED	15.0	0.0	GLACIAL TILL
505.0			COAL	4.0	15.0	
501.0			SHALE	25.0	19.0	
476.0	SPOON	MURPHYSBORO	COAL	7.0	44.0	
469.0	SPOON		UNDERCLAY	-	51.0	

MAPID: 07700423600M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: NE NW SW SW

QUADRANGLE: CARBONDALE LONGITUDE: -89.169852 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.689755 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 119.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-FULLER, WILSON MINE WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	5.0		
-			COAL	3.1		REPORTEDLY THICKENS TO 4.5' IN MINE
-			UNDERCLAY	2.4		
-			SHALE	14.0		
-			BLACK SHALE	5.0		
-			COAL	5.8		
-			UNDERCLAY	1.5		

MAPID: 07700423500M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: CARBONDALE LONGITUDE: -89.153785 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.694914 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 16.5 LOG TYPE: Measured section

SOURCE: FLD NOTES-FULLER, BAKER & STEELE C C WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	8.0		
-			BLACK SHALE	1.9		
-	SPOON	MURPHYSBORO	COAL	6.6		
-	SPOON		UNDERCLAY	-		

MAPID: 07700424000M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES:

QUADRANGLE: CARBONDALE LONGITUDE: -89.162089 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.693917 DATE COLLECTED: 0 / 0 / 1955

SURFACE ELEVATION (FT.): LOGGED (FT.): 32.5 LOG TYPE:

SOURCE: MINE NOTES-RED WING C C WELL TYPE: Strip Mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	25.0	0.0	
-	SPOON	MURPHYSBORO	COAL	7.5	25.0	

MAPID: 07701394000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: 32' N line, 38' W line of NW NE SE

QUADRANGLE: CARBONDALE LONGITUDE: -89.157212 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.693881 DATE COLLECTED: 0 / 0 / 1949

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 10.5 LOG TYPE: Drillers Log

SOURCE: ASKEW & ATWOOD 1B WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		UNCONSOLIDATED	7.5	0.0	
447.5	TRADEWATER	MURPHYSBORO	SMUT	0.5	7.5	TOP OF COAL ERODED
447.0	TRADEWATER	MURPHYSBORO	COAL	2.5	8.0	TOP OF COAL ERODED

MAPID: 07701395000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: 29' N line, 38' W line of NW NE SE

QUADRANGLE: CARBONDALE LONGITUDE: -89.157212 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.693889 DATE COLLECTED: 0 / 0 / 1949

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 15.2 LOG TYPE: Drillers Log

SOURCE: ASKEW & ATWOOD 2B WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
446.0	TRADEWATER	MURPHYSBORO	SMUT	1.7	9.0	TOP OF COAL ERODED
444.3	TRADEWATER	MURPHYSBORO	COAL	4.5	10.7	HARD

MAPID: 07701396000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: 13' N line, 49' W line of NW NE SE

QUADRANGLE: CARBONDALE LONGITUDE: -89.157173 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.693936 DATE COLLECTED: 0 / 0 / 1949

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 14.3 LOG TYPE: Drillers Log

SOURCE: ASKEW & ATWOOD 3B WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		UNCONSOLIDATED	13.3	0.0	
441.7	TRADEWATER	MURPHYSBORO	COAL	1.0	13.3	SOFT; TOP OF COAL ERODED

MAPID: 07701397000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: 6' N line, 49' W line of NW NE SE

QUADRANGLE: CARBONDALE LONGITUDE: -89.157173 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.693955 DATE COLLECTED: 0 / 0 / 1949

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 28.3 LOG TYPE: Drillers Log

SOURCE: ASKEW & ATWOOD 4B WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
436.0	TRADEWATER		SHALE	1.8	19.0	
434.2	TRADEWATER	MURPHYSBORO	COAL	7.5	20.8	

MAPID: 07701398000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: 6' N line, 55' W line of NW NE SE
QUADRANGLE: CARBONDALE LONGITUDE: -89.157152 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.693955 DATE COLLECTED: 0 / 0 / 1949
SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 21.8 LOG TYPE: Drillers Log
SOURCE: ASKEW & ATWOOD 5B WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		UNCONSOLIDATED	18.5	0.0	
436.5	TRADEWATER		SMUT	1.0	18.5	
435.5	TRADEWATER	MURPHYSBORO	COAL	2.3	19.5	TOP OF COAL ERODED

MAPID: 07701399000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: 40' N line, 26' W line of NW NE SE
QUADRANGLE: CARBONDALE LONGITUDE: -89.157254 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.693859 DATE COLLECTED: 0 / 0 / 1949
SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 20.3 LOG TYPE: Drillers Log
SOURCE: ASKEW & ATWOOD 6B WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
446.0	TRADEWATER		SHALE	3.0	9.0	
443.0	TRADEWATER		SMUT	0.7	12.0	
442.3	TRADEWATER	MURPHYSBORO	COAL	7.7	12.7	

MAPID: 07701400000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: 50' N line, 9' W line of NW NE SE
QUADRANGLE: CARBONDALE LONGITUDE: -89.157313 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.693831 DATE COLLECTED: 0 / 0 / 1949
SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 30.0 LOG TYPE: Drillers Log
SOURCE: ASKEW & ATWOOD 7B WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
433.0			SHALE	8.0	22.0	

MAPID: 07701401000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: SW NW NE SE
QUADRANGLE: CARBONDALE LONGITUDE: -89.156749 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.692618 DATE COLLECTED: 0 / 0 / 1949
SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 31.6 LOG TYPE: Drillers Log
SOURCE: ASKEW & ATWOOD 8B WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		UNCONSOLIDATED	27.3	0.0	
427.7	TRADEWATER		SMUT	1.0	27.3	
426.7	TRADEWATER	MURPHYSBORO	COAL	3.3	28.3	TOP OF COAL ERODED

MAPID: 07701401000C VERSION: 2 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: SW NW NE SE
QUADRANGLE: CARBONDALE LONGITUDE: -89.156749 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.692618 DATE COLLECTED: 0 / 0 / 1949
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 31.6 LOG TYPE: Drillers Log
SOURCE: ASKEW & ATWOOD WELL TYPE: Coal Test
COMMENT: HOLE # 8B

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0			UNCONSOLIDATED	27.3	0.0	
392.7			SMUT	1.0	27.3	
391.7			COAL	3.3	28.3	

MAPID: 07701402000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: NW NW NE SE
QUADRANGLE: CARBONDALE LONGITUDE: -89.156748 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.693523 DATE COLLECTED: 0 / 0 / 1949
SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 47.2 LOG TYPE: Drillers Log
SOURCE: ASKEW & ATWOOD 9B WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		UNCONSOLIDATED	26.5	0.0	
428.5	TRADEWATER		SHALE	12.5	26.5	
416.0	TRADEWATER	MURPHYSBORO	COAL	8.2	39.0	

MAPID: 07701402000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: NW NW NE SE

QUADRANGLE: CARBONDALE LONGITUDE: -89.156748 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.693523 DATE COLLECTED: 0 / 0 / 1949

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 47.2 LOG TYPE: Drillers Log

SOURCE: ASKEW & ATWOOD WELL TYPE: Coal Test

COMMENT: HOLE # 9B

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
450.0			UNCONSOLIDATED	26.0	0.0
424.0			SHALE	13.0	26.0
411.0			COAL	8.2	39.0

MAPID: 07701403000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: 1' N line, 19' W line of NW NE SE

QUADRANGLE: CARBONDALE LONGITUDE: -89.157277 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.693966 DATE COLLECTED: 0 / 0 / 1949

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 23.5 LOG TYPE: Drillers Log

SOURCE: ASKEW & ATWOOD 10B WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
455.0	PLEISTOCENE		UNCONSOLIDATED	5.5	0.0
449.5	TRADEWATER		SHALE	10.5	5.5
439.0	TRADEWATER	MURPHYSBORO	COAL	3.0	16.0
436.0	TRADEWATER		UNCLASSIFIED	0.5	19.0 BND
435.5	TRADEWATER	MURPHYSBORO	COAL	4.0	19.5

MAPID: 07701404000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: 1' N line, 38' W line of NW NE SE

QUADRANGLE: CARBONDALE LONGITUDE: -89.157211 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.693966 DATE COLLECTED: 0 / 0 / 1949

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 42.7 LOG TYPE: Drillers Log

SOURCE: ASKEW & ATWOOD 11B WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
455.0	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0
433.0	TRADEWATER		SHALE	13.8	22.0
419.2	TRADEWATER	MURPHYSBORO	COAL	6.8	35.8

MAPID: 07701405000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: 1' N line, 61' W line of NW NE SE
QUADRANGLE: CARBONDALE LONGITUDE: -89.157132 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.693969 DATE COLLECTED: 0 / 0 / 1949
SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 23.0 LOG TYPE: Drillers Log
SOURCE: ASKEW & ATWOOD 12B WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		UNCONSOLIDATED	22.5	0.0	
432.5	TRADEWATER	MURPHYSBORO	COAL	0.5	22.5	SOFT; TOP OF COAL ERODED

MAPID: 07701406000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: NE NW NE SE
QUADRANGLE: CARBONDALE LONGITUDE: -89.155563 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.693536 DATE COLLECTED: 0 / 0 / 1949
SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 36.2 LOG TYPE: Drillers Log
SOURCE: ASKEW & ATWOOD 13B WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		UNCONSOLIDATED	26.5	0.0	
428.5	TRADEWATER		SHALE	3.2	26.5	
425.3	TRADEWATER	MURPHYSBORO	COAL	6.5	29.7	

MAPID: 07701406000C VERSION: 2 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: NE NW NE SE
QUADRANGLE: CARBONDALE LONGITUDE: -89.155563 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.693536 DATE COLLECTED: 0 / 0 / 1949
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 36.2 LOG TYPE: Drillers Log
SOURCE: ASKEW & ATWOOD WELL TYPE: Coal Test
COMMENT: 10 MORE LOGS FOR THIS PART OF SECTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0			UNCONSOLIDATED	26.5	0.0	
393.5			SHALE	3.2	26.5	
390.3			COAL	6.5	29.7	

MAPID: 077271B0024F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: NE NE SW NE

QUADRANGLE: CARBONDALE LONGITUDE: -89.157933 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.697132 DATE COLLECTED: 0 / 0 / 1969

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 42.8 LOG TYPE:

SOURCE: FLD NOTES-HOPKINS WELL TYPE: Strip Mine

COMMENT: SECTION IN HIGHWALL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	SPOON	WISE RIDGE	ROCK	15.0		
-	SPOON		COAL	1.0		
-	SPOON		ROCK	10.0		
-	SPOON		COAL	1.8		
-	SPOON	MURPHYSBORO	ROCK	15.0		
-	SPOON		COAL	-		NOT VISIBLE

MAPID: 077271B0017F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: SW SW NE NE

QUADRANGLE: CARBONDALE LONGITUDE: -89.156751 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.69805 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-WANLESS WELL TYPE: Outcrop

COMMENT: AREA NOW STRIPPED OTHER NOTES IN AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	8.0		
-			COAL	4.0		2.75' SEEN
-			UNDERCLAY	0.8		
-			ROCK	5.0		

MAPID: 077271B0018F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: NE SE SE SW

QUADRANGLE: CARBONDALE LONGITUDE: -89.162718 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.688023 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-WANLESS WELL TYPE: Underground mine

COMMENT: OTHER NOTES AVAILABLE IN THIS SECTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	11.5		
-			COAL	3.6		SH PARTING .12'. COAL PARTING 5' IN MIN
-			UNDERCLAY	1.2		
-			SHALE	22.0		
-	SPOON	MURPHYSBORO	COAL	6.0		FURTHER INFORMATION IN FIELD NOTES.
-	SPOON		UNDERCLAY	-		

MAPID: 077271B0019F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: 700' S line, 1200' E line

QUADRANGLE: CARBONDALE LONGITUDE: -89.156789 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.688648 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 451.0 LOGGED (FT.): 26.9 LOG TYPE: Measured section

SOURCE: FLD NOTES-FULLER, SWOFFORD C C WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	13.0		
-			BLACK SHALE	0.3		
-			SHALE	5.5		
-			BLACK SHALE	1.2		
-	SPOON	MURPHYSBORO	COAL	7.0		

MAPID: 077271B0020F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 1W **SECTION:** 36 **QUARTERS/FOOTAGES:** NE
QUADRANGLE: CARBONDALE **LONGITUDE:** -89.15734 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.697591 **DATE COLLECTED:** 0 / 0 / 1933
SURFACE ELEVATION (FT.): 450.0 **LOGGED (FT.):** 26.7 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-WANLESS **WELL TYPE:** Outcrop
COMMENT: TRAVERSE UP RAVINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			SANDSTONE	3.0	
-			UNKNOWN	5.0	
-			SHALE	6.0	
-			CLAYSTONE	3.6	
-			SHALE	0.3	WITH COAL LENSES .03'
-			COAL	4.3	
-			SHALE	4.5	BONY

MAPID: 077271B0021F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 1W **SECTION:** 36 **QUARTERS/FOOTAGES:** SW NE NE
QUADRANGLE: CARBONDALE **LONGITUDE:** -89.156158 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.69851 **DATE COLLECTED:** 0 / 0 / 1933
SURFACE ELEVATION (FT.): 430.0 **LOGGED (FT.):** 14.6 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-WANLESS **WELL TYPE:** Underground mine
COMMENT: OLD DRIFT ENTRY MORE NOTES IN THIS AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			SHALE	2.6	
-			COAL	3.1	SH PARTINGS UP TO .02', PLANT STEMS
-			SHALE	5.6	BONY WITH COALIFIED LOGS; STEMS
-			COAL	3.3	LOWER COAL OF THIS AREA

MAPID: 077271B0022F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 1W **SECTION:** 36 **QUARTERS/FOOTAGES:** NE NW NE
QUADRANGLE: CARBONDALE **LONGITUDE:** -89.158519 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.700297 **DATE COLLECTED:** 0 / 0 / 1933
SURFACE ELEVATION (FT.): 480.0 **LOGGED (FT.):** 3.5 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-WANLESS **WELL TYPE:** Underground mine
COMMENT: CAVED IN DRIFT ENTRY OTHER DRIFT NEARBY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			SHALE	3.5	
-			COAL	-	MIDDLE BED OF THIS AREA

MAPID: 077271B0023F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: SE NE SW

QUADRANGLE: CARBONDALE LONGITUDE: -89.163294 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.691185 DATE COLLECTED: 0 / 0 / 1961

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 43.3 LOG TYPE:

SOURCE: FLD NOTES-PARHAM WELL TYPE: Strip Mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	SPOON	MURPHYSBORO	SANDSTONE	20.0		
-	SPOON		COAL	0.3		
-	SPOON		SHALE	4.0		
-	SPOON		COAL	3.5		
-	SPOON		UNDERCLAY	2.0		AVERAGE THICKNESS
-	SPOON		SHALE	6.0		
-	SPOON		COAL	4.0		
-	SPOON		UNDERCLAY	3.5		

MAPID: 077271B0001F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 1W SECTION: 36 QUARTERS/FOOTAGES: SW SW NE SW

QUADRANGLE: CARBONDALE LONGITUDE: -89.166269 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.6907 DATE COLLECTED: 0 / 0 / 1954

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 27.0 LOG TYPE:

SOURCE: MINE NOTES-STONEHOUSE WELL TYPE: Strip Mine

COMMENT: PHILLIPS C C. E. MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0		MURPHYSBORO	UNCONSOLIDATED	3.0	0.0	
447.0			SHALE	13.8	3.0	
433.2			UNKNOWN	1.7	16.8	
431.6			SHALE	1.5	18.4	
430.1	SPOON		COAL	7.1	19.9	

MAPID: 077271B0016F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 1W **SECTION:** 36 **QUARTERS/FOOTAGES:** NW NE SE SW
QUADRANGLE: CARBONDALE **LONGITUDE:** -89.163897 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.68982 **DATE COLLECTED:** 0 / 0 / 1933
SURFACE ELEVATION (FT.): 500.0 **LOGGED (FT.):** 67.8 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-FULLER **WELL TYPE:** Outcrop
COMMENT: EXPOSURE AT END NEAR PHILLIPS MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	8.0		
-			UNKNOWN	4.0		
-			SHALE	2.0		
-	SPOON	WISE RIDGE	COAL	2.0		
-	SPOON		UNKNOWN	20.0		
-	SPOON		COAL	4.0		NOT MINED
-	SPOON		UNDERCLAY	1.5		
-	SPOON		SHALE	13.0		
-	SPOON		BLACK SHALE	1.0		
-	SPOON		SHALE	4.0		
-	SPOON	MURPHYSBORO	BLACK SHALE	0.7		
-	SPOON		COAL	7.6		CL PARTING .14'
-	SPOON		UNDERCLAY	-		

MAPID: 077271B0002F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 1W **SECTION:** 36 **QUARTERS/FOOTAGES:** SW NW SW SE
QUADRANGLE: CARBONDALE **LONGITUDE:** -89.161518 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.688941 **DATE COLLECTED:** 7 / 14 / 1954
SURFACE ELEVATION (FT.): 450.0 **LOGGED (FT.):** 33.0 **LOG TYPE:**
SOURCE: MINE NOTES-STONEHOUSE **WELL TYPE:** Strip Mine
COMMENT: HIGHWALL DESCRIPTION AT N END OF PIT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SANDSTONE	3.0		
-			SHALE	7.0		
-			COAL	5.0		
-			SHALE	15.0		
-	SPOON	MURPHYSBORO	COAL	3.0		"3FT. EXPOSED"

MAPID: 07701210000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 1 QUARTERS/FOOTAGES: NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.280332 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.770866 DATE COLLECTED:

SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 107.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 28 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	PLEISTOCENE	MURPHYSBORO	CLAY	52.0	0.0	
338.0	TRADEWATER		SHALE	5.0	52.0	BLUE
333.0	TRADEWATER		SHALE	1.0	57.0	BLUE
332.0	TRADEWATER		COAL	2.0	58.0	
330.0	TRADEWATER		SANDSTONE	5.0	60.0	
325.0	TRADEWATER		SHALE	17.5	65.0	DARK
307.5	TRADEWATER		COAL	3.0	82.5	GOOD
304.5	TRADEWATER		SHALE	6.5	85.5	
298.0	TRADEWATER		LIMESTONE	0.6	92.0	
297.4	TRADEWATER		SHALE	6.4	92.6	WHITE
291.0	TRADEWATER		SHALE	3.8	99.0	
287.2	TRADEWATER		COAL	1.0	102.8	
286.2	TRADEWATER		SHALE	3.3	103.8	BROWN

MAPID: 07701210000C VERSION: 2

PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 1 QUARTERS/FOOTAGES: NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.280332 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.770866 DATE COLLECTED:

SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 107.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0		MURPHYSBORO	UNCONSOLIDATED	52.0	0.0	
338.0			ROCK	6.0	52.0	
332.0			COAL	2.0	58.0	
330.0			SANDSTONE	5.0	60.0	
325.0			BLACK SHALE	17.5	65.0	
307.5	SPOON		COAL	3.0	82.5	
304.5	SPOON		BLACK SHALE	6.5	85.5	
298.0			LIMESTONE	0.7	92.0	
297.3			SHALE	10.1	92.7	
287.2			COAL	1.0	102.8	
286.2			ROCK	6.3	103.8	

MAPID: 07701571000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 1 QUARTERS/FOOTAGES: 660' N line, 1320' W line of SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.280425 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.765431 DATE COLLECTED: 7 / 20 / 1960
SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log
SOURCE: GWIN DRILLING CO. WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0	PLEISTOCENE		CLAY	8.0	0.0	
392.0	PLEISTOCENE		SANDY CLAY	32.0	8.0	
360.0			SANDY SHALE	5.0	40.0	
355.0			SANDY SHALE	25.0	45.0	
330.0			SHALE	21.0	70.0	SOFT
309.0			SHALE	9.0	91.0	SOFT
300.0			SHALE	6.0	100.0	
294.0			LIMESTONE	0.3	106.0	
293.7	TRADEWATER	MURPHYSBORO	COAL	3.8	106.3	
290.0			SHALY SANDSTONE	20.0	110.0	

MAPID: 07701571000C VERSION: 2

PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 1 QUARTERS/FOOTAGES: 660' N line, 1320' W line of SW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.280425 GEOLOGIST: BARGH,M
CONFIDENTIAL: N LATITUDE: 37.765431 DATE COLLECTED: 7 / 20 / 1960
SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 130.0 LOG TYPE: Survey Core Study
SOURCE: GWIN DRILLING CO. WELL TYPE: Water Well
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0			UNCONSOLIDATED	40.0	0.0	
360.0			ROCK	30.0	40.0	
330.0			SHALE	36.0	70.0	
294.0			LIMESTONE	0.3	106.0	
293.7			COAL	3.8	106.3	
290.0			SANDSTONE/SHALE	20.0	110.0	

MAPID: 07701211000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 2 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.2996 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.765132 DATE COLLECTED:

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 96.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 23 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
415.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	25.0	0.0	
390.0	TRADEWATER		SHALE	4.5	25.0	BLUE
385.5	TRADEWATER		COAL	1.5	29.5	
384.0	TRADEWATER		SHALE	7.0	31.0	
377.0	TRADEWATER		SHALE	9.0	38.0	DARK
368.0	TRADEWATER		SHALE	15.0	47.0	
353.0	TRADEWATER		SANDSTONE	5.0	62.0	
348.0	TRADEWATER		SHALE	14.0	67.0	
334.0	TRADEWATER		SHALE	2.0	81.0	DARK
332.0	TRADEWATER		COAL	3.0	83.0	
329.0	TRADEWATER		SHALE	2.0	86.0	
327.0	TRADEWATER		SANDSTONE	8.0	88.0	

MAPID: 07701211000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 2 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.2996 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.765132 DATE COLLECTED:

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 96.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0		MURPHYSBORO	UNCONSOLIDATED	25.0	0.0	
380.0			BLACK SHALE	4.5	25.0	
375.5			COAL	1.5	29.5	
374.0			ROCK	24.0	31.0	
350.0			SHALE	7.0	55.0	
343.0			SANDSTONE	5.0	62.0	
338.0			SHALE	16.0	67.0	
322.0	SPOON		COAL	3.0	83.0	
319.0	SPOON		SHALE	2.0	86.0	
317.0	SPOON		SANDSTONE	6.0	88.0	

MAPID: 07701212000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 2 QUARTERS/FOOTAGES: SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.290126 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.765609 DATE COLLECTED:
SURFACE ELEVATION (FT.): 345.0 LOGGED (FT.): 57.8 LOG TYPE: Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 42 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
345.0	PLEISTOCENE		UNCONSOLIDATED	55.0	0.0	
290.0			COAL	2.8	55.0	

MAPID: 07701212000C VERSION: 2 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 2 QUARTERS/FOOTAGES: SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.290126 GEOLOGIST: BARGH,M
CONFIDENTIAL: N LATITUDE: 37.765609 DATE COLLECTED:
SURFACE ELEVATION (FT.): 345.0 LOGGED (FT.): 57.8 LOG TYPE: Drillers Log
SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
345.0	SPOON	MURPHYSBORO	UNCONSOLIDATED	55.0	0.0	
290.0			COAL	2.8	55.0	

MAPID: 07700001302M VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: NW NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.311602 GEOLOGIST: BARGH,M
CONFIDENTIAL: N LATITUDE: 37.772689 DATE COLLECTED:
SURFACE ELEVATION (FT.): 380.0 LOGGED (FT.): 125.1 LOG TYPE: Measured section
SOURCE: MINE NOTES-CONSOL. C C WELL TYPE: Outcrop
COMMENT: 1600' SOUTH FROM SHAFT. OUTCROP?

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0	SPOON	MURPHYSBORO	UNCONSOLIDATED	98.3	0.0	
281.7			BLACK SHALE	18.1	98.3	WITH IRON BALLS
263.6			BLACK SHALE	2.3	116.4	
261.3			COAL	6.4	118.7	

MAPID: 07701218000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.316748 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.763513 DATE COLLECTED:

SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 95.7 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 3 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	PLEISTOCENE	MURPHYSBORO	CLAY	13.0	0.0	YELLOW
377.0	PLEISTOCENE		CLAY	2.0	13.0	BLACK
375.0	PLEISTOCENE		CLAY	1.0	15.0	BLUE
374.0	PLEISTOCENE		CLAY	4.0	16.0	BLUE
370.0	PLEISTOCENE		SANDY CLAY	22.0	20.0	
348.0	PLEISTOCENE		SANDY CLAY	4.0	42.0	BROWN
344.0	PLEISTOCENE		CLAY	4.2	46.0	BLUE
339.8	TRADEWATER		SHALE	38.5	50.2	IRON CONCRETIONS NOTED; BLUE
301.3	TRADEWATER		SHALE	1.0	88.7	
300.3	TRADEWATER		COAL	6.0	89.7	

MAPID: 07701218000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.316748 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.763513 DATE COLLECTED:

SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 95.7 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	SPOON	MURPHYSBORO	UNCONSOLIDATED	50.0	0.0	
340.0			SHALE	38.0	50.0	
302.0			BLACK SHALE	1.7	88.0	
300.3			COAL	6.0	89.7	

MAPID: 07701219000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: 50' N line, 50' E line

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.30427 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.774175 DATE COLLECTED:

SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 150.4 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 12 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
492.0	PLEISTOCENE	MURPHYSBORO	CLAY	12.0	0.0	BROWN
480.0	PLEISTOCENE		CLAY	11.5	12.0	BLUE
468.5	PLEISTOCENE		CLAY	1.5	23.5	RED
467.0	PLEISTOCENE		SAND	6.0	25.0	BROWN
461.0	PLEISTOCENE		CLAY	1.0	31.0	BLUE
460.0	PLEISTOCENE		SAND	4.0	32.0	BROWN
456.0	PLEISTOCENE		CLAY	18.0	36.0	RED
438.0	PLEISTOCENE		SAND	2.0	54.0	GRAY
436.0	PLEISTOCENE		CLAY	1.5	56.0	BLUE
434.5	TRADEWATER		SHALE	6.0	57.5	BLUE
428.5	TRADEWATER		SANDSTONE	2.3	63.5	GRAY
426.2	TRADEWATER		SHALE	5.3	65.8	BLUE
421.0	TRADEWATER		SHALE	5.0	71.0	BLUE
416.0	TRADEWATER		SHALE	4.0	76.0	BLUE
412.0	TRADEWATER		SHALE	2.0	80.0	WHITE
410.0	TRADEWATER		SANDSTONE	8.7	82.0	
401.3	TRADEWATER		SHALE	6.3	90.7	BLUE
395.0	TRADEWATER		SHALE	2.0	97.0	
393.0	TRADEWATER		SHALE	6.0	99.0	BLUE
387.0	TRADEWATER		COAL	4.0	105.0	
383.0	TRADEWATER		SHALE	1.0	109.0	
382.0	TRADEWATER		SHALE	4.0	110.0	BLUE
378.0	TRADEWATER		SANDY SHALE	2.0	114.0	
376.0	TRADEWATER		SHALE	4.0	116.0	BLUE
372.0	TRADEWATER		SANDSTONE	11.5	120.0	HARD
360.5	TRADEWATER		SANDSTONE	1.0	131.5	GRAY
359.5	TRADEWATER		SHALE	11.5	132.5	BLUE
348.0	TRADEWATER		SANDY SHALE	1.0	144.0	
347.0	TRADEWATER		SANDY SHALE	3.0	145.0	
344.0	TRADEWATER		SANDY SHALE	2.5	148.0	

MAPID: 07701219000C VERSION: 2

PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: 50' N line, 50' E line

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.30427 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.774175 DATE COLLECTED:

SURFACE ELEVATION (FT.): 360.0 LOGGED (FT.): 150.5 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
360.0			UNCONSOLIDATED	12.0	0.0	
348.0			ROCK	64.0	12.0	
284.0			SHALE	6.0	76.0	
278.0			SANDSTONE	8.7	82.0	
269.3			BLACK SHALE	6.3	90.7	
263.0			SHALE	8.0	97.0	
255.0	SPOON	MURPHYSBORO	COAL	4.0	105.0	
251.0	SPOON		SHALE	1.0	109.0	
250.0			ROCK	40.5	110.0	

MAPID: 07701220000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.319097 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.77102 DATE COLLECTED:

SURFACE ELEVATION (FT.): 370.0 LOGGED (FT.): 91.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 20 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
370.0	PLEISTOCENE		UNCONSOLIDATED	47.0	0.0	
323.0	TRADEWATER		SHALE	36.5	47.0	BLUE
286.5	TRADEWATER		SHALE	1.5	83.5	
285.0	TRADEWATER	MURPHYSBORO	COAL	6.0	85.0	

MAPID: 07701220000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.319097 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.77102 DATE COLLECTED:

SURFACE ELEVATION (FT.): 370.0 LOGGED (FT.): 91.0 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
370.0			UNCONSOLIDATED	47.0	0.0	
323.0			ROCK	13.0	47.0	
310.0			BLACK SHALE	23.5	60.0	
286.5			BLACK SHALE	1.5	83.5	
285.0	SPOON	MURPHYSBORO	COAL	6.0	85.0	

MAPID: 07701221000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.319195 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.76525 DATE COLLECTED:

SURFACE ELEVATION (FT.): 385.0 LOGGED (FT.): 124.5 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 29 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	PLEISTOCENE		UNCONSOLIDATED	92.5	0.0	
292.5	TRADEWATER		SHALE	25.0	92.5	IRON CONCRETIONS
267.5	TRADEWATER		SHALE	1.0	117.5	
266.5	TRADEWATER	MURPHYSBORO	COAL	6.0	118.5	

MAPID: 07701221000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.319195 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.76525 DATE COLLECTED:

SURFACE ELEVATION (FT.): 385.0 LOGGED (FT.): 124.5 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0			UNCONSOLIDATED	92.5	0.0	
292.5			BLACK SHALE	25.0	92.5	
267.5			BLACK SHALE	1.0	117.5	
266.5	SPOON	MURPHYSBORO	COAL	6.0	118.5	

MAPID: 07701223000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: NE NE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.315422 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.76811 DATE COLLECTED:

SURFACE ELEVATION (FT.): 385.0 LOGGED (FT.): 117.2 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 45 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	90.5	0.0	
294.5	TRADEWATER		SANDY SHALE	9.5	90.5	
285.0	TRADEWATER		SANDY SHALE	6.0	100.0	
279.0	TRADEWATER		SHALE	3.0	106.0	DARK
276.0	TRADEWATER		SHALE	2.3	109.0	
273.7	TRADEWATER		COAL	5.9	111.3	

MAPID: 07701223000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: NE NE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.315422 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.76811 DATE COLLECTED:

SURFACE ELEVATION (FT.): 385.0 LOGGED (FT.): 117.2 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0		MURPHYSBORO	UNCONSOLIDATED	90.5	0.0	
294.5			SHALE	18.5	90.5	
276.0			BLACK SHALE	2.3	109.0	
273.7	SPOON		COAL	5.9	111.3	

MAPID: 07701224000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: SE SE SW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.309963 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.762378 DATE COLLECTED:

SURFACE ELEVATION (FT.): 320.0 LOGGED (FT.): 131.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 54 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
320.0	PLEISTOCENE		CLAY	18.0	0.0	YELLOW
302.0	PLEISTOCENE		SAND	3.0	18.0	GRAY
299.0			SANDSTONE	4.0	21.0	YELLOW
295.0			SANDSTONE	6.0	25.0	GRAY
289.0			SHALE	26.0	31.0	BLUE
263.0			COAL	2.0	57.0	
261.0			SANDY SHALE	4.0	59.0	WHITE
257.0			SANDSTONE	2.0	63.0	
255.0			LIMESTONE	1.0	65.0	BLUE
254.0			SHALE	4.0	66.0	BITUMINOUS
250.0			SHALE	10.0	70.0	
240.0			SHALE	16.0	80.0	BLUE
224.0			SHALE	2.0	96.0	BLUE
222.0			SANDY SHALE	11.0	98.0	BLUE
211.0			SHALE	15.0	109.0	BLUE
196.0	TRADEWATER	MURPHYSBORO	COAL	7.0	124.0	

MAPID: 07701224000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: SE SE SW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.309963 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.762378 DATE COLLECTED:

SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 131.0 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0			UNCONSOLIDATED	18.0	0.0	
402.0			ROCK	39.0	18.0	
363.0			COAL	2.0	57.0	
361.0			ROCK	50.0	59.0	
311.0			BLACK SHALE	15.0	109.0	
296.0	SPOON	MURPHYSBORO	COAL	7.0	124.0	

MAPID: 07701225000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.309273 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.765588 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 116.7 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 56 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE	MURPHYSBORO	SAND	86.0	0.0	
309.0	TRADEWATER		SHALE	23.0	86.0	BLUE
286.0	TRADEWATER		SHALE	1.0	109.0	
285.0	TRADEWATER		COAL	6.7	110.0	

MAPID: 07701225000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.309273 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.765588 DATE COLLECTED:

SURFACE ELEVATION (FT.): 380.0 LOGGED (FT.): 116.7 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0		MURPHYSBORO	UNCONSOLIDATED	86.0	0.0	
294.0			BLACK SHALE	23.0	86.0	
271.0			BLACK SHALE	1.0	109.0	
270.0	SPOON		COAL	6.7	110.0	

MAPID: 07701226000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.309273 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.765588 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 117.1 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 99 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
395.0	PLEISTOCENE		CLAY	15.0	0.0	GRAY
380.0	PLEISTOCENE		SANDY CLAY	2.0	15.0	YELLOW
378.0	PLEISTOCENE		SANDY CLAY	23.0	17.0	BLUE
355.0	PLEISTOCENE		SAND	10.0	40.0	WITH CLAY
345.0	PLEISTOCENE		SAND	5.0	50.0	
340.0	PLEISTOCENE		SANDY CLAY	5.0	55.0	BLUE
335.0	PLEISTOCENE		SAND	5.0	60.0	GRAVELLY
330.0	PLEISTOCENE		CLAY	11.0	65.0	RED
319.0	PLEISTOCENE		SAND	2.0	76.0	
317.0	PLEISTOCENE		CLAY	8.0	78.0	SANDY
309.0	CARBONDALE		SANDY SHALE	0.5	86.0	BLUE
308.5	CARBONDALE		SANDSTONE	5.5	86.5	WITH CLAY & COAL MIXED
303.0	CARBONDALE		SHALE	17.0	92.0	CONCRETIONS NOTED; BLUE
286.0	CARBONDALE		SHALE	1.0	109.0	DARK
285.0			COAL	6.7	110.0	
278.3	CARBONDALE		SHALE	0.3	116.7	DARK

MAPID: 07701227000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: 1400' N line, 1' W line of SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.314236 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.765195 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 94.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 100 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
395.0	PLEISTOCENE		CLAY	10.0	0.0	GRAY
385.0	PLEISTOCENE		CLAY	10.0	10.0	BLUE
375.0	PLEISTOCENE		SAND	10.0	20.0	
365.0	PLEISTOCENE		SANDY CLAY	15.0	30.0	RED
350.0	PLEISTOCENE		CLAY	15.0	45.0	SANDY
335.0	PLEISTOCENE		SAND	10.0	60.0	
325.0	PLEISTOCENE		SAND	7.0	70.0	GRAVELLY
318.0	TRADEWATER		SHALE	1.7	77.0	CONCRETIONS NOTED; BLUE
316.3	TRADEWATER	MURPHYSBORO	COAL	6.3	78.7	
310.0	TRADEWATER		SHALE	9.0	85.0	DARK

MAPID: 07701227000C VERSION: 2

PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: 1400' N line, 1' W line of SE
 QUADRANGLE: MURPHYSBORO LONGITUDE: -89.314236 GEOLOGIST: BARGH,M
 CONFIDENTIAL: N LATITUDE: 37.765195 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 94.0 LOG TYPE: Survey Core Study
 SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0			UNCONSOLIDATED	77.0	0.0	
313.0			SHALE	1.7	77.0	
311.3			COAL	6.3	78.7	
305.0			ROCK	9.0	85.0	

MAPID: 07701228000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: NE NW SE
 QUADRANGLE: MURPHYSBORO LONGITUDE: -89.310452 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.768278 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 385.0 LOGGED (FT.): 102.5 LOG TYPE: Drillers Log
 SOURCE: BIG MUDDY COAL & IRON CO. 108 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	CLAY
377.0	PLEISTOCENE		SAND	5.0	8.0	CLAY; RED
372.0	PLEISTOCENE		CLAY	4.0	13.0	GRAY
368.0	PLEISTOCENE		CLAY	6.0	17.0	BROWN
362.0	PLEISTOCENE		SAND	6.0	23.0	CLAY; BLUE
356.0	PLEISTOCENE		SAND	8.0	29.0	BLUE
348.0	PLEISTOCENE		CLAY	2.0	37.0	BLUE
346.0	PLEISTOCENE		SAND	18.5	39.0	DARK
327.5	PLEISTOCENE		CLAY	11.5	57.5	RED
316.0	PLEISTOCENE		CLAY	6.1	69.0	BLUE
309.9	PLEISTOCENE		SAND	1.7	75.1	RED
308.2	PLEISTOCENE		SAND	2.8	76.8	CLAY; RED
305.5	PLEISTOCENE		SAND	7.6	79.5	GREEN
297.9	TRADEWATER		SHALE	6.4	87.1	BLUE
291.5	TRADEWATER		SHALE	0.9	93.5	
290.6	TRADEWATER	MURPHYSBORO	COAL	6.9	94.4	
283.7	TRADEWATER		SANDY SHALE	1.2	101.3	

MAPID: 07701229000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: 330' N line, 1980' W line of NW
 QUADRANGLE: MURPHYSBORO LONGITUDE: -89.317154 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.773266 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 370.0 LOGGED (FT.): 113.0 LOG TYPE: Drillers Log
 SOURCE: BIG MUDDY COAL & IRON CO. 114 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
370.0	PLEISTOCENE		CLAY	5.0	0.0	YELLOW
365.0	PLEISTOCENE		CLAY	11.0	5.0	BROWN
354.0	PLEISTOCENE		SANDY CLAY	7.0	16.0	YELLOW
347.0	PLEISTOCENE		CLAY	2.5	23.0	YELLOW
344.5	PLEISTOCENE		SAND	0.5	25.5	BLUE
344.0	PLEISTOCENE		CLAY	5.0	26.0	BLUE
339.0	PLEISTOCENE		CLAY	9.5	31.0	GREEN
329.5	PLEISTOCENE		SAND	2.0	40.5	GREEN
327.5	PLEISTOCENE		CLAY	13.5	42.5	RED
314.0	PLEISTOCENE		SAND	4.0	56.0	GRAY
310.0	PLEISTOCENE		SAND	7.5	60.0	YELLOW
302.5	TRADEWATER		SHALE	3.8	67.5	GRAVELLY; BLUE
298.7	TRADEWATER		SHALE	33.8	71.3	CONCRETIONS NOTED; BLUE
265.0	TRADEWATER		SHALE	1.8	105.0	
263.2	TRADEWATER	MURPHYSBORO	COAL	5.8	106.8	
257.5	TRADEWATER		SANDY SHALE	0.5	112.5	

MAPID: 07701229000C VERSION: 2

PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: 330' N line, 1980' W line of NW
 QUADRANGLE: MURPHYSBORO LONGITUDE: -89.317154 GEOLOGIST: BARGH,M
 CONFIDENTIAL: N LATITUDE: 37.773266 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 370.0 LOGGED (FT.): 113.0 LOG TYPE: Survey Core Study
 SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test
 COMMENT: OTHER LOGS AVAILABLE IN THIS AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
370.0			UNCONSOLIDATED	71.3	0.0	
298.7			BLACK SHALE	33.7	71.3	
265.0			BLACK SHALE	1.8	105.0	
263.2	SPOON	MURPHYSBORO	COAL	5.8	106.8	
257.5	SPOON		SHALE	0.0	112.5	

MAPID: 07701230000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.316582 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.772622 DATE COLLECTED:

SURFACE ELEVATION (FT.): 360.0 LOGGED (FT.): 121.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 116 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
360.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	5.0	0.0	
355.0	PLEISTOCENE		SAND/CLAY	10.0	5.0	BROWN
345.0	PLEISTOCENE		CLAY	1.5	15.0	BLUE
343.5	PLEISTOCENE		CLAY	4.5	16.5	SANDY; DARK
339.0	PLEISTOCENE		SANDY CLAY	24.0	21.0	BROWN
315.0	PLEISTOCENE		SAND	2.0	45.0	WITH CLAY
313.0	PLEISTOCENE		CLAY	2.5	47.0	SANDY; BLUE
310.5	PLEISTOCENE		SAND	9.5	49.5	CLAY; RED
301.0	PLEISTOCENE		SAND	2.0	59.0	
299.0	PLEISTOCENE		CLAY	13.0	61.0	GREEN
286.0	PLEISTOCENE		SANDY CLAY	5.0	74.0	GRAY
281.0	PLEISTOCENE		SAND	12.0	79.0	CLAYEY; GRAY
269.0	TRADEWATER		SHALE	18.0	91.0	CONCRETIONS NOTED; BLUE
251.0	TRADEWATER		CARBONACEOUS SHALE	1.0	109.0	MOTHER COAL
250.0	TRADEWATER		COAL	6.1	110.0	
243.8	TRADEWATER		SANDY SHALE	2.8	116.2	
241.0	TRADEWATER		SANDSTONE	2.0	119.0	GRAY

MAPID: 07701231000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.309273 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.765588 DATE COLLECTED:

SURFACE ELEVATION (FT.): 390.0 LOGGED (FT.): 118.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 117 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	PLEISTOCENE	MURPHYSBORO	SAND	2.5	0.0	YELLOW
387.5	PLEISTOCENE		CLAY	4.5	2.5	YELLOW
383.0	PLEISTOCENE		SAND	4.0	7.0	YELLOW
379.0	PLEISTOCENE		SAND	0.5	11.0	YELLOW
378.5	PLEISTOCENE		CLAY	2.5	11.5	
376.0	PLEISTOCENE		CLAY	2.0	14.0	SANDY
374.0	PLEISTOCENE		SAND	7.0	16.0	WITH CLAY
367.0	PLEISTOCENE		SAND	3.0	23.0	CLAY; BLUE
364.0	PLEISTOCENE		CLAY	5.0	26.0	SANDY; BLUE
359.0	PLEISTOCENE		CLAY	9.0	31.0	BLUE
350.0	PLEISTOCENE		CLAY	2.5	40.0	BLUE
347.5	PLEISTOCENE		CLAY	8.5	42.5	SANDY; BLUE
339.0	PLEISTOCENE		CLAY	3.0	51.0	RED
336.0	PLEISTOCENE		SAND	4.0	54.0	WITH CLAY
332.0	PLEISTOCENE		CLAY	3.5	58.0	SANDY; GRAY
328.5	PLEISTOCENE		SAND	3.0	61.5	GRAY
325.5	PLEISTOCENE		CLAY	1.5	64.5	GRAY
324.0	TRADEWATER		SANDY SHALE	0.3	66.0	BLUE
323.7	TRADEWATER		SANDY CLAYSTONE	2.3	66.3	BLUE
321.3	TRADEWATER		SHALE	37.3	68.7	IRON CONCRETIONS NOTED; BLUE
284.0	TRADEWATER		SHALE	0.9	106.0	
283.1	TRADEWATER		COAL	4.5	106.9	BONY COAL
278.6	TRADEWATER		SHALE	3.9	111.4	BITUMINOUS
274.7	TRADEWATER		SHALE	2.7	115.3	BLUE

MAPID: 07701232000C

VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 9S 2W

SECTION: 3

QUARTERS/FOOTAGES: SE

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.309273

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.765588

DATE COLLECTED:

SURFACE ELEVATION (FT.): 390.0

LOGGED (FT.): 96.1

LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 118

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	PLEISTOCENE		CLAY	10.0	0.0	YELLOW
380.0	PLEISTOCENE		SANDY CLAY	6.5	10.0	YELLOW
373.5	PLEISTOCENE		SAND	2.0	16.5	CLAY; YELLOW
371.5	PLEISTOCENE		CLAY	4.0	18.5	SANDY; YELLOW
367.5	PLEISTOCENE		SAND	9.0	22.5	WITH DARK STREAK; YELLOW
358.5	PLEISTOCENE		CLAYSTONE & SILTSTONE	0.5	31.5	BLUE; LOG NOTES ROTTEN SHALE
358.0	PLEISTOCENE		CLAYSTONE & SILTSTONE	1.5	32.0	BLUE
356.5	PLEISTOCENE		SANDSTONE	1.5	33.5	CLAY; BLUE
355.0	PLEISTOCENE		CLAYSTONE & SILTSTONE	2.0	35.0	JOINTED; BLUE
353.0	PLEISTOCENE		SANDSTONE	11.0	37.0	WITH CLAY
342.0	PLEISTOCENE		CLAYSTONE & SILTSTONE	22.0	48.0	
320.0			SANDY SHALE	0.2	70.0	BLUE
319.8			SHALE	4.8	70.2	BLUE
315.0			SHALE	21.0	75.0	IRON CONCRETIONS NOTED; BLUE

MAPID: 07701233000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.311792 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.763681 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 123.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 124 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		SAND	2.0	0.0	YELLOW
393.0	PLEISTOCENE		SANDY CLAY	2.5	2.0	
390.5	PLEISTOCENE		SAND	30.5	4.5	YELLOW
360.0			SHALE	4.0	35.0	CLAY; YELLOW
356.0			SHALE	10.3	39.0	IRON CONCRETIONS NOTED; BLUE
345.7			COAL	2.0	49.3	
343.7			SANDY SHALE	6.8	51.3	BLUE
337.0			SHALE	18.0	58.0	
319.0			SANDY SHALE	14.0	76.0	BLUE
305.0			SANDY SHALE	15.0	90.0	BLUE
290.0			SHALE	8.0	105.0	BLUE
282.0			SHALE	1.0	113.0	
281.0	TRADEWATER	MURPHYSBORO	COAL	7.0	114.0	
274.0	TRADEWATER	MURPHYSBORO	COAL	0.6	121.0	WITH BLACK SHALE
273.4			SHALE	1.4	121.6	BLUE

MAPID: 07701234000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 3 QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.31784 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.771824 DATE COLLECTED:

SURFACE ELEVATION (FT.): 370.0 LOGGED (FT.): 126.5 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 115 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
370.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	7.8	0.0	CLAY
362.2	PLEISTOCENE		CLAY	2.8	7.8	DARK
359.5	PLEISTOCENE		CLAY	4.5	10.5	SANDY; YELLOW
355.0	PLEISTOCENE		CLAY	3.0	15.0	BLUE
352.0	PLEISTOCENE		CLAY	2.0	18.0	BLUE
350.0	PLEISTOCENE		CLAY	20.0	20.0	BLUE
330.0	PLEISTOCENE		CLAY	5.0	40.0	BLUE
325.0	PLEISTOCENE		SAND	1.0	45.0	GRAY
324.0	PLEISTOCENE		CLAY	3.0	46.0	BLUE
321.0	PLEISTOCENE		CLAY	7.0	49.0	RED
314.0	PLEISTOCENE		SAND	4.0	56.0	RED
310.0	PLEISTOCENE		CLAY	1.0	60.0	BLUE
309.0	PLEISTOCENE		CLAY	6.0	61.0	RED
303.0	PLEISTOCENE		SAND	16.5	67.0	RED
286.5	PLEISTOCENE		CLAY	8.0	83.5	BLUE
278.5	PLEISTOCENE		SAND	1.8	91.5	WITH CLAY
276.7	PLEISTOCENE		SAND	5.6	93.3	GRAY
271.2	TRADEWATER		SHALE	18.1	98.8	CONCRETIONS NOTED; BLUE
253.1	TRADEWATER		SHALE	2.3	116.9	
250.8	TRADEWATER		COAL	6.4	119.2	
244.4	TRADEWATER		SANDY SHALE	0.9	125.6	

MAPID: 07701235000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 4 QUARTERS/FOOTAGES: 330' N line, 2310' E line of NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.332078 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.773162 DATE COLLECTED:

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 194.3 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 4 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE		CLAY	10.7	0.0	BLUE
394.3	PLEISTOCENE		CLAY	4.0	10.7	YELLOW
390.3	PLEISTOCENE		CLAY	7.0	14.7	BLUE
383.3	PLEISTOCENE		CLAY	11.0	21.7	RED
372.3	PLEISTOCENE		CLAY	1.0	32.7	SANDY
371.3	PLEISTOCENE		SANDY CLAY	4.0	33.7	WHITE
367.3	PLEISTOCENE		CLAY	1.0	37.7	YELLOW
366.3	PLEISTOCENE		CLAY	6.0	38.7	SANDY
360.3	PLEISTOCENE		CLAY	5.0	44.7	RED
355.3	PLEISTOCENE		CLAY	6.0	49.7	BLUE
349.3	PLEISTOCENE		CLAY	2.0	55.7	SANDY
347.3	PLEISTOCENE		CLAY	6.0	57.7	BLUE
341.3	PLEISTOCENE		CLAY	7.5	63.7	BLUE
333.8	PLEISTOCENE		SAND	1.5	71.2	
332.3	PLEISTOCENE		CLAY	1.5	72.7	SANDY; BLUE
330.8			SANDSTONE	2.8	74.2	SOFT
328.0			SHALE	0.5	77.0	BLUE
327.5			SHALE	13.5	77.5	IRON CONCRETIONS
314.0			SHALE	2.0	91.0	
312.0			COAL	0.3	93.0	MURPHYSBORO - CADY
311.7			SHALE	6.2	93.3	BITUMINOUS
305.5			SHALE	1.0	99.5	
304.5			SHALE	8.5	100.5	BLUE
296.0			SANDSTONE	16.5	109.0	
279.5			SHALE	0.5	125.5	BLUE
279.0			SANDSTONE	30.1	126.0	WHITE
248.9			UNCLASSIFIED	0.9	156.1	
248.0			SANDSTONE	7.0	157.0	GRAY
241.0			SANDSTONE	1.3	164.0	BROWN
239.7			SHALE	2.0	165.3	
237.7			SANDY SHALE	27.0	167.3	

MAPID: 07701235000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 4 QUARTERS/FOOTAGES: 330' N line, 2310' E line of NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.332078 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.773162 DATE COLLECTED:

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 194.3 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
405.0			UNCONSOLIDATED	77.0	0.0
328.0			ROCK	16.0	77.0
312.0	SPOON	MURPHYSBORO	COAL	0.3	93.0
311.7	SPOON		ROCK	101.0	93.3

MAPID: 07701236000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 4 QUARTERS/FOOTAGES: SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.328769 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.765105 DATE COLLECTED:

SURFACE ELEVATION (FT.): 495.5 LOGGED (FT.): 73.6 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 19 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
495.5	PLEISTOCENE		UNCONSOLIDATED	70.6	0.0
424.9			SHALE	1.4	70.6 BLUE
423.5			COAL	1.6	72.0

MAPID: 07701236000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 4 QUARTERS/FOOTAGES: SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.328769 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.765105 DATE COLLECTED:

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 73.5 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
405.0			UNCONSOLIDATED	70.6	0.0
334.4			BLACK SHALE	1.4	70.6
333.0	SPOON	MURPHYSBORO	COAL	1.6	72.0

MAPID: 07701237000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 4 QUARTERS/FOOTAGES: NW SE NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.327543 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.771477 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 100.0 LOG TYPE: Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 83 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	65.0	0.0	
330.0	TRADEWATER		SHALE	10.0	65.0	
320.0	TRADEWATER		SHALE	1.0	75.0	BLUE
319.0	TRADEWATER		SHALE	0.7	76.0	
318.3	TRADEWATER	MURPHYSBORO	COAL	6.3	76.7	NOT GOOD
312.1	TRADEWATER		SHALE	0.1	82.9	DARK
312.0	TRADEWATER	MURPHYSBORO	COAL	1.0	83.0	NOT GOOD
311.0	TRADEWATER		SHALE	1.0	84.0	
310.0	TRADEWATER		SANDY SHALE	2.0	85.0	
308.0	TRADEWATER		SANDY SHALE	11.0	87.0	
297.0	TRADEWATER		CONGLOMERATE	2.0	98.0	

MAPID: 07701237000C VERSION: 2 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 4 QUARTERS/FOOTAGES: NW SE NE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.327543 GEOLOGIST: BARGH,M
CONFIDENTIAL: N LATITUDE: 37.771477 DATE COLLECTED:
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 100.0 LOG TYPE: Survey Core Study
SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			UNCONSOLIDATED	65.0	0.0	
345.0			SHALE	11.7	65.0	
333.3	SPOON	MURPHYSBORO	COAL	7.3	76.7	BK SH PTG .08'
326.0			COAL WITH SHALE	1.0	84.0	COAL AND SHALE MIXED
325.0			SHALE	13.0	85.0	
312.0			ROCK	2.0	98.0	

MAPID: 07701239000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 9S 2W **SECTION:** 4 **QUARTERS/FOOTAGES:** SW SW SE NE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.328147 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.769203 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 126.3 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 88 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE	MURPHYSBORO	SANDY CLAY	18.0	0.0	YELLOW
377.0	PLEISTOCENE		CLAY	10.0	18.0	GRAY
367.0	PLEISTOCENE		SANDY CLAY	1.0	28.0	GRAY
366.0	PLEISTOCENE		SAND	6.0	29.0	YELLOW
360.0	PLEISTOCENE		SANDY CLAY	15.0	35.0	BLUE
345.0	PLEISTOCENE		CLAY	16.0	50.0	RED
329.0	PLEISTOCENE		SANDY CLAY	1.0	66.0	GRAY
328.0	PLEISTOCENE		CLAY	2.0	67.0	RED
326.0	PLEISTOCENE		SANDY CLAY	15.0	69.0	
311.0	PLEISTOCENE		SANDY CLAY	4.0	84.0	BROWN
307.0	PLEISTOCENE		SANDY CLAY	4.0	88.0	GREEN
303.0	PLEISTOCENE		SAND	5.5	92.0	GRAVELLY; YELLOW
297.5	TRADEWATER		SANDY SHALE	0.5	97.5	YELLOW
297.0	TRADEWATER		SANDY SHALE	13.0	98.0	
284.0	TRADEWATER		SHALE	5.0	111.0	BLUE
279.0	TRADEWATER		SHALE	1.0	116.0	BLUE
278.0	TRADEWATER		SHALE	2.0	117.0	
276.0	TRADEWATER		COAL	6.3	119.0	
269.7	TRADEWATER		SHALE	1.0	125.3	DARK

MAPID: 07701239000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 2W **SECTION:** 4 **QUARTERS/FOOTAGES:** SW SW SE NE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.328147 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.769203 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 410.0 **LOGGED (FT.):** 126.3 **LOG TYPE:** Survey Core Study
SOURCE: BIG MUDDY COAL & IRON **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0			UNCONSOLIDATED	97.5	0.0	
312.5			SHALE	18.5	97.5	
294.0			COAL WITH SHALE	1.0	116.0	COAL AND SHALE MIXED
293.0			SHALE	2.0	117.0	
291.0			COAL	6.3	119.0	
284.7			SHALE	1.0	125.3	

MAPID: 07701244000C VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 4 QUARTERS/FOOTAGES: 330' N line, 330' W line of NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.341461 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.773123 DATE COLLECTED: 0 / 0 / 1947

SURFACE ELEVATION (FT.): 408.0 LOGGED (FT.): 190.0 LOG TYPE: Drillers Log

SOURCE: MURPHYSBORO ICE CO WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
408.0			UNCONSOLIDATED	65.0	0.0	
343.0			SHALE	41.0	65.0	
302.0	SPOON	MURPHYSBORO	COAL	5.0	106.0	
297.0			BLACK SHALE	79.0	111.0	

MAPID: 07700250401M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 5 QUARTERS/FOOTAGES: 230' N line, 330' W line of NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.360393 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.773642 DATE COLLECTED:

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 2.5 LOG TYPE: Measured section

SOURCE: MINE NOTES-REPLOGLE C C WELL TYPE: Underground mine

COMMENT: 100' N OF BOTTOM (OF SHAFT)

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			CLAYSTONE	0.5		
-			SHALE	0.3		
-			COAL	2.8		BONE AND SH PARTING .16'

MAPID: 07700250400M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 5 QUARTERS/FOOTAGES: 100' N line, 330' W line of NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.360389 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.774001 DATE COLLECTED:

SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 64.5 LOG TYPE: Measured section

SOURCE: MINE NOTES-REPLOGLE C C WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0			UNCONSOLIDATED	2.0	0.0	
-			ROCK	420.0		
-			COAL	2.5		
-			SHALE	-		

MAPID: 07700424600M **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 2W **SECTION:** 5 **QUARTERS/FOOTAGES:** SW NW NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.360372 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.771931 **DATE COLLECTED:** 0 / 0 / 1930
SURFACE ELEVATION (FT.): 430.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: MOA MAP, RIPLEY C C **WELL TYPE:** Underground mine
COMMENT:

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

MAPID: 07701246000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 9S 2W **SECTION:** 5 **QUARTERS/FOOTAGES:** NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.356823 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.771098 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 425.0 **LOGGED (FT.):** 116.8 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 7 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0	TRADEWATER	MURPHYSBORO	CLAY	4.5	0.0	
420.5			SHALE	6.0	4.5	WHITE
414.5			COAL	2.5	10.5	
412.0			UNDERCLAY	4.5	13.0	
407.5			SHALE	27.0	17.5	
380.5			SANDSTONE	1.0	44.5	
379.5			SHALE	4.0	45.5	
375.5			SHALE	4.8	49.5	BLUE
370.7			SHALE	0.2	54.3	BLUE
370.5			COAL	3.0	54.5	
367.5			SHALE	1.5	57.5	
366.0			SHALE	1.5	59.0	WHITE
364.5			SHALE	12.0	60.5	BLUE
352.5			SHALE	14.0	72.5	
338.5			SHALE	4.0	86.5	BLUE
334.5			SHALE	2.0	90.5	
332.5			SHALE	2.0	92.5	
330.5			SHALE	2.0	94.5	
328.5			SHALE	6.3	96.5	
322.2			SANDSTONE	14.0	102.8	

MAPID: 07701246000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 5 QUARTERS/FOOTAGES: NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.356823 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.771098 DATE COLLECTED:

SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 116.8 LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0			UNCONSOLIDATED	4.5	0.0	
420.5			SHALE	6.0	4.5	
414.5			COAL	2.5	10.5	
412.0			ROCK	12.0	13.0	
400.0			SHALE	19.5	25.0	
380.5			SANDSTONE	1.0	44.5	
379.5			SHALE	9.0	45.5	
370.5			COAL	3.0	54.5	
367.5			SHALE	59.3	57.5	

MAPID: 077265C0010F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 6 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: ORAVILLE LONGITUDE: -89.376464 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.773542 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 27.1 LOG TYPE: Measured section

SOURCE: FLD NOTES-FULLER WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SANDSTONE	20.0		
-			SHALE	4.6		
-			COAL	3.5		
-			SHALE	-		LAMINATED WITH PLANT REMAINS

MAPID: 077265D0005F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 7 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.362668 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.755246 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 360.0 LOGGED (FT.): 2.2 LOG TYPE: Measured section

SOURCE: FLD NOTES-PAYNE WELL TYPE: Roadcut

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	-		
-			COAL	2.2		

MAPID: 077270A0001F VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 7 QUARTERS/FOOTAGES: SE SW SE SE
QUADRANGLE: POMONA LONGITUDE: -89.364237 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.747308 DATE COLLECTED: 0 / 0 / 1924
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 3.3 LOG TYPE: Measured section
SOURCE: FLD NOTES-CULVER WELL TYPE: Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	SPOON	MURPHYSBORO	COAL	3.3		SH PARTING 1.5'

MAPID: 077270A0005F VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 7 QUARTERS/FOOTAGES: SW NE SW SE
QUADRANGLE: POMONA LONGITUDE: -89.3677 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.74914 DATE COLLECTED: 0 / 0 / 1957
SURFACE ELEVATION (FT.): 380.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: FLD NOTES-DESBOROUGH WELL TYPE: Outcrop
COMMENT: SMALL DRIFT MINES IN THIS AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	20.0		
-	SPOON	MURPHYSBORO	COAL	3.5		
-	SPOON		ROCK	15.0		

MAPID: 077270A0003F VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 7 QUARTERS/FOOTAGES: NE SE SE
QUADRANGLE: POMONA LONGITUDE: -89.362567 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.749656 DATE COLLECTED: 9 / 1 / 1933
SURFACE ELEVATION (FT.): 380.0 LOGGED (FT.): 14.5 LOG TYPE: Measured section
SOURCE: FLD NOTES-FULLER WELL TYPE: Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	4.3		
-	SPOON	MURPHYSBORO	COAL	2.2		
-			UNKNOWN	8.0		

MAPID: 077270A0002F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 7 QUARTERS/FOOTAGES: SE NW SE SE

QUADRANGLE: POMONA LONGITUDE: -89.364272 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.749172 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 22.3 LOG TYPE: Measured section

SOURCE: FLD NOTES-CULVER WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0			UNCONSOLIDATED	8.0	0.0	
-			ROCK	8.0		
392.0	SPOON	MURPHYSBORO	COAL	0.8	8.0	BONY
391.3	SPOON		SHALE	1.5	8.7	PARTING IN COAL
389.8	SPOON		COAL	1.0	10.2	BASE CONCEALED IN WATER
-	SPOON		UNKNOWN	7.0		
-			ROCK	4.0		

MAPID: 077270A0004F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 7 QUARTERS/FOOTAGES: NW SE SE SE

QUADRANGLE: POMONA LONGITUDE: -89.363112 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.748251 DATE COLLECTED: 9 / 1 / 1933

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 6.3 LOG TYPE: Measured section

SOURCE: FLD NOTES-FULLER WELL TYPE: Underground mine

COMMENT: NUMEROUS DRIFT ENTRIES IN THIS AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	1.8		
-	SPOON	MURPHYSBORO	COAL	0.5		
-	SPOON		SHALE	1.3		
-	SPOON	MURPHYSBORO	COAL	0.7		
-	SPOON		UNKNOWN	2.0		

MAPID: 07701249000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 8 QUARTERS/FOOTAGES: NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.356832 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.757988 DATE COLLECTED:
SURFACE ELEVATION (FT.): 350.0 LOGGED (FT.): 69.7 LOG TYPE: Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 5 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
350.0	PLEISTOCENE		CLAY	8.0	0.0	BLUE
342.0	PLEISTOCENE		CLAY	12.7	8.0	WHITE
329.3	PLEISTOCENE		CLAY	20.0	20.7	RED
309.3	PLEISTOCENE		CLAY	29.0	40.7	WHITE

MAPID: 07701251000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 8 QUARTERS/FOOTAGES: NW SE SE
QUADRANGLE: POMONA LONGITUDE: -89.346165 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.749483 DATE COLLECTED:
SURFACE ELEVATION (FT.): 360.0 LOGGED (FT.): 28.0 LOG TYPE: Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 11 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
360.0	PLEISTOCENE		SHALE	7.8	0.0	
352.2			SANDSTONE	6.9	7.8	
345.3			SHALE	10.8	14.7	
334.5			SANDSTONE	2.5	25.5	

MAPID: 077270A0006F VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 8 QUARTERS/FOOTAGES: SW SW SW SW
QUADRANGLE: POMONA LONGITUDE: -89.360799 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.747332 DATE COLLECTED: 0 / 0 / 1921
SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 3.6 LOG TYPE: Measured section
SOURCE: FLD NOTES-CADY WELL TYPE: Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	1.3		
-	SPOON	MURPHYSBORO	COAL	0.3		
-	SPOON		SHALE	2.0		
-	SPOON	MURPHYSBORO	COAL	-		CONCEALED, REPORTED 1.50'
-			ROCK	-		

MAPID: 07701255000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 9 QUARTERS/FOOTAGES: NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.328793 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.757743 DATE COLLECTED:

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 44.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 8 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0	PLEISTOCENE	MURPHYSBORO	GRAVEL	3.0	0.0	
397.0	PLEISTOCENE		CLAY	11.0	3.0	RED
386.0	PLEISTOCENE		CLAY	2.5	14.0	WITH SANDSTONE
383.5	PLEISTOCENE		CLAY	2.6	16.5	BLUE
380.9	TRADEWATER		SANDSTONE	3.9	19.1	
377.0	TRADEWATER		SHALE	5.0	23.0	
372.0	TRADEWATER		SHALE	12.0	28.0	BLUE
360.0	TRADEWATER		SHALE	1.0	40.0	
359.0	TRADEWATER		COAL	1.0	41.0	SOFT
358.0	TRADEWATER		SHALE	1.0	42.0	
357.0	TRADEWATER		SHALE	1.0	43.0	WHITE

MAPID: 07701256000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 9 QUARTERS/FOOTAGES: SW NE NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.327643 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.758668 DATE COLLECTED:

SURFACE ELEVATION (FT.): 370.0 LOGGED (FT.): 51.5 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 9 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
370.0	PLEISTOCENE	MURPHYSBORO	SHALE	6.5	0.0	
363.5	TRADEWATER		SHALE	36.0	6.5	BLUE
327.5	TRADEWATER		SHALE	0.8	42.5	
326.7	TRADEWATER		COAL	6.0	43.3	GOOD
320.7	TRADEWATER		SHALE	2.2	49.3	

MAPID: 07701257000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 9S 2W **SECTION:** 9 **QUARTERS/FOOTAGES:** NE SE SE NE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.324745 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.755401 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 415.0 **LOGGED (FT.):** 27.9 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 13 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
415.0	PLEISTOCENE		CLAY	4.7	0.0	
410.3	TRADEWATER		BLACK SHALE	15.3	4.7	IRON CONCRETIONS
395.0	TRADEWATER		BLACK SHALE	2.0	20.0	
393.0	TRADEWATER	MURPHYSBORO	COAL	3.3	22.0	
389.7	TRADEWATER		UNDERCLAY	0.3	25.3	
389.5	TRADEWATER	MURPHYSBORO	COAL	2.4	25.5	

MAPID: 07701259000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 9S 2W **SECTION:** 9 **QUARTERS/FOOTAGES:** SE SE NE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.325319 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.754938 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 435.0 **LOGGED (FT.):** 20.0 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 16 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.0	PLEISTOCENE		CLAY	4.5	0.0	
430.5	TRADEWATER		BLACK SHALE	10.3	4.5	IRON CONCRETIONS
420.2	TRADEWATER	MURPHYSBORO	COAL	5.3	14.8	

MAPID: 07701260000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 9S 2W **SECTION:** 9 **QUARTERS/FOOTAGES:** SE SE NE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.325319 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.754938 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 435.0 **LOGGED (FT.):** 17.6 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & CO. 18 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.0	PLEISTOCENE		CLAY	2.3	0.0	
432.7	TRADEWATER	MURPHYSBORO	COAL	3.4	2.3	TOP OF COAL ERODED
429.3	TRADEWATER		BLACK SHALE	9.5	5.7	
419.8	TRADEWATER	MURPHYSBORO	COAL	2.4	15.2	

MAPID: 07701261000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 9 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.331101 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.759615 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 93.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 119 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	18.5	0.0	
376.5	PLEISTOCENE		SAND	0.5	18.5	WITH WATER
376.0	PLEISTOCENE		CLAY	13.0	19.0	
363.0	PLEISTOCENE		SAND	6.0	32.0	
357.0	PLEISTOCENE		SAND	7.0	38.0	BLUE
350.0	PLEISTOCENE		CLAY	10.0	45.0	
340.0	PLEISTOCENE		SAND	2.0	55.0	
338.0	PLEISTOCENE		CLAY	10.0	57.0	
328.0	PLEISTOCENE		CLAY	2.0	67.0	BLUE
326.0	PLEISTOCENE		CLAY	9.0	69.0	RED
317.0	PLEISTOCENE		SANDY CLAY	2.0	78.0	
315.0	PLEISTOCENE		SAND	6.0	80.0	
309.0	PLEISTOCENE		SAND	2.0	86.0	
307.0			SANDSTONE	5.0	88.0	

MAPID: 07701262000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 9S 2W **SECTION:** 9 **QUARTERS/FOOTAGES:** NE NE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.326497 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.759591 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 73.5 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 120 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
385.0	PLEISTOCENE		CLAY	11.0	10.0	GRAY
374.0	PLEISTOCENE		CLAY	1.0	21.0	BLUE
373.0	PLEISTOCENE		SAND	2.0	22.0	
371.0	PLEISTOCENE		CLAY	14.0	24.0	
357.0	PLEISTOCENE		CLAY	15.0	38.0	RED
342.0	PLEISTOCENE		SAND	5.0	53.0	
337.0	PLEISTOCENE		SAND	1.0	58.0	
336.0	PLEISTOCENE		SAND	4.0	59.0	WITH CLAY MIXED
332.0	PLEISTOCENE		SAND	3.0	63.0	WITH GRAVEL
329.0	PLEISTOCENE		CLAY	2.0	66.0	
327.0	PLEISTOCENE		SAND	2.5	68.0	
324.5			SANDSTONE	3.0	70.5	

MAPID: 077265D0014F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 2W **SECTION:** 9 **QUARTERS/FOOTAGES:** NE NE NW SE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.329352 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.753564 **DATE COLLECTED:** 0 / 0 / 1931
SURFACE ELEVATION (FT.): 360.0 **LOGGED (FT.):** 11.1 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-WANLESS **WELL TYPE:** Underground mine
COMMENT: OLD ENTRY. TYPE LOCAL MURPHYSBORO COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	5.0		
-	SPOON	MURPHYSBORO	COAL	3.0		UPPER BENCH
-			SHALE	0.7		WITH STEM & ROOT TRACES
-			COAL	2.3		LOWER BENCH
-			ROCK	0.2		

MAPID: 077265D0006F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 9 QUARTERS/FOOTAGES: NW NE SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.327619 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.753092 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 38.9 LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop

COMMENT: MORE CADY NOTES ON THIS LOCALITY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	20.0		
-			COAL	2.0		"A COAL 40' ABOVE MURPHYSBORO"
-			ROCK	16.9		

MAPID: 077265D0007F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 9 QUARTERS/FOOTAGES: NE SE NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.325332 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.756799 DATE COLLECTED:

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 3.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	SPOON	MURPHYSBORO	COAL	3.0		UPPER BENCH.

MAPID: 077265D0008F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 9 QUARTERS/FOOTAGES: SE SE SW NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.329357 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.754494 DATE COLLECTED:

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 18.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop

COMMENT: OTHER NOTES AVAILABLE IN THIS AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	3.0		INCLUDES COAL AND SANDSTONE
-			COAL	-		"BRICK PLANT BED"
-			ROCK	15.0		
-	SPOON	MURPHYSBORO	COAL	-		UPPER BENCH

MAPID: 077265D0009F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 9 QUARTERS/FOOTAGES:

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.333395 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.754047 DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 25.5 LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop

COMMENT: OTHER NOTES AVAILABLE IN THIS AREA.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK		15.0	
-			COAL		2.5	
-			ROCK		8.0	

MAPID: 077265D0010F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 9 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.334551 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.754982 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 350.0 LOGGED (FT.): 66.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
350.0			UNCONSOLIDATED	-	0.0	
-			ROCK		35.0	
-	SPOON	MURPHYSBORO	COAL		6.0	SH PTG .33 FROM TOP
-	SPOON		ROCK		25.0	

MAPID: 077265D0011F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 9 QUARTERS/FOOTAGES: NW SW SW NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.332818 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.755438 DATE COLLECTED: 0 / 0 / 1923

SURFACE ELEVATION (FT.): 350.0 LOGGED (FT.): 26.5 LOG TYPE: Measured section

SOURCE: FLD NOTES-CULVER WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK		8.0	
-			COAL		3.5	
-			ROCK		15.0	

MAPID: 077265D0012F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 9 QUARTERS/FOOTAGES: SW NW NE SE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.328193 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.752629 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 27.8 LOG TYPE: Measured section

SOURCE: FLD NOTES-PAYNE WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	3.0		
-			COAL	1.7		
-			ROCK	23.2		

MAPID: 077270A0007F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 9 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: POMONA LONGITUDE: -89.325284 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.749362 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 66.7 LOG TYPE: Measured section

SOURCE: FLD NOTES-CULVER WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	54.7		
-			UNKNOWN	4.0		
-			ROCK	6.0		
-			COAL	2.0		BASE CONCEALED

MAPID: 07700249300M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 10 QUARTERS/FOOTAGES: SE NE SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.315722 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.751332 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section

SOURCE: MINE INDEX-CONSOL C C MINE #6 WELL TYPE: Underground mine

COMMENT:

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

MAPID: 07701222000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 10 QUARTERS/FOOTAGES: NW NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.321733 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.759659 DATE COLLECTED:
SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 95.5 LOG TYPE: Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 30 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
410.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	83.0	0.0	
327.0	TRADEWATER		BLACK SHALE	6.0	83.0	
321.0	TRADEWATER		BLACK SHALE	1.0	89.0	
320.0	TRADEWATER		COAL	5.5	90.0	

MAPID: 07701263000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 10 QUARTERS/FOOTAGES: NW SW SW NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.323562 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.755421 DATE COLLECTED:
SURFACE ELEVATION (FT.): 478.8 LOGGED (FT.): 12.6 LOG TYPE: Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 10 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
478.8	PLEISTOCENE	MURPHYSBORO	CLAY	5.0	0.0	
473.8	TRADEWATER		SHALE	1.8	5.0	
472.0	TRADEWATER		COAL	3.0	6.8	
469.0	TRADEWATER		SHALE	0.1	9.8	
468.8	TRADEWATER	MURPHYSBORO	COAL	2.7	10.0	

MAPID: 07701264000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 10 QUARTERS/FOOTAGES: SE NE NW
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.315591 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.758895 DATE COLLECTED:
SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 27.0 LOG TYPE: Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 14 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE	MURPHYSBORO	CLAY	3.7	0.0	
401.3	TRADEWATER		BLACK SHALE	17.5	3.7	IRON CONCRETIONS
383.8	TRADEWATER		COAL	5.8	21.2	

MAPID: 07701265000C

VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 9S 2W

SECTION: 10

QUARTERS/FOOTAGES: SE NE NW

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.315591

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.758895

DATE COLLECTED:

SURFACE ELEVATION (FT.): 405.0

LOGGED (FT.): 18.3

LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 17

WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	16.0	0.0	
389.0	TRADEWATER		COAL	2.3	16.0	

MAPID: 07701266000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 9S 2W

SECTION: 10

QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: MURPHYSBORO

LONGITUDE: -89.322969

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.760552

DATE COLLECTED:

SURFACE ELEVATION (FT.): 473.1

LOGGED (FT.): 270.3

LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 34

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
473.1	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	16.0	0.0	
457.1	TRADEWATER		COAL	1.0	16.0	NEAR CROP; THIN; TOP OF COAL ERODED
456.1	TRADEWATER		BLACK SHALE	15.7	17.0	
440.4	TRADEWATER		SANDY SHALE	15.3	32.7	
425.1	TRADEWATER		SANDY SHALE	7.0	48.0	
418.1	TRADEWATER		SANDSTONE	18.8	55.0	
399.3	TRADEWATER		SANDY SHALE	2.7	73.8	
396.7	TRADEWATER		SANDY SHALE	0.1	76.4	
396.6	TRADEWATER		BLACK SHALE	31.7	76.5	IRON CONCRETIONS
364.9	TRADEWATER		SANDSTONE	7.1	108.2	WHITE
357.8	TRADEWATER		BLACK SHALE	1.0	115.3	
356.8	TRADEWATER		SANDY SHALE	2.5	116.3	
354.3	TRADEWATER		SANDSTONE	5.0	118.8	
349.3	TRADEWATER		SANDY SHALE	1.1	123.8	
348.3	TRADEWATER		BLACK SHALE	7.0	124.8	
341.3	TRADEWATER		SANDSTONE	7.7	131.8	GRAY
333.6	TRADEWATER		SANDSTONE	2.3	139.5	
331.3	TRADEWATER		SANDSTONE	17.3	141.8	LIGHT GRAY
313.9	TRADEWATER		BLACK SHALE	2.7	159.2	
311.3	TRADEWATER		SANDSTONE	13.0	161.8	LIGHT GRAY
298.3	TRADEWATER		SANDSTONE	6.1	174.8	WITH SHALE
292.2	TRADEWATER		SANDY SHALE	33.5	180.9	
258.7	TRADEWATER		SANDSTONE	1.3	214.4	VERY HARD GRAY
257.4	TRADEWATER		SANDY SLATE	10.9	215.7	
246.5	TRADEWATER		SANDSTONE	14.0	226.6	WITH BANDS OF SOFT SHALE
232.5	TRADEWATER		BLACK SHALE	2.0	240.6	WITH SANDSTONE
230.5	TRADEWATER		SANDSTONE	11.0	242.6	
219.5	TRADEWATER		BLACK SHALE	2.0	253.6	
217.5	TRADEWATER		SANDSTONE	3.9	255.6	LIGHT GRAY
213.6	TRADEWATER		BLACK SHALE	7.8	259.5	
205.8	TRADEWATER		SANDSTONE	3.0	267.3	LIGHT GRAY

MAPID: 07701267000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 10 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.319337 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.750352 DATE COLLECTED:

SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 128.8 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.0	PLEISTOCENE		UNCONSOLIDATED	21.5	0.0	BITUMINOUS
448.5			SANDSTONE	7.5	21.5	
441.0			BLACK SHALE	8.0	29.0	
433.0			BLACK SHALE	43.0	37.0	
390.0			COAL	3.0	80.0	
387.0			BLACK SHALE	5.0	83.0	
382.0			BLACK SHALE	7.0	88.0	
375.0			LIMESTONE	1.3	95.0	
373.7			BLACK SHALE	4.5	96.3	
369.2			BLACK SHALE	11.5	100.8	
357.7			BLACK SHALE	10.0	112.3	
347.7			BLACK SHALE	1.8	122.3	
346.0	TRADEWATER	MURPHYSBORO	COAL	2.8	124.0	
343.2			UNDERCLAY	0.5	126.8	
342.8	TRADEWATER	MURPHYSBORO	COAL	1.6	127.2	

MAPID: 07701267000C **VERSION:** 2 **PROJECT:** NCRDS87
COUNTY: JACKSON **TWP/RNG:** 9S 2W **SECTION:** 10 **QUARTERS/FOOTAGES:** SW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.319337 **GEOLOGIST:** WEIBEL
CONFIDENTIAL: N **LATITUDE:** 37.750352 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 470.0 **LOGGED (FT.):** 128.8 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.0			UNCONSOLIDATED	21.5	0.0	
448.5			SANDSTONE	7.5	21.5	
441.0			SHALE	51.0	29.0	
390.0	SPOON	MURPHYSBORO	COAL	3.0	80.0	
387.0			SHALE	5.0	83.0	
382.0			BLACK SHALE	7.0	88.0	
375.0			LIMESTONE	1.3	95.0	
373.7			BLACK SHALE	16.0	96.3	
357.7			SHALE	10.0	112.3	
347.7			BLACK SHALE	1.8	122.3	
346.0			COAL	2.8	124.0	
343.2			UNDERCLAY	0.5	126.8	
342.8			COAL	1.6	127.2	

MAPID: 07701268000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 9S 2W **SECTION:** 10 **QUARTERS/FOOTAGES:** SW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.319337 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.750352 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 592.1 **LOGGED (FT.):** 90.5 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 52 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
592.1	PLEISTOCENE		CLAY	18.0	0.0	YELLOW
574.1	PLEISTOCENE		SAND	6.0	18.0	YELLOW
568.1	PLEISTOCENE		CLAY	10.0	24.0	YELLOW
558.1	PLEISTOCENE		SAND	4.0	34.0	BLUE
554.1	PLEISTOCENE		SANDY CLAY	10.0	38.0	BLUE
544.1	PLEISTOCENE		CLAY	13.0	48.0	YELLOW
531.1	TRADEWATER		COAL	3.0	61.0	
528.1	TRADEWATER		BLACK SHALE	13.0	64.0	
515.1	TRADEWATER		BLACK SHALE	6.0	77.0	
509.1	TRADEWATER		BLACK SHALE	2.0	83.0	
507.1	TRADEWATER	MURPHYSBORO	COAL	5.5	85.0	

MAPID: 07701269000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 10 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.319337 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.750352 DATE COLLECTED:

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 94.4 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 53 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		CLAY	51.0	0.0	YELLOW
409.0	PLEISTOCENE		SAND	7.0	51.0	
402.0	PLEISTOCENE		SAND	11.0	58.0	BLUE
391.0	TRADEWATER		BLACK SHALE	3.0	69.0	
388.0	TRADEWATER	MURPHYSBORO	COAL	3.0	72.0	
385.0	TRADEWATER		BLACK SHALE	9.0	75.0	
376.0	TRADEWATER		BLACK SHALE	4.0	84.0	
372.0	TRADEWATER		BLACK SHALE	1.0	88.0	
371.0	TRADEWATER	MURPHYSBORO	COAL	3.0	89.0	
368.0	TRADEWATER		UNDERCLAY	0.7	92.0	
367.3	TRADEWATER	MURPHYSBORO	COAL	1.8	92.7	

MAPID: 07701270000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 10 QUARTERS/FOOTAGES: SW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.319337 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.750352 DATE COLLECTED:

SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 83.8 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 57 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
432.0			BLACK SHALE	13.0	13.0	
419.0			BLACK SHALE	5.5	26.0	
413.5			COAL	2.5	31.5	
411.0			SANDY SHALE	5.5	34.0	
405.5			BLACK SHALE	5.0	39.5	
400.5			BLACK SHALE	5.0	44.5	BITUMINOUS
395.5			LIMESTONE	1.3	49.5	
394.2			BLACK SHALE	20.8	50.8	
373.5			BLACK SHALE	3.0	71.5	
370.5			BLACK SHALE	1.0	74.5	
369.5			BLACK SHALE	1.7	75.5	
367.8	TRADEWATER	MURPHYSBORO	COAL	6.6	77.2	

MAPID: 07701271000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 10 QUARTERS/FOOTAGES: NE SE
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.307264 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.752391 DATE COLLECTED:
SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 66.3 LOG TYPE: Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 58 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE	MURPHYSBORO	CLAY	10.0	0.0	YELLOW
385.0	PLEISTOCENE		CLAY	6.0	10.0	LIGHT BLUE
379.0	PLEISTOCENE		SAND	2.0	16.0	LIGHT BLUE
377.0	PLEISTOCENE		SANDY CLAY	9.0	18.0	YELLOW
368.0	PLEISTOCENE		SANDY CLAY	12.0	27.0	LIGHT BLUE
356.0	PLEISTOCENE		CLAY	1.0	39.0	LIGHT BLUE
355.0	PLEISTOCENE		CLAY	19.0	40.0	RED
336.0	TRADEWATER		COAL	7.3	59.0	TOP OF COAL ERODED

MAPID: 07701272000C VERSION: 1 PROJECT: NCRDS99
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 10 QUARTERS/FOOTAGES:
QUADRANGLE: MURPHYSBORO LONGITUDE: -89.314459 GEOLOGIST: C.KOROSE
CONFIDENTIAL: N LATITUDE: 37.754189 DATE COLLECTED:
SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 127.7 LOG TYPE: Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 59 WELL TYPE: Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0	PLEISTOCENE	MURPHYSBORO	CLAY	30.0	0.0	YELLOW
415.0			SANDSTONE	14.0	30.0	
401.0			SANDY SHALE	8.0	44.0	
393.0			BLACK SHALE	24.5	52.0	
368.5			COAL	3.7	76.5	
364.8			SANDY SHALE	9.5	80.2	
355.3			BLACK SHALE	2.5	89.7	
352.8			LIMESTONE	1.3	92.2	
351.5			BLACK SHALE	3.0	93.5	
348.5			BLACK SHALE	5.0	96.5	BITUMINOUS
343.5			SANDY SHALE	6.0	101.5	
337.5			BLACK SHALE	14.3	107.5	
323.2	TRADEWATER		COAL	5.8	121.8	

MAPID: 07701273000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 10 QUARTERS/FOOTAGES:

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.314459

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.754189

DATE COLLECTED:

SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 114.0

LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 60

WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSONOMY DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0	PLEISTOCENE		CLAY	10.0	0.0	YELLOW
435.0	PLEISTOCENE		SAND	10.0	10.0	YELLOW
425.0	PLEISTOCENE		SANDY CLAY	24.0	20.0	YELLOW
401.0			BLACK SHALE	1.0	44.0	
400.0			SANDSTONE	22.0	45.0	
378.0			SANDSTONE	17.0	67.0	GRAY
361.0			SANDSTONE	11.0	84.0	
350.0			BLACK SHALE	15.0	95.0	
335.0			BLACK SHALE	4.0	110.0	

MAPID: 07701274000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 10 QUARTERS/FOOTAGES: NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.309484

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.75811

DATE COLLECTED:

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 113.0

LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 92

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0	PLEISTOCENE		CLAY	38.0	0.0	YELLOW
392.0	PLEISTOCENE		CLAY	17.0	38.0	BLUE
375.0	PLEISTOCENE		SANDY CLAY	7.0	55.0	
368.0	TRADEWATER		SANDY SHALE	4.0	62.0	
364.0	TRADEWATER		SHALE	1.0	66.0	DARK
363.0	TRADEWATER		SHALE	7.0	67.0	BITUMINOUS
356.0	TRADEWATER		SHALE	6.0	74.0	DARK
350.0	TRADEWATER		SANDY SHALE	23.0	80.0	IRON CONCRETIONS
327.0	TRADEWATER		SHALE	2.8	103.0	DARK
324.2	TRADEWATER	MURPHYSBORO	COAL	7.0	105.8	
317.2	TRADEWATER		SHALE	0.3	112.8	DARK

MAPID: 07701275000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 10 QUARTERS/FOOTAGES: NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.309484 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.75811 DATE COLLECTED:

SURFACE ELEVATION (FT.): 395.0 LOGGED (FT.): 72.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 93 WELL TYPE: Coal Test

COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSON DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	20.0	0.0	YELLOW
375.0	PLEISTOCENE		CLAY	22.0	20.0	BLUE
353.0	TRADEWATER		SANDY SHALE	2.0	42.0	
351.0	TRADEWATER		SHALE	6.0	44.0	DARK BLUE
345.0	TRADEWATER		SANDY SHALE	12.0	50.0	IRON CONCRETIONS
333.0	TRADEWATER		SHALE	1.0	62.0	DARK
332.0	TRADEWATER	MURPHYSBORO	COAL	0.3	63.0	WITH SHALE MIXED
331.7	TRADEWATER	MURPHYSBORO	COAL	6.0	63.3	
325.7	TRADEWATER		SHALE	1.7	69.3	DARK
324.0	TRADEWATER		SANDSTONE	1.0	71.0	

MAPID: 077265D0013F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 10 QUARTERS/FOOTAGES: SE SE SW NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.319914 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.754563 DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 23.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop

COMMENT: RAVINE AT EDGE OF MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	20.0		
-	SPOON	MURPHYSBORO	COAL	3.0		

MAPID: 077265D0016F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 2W **SECTION:** 10 **QUARTERS/FOOTAGES:**
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.314459 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.754189 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 40.3 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-FULLER **WELL TYPE:** Underground mine
COMMENT: UP RAVINE FROM F265D015

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			ROCK	0.7	
-			SHALE	37.5	
-			COAL	2.2	
-			SHALE	-	

MAPID: 077265D0015F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 2W **SECTION:** 10 **QUARTERS/FOOTAGES:** SE SE SW NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.319914 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.754563 **DATE COLLECTED:** 0 / 0 / 1931
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 20.8 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-FULLER **WELL TYPE:** Outcrop
COMMENT: WEST BANK OF RAVINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			SHALE	2.0	
-			UNKNOWN	16.0	
-			COAL	0.3	
-			SANDSTONE	2.5	

MAPID: 077265D0017F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 2W **SECTION:** 10 **QUARTERS/FOOTAGES:** SW SE NW NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.321121 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.758275 **DATE COLLECTED:** 0 / 0 / 1931
SURFACE ELEVATION (FT.): 420.0 **LOGGED (FT.):** 9.1 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-WANLESS **WELL TYPE:** Underground mine
COMMENT: ABD DRIFT ENTRY.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			ROCK	3.5	
-	SPOON	MURPHYSBORO	COAL	2.5	
-	SPOON		ROCK	3.2	

MAPID: 07701276000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 9S 2W **SECTION:** 11 **QUARTERS/FOOTAGES:** NW NW
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.302131 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.760159 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 385.0 **LOGGED (FT.):** 87.7 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 94 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	PLEISTOCENE	MURPHYSBORO	CLAY	20.0	0.0	YELLOW
365.0	PLEISTOCENE		CLAY	10.0	20.0	WITH SAND MIXED
355.0	PLEISTOCENE		SANDY CLAY	10.0	30.0	
345.0	PLEISTOCENE		SANDY CLAY	10.0	40.0	BLUE
335.0	PLEISTOCENE		CLAY	15.0	50.0	RED
320.0	TRADEWATER		SHALE	3.0	65.0	YELLOW
317.0	TRADEWATER		SHALE	6.0	68.0	BITUMINOUS
311.0	TRADEWATER		SHALE	1.0	74.0	DARK
310.0	TRADEWATER		COAL	6.8	75.0	
303.2	TRADEWATER		SHALE	0.2	81.8	DARK
303.0	TRADEWATER		SANDY SHALE	4.7	82.0	
298.3	TRADEWATER		UNDERCLAY	1.0	86.7	

MAPID: 07701281000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 9S 2W **SECTION:** 11 **QUARTERS/FOOTAGES:** NE
QUADRANGLE: MURPHYSBORO **LONGITUDE:** -89.290402 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.758203 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 370.0 **LOGGED (FT.):** 50.0 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON CO. 21 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
370.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	42.0	0.0	
328.0	TRADEWATER		BLACK SHALE	2.5	42.0	
325.5	TRADEWATER		COAL	5.5	44.5	

MAPID: 07701282000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 11 QUARTERS/FOOTAGES: NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.299856 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.758226 DATE COLLECTED:

SURFACE ELEVATION (FT.): 409.0 LOGGED (FT.): 66.8 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 22 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
409.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	37.0	0.0	
372.0	TRADEWATER		SANDY SHALE	17.0	37.0	
355.0	TRADEWATER		BLACK SHALE	1.0	54.0	
354.0	TRADEWATER		BLACK SHALE	1.0	55.0	
353.0	TRADEWATER		BLACK SHALE	1.5	56.0	
351.5	TRADEWATER		COAL	2.3	57.5	
349.2	TRADEWATER		SANDSTONE	7.0	59.8	

MAPID: 07701283000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 11 QUARTERS/FOOTAGES: NE

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.290402 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.758203 DATE COLLECTED:

SURFACE ELEVATION (FT.): 365.0 LOGGED (FT.): 101.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 41 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
365.0	PLEISTOCENE		UNCONSOLIDATED	100.0	0.0	
265.0			SANDSTONE	1.0	100.0	

MAPID: 07701284000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 11 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.297417 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.760129 DATE COLLECTED:

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 104.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 121 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0	PLEISTOCENE		UNCONSOLIDATED	12.3	0.0	
417.7	PLEISTOCENE		CLAY	13.8	12.3	BLUE
404.0	PLEISTOCENE		CLAY	8.5	26.0	DARK BLUE
395.5	PLEISTOCENE		CLAY	11.0	34.5	GRAVEL MIXED WITH COAL
384.5	PLEISTOCENE		SAND	3.0	45.5	WITH CLAY; GRAY
381.5	PLEISTOCENE		SAND	0.5	48.5	
381.0	PLEISTOCENE		CLAY	4.0	49.0	RED
377.0	PLEISTOCENE		CLAY	5.8	53.0	WITH COAL MIXED; RED
371.2	PLEISTOCENE		CLAY	5.3	58.8	WITH GRAVEL MIXED WITH COAL; GRAY
366.0			BLACK SHALE	1.3	64.0	
364.7			UNDERCLAY	0.3	65.3	
364.5			SANDSTONE	2.0	65.5	
362.5			SANDY SHALE	17.5	67.5	
345.0			SHALE	3.0	85.0	HARD; BLUE
342.0			SHALE	0.3	88.0	SOFT; MIXED WITH COAL
341.7			SANDSTONE	1.2	88.3	
340.6			BLACK SHALE	3.6	89.4	
337.0			SHALE	0.5	93.0	BLUE
336.5			BLACK SHALE	6.6	93.5	
329.9			COAL	1.6	100.1	MURHPYSBORO? - CADY
328.3			BLACK SHALE	2.3	101.7	

MAPID: 07701285000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 11 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: MURPHYSBORO LONGITUDE: -89.301161 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.755343 DATE COLLECTED:

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 112.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 122 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
428.0	PLEISTOCENE		CLAY	2.0	12.0	WITH GRAVEL MIXED
426.0	PLEISTOCENE		SAND	13.0	14.0	YELLOW
413.0	PLEISTOCENE		CLAY	0.3	27.0	WITH SHALE MIXED
412.7			BLACK SHALE	1.0	27.3	
411.7			BLACK SHALE	0.8	28.3	WITH SMUTTY COAL
411.0			BLACK SHALE	2.0	29.0	
409.0			BLACK SHALE	2.5	31.0	WITH COAL MIXED
406.5			BLACK SHALE	2.5	33.5	
404.0			SHALE	3.0	36.0	HARD; LIGHT BLUE
401.0			SHALE	1.0	39.0	HARD; WITH GRAVEL MIXED; BLUE
400.0			SHALE	5.0	40.0	HARD; LIGHT BLUE
395.0			BLACK SHALE	6.0	45.0	WITH GRAVEL MIXED
389.0			BLACK SHALE	9.0	51.0	
380.0			BLACK SHALE	6.0	60.0	
374.0			BLACK SHALE	15.0	66.0	
359.0			BLACK SHALE	7.3	81.0	
351.7			COAL	1.4	88.3	
350.3			BLACK SHALE	13.0	89.7	
337.3			COAL	0.3	102.7	
337.0			SHALE	8.7	103.0	WITH SHALE; DARK
328.3			SANDSTONE	0.3	111.7	

MAPID: 07701286000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 11 QUARTERS/FOOTAGES: NE NW NW
 QUADRANGLE: MURPHYSBORO LONGITUDE: -89.300912 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.761112 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 113.0 LOG TYPE: Drillers Log
 SOURCE: BIG MUDDY COAL CO. 123 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	21.0	0.0	
399.0	PLEISTOCENE		CLAY	2.5	21.0	SANDY; YELLOW
396.5	PLEISTOCENE		CLAY	14.5	23.5	YELLOW
382.0	PLEISTOCENE		CLAY	3.0	38.0	RED
379.0	TRADEWATER		SANDY SHALE	3.0	41.0	
376.0	TRADEWATER		SANDY SHALE	2.5	44.0	SAND, CLAY, GRAVEL, AND SHALE MIXED
373.5	TRADEWATER		SANDY SHALE	2.0	46.5	
371.5	TRADEWATER		SHALE	4.0	48.5	BLUE
367.5	TRADEWATER		SHALE	4.5	52.5	
363.0	TRADEWATER		SHALE	11.5	57.0	
351.5	TRADEWATER		COAL	2.1	68.5	
349.4	TRADEWATER		SHALE	6.4	70.6	BLUE
343.0	TRADEWATER		SHALE	2.0	77.0	DARK
341.0	TRADEWATER		SHALE	3.0	79.0	
338.0	TRADEWATER		SHALE	2.5	82.0	GRAVELLY
335.5	TRADEWATER		SANDSTONE	2.0	84.5	
333.5	TRADEWATER		SANDY SHALE	4.3	86.5	
329.2	TRADEWATER		SHALE	6.3	90.8	BLUE
323.0	TRADEWATER		SHALE	7.0	97.0	BLUE
316.0	TRADEWATER		SHALE	3.3	104.0	
312.7	TRADEWATER		COAL	4.7	107.3	
308.0	TRADEWATER		SHALE	0.8	112.0	
307.2	TRADEWATER		SANDSTONE	0.2	112.8	

MAPID: 07701287000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 12 QUARTERS/FOOTAGES: NW
 QUADRANGLE: MURPHYSBORO LONGITUDE: -89.280952 GEOLOGIST: C.KOROSE
 CONFIDENTIAL: N LATITUDE: 37.757735 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 83.0 LOG TYPE: Drillers Log
 SOURCE: BIG MUDDY COAL & IRON CO. 39 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	PLEISTOCENE		UNCONSOLIDATED	80.0	0.0	
325.0			SANDSTONE	3.0	80.0	WHITE

MAPID: 07701289000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 15 QUARTERS/FOOTAGES: NW

QUADRANGLE: POMONA LONGITUDE: -89.319369 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.742926 DATE COLLECTED:

SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 109.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 26 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	34.0	0.0	
436.0	TRADEWATER		COAL	3.0	34.0	TOP OF COAL ERODED
433.0	TRADEWATER		SHALE	30.0	37.0	BLUE
403.0	TRADEWATER		COAL	1.0	67.0	
402.0	TRADEWATER		SANDY SHALE	1.0	68.0	WHITE
401.0	TRADEWATER		SANDSTONE	30.8	69.0	
370.2	TRADEWATER		SHALE	0.6	99.8	
369.7	TRADEWATER		SHALE	8.7	100.3	WHITE

MAPID: 07701289000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 15 QUARTERS/FOOTAGES: NW

QUADRANGLE: POMONA LONGITUDE: -89.319369 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.742926 DATE COLLECTED:

SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 109.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.0		MURPHYSBORO	UNCONSOLIDATED	34.0	0.0	
436.0	SPOON		COAL	3.0	34.0	VERY SOFT
433.0	SPOON		ROCK	30.0	37.0	
403.0	SPOON		COAL	1.0	67.0	
402.0			ROCK	41.0	68.0	

MAPID: 07701290000C VERSION: 1 PROJECT: NCRDS99

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 15 QUARTERS/FOOTAGES: SE

QUADRANGLE: POMONA LONGITUDE: -89.309963 GEOLOGIST: C.KOROSE

CONFIDENTIAL: N LATITUDE: 37.735949 DATE COLLECTED:

SURFACE ELEVATION (FT.): 441.0 LOGGED (FT.): 79.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON CO. 27 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
441.0	PLEISTOCENE	MURPHYSBORO	UNCONSOLIDATED	14.0	0.0	
427.0	TRADEWATER		SANDSTONE	48.0	14.0	
379.0	TRADEWATER		SHALE	1.0	62.0	RED
378.0	TRADEWATER		SHALE	1.0	63.0	
377.0	TRADEWATER		COAL	2.8	64.0	
374.2	TRADEWATER		SANDY SHALE	5.3	66.8	
369.0	TRADEWATER		SANDSTONE	7.0	72.0	WHITE

MAPID: 07701290000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 15 QUARTERS/FOOTAGES: SE

QUADRANGLE: POMONA LONGITUDE: -89.309963 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.735949 DATE COLLECTED:

SURFACE ELEVATION (FT.): 441.0 LOGGED (FT.): 79.0 LOG TYPE: Drillers Log

SOURCE: BIG MUDDY COAL & IRON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
441.0			UNCONSOLIDATED	14.0	0.0	
427.0			ROCK	50.0	14.0	
377.0			COAL	2.8	64.0	
374.2			ROCK	12.3	66.8	

MAPID: 077270A0008F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 15 QUARTERS/FOOTAGES: NW NW SW SW

QUADRANGLE: POMONA LONGITUDE: -89.323508 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.735015 DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop

COMMENT: OUTCROP IN PASTURE

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

MAPID: 07700060400M VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 16 QUARTERS/FOOTAGES: NE NE NE
QUADRANGLE: POMONA LONGITUDE: -89.325269 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.745646 DATE COLLECTED: 0 / 0 / 1936
SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: MINE NOTES-TEMPLETON C C WELL TYPE: Underground mine
COMMENT: DATA FROM MINE INDEX

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

MAPID: 077270A0011F VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 16 QUARTERS/FOOTAGES: SW NW SE NE
QUADRANGLE: POMONA LONGITUDE: -89.328182 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.741485 DATE COLLECTED: 0 / 0 / 1921
SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 46.3 LOG TYPE: Measured section
SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			ROCK	20.0	
-			COAL	2.0	LOWER PART CONCEALED
-			ROCK	24.3	

MAPID: 077270A0012F VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 16 QUARTERS/FOOTAGES: NE NE SW NE
QUADRANGLE: POMONA LONGITUDE: -89.329344 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.742417 DATE COLLECTED: 0 / 0 / 1921
SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 15.0 LOG TYPE: Measured section
SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop
COMMENT:

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

MAPID: 077270A0010F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 16 QUARTERS/FOOTAGES: NE NW SE NE

QUADRANGLE: POMONA LONGITUDE: -89.327015 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.74241 DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 24.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	20.0		
-			COAL	4.0		SH PARTING .17', SEAM SLIGHTLY FAULTED

MAPID: 077270A0009F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 16 QUARTERS/FOOTAGES:

QUADRANGLE: POMONA LONGITUDE: -89.333443 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.739176 DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): LOGGED (FT.): 66.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY WELL TYPE: Underground mine

COMMENT: BRIAR HILL MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNKNOWN	60.0	0.0	
-			COAL	2.2	60.0	
-			SHALE	2.0	62.2	
-			COAL	1.8	64.2	

MAPID: 077270A0013F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 17 QUARTERS/FOOTAGES: SW SW NW NW

QUADRANGLE: POMONA LONGITUDE: -89.360775 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.743583 DATE COLLECTED: 0 / 0 / 1924

SURFACE ELEVATION (FT.): 428.0 LOGGED (FT.): 53.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-CADY WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
428.0			UNCONSOLIDATED	0.0	0.0	
-			UNKNOWN	0.0		
375.0			COAL	-	53.0	
-			ROCK	-		

MAPID: 07701757000C VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 18 QUARTERS/FOOTAGES: NE NW SW

QUADRANGLE: GORHAM LONGITUDE: -89.376246 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.738518 DATE COLLECTED: 9 / 15 / 1971

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 240.0 LOG TYPE: Drillers Log

SOURCE: H. CRAWFORD, DRILLER WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0			UNCONSOLIDATED	50.0	0.0	
430.0			SHALE	25.0	50.0	"BLUE MUD"
405.0			COAL	3.0	75.0	
402.0			ROCK	162.0	78.0	

MAPID: 07722130000C VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 18 QUARTERS/FOOTAGES: NW NW NW NW

QUADRANGLE: GORHAM LONGITUDE: -89.379066 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.746223 DATE COLLECTED: 2 / 1 / 1977

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 210.0 LOG TYPE: Drillers Log

SOURCE: BEANLAND, DRILLER WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0			UNCONSOLIDATED	23.0	0.0	
457.0			ROCK	9.0	23.0	
448.0			COAL	1.0	32.0	
447.0			ROCK	177.0	33.0	

MAPID: 07722131000C VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 18 QUARTERS/FOOTAGES: SE SW NE

QUADRANGLE: POMONA LONGITUDE: -89.367069 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.740319 DATE COLLECTED: 10 / 31 / 1975

SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 108.0 LOG TYPE: Drillers Log

SOURCE: JOHN BEARLAND, DRILLER WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.0			UNCONSOLIDATED	29.0	0.0	
471.0			ROCK	61.0	29.0	
410.0			COAL	2.0	90.0	
408.0			ROCK	16.0	92.0	

MAPID: 077270A0014F VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 18 QUARTERS/FOOTAGES: NE NE SE NE
QUADRANGLE: POMONA LONGITUDE: -89.361927 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.742648 DATE COLLECTED: 0 / 0 / 1921
SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 1.8 LOG TYPE: Measured section
SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK		0.3	
-			COAL		1.5	
-			UNDERCLAY		-	

MAPID: 077270A0017F VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 18 QUARTERS/FOOTAGES: NE SE NE NE
QUADRANGLE: POMONA LONGITUDE: -89.361934 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.744523 DATE COLLECTED: 0 / 0 / 1933
SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 50.0 LOG TYPE: Measured section
SOURCE: FLD NOTES-MCCABE WELL TYPE: Outcrop
COMMENT: TRAVERSE UP CREEK FROM BRIDGE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK		11.2	
-			COAL		2.7	
-			UNDERCLAY		0.3	
-			UNKNOWN		5.0	
-			ROCK		2.0	
-			UNKNOWN		3.0	
-			ROCK		11.5	
-			UNKNOWN		6.0	
-			ROCK		1.0	
-			UNKNOWN		4.0	
-			ROCK		3.0	

MAPID: 077270A0015F VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 18 QUARTERS/FOOTAGES: NW NW NW NE
QUADRANGLE: POMONA LONGITUDE: -89.369937 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.746316 DATE COLLECTED: 0 / 0 / 1921
SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop
COMMENT:

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

MAPID: 077270A0016F VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 18 QUARTERS/FOOTAGES: SE NE SW
QUADRANGLE: POMONA LONGITUDE: -89.371657 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.736656 DATE COLLECTED: 0 / 0 / 1933
SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 1.3 LOG TYPE: Measured section
SOURCE: FLD NOTES-FULLER WELL TYPE: Outcrop
COMMENT: TRAVERSE DOWN CREEK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	-		
-			COAL	0.7		EXPOSED IN BED OF CREEK
-			UNDERCLAY	0.7		

MAPID: 077270A0018F VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 21 QUARTERS/FOOTAGES: SE NW SW NW
QUADRANGLE: POMONA LONGITUDE: -89.34116 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.726558 DATE COLLECTED: 0 / 0 / 1921
SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 8.8 LOG TYPE: Measured section
SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	8.0		MASSIVE SS
-			COAL	0.8		
-			UNDERCLAY	-		

MAPID: 07700423800M VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 30 QUARTERS/FOOTAGES: NW NW NE NW
QUADRANGLE: POMONA LONGITUDE: -89.37489 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.716913 DATE COLLECTED: 0 / 0 / 1921
SURFACE ELEVATION (FT.): 400.0 LOGGED (FT.): 104.8 LOG TYPE: Measured section
SOURCE: FLD NOTES-CADY WELL TYPE: Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.0			ROCK	10.3	0.0	
389.7			COAL	4.0	10.3	
385.7			ROCK	53.5	14.3	
332.2			UNKNOWN	10.0	67.8	
322.2			ROCK	4.0	77.8	
318.2			UNKNOWN	20.0	81.8	
298.2			ROCK	-	101.8	

MAPID: 07722053000C VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 31 QUARTERS/FOOTAGES: NE NE SE NE
QUADRANGLE: POMONA LONGITUDE: -89.362214 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.698105 DATE COLLECTED: 4 / 4 / 1977
SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 380.0 LOG TYPE: Drillers Log
SOURCE: FRANK HEPP, DRILLER WELL TYPE: Water Well
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0			UNCONSOLIDATED	21.0	0.0	
619.0			ROCK	42.0	21.0	
577.0			COAL/CLAYSTONE	3.0	63.0	
574.0			ROCK	314.0	66.0	

MAPID: 077270A0020F VERSION: 1 PROJECT: BLM
COUNTY: JACKSON TWP/RNG: 9S 2W SECTION: 31 QUARTERS/FOOTAGES: NE NW NE NE
QUADRANGLE: POMONA LONGITUDE: -89.364548 GEOLOGIST: BARGH M.
CONFIDENTIAL: N LATITUDE: 37.701862 DATE COLLECTED: 0 / 0 / 1933
SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 6.0 LOG TYPE: Measured section
SOURCE: FLD NOTES-MCCABE WELL TYPE: Outcrop
COMMENT:

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

MAPID: 077270A0021F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 2W **SECTION:** 31 **QUARTERS/FOOTAGES:** NW SE NE
QUADRANGLE: POMONA **LONGITUDE:** -89.36515 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.697719 **DATE COLLECTED:** 0 / 0 / 1933
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 49.0 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-MCCABE **WELL TYPE:** Outcrop
COMMENT: SECTION DOWN GULLY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	6.0		
-			COAL	3.0		"REPORTED. 1' SEEN
-			ROCK	3.0		
-			UNKNOWN	2.0		
-			ROCK	-		
-			UNKNOWN	5.0		
-			ROCK	30.0		
-			UNKNOWN	-		

MAPID: 07701484000C **VERSION:** 1 **PROJECT:** CUSMAP
COUNTY: JACKSON **TWP/RNG:** 9S 2W **SECTION:** 33 **QUARTERS/FOOTAGES:** 355' S line, 1252' E line of SE
QUADRANGLE: POMONA **LONGITUDE:** -89.328822 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 37.688248 **DATE COLLECTED:** 7 / 0 / 1963
SURFACE ELEVATION (FT.): 522.0 **LOGGED (FT.):** 550.0 **LOG TYPE:** Electric Log
SOURCE: HILDRETH, Y. E. **WELL TYPE:** Producer-Oil and Gas
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-28.0	BASE OF PENN.		UNCLASSIFIED	-	550.0	

MAPID: 07701315000C **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 3W **SECTION:** 1 **QUARTERS/FOOTAGES:** NE SE NE NW
QUADRANGLE: ORAVILLE **LONGITUDE:** -89.388756 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.772553 **DATE COLLECTED:** 0 / 0 / 1949
SURFACE ELEVATION (FT.): 435.0 **LOGGED (FT.):** 118.0 **LOG TYPE:** Drillers Log
SOURCE: RALSTON **WELL TYPE:** Water Well
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.0			UNCONSOLIDATED	55.0	0.0	
380.0			SANDSTONE	6.0	55.0	
374.0			SHALE	9.0	61.0	
365.0			COAL	7.0	70.0	
358.0			BLACK SHALE	8.0	77.0	
350.0			ROCK	33.0	85.0	

MAPID: 07700250500M **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 3W **SECTION:** 10 **QUARTERS/FOOTAGES:** SE SE NW
QUADRANGLE: ORAVILLE **LONGITUDE:** -89.427675 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.756432 **DATE COLLECTED:** 0 / 0 / 1933
SURFACE ELEVATION (FT.): 460.0 **LOGGED (FT.):** 61.6 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-FULLER, HEIPLE MINE **WELL TYPE:** Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			SANDSTONE	6.0	
-			COAL	4.0	AVERAGE THICKNESS
-			ROCK	4.3	
-			UNKNOWN	3.0	
-			ROCK	2.3	
-			UNKNOWN	2.0	
-			ROCK	7.0	
-			UNKNOWN	3.0	
-			ROCK	30.0	

MAPID: 077265C0011F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 3W **SECTION:** 12 **QUARTERS/FOOTAGES:** 1350' N line, 4000' E line
QUADRANGLE: ORAVILLE **LONGITUDE:** -89.393329 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.756178 **DATE COLLECTED:** 0 / 0 / 1963
SURFACE ELEVATION (FT.): 500.0 **LOGGED (FT.):** 3.5 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-SIMON **WELL TYPE:** Outcrop
COMMENT:

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

MAPID: 077270B0001F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 3W **SECTION:** 12 **QUARTERS/FOOTAGES:** NE NW SE SW
QUADRANGLE: GORHAM **LONGITUDE:** -89.391508 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.74861 **DATE COLLECTED:** 0 / 0 / 1921
SURFACE ELEVATION (FT.): 400.0 **LOGGED (FT.):** 10.5 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-CADY **WELL TYPE:** Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			ROCK	8.0	
-			COAL	2.5	

MAPID: 07701830000C **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 9S 3W **SECTION:** 24 **QUARTERS/FOOTAGES:** NE NE NE
QUADRANGLE: GORHAM **LONGITUDE:** -89.380964 **GEOLOGIST:** BARGH,M
CONFIDENTIAL: N **LATITUDE:** 37.729866 **DATE COLLECTED:** 7 / 9 / 1973
SURFACE ELEVATION (FT.): 440.0 **LOGGED (FT.):** 205.0 **LOG TYPE:** Drillers Log
SOURCE: HEPP, DRILLER **WELL TYPE:** Water Well
COMMENT: THICKNESS MAY BE OVERSTATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0			UNCONSOLIDATED	63.0	0.0	
377.0			ROCK	19.0	63.0	
358.0			COAL	13.0	82.0	
345.0			ROCK	12.0	95.0	
333.0			COAL	1.0	107.0	
332.0			ROCK	142.0	108.0	

MAPID: 07701240000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 9S 4W **SECTION:** 4 **QUARTERS/FOOTAGES:** 500' S line, 1' E line of NE
QUADRANGLE: RADDLE **LONGITUDE:** -89.545433 **GEOLOGIST:** C.KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.774928 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 395.0 **LOGGED (FT.):** 119.0 **LOG TYPE:** Drillers Log
SOURCE: BIG MUDDY COAL & IRON 91 **WELL TYPE:** Coal Test
COMMENT: ELEVATION FROM 5-10M DIGITAL HYPSO.DATA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	PLEISTOCENE		CLAY	19.0	0.0	YELLOW
376.0	PLEISTOCENE		CLAY	16.0	19.0	DARK
360.0	PLEISTOCENE		CLAY	10.0	35.0	SANDY
350.0	PLEISTOCENE		SANDY CLAY	10.0	45.0	
340.0	PLEISTOCENE		SAND	3.0	55.0	
337.0	PLEISTOCENE		CLAY	6.0	58.0	GRAVELLY
331.0	PLEISTOCENE		CLAY	10.0	64.0	
321.0	PLEISTOCENE		SAND	2.0	74.0	GRAVELLY
319.0	TRADEWATER		SANDY SHALE	4.0	76.0	
315.0	TRADEWATER		SANDY SHALE	22.0	80.0	BLUE
293.0	TRADEWATER		SHALE	8.0	102.0	BLUE
285.0	TRADEWATER		SHALE	1.7	110.0	DARK
283.3	TRADEWATER	MURPHYSBORO	COAL	7.3	111.7	

MAPID: 07701240000C

VERSION: 2

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 9S 4W

SECTION: 4

QUARTERS/FOOTAGES: 500' S line, 1' E line of NE

QUADRANGLE: RADDLE

LONGITUDE: -89.545433

GEOLOGIST: BARGH,M

CONFIDENTIAL: N

LATITUDE: 37.774928

DATE COLLECTED:

SURFACE ELEVATION (FT.): 380.0

LOGGED (FT.): 119.0

LOG TYPE: Survey Core Study

SOURCE: BIG MUDDY COAL & IRON

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0			UNCONSOLIDATED	76.0	0.0	
304.0			SHALE	35.7	76.0	
268.3	SPOON	MURPHYSBORO	COAL	7.3	111.7	

MAPID: 07701243000C

VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 9S 4W

SECTION: 4

QUARTERS/FOOTAGES: NE SW NE

QUADRANGLE: RADDLE

LONGITUDE: -89.551135

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.776317

DATE COLLECTED: 0 / 0 / 1919

SURFACE ELEVATION (FT.): 385.0

LOGGED (FT.): 224.0

LOG TYPE: Drillers Log

SOURCE: SILICA PLANT

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	PLEISTOCENE		UNCONSOLIDATED	88.0	0.0	
297.0	TRADEWATER		SHALE	15.0	88.0	
282.0	TRADEWATER	MURPHYSBORO	COAL	8.0	103.0	
274.0	TRADEWATER		SHALE	4.0	111.0	
270.0	TRADEWATER		SANDSTONE	9.0	115.0	GRAY
261.0	TRADEWATER		SANDSTONE	16.0	124.0	WHITE
245.0	TRADEWATER		SHALE	30.0	140.0	
215.0	TRADEWATER		SANDSTONE	30.0	170.0	WHITE
185.0	TRADEWATER		SANDSTONE	24.0	200.0	WHITE

MAPID: 07701243000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 9S 4W SECTION: 4 QUARTERS/FOOTAGES: NE SW NE

QUADRANGLE: RADDLE LONGITUDE: -89.551135 GEOLOGIST: BARGH,M

CONFIDENTIAL: N LATITUDE: 37.776317 DATE COLLECTED: 0 / 0 / 1919

SURFACE ELEVATION (FT.): 385.0 LOGGED (FT.): 224.0 LOG TYPE: Drillers Log

SOURCE: WEIGLE, DRILLER WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0			UNCONSOLIDATED	88.0	0.0	
297.0			SHALE	15.0	88.0	
282.0	SPOON	MURPHYSBORO	COAL	8.0	103.0	
274.0	SPOON		LIMESTONE	4.0	111.0	
270.0			ROCK	109.0	115.0	

MAPID: 077271B0025F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 10S 1W SECTION: 3 QUARTERS/FOOTAGES: 600' S line, 2700' W line

QUADRANGLE: CARBONDALE LONGITUDE: -89.199807 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.674621 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 12.5 LOG TYPE: Measured section

SOURCE: FLD NOTES-WANLESS WELL TYPE: Underground mine

COMMENT: SEVERAL ABANDONED DRIFT ENTRIES IN AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	10.0		
-			COAL	2.5		REPORTED BY LAMAR. NOT EXPOSED.

MAPID: 07700422900M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 10S 1W SECTION: 8 QUARTERS/FOOTAGES: NE SE SW NE

QUADRANGLE: CARBONDALE LONGITUDE: -89.233445 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.666669 DATE COLLECTED: 0 / 0 / 1954

SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 11.4 LOG TYPE: Measured section

SOURCE: MINE NOTES-CARGIL C C WELL TYPE: Underground mine

COMMENT: IN CREEK BED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.0			SANDSTONE	7.0	0.0	
553.0			COAL	4.4	7.0	

MAPID: 07700422800M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 10S 1W SECTION: 8 QUARTERS/FOOTAGES: SW NE SE

QUADRANGLE: CARBONDALE LONGITUDE: -89.231745 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.662527 DATE COLLECTED: 0 / 0 / 1954

SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 3.5 LOG TYPE: Measured section

SOURCE: MINE NOTES-NEWBERRY C C WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			COAL	3.5	"ROOF BAD"

MAPID: 07700423700M VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 10S 1W SECTION: 8 QUARTERS/FOOTAGES: NE NE SW

QUADRANGLE: CARBONDALE LONGITUDE: -89.238811 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.664396 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 11.8 LOG TYPE: Measured section

SOURCE: FLD NOTES-FULLER WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			ROCK	7.2	
-			COAL	4.7	
-			UNDERCLAY	-	

MAPID: 07722211000C VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 10S 1W SECTION: 8 QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: CARBONDALE LONGITUDE: -89.236412 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.66622 DATE COLLECTED: 8 / 15 / 1979

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 165.0 LOG TYPE: Drillers Log

SOURCE: JOHN BEARLAND, DRILLER WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.0			UNCONSOLIDATED	35.0	0.0
555.0			SANDSTONE	19.0	35.0
536.0			COAL	3.0	54.0
533.0			UNDERCLAY	1.0	57.0
532.0			ROCK	0.0	58.0

MAPID: 077271B0015F

VERSION: 1

PROJECT: BLM

COUNTY: JACKSON

TWP/RNG: 10S 1W

SECTION: 8

QUARTERS/FOOTAGES: SW NE SE

QUADRANGLE: CARBONDALE

LONGITUDE: -89.231745

GEOLOGIST: BARGH M.

CONFIDENTIAL: N

LATITUDE: 37.662527

DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 560.0

LOGGED (FT.): 7.8

LOG TYPE: Measured section

SOURCE: FLD NOTES-FULLER, NEWBERRY C C

WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK		4.7	
-			COAL		2.7	
-			UNDERCLAY		0.5	
-			SANDSTONE		-	

MAPID: 07701330000C VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 10S 1W

SECTION: 16

QUARTERS/FOOTAGES: NE NE NE SW

QUADRANGLE: CARBONDALE

LONGITUDE: -89.219507

GEOLOGIST: C.KOROSE

CONFIDENTIAL: N

LATITUDE: 37.65015

DATE COLLECTED:

SURFACE ELEVATION (FT.): 500.0

LOGGED (FT.): 390.0

LOG TYPE: Drillers Log

SOURCE: HALLIDAY ESTATE 29

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.0	PLEISTOCENE		UNCONSOLIDATED	58.0	0.0	
442.0	TRADEWATER		SANDSTONE	13.0	58.0	
429.0	TRADEWATER		SHALE	21.5	71.0	WITH CLAY
407.5	TRADEWATER		COAL	0.8	92.5	
406.7	TRADEWATER		UNDERCLAY	4.8	93.3	
402.0	TRADEWATER		SANDY SHALE	24.0	98.0	
378.0	TRADEWATER		SHALE	2.5	122.0	WITH CLAY
375.5	TRADEWATER		COAL	0.5	124.5	
375.0	TRADEWATER		SANDY SHALE	5.0	125.0	
370.0	TRADEWATER		SANDSTONE	7.0	130.0	
363.0	TRADEWATER		SANDY SHALE	14.0	137.0	
349.0	TRADEWATER		SANDSTONE	6.0	151.0	
343.0	TRADEWATER		SANDY SHALE	26.0	157.0	
317.0	TRADEWATER		SHALY SANDSTONE	4.0	183.0	
313.0	TRADEWATER		SHALE	12.0	187.0	WITH CLAY
301.0	TRADEWATER		SANDSTONE	3.0	199.0	
298.0	TRADEWATER		SANDY SHALE	3.0	202.0	
295.0	TRADEWATER		SANDSTONE	1.0	205.0	
294.0	TRADEWATER		SHALE	1.0	206.0	WITH CLAY
293.0	TRADEWATER		SANDSTONE	3.0	207.0	
290.0	TRADEWATER		SHALE	25.0	210.0	WITH CLAY
265.0	TRADEWATER		SANDSTONE	70.0	235.0	
195.0	MISSISSIPPIAN		LIMESTONE	19.0	305.0	GRAY
176.0	MISSISSIPPIAN		SHALE	6.0	324.0	WITH CLAY
170.0	MISSISSIPPIAN		LIMESTONE	7.0	330.0	
163.0	MISSISSIPPIAN		LIMESTONE	2.0	337.0	CLAYSTONE PARTINGS
161.0	MISSISSIPPIAN		LIMESTONE	3.0	339.0	
158.0	MISSISSIPPIAN		LIMESTONE	2.0	342.0	CLAYSTONE PARTINGS
156.0	MISSISSIPPIAN		CLAYSTONE	2.5	344.0	
153.5	MISSISSIPPIAN		LIMESTONE	5.5	346.5	
148.0	MISSISSIPPIAN		CLAYSTONE	0.3	352.0	
147.7	MISSISSIPPIAN		LIMESTONE	29.8	352.3	
118.0	MISSISSIPPIAN		CLAYSTONE	0.5	382.0	
117.5	MISSISSIPPIAN		SHALE	7.5	382.5	WITH CLAY

MAPID: 07701330000C VERSION: 2 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 10S 1W SECTION: 16 QUARTERS/FOOTAGES: NE NE NE SW

QUADRANGLE: CARBONDALE LONGITUDE: -89.219507 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.65015 DATE COLLECTED:

SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 390.0 LOG TYPE: Drillers Log

SOURCE: HALIDAY ESTATE WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN
500.0			UNCONSOLIDATED	58.0	0.0
442.0			ROCK	34.5	58.0
407.5			COAL	0.8	92.5
406.7			ROCK	31.3	93.3
375.5			COAL	0.5	124.5
375.0			ROCK	265.0	125.0

MAPID: 07701441000C VERSION: 1 PROJECT: CUSMAP

COUNTY: JACKSON TWP/RNG: 10S 1W SECTION: 23 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE SE

QUADRANGLE: CARBONDALE LONGITUDE: -89.175425 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 37.633887 DATE COLLECTED: 9 / 0 / 1957

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 510.0 LOG TYPE: Electric Log

SOURCE: NAT'L. ASSOC. PETRO. CO. WELL TYPE: Structure Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN
110.0	BASE OF PENN.		UNCLASSIFIED	-	510.0

MAPID: 07701332000C VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 10S 1W SECTION: 27 QUARTERS/FOOTAGES: NW NW SE SE

QUADRANGLE: MAKANDA LONGITUDE: -89.195276 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.617288 DATE COLLECTED: 4 / 0 / 1914

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 1264.0 LOG TYPE: Drillers Log

SOURCE: C. J. WRIGHTSMAN WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN
630.0			UNCONSOLIDATED	40.0	0.0
590.0	CASEYVILLE		ROCK	10.0	40.0
580.0	CASEYVILLE	GENTRY	COAL	2.0	50.0
578.0			ROCK	1212.0	52.0

MAPID: 077271C0001F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 10S 1W **SECTION:** 27 **QUARTERS/FOOTAGES:** SW SW NE NE
QUADRANGLE: CARBONDALE **LONGITUDE:** -89.195067 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.625693 **DATE COLLECTED:** 0 / 0 / 1933
SURFACE ELEVATION (FT.): 550.0 **LOGGED (FT.):** 102.2 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-WANLESS **WELL TYPE:** Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CASEYVILLE	GENTRY	ROCK	58.0		
-	CASEYVILLE		COAL	2.5		SHALY
-	CASEYVILLE		ROCK	0.7		
-	CASEYVILLE		UNKNOWN	1.0		
-			ROCK	40.0		

MAPID: 07700422200M **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 10S 1W **SECTION:** 28 **QUARTERS/FOOTAGES:** SW NE SW SW
QUADRANGLE: MAKANDA **LONGITUDE:** -89.225876 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.615759 **DATE COLLECTED:** 7 / 21 / 1954
SURFACE ELEVATION (FT.): 550.0 **LOGGED (FT.):** 2.3 **LOG TYPE:** Measured section
SOURCE: MINE NOTES-CHADWICK MINE **WELL TYPE:** Underground mine
COMMENT: DRIFT MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CASEYVILLE	GENTRY	ROCK	-		
-	CASEYVILLE		COAL	2.3		

MAPID: 077271C0002F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 10S 1W **SECTION:** 28 **QUARTERS/FOOTAGES:** NE SW SW SW
QUADRANGLE: MAKANDA **LONGITUDE:** -89.227077 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.61479 **DATE COLLECTED:** 0 / 0 / 1929
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 34.0 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-CADY **WELL TYPE:** Outcrop
COMMENT: COMBINED SECTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CASEYVILLE	GENTRY	SANDSTONE	-		MAKANDA SS
-	CASEYVILLE		ROCK	2.0		CONGLOMERATIC WITH NUMEROUS COAL LENSES
-	CASEYVILLE		COAL	2.0		MEASURED IN DRIFT OPENING
-	CASEYVILLE		UNDERCLAY	-		
-			SANDSTONE	30.0		

MAPID: 077271C0003F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 10S 1W SECTION: 28 QUARTERS/FOOTAGES: SW SE SW SW

QUADRANGLE: MAKANDA LONGITUDE: -89.225904 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.613901 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 53.8 LOG TYPE: Measured section

SOURCE: FLD NOTES-FULLER WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN
550.0	CASEYVILLE	GENTRY	ROCK	50.0	0.0
500.0	CASEYVILLE		BLACK SHALE	0.8	50.0
499.2	CASEYVILLE		COAL	1.0	50.8
498.2			ROCK	2.0	51.8

MAPID: 077271C0004F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 10S 1W SECTION: 28 QUARTERS/FOOTAGES: SW NE SW SW

QUADRANGLE: MAKANDA LONGITUDE: -89.225876 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.615759 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 75.2 LOG TYPE: Measured section

SOURCE: FLD NOTES-FULLER WELL TYPE: Underground mine

COMMENT: ABANDONED SLOPE MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN
550.0	CASEYVILLE	GENTRY	ROCK	35.0	0.0
515.0	CASEYVILLE		COAL	1.5	35.0
513.5	CASEYVILLE		SHALE	1.0	36.5
512.5	CASEYVILLE		CLAYSTONE	1.5	37.5
511.0	CASEYVILLE		COAL	0.4	39.0
510.6			ROCK	15.8	39.4
494.8			UNKNOWN	6.0	55.2
488.8			ROCK	14.0	61.2

MAPID: 077270D0001F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 10S 1W SECTION: 30 QUARTERS/FOOTAGES: 850' S line, 3750' W line

QUADRANGLE: COBDEN LONGITUDE: -89.255516 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.615795 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 125.4 LOG TYPE: Measured section

SOURCE: FLD NOTES-FULLER WELL TYPE: Outcrop

COMMENT: SECTION DOWN RAVINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0			ROCK	3.0	0.0	
597.0			UNKNOWN	20.0	3.0	
577.0			ROCK	2.0	23.0	
575.0			UNKNOWN	1.0	25.0	
574.0			ROCK	1.0	26.0	
-			UNKNOWN	4.0		
-			ROCK	8.0		
-			UNKNOWN	10.0		
-			ROCK	20.0		
-			UNKNOWN	5.0		
-			ROCK	12.0		
-			COAL	0.8		GOOD QUALITY
-			ROCK	1.0		
-			UNKNOWN	20.0		
-			ROCK	17.5		

MAPID: 077270D0002F VERSION: 1 PROJECT: BLM

COUNTY: JACKSON TWP/RNG: 10S 1W SECTION: 30 QUARTERS/FOOTAGES: 2150' S line, 2100' W line

QUADRANGLE: COBDEN LONGITUDE: -89.261268 GEOLOGIST: BARGH M.

CONFIDENTIAL: N LATITUDE: 37.619369 DATE COLLECTED: 0 / 0 / 1956

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 110.0 LOG TYPE: Measured section

SOURCE: FLD NOTES-KAYS WELL TYPE: Outcrop

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	-		
499.7			COAL	0.4	100.3	
499.3			ROCK	9.3	100.7	

MAPID: 077270D0003F VERSION: 1 PROJECT: BLM
 COUNTY: JACKSON TWP/RNG: 10S 1W SECTION: 30 QUARTERS/FOOTAGES: 800' S line, 3600' W line
 QUADRANGLE: COBDEN LONGITUDE: -89.256033 GEOLOGIST: BARGH M.
 CONFIDENTIAL: N LATITUDE: 37.615656 DATE COLLECTED: 0 / 0 / 1930
 SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 180.0 LOG TYPE: Measured section
 SOURCE: FLD NOTES-EKBLAW WELL TYPE: Outcrop
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-			ROCK	80.0	
-			COAL	1.0	
-			ROCK	99.0	

MAPID: 077271C0005F VERSION: 1 PROJECT: BLM
 COUNTY: JACKSON TWP/RNG: 10S 1W SECTION: 32 QUARTERS/FOOTAGES: SW NW NE SW
 QUADRANGLE: MAKANDA LONGITUDE: -89.242539 GEOLOGIST: BARGH M.
 CONFIDENTIAL: N LATITUDE: 37.604532 DATE COLLECTED: 8 / 27 / 1933
 SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 30.2 LOG TYPE: Measured section
 SOURCE: FLD NOTES-FULLER WELL TYPE: Underground mine
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
580.0	CASEYVILLE		ROCK	-	0.0 MAKANDA SS
-	CASEYVILLE		UNKNOWN	14.0	
-	CASEYVILLE		ROCK	12.0	
-	CASEYVILLE	GENTRY	COAL	2.1	
-			UNDERCLAY	1.8	
-			COAL WITH SHALE	0.0	
-			COAL	0.3	

MAPID: 077271C0007F VERSION: 1 PROJECT: BLM
 COUNTY: JACKSON TWP/RNG: 10S 1W SECTION: 33 QUARTERS/FOOTAGES: NE SW SW NW
 QUADRANGLE: MAKANDA LONGITUDE: -89.227196 GEOLOGIST: BARGH M.
 CONFIDENTIAL: N LATITUDE: 37.60737 DATE COLLECTED: 8 / 26 / 1933
 SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 53.8 LOG TYPE: Measured section
 SOURCE: FLD NOTES-FULLER WELL TYPE: Outcrop
 COMMENT: SECTION UP CREEK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
630.0	CASEYVILLE		ROCK	50.8	0.0
579.2	CASEYVILLE	GENTRY	COAL	1.0	50.8
578.2	CASEYVILLE		ROCK	2.0	51.8

MAPID: 077271C0006F VERSION: 1 PROJECT: BLM
 COUNTY: JACKSON TWP/RNG: 10S 1W SECTION: 33 QUARTERS/FOOTAGES: NW NW SW
 QUADRANGLE: MAKANDA LONGITUDE: -89.227825 GEOLOGIST: BARGH M.
 CONFIDENTIAL: N LATITUDE: 37.60503 DATE COLLECTED: 0 / 0 / 1923
 SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 81.7 LOG TYPE: Measured section
 SOURCE: FLD NOTES-CULVER WELL TYPE: Outcrop
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0			ROCK	-	0.0	
-			UNKNOWN	40.0		
-	CASEYVILLE		ROCK	40.0		
-	CASEYVILLE	GENTRY	COAL	1.7		
-	CASEYVILLE		CLAYSTONE	-		CARBONACEOUS

MAPID: 077271C0008F VERSION: 1 PROJECT: BLM
 COUNTY: JACKSON TWP/RNG: 10S 1W SECTION: 34 QUARTERS/FOOTAGES: NW NE NE
 QUADRANGLE: MAKANDA LONGITUDE: -89.194777 GEOLOGIST: BARGH M.
 CONFIDENTIAL: N LATITUDE: 37.61311 DATE COLLECTED: 8 / 26 / 1933
 SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 58.9 LOG TYPE: Measured section
 SOURCE: FLD NOTES-WANLESS WELL TYPE: Outcrop
 COMMENT: TRAVERSE UP RAVINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	CASEYVILLE		ROCK	27.0	0.0	
523.0	CASEYVILLE		UNKNOWN	1.5	27.0	
521.5	CASEYVILLE	GENTRY	COAL	2.2	28.5	2 SMALL DRIFT OPENINGS
-			ROCK	7.3		
-			UNKNOWN	3.0		
-			ROCK	18.0		

MAPID: 07725808000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: JACKSON **TWP/RNG:** 10S 2W **SECTION:** 7 **QUARTERS/FOOTAGES:** 300' S line, 100' W line
QUADRANGLE: GORHAM **LONGITUDE:** -89.379948 **GEOLOGIST:** C KOROSE
CONFIDENTIAL: N **LATITUDE:** 37.65945 **DATE COLLECTED:** 4 / 6 / 1993
SURFACE ELEVATION (FT.): 380.0 **LOGGED (FT.):** 236.0 **LOG TYPE:** Survey Core Study
SOURCE: COGEOMAP GH-1 **WELL TYPE:** Structure Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0	PLEISTOCENE		UNCONSOLIDATED	11.2	0.0	
368.8	CASEYVILLE		SANDSTONE	12.6	11.2	LIGHT
356.2	CASEYVILLE		SHALE & SANDSTONE	3.2	23.8	
353.0	CASEYVILLE		SANDSTONE	29.0	27.0	RIPPLE LAMINATIONS AT 42.6, CLEAN
324.0	CASEYVILLE		SANDSTONE/SHALE	18.0	56.0	GRAY
306.0	CASEYVILLE		SILTSTONE	7.3	74.0	SHALEY; LIGHT
298.7	MISSISSIPPIAN	KINKAID	LIMESTONE	21.0	81.3	SHALEY; DARK
277.7	MISSISSIPPIAN	KINKAID	SHALE	6.4	102.3	CLAYEY; GRAY
271.3	MISSISSIPPIAN	KINKAID	LIMESTONE	26.7	108.7	BROWN
244.6	MISSISSIPPIAN	DEGONIA	SANDSTONE	11.3	135.4	SHALEY; LIGHT
233.3	MISSISSIPPIAN	DEGONIA	SHALE	3.3	146.7	MICRITIC DOLOMITE .4 AT BASE
230.0	MISSISSIPPIAN	DEGONIA	SHALE	14.0	150.0	SILTY, DARK
216.0	MISSISSIPPIAN	DEGONIA	MUDSTONE	5.5	164.0	BLACK AT BASE; DARK
210.5	MISSISSIPPIAN	DEGONIA	COAL	0.2	169.5	IMPURE
210.3	MISSISSIPPIAN	DEGONIA	MUDSTONE	2.1	169.7	DARK
208.3	MISSISSIPPIAN	DEGONIA	SHALE	0.6	171.7	BLACK
207.7	MISSISSIPPIAN	DEGONIA	COAL	0.3	172.3	DULL
207.4	MISSISSIPPIAN	DEGONIA	CLAYSTONE & SILTSTONE	1.1	172.6	LIGHT
206.3	MISSISSIPPIAN	DEGONIA	SANDSTONE	62.3	173.7	SHALEY

MAPID: 077270A0022F **VERSION:** 1 **PROJECT:** BLM
COUNTY: JACKSON **TWP/RNG:** 10S 2W **SECTION:** 10 **QUARTERS/FOOTAGES:** SE SW NW
QUADRANGLE: POMONA **LONGITUDE:** -89.319847 **GEOLOGIST:** BARGH M.
CONFIDENTIAL: N **LATITUDE:** 37.667097 **DATE COLLECTED:** 0 / 0 / 1957
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-DESBOROUGH **WELL TYPE:** Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	4.0		
-			COAL	0.5		
-			UNDERCLAY	1.0		

MAPID: 07725812000C

VERSION: 1

PROJECT: NCRDS99

COUNTY: JACKSON

TWP/RNG: 10S 3W

SECTION: 25

QUARTERS/FOOTAGES: 900' S line, 2575' W line

QUADRANGLE: WOLF LAKE

LONGITUDE: -89.389603

GEOLOGIST: C KOROSE

CONFIDENTIAL: N

LATITUDE: 37.617202

DATE COLLECTED: 7 / 31 / 1990

SURFACE ELEVATION (FT.): 702.0

LOGGED (FT.): 82.0

LOG TYPE: Survey Core Study

SOURCE: COGEOMAP

WL-2

WELL TYPE: Stratigraphic Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
702.0	PLEISTOCENE		LOESS	34.0	0.0	
668.0			SANDSTONE	21.8	34.0	LIGHT
646.2			SANDSTONE	26.2	55.8	LIGHT