

# Status Report

**Total Records: 1822**

Top 3 County Records		Top 3 Log Type Records		Top 3 Coal Records		Top 3 Member Records	
Vermilion	1822	Drillers Log	1426	DANVILLE	1738	DANVILLE COAL	1738
		Survey Core Study	202	HERRIN	1062	HERRIN COAL	1062
		Electric Log	95	SPRINGFIELD	58	ENERGY SANDSTONE	202

## 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
LIVINGSTON	LIMESTONE	32.5	24.0	44.0	23.2	18.0	28.0
CARTHAGE	LIMESTONE	173.2	153.0	204.5	4.3	1.5	6.5
WEST FRANKLIN	LIMESTONE	132.2	38.0	229.4	4.9	2.6	9.5
PIASA	LIMESTONE	240.2	175.0	300.0	4.1	1.0	10.0
FARMINGTON	SHALE	77.2	12.0	150.0	60.9	1.3	112.8
DANVILLE	COAL	125.1	3.0	390.0	5.2	0.0	16.2
DANVILLE SUMP	COAL	158.2	30.1	220.9	1.3	0.3	4.0
GALUM	LIMESTONE	280.0	90.2	353.9	2.0	0.7	3.0
BANKSTON FORK	LIMESTONE	198.4	49.5	365.5	7.1	0.2	26.0
LAWSON	SHALE	245.9	82.6	378.6	8.5	0.4	27.0
BRERETON	LIMESTONE	218.9	61.0	359.6	2.2	0.3	7.0
ANNA	SHALE	156.6	23.5	368.2	4.4	0.2	48.0
ENERGY	SHALE	150.4	12.0	379.6	54.9	0.9	109.5
HERRIN	COAL	205.2	17.8	455.0	5.0	0.1	14.7
HIGGINSVILLE	LIMESTONE	236.4	226.6	242.2	3.0	2.0	4.0
SPRINGFIELD	COAL	326.9	99.5	412.0	1.2	0.1	6.5
EXCELLO	SHALE	70.0	70.0	70.0	8.0	8.0	8.0
HOUCHIN CREEK	COAL	277.6	172.0	400.0	2.2	0.0	6.0
SURVANT	COAL	239.5	239.5	239.5	0.6	0.6	0.6
MECCA QUARRY	SHALE	273.5	273.0	274.0	8.5	4.0	13.0
COLCHESTER	COAL	304.7	156.0	474.6	1.5	0.5	3.0
SEELYVILLE	COAL	281.9	162.0	440.4	8.2	1.8	26.3
DEKOVEN	COAL	277.6	277.6	277.6	2.3	2.3	2.3
DAVIS	COAL	282.3	282.3	282.3	2.2	2.2	2.2
				<b>Net Coal</b>	<b>29.5</b>		

## Coal Logs

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

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

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

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

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

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

**MAPID: 18300436000C VERSION: 1 PROJECT: NCRDS88**  
**COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 1 QUARTERS/FOOTAGES: 5260' S line, 140' E line of SE**  
**QUADRANGLE: HUMRICK LONGITUDE: -87.542212 GEOLOGIST: R. SMITH**  
**CONFIDENTIAL: N LATITUDE: 39.970491 DATE COLLECTED: 0 / 0 / 1945**  
**SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 70.2 LOG TYPE: Drillers Log**  
**SOURCE: CENTRAL INDIANA COAL CO. WELL TYPE: Coal Test**  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
650.0			UNCONSOLIDATED	33.0	0.0
617.0	CARBONDALE		SHALE	33.5	33.0
583.5	CARBONDALE	HERRIN	COAL	3.7	66.5

**MAPID: 18300437000C VERSION: 1 PROJECT: NCRDS88**  
**COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 1 QUARTERS/FOOTAGES: 2520' S line, 4070' E line of SE**  
**QUADRANGLE: HUMRICK LONGITUDE: -87.556104 GEOLOGIST: R. SMITH**  
**CONFIDENTIAL: N LATITUDE: 39.962767 DATE COLLECTED: 0 / 0 / 1945**  
**SURFACE ELEVATION (FT.): 687.0 LOGGED (FT.): 90.0 LOG TYPE: Drillers Log**  
**SOURCE: WELL TYPE: Coal Test**  
**COMMENT: NO COAL**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
687.0			UNCONSOLIDATED	15.0	0.0
672.0			CLAY	75.0	15.0

MAPID: 18300458000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: VERMILION    TWP/RNG: 17N 11W    SECTION: 2    QUARTERS/FOOTAGES: 2560' N line, 30' W line

QUADRANGLE: HUMRICK    LONGITUDE: -87.579474    GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.963097    DATE COLLECTED:

SURFACE ELEVATION (FT.): 655.0    LOGGED (FT.): 63.8    LOG TYPE: Drillers Log

SOURCE:    WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
622.0	CARBONDALE	ENERGY	GRAY SHALE	27.0	33.0
595.0	CARBONDALE	HERRIN	COAL	3.8	60.0

MAPID: 18300003000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 17N 11W    SECTION: 3    QUARTERS/FOOTAGES: 1320' N line, 660' W line

QUADRANGLE: HUMRICK    LONGITUDE: -87.596333    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.966186    DATE COLLECTED:

SURFACE ELEVATION (FT.): 661.0    LOGGED (FT.): 207.7    LOG TYPE: Drillers Log

SOURCE: DERING COAL CO.    WELL TYPE: Coal Test

COMMENT: LOCATION QUESTIONABLE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
661.0			UNCONSOLIDATED	38.0	0.0
623.0	CARBONDALE	ENERGY	SANDSTONE	13.0	38.0
610.0	CARBONDALE	ENERGY	SANDY SHALE	32.0	51.0
578.0	CARBONDALE	ENERGY	CLAYSTONE & SHALE	22.9	83.0
555.1	CARBONDALE	HERRIN	COAL	4.6	105.9
550.5	CARBONDALE		UNDERCLAY	2.5	110.5
548.0	CARBONDALE		LIMESTONE	1.3	113.0
546.7	CARBONDALE		SHALE	2.0	114.3
544.7	CARBONDALE		LIMESTONE	0.5	116.3
544.2	CARBONDALE		SHALE	0.5	116.8
543.7	CARBONDALE		CLAYSTONE & SHALE	1.3	117.3
542.4	CARBONDALE		BLUE SHALE	69.6	118.6
472.8	CARBONDALE		DARK SHALE	9.5	188.2
463.3	CARBONDALE		BLACK SHALE	4.5	197.7
458.8	CARBONDALE		SHALE & SANDSTONE	5.5	202.2

MAPID: 18300003000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION    TWP/RNG: 17N 11W    SECTION: 3    QUARTERS/FOOTAGES: 1320' N line, 660' W line

QUADRANGLE: HUMRICK    LONGITUDE: -87.596333

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.966186

DATE COLLECTED:

SURFACE ELEVATION (FT.): 661.0    LOGGED (FT.): 110.6

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
622.9	CARBONDALE	ENERGY	SANDSTONE	13.0	38.1
609.9	CARBONDALE	ENERGY	SILTY SHALE	32.0	51.1
577.9	CARBONDALE	ENERGY	CALCAREOUS SHALE	22.9	83.1
555.0	CARBONDALE	HERRIN	COAL	4.6	106.0

MAPID: 18390480000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 17N 11W    SECTION: 3    QUARTERS/FOOTAGES: SW NW NW

QUADRANGLE: HUMRICK    LONGITUDE: -87.597529

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 39.967065

DATE COLLECTED: 7 / 24 / 1962

SURFACE ELEVATION (FT.): 643.0    LOGGED (FT.): 106.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    67

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
643.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0
637.0	PLEISTOCENE		CLAY	12.0	6.0
625.0	PLEISTOCENE			7.0	18.0
618.0	SHELBURN		SANDSTONE	18.0	25.0    SOFT
600.0	SHELBURN		SANDY SHALE	18.0	43.0
582.0	SHELBURN		SHALE	35.0	61.0
547.0	SHELBURN	DANVILLE	COAL	4.5	96.0    GOOD
542.5	SHELBURN		UNDERCLAY	5.5	100.5

MAPID: 18390488000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 3 QUARTERS/FOOTAGES: SW NE

QUADRANGLE: HUMRICK LONGITUDE: -87.586755 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.964512 DATE COLLECTED: 7 / 25 / 1962

SURFACE ELEVATION (FT.): 642.0 LOGGED (FT.): 67.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 75 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
642.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
634.0	PLEISTOCENE		CLAY	13.0	8.0	
621.0	SHELBURN		MICACEOUS SHALE	35.0	21.0	
586.0	CARBONDALE	ANNA	DARK SHALE	6.0	56.0	
580.0	CARBONDALE	HERRIN	COAL	3.6	62.0	
576.4	CARBONDALE		UNDERCLAY	1.4	65.6	

MAPID: 18390489000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 3 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: HUMRICK LONGITUDE: -87.58181 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.95724 DATE COLLECTED: 7 / 25 / 1962

SURFACE ELEVATION (FT.): 652.0 LOGGED (FT.): 88.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 76 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
652.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
647.0	PLEISTOCENE		SAND	1.0	5.0	
646.0	PLEISTOCENE		UNCONSOLIDATED	11.0	6.0	
635.0	PLEISTOCENE		CLAY	17.0	17.0	
618.0	PLEISTOCENE		CLAY	7.5	34.0	
610.5	SHELBURN		GRAY SHALE	38.6	41.5	BLUE; SOFT
571.9	CARBONDALE	HERRIN	COAL	3.5	80.1	
568.4	CARBONDALE		UNDERCLAY	2.4	83.6	
566.0	CARBONDALE		SANDSTONE	2.0	86.0	

MAPID: 18390472000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 4 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: HUMRICK LONGITUDE: -87.610316 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.956903 DATE COLLECTED: 7 / 20 / 1962

SURFACE ELEVATION (FT.): 657.0 LOGGED (FT.): 62.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 59 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
657.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
651.0	PLEISTOCENE		CLAY	8.0	6.0	
643.0	PLEISTOCENE			2.0	14.0	
641.0	PLEISTOCENE		CLAY	17.0	16.0	
624.0	SHELBURN		SHALE	23.0	33.0	BLUE
601.0	SHELBURN	DANVILLE	COAL	3.2	56.0	
597.8	SHELBURN		UNDERCLAY	2.8	59.2	

MAPID: 18390473000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 4 QUARTERS/FOOTAGES: NW NE SW

QUADRANGLE: HUMRICK LONGITUDE: -87.61164 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.961443 DATE COLLECTED: 7 / 20 / 1962

SURFACE ELEVATION (FT.): 652.0 LOGGED (FT.): 61.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 60 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
652.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
640.0	PLEISTOCENE			3.0	12.0	
637.0	PLEISTOCENE		CLAY	15.0	15.0	
622.0	SHELBURN		SHALE	26.5	30.0	
595.5	SHELBURN	DANVILLE	COAL	3.3	56.5	GOOD
592.2	SHELBURN		UNDERCLAY	1.2	59.8	

MAPID: 18390474000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 4 QUARTERS/FOOTAGES: SW NW NE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.607047 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.966954 DATE COLLECTED: 7 / 20 / 1962

SURFACE ELEVATION (FT.): 652.0 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 61 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
652.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
646.0	PLEISTOCENE			6.0	6.0	
640.0	PLEISTOCENE		CLAY	59.0	12.0	
581.0	SHELBURN		SHALE	71.0	71.0	
510.0	CARBONDALE	HERRIN	COAL	4.4	142.0	PROBABLY GRAPE CREEK
505.6	SHELBURN		UNDERCLAY	3.6	146.4	

MAPID: 18390481000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 4 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: HUMRICK LONGITUDE: -87.599633 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.95609 DATE COLLECTED: 7 / 25 / 1962

SURFACE ELEVATION (FT.): 656.0 LOGGED (FT.): 120.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 68 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
656.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
645.0	PLEISTOCENE			3.0	11.0	
642.0	PLEISTOCENE		UNCONSOLIDATED	22.0	14.0	
620.0	SHELBURN		SANDY SHALE	13.0	36.0	
607.0	SHELBURN		SANDSTONE	2.5	49.0	
604.5	SHELBURN		SANDSTONE	4.5	51.5	SOFT
600.0	SHELBURN		SANDY SHALE	20.0	56.0	
580.0	CARBONDALE	ANNA	DARK SHALE	38.0	76.0	
542.0	CARBONDALE	HERRIN	COAL	4.3	114.0	GRAPE CREEK
537.7	CARBONDALE		UNDERCLAY	1.8	118.3	

MAPID: 18300004000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 17N 11W    SECTION: 5    QUARTERS/FOOTAGES: 2310' N line, 1650' W line

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.630653    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.963046    DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 608.4    LOGGED (FT.): 149.0    LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO.    WELL TYPE: Coal Test

COMMENT: LOCATION APPROXIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
608.4			UNCONSOLIDATED	10.5	0.0
597.9	MODESTO		BLACK SHALE	16.5	10.5
581.4	MODESTO		SHALE	7.0	27.0
574.4	MODESTO		BLACK SHALE	4.3	34.0
570.1	CARBONDALE	DANVILLE	COAL	3.6	38.3
566.5	CARBONDALE		UNDERCLAY	7.9	41.9
558.6	CARBONDALE	BANKSTON FORK	LIMESTONE	0.3	49.8
558.2	CARBONDALE		SHALE	0.3	50.2
557.9	CARBONDALE		SANDSTONE/LIMESTONE	8.5	50.5
549.4	CARBONDALE	ENERGY	SANDY SHALE	8.0	59.0
541.4	CARBONDALE	ENERGY	SANDSTONE	2.0	67.0
539.4	CARBONDALE	ENERGY	SANDY SHALE	63.7	69.0
475.7	CARBONDALE	ENERGY	BLACK SHALE	7.3	132.7
468.4	CARBONDALE	ENERGY	SHALE	2.3	140.0
466.1	CARBONDALE	HERRIN	COAL	2.5	142.3
463.6	CARBONDALE	HERRIN	SHALE	0.0	144.8
463.6	CARBONDALE	HERRIN	COAL	0.5	144.8
463.1	CARBONDALE	HERRIN	SHALE	0.1	145.3
462.9	CARBONDALE	HERRIN	COAL	2.5	145.5
460.5	CARBONDALE		UNDERCLAY	1.1	147.9



MAPID: 18300004000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 5 QUARTERS/FOOTAGES: 2310' N line, 1650' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.630653

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.963046

DATE COLLECTED:

SURFACE ELEVATION (FT.): 608.0

LOGGED (FT.): 147.6

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
597.8	MODESTO		SHALE	27.8	10.2
570.0	CARBONDALE	DANVILLE	COAL	3.6	38.0
566.4	CARBONDALE		CLAYSTONE	7.9	41.6
558.5	CARBONDALE	BANKSTON FORK	LIMESTONE	0.3	49.5
558.2	CARBONDALE	BANKSTON FORK	SHALE	0.3	49.8
557.8	CARBONDALE	BANKSTON FORK	LIMESTONE AND SANDSTONE	8.5	50.2
549.3	CARBONDALE	ENERGY	SILTY SHALE	8.0	58.7
541.3	CARBONDALE	ENERGY	SANDSTONE	2.0	66.7
539.3	CARBONDALE	ENERGY	SILTY SHALE	63.7	68.7
475.7	CARBONDALE	ENERGY	DARK GRAY SHALE	9.7	132.3
466.0	CARBONDALE	HERRIN	COAL	5.6	142.0

MAPID: 18300005000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 6 QUARTERS/FOOTAGES: 330' N line, 2310' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.644973

GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.968367

DATE COLLECTED:

SURFACE ELEVATION (FT.): 670.5

LOGGED (FT.): 228.3

LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL

WELL TYPE: Coal Test

COMMENT: 56 PACES S., 33 PACES E. OF NW CORNER

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.5			UNCONSOLIDATED	46.0	0.0
624.5	MODESTO		BLACK SHALE	43.5	46.0
581.0	MODESTO		GRAY SHALE	27.5	89.5
553.5	MODESTO		BLACK SHALE	4.0	117.0
549.5	CARBONDALE	DANVILLE	COAL	3.0	121.0
546.5	CARBONDALE		UNDERCLAY	4.0	124.0
542.5	CARBONDALE		SHALE	19.0	128.0
523.5	CARBONDALE		LIMESTONE W/ SHALE	4.0	147.0
519.5	CARBONDALE	BANKSTON FORK	LIMESTONE	7.5	151.0
512.0	CARBONDALE	ENERGY	SANDSTONE	35.0	158.5
477.0	CARBONDALE	ENERGY	SANDY SHALE	28.3	193.5
448.7	CARBONDALE	HERRIN	COAL	5.4	221.8
443.2	CARBONDALE		UNDERCLAY	1.0	227.3

MAPID: 18300005000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 6 QUARTERS/FOOTAGES: 330' N line, 2310' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.644973

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.968367

DATE COLLECTED:

SURFACE ELEVATION (FT.): 671.0

LOGGED (FT.): 227.4

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
624.8	MODESTO		DARK GRAY SHALE	75.0	46.2	
549.8	CARBONDALE	DANVILLE	COAL	3.0	121.2	
546.8	CARBONDALE		CLAYSTONE	4.0	124.2	
542.8	CARBONDALE		GRAY SHALE	19.0	128.2	
523.8	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	4.0	147.2	
519.8	CARBONDALE	BANKSTON FORK	LIMESTONE	7.5	151.2	
512.3	CARBONDALE	ENERGY	SANDSTONE	35.0	158.7	
477.3	CARBONDALE	ENERGY	SILTY SHALE	28.3	193.7	
449.0	CARBONDALE	HERRIN	COAL	5.4	222.0	

MAPID: 18322108000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 6 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.644844

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.961039

DATE COLLECTED: 2 / 3 / 1977

SURFACE ELEVATION (FT.): 670.0

LOGGED (FT.): 553.8

LOG TYPE: Survey Core Study

SOURCE: U.S. STEEL WI-1

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.4	CARBONDALE	HERRIN	COAL	-	234.6	NO THICKNESS GIVEN
424.0	CARBONDALE	SPRINGFIELD	COAL	1.5	246.0	
240.8	CARBONDALE	COLCHESTER	COAL	0.9	429.2	
229.6	CARBONDALE	SEELYVILLE	COAL	2.7	440.4	
213.0			COAL	1.0	457.0	
207.4			COAL	1.9	462.6	
185.9			COAL	1.3	484.1	
159.2			COAL	2.4	510.8	

MAPID: 18300006000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 7 QUARTERS/FOOTAGES: 660' N line, 1980' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.643434 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.952835 DATE COLLECTED:

SURFACE ELEVATION (FT.): 656.8 LOGGED (FT.): 252.0 LOG TYPE: Drillers Log

SOURCE: SHARON MINE WELL TYPE: Coal Test

COMMENT: LOCATION APPROXIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
656.8			UNCONSOLIDATED	36.9	0.0
619.9	CARBONDALE		SHALE	102.2	36.9
517.7	CARBONDALE	DANVILLE	COAL	3.8	139.1
514.0	CARBONDALE		UNDERCLAY	6.0	142.8
508.0	CARBONDALE		SHALE	13.2	148.8
494.8	CARBONDALE	ENERGY	SHALE & SANDSTONE	13.3	162.0
481.5	CARBONDALE	ENERGY	UNCLASSIFIED	16.0	175.3
465.5	CARBONDALE	ENERGY	SHALE & SANDSTONE	55.7	191.3
409.8	CARBONDALE	HERRIN	COAL	5.0	247.0

MAPID: 18300006000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 7 QUARTERS/FOOTAGES: 660' N line, 1980' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.643434 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.952835 DATE COLLECTED:

SURFACE ELEVATION (FT.): 662.0 LOGGED (FT.): 252.0 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.4	MODESTO		SHALE & SANDSTONE	90.0	56.6
515.4	CARBONDALE	DANVILLE	COAL	3.8	146.6
511.7	CARBONDALE		CLAYSTONE	6.0	150.3
505.7	CARBONDALE		GRAY SHALE	5.2	156.3
500.5	CARBONDALE	ENERGY	SANDSTONE	0.7	161.5
499.8	CARBONDALE	ENERGY	SHALE & SANDSTONE	13.3	162.2
486.5	CARBONDALE	ENERGY	GRAY SHALE	16.0	175.5
470.5	CARBONDALE	ENERGY	SHALE & SANDSTONE	55.5	191.5
415.0	CARBONDALE	HERRIN	COAL	5.0	247.0

**MAPID:** 18301684000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 8    **QUARTERS/FOOTAGES:** 63' S line, 2627' W line  
**QUADRANGLE:** GEORGETOWN    **LONGITUDE:** -87.626691    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.940347    **DATE COLLECTED:** 3 / 12 / 1968  
**SURFACE ELEVATION (FT.):** 671.0    **LOGGED (FT.):** 240.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-112    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
562.3	SHELburn	DANVILLE	COAL	3.0	108.7
457.7	CARBONDALE	HERRIN	COAL	4.6	213.3
439.4	CARBONDALE	SPRINGFIELD	COAL	1.0	231.6

**MAPID:** 18301684000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 8    **QUARTERS/FOOTAGES:** 63' S line, 2627' W line  
**QUADRANGLE:** GEORGETOWN    **LONGITUDE:** -87.626691    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.940347    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 671.0    **LOGGED (FT.):** 217.6    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-112    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
632.7	MODESTO		SHALE & SANDSTONE	68.7	38.3
564.0	CARBONDALE	DANVILLE	COAL	3.0	107.0
561.0	CARBONDALE		CLAYSTONE & SHALE	6.7	110.0
554.3	CARBONDALE	ENERGY	SHALE & SANDSTONE	26.0	116.7
528.3	CARBONDALE	ENERGY	SILTY SHALE	66.3	142.7
462.0	CARBONDALE	ENERGY	DARK GRAY SHALE	4.0	209.0
458.0	CARBONDALE	HERRIN	COAL	4.6	213.0

**MAPID:** 18390482000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 8    **QUARTERS/FOOTAGES:** NE NE  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.619689    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 39.953156    **DATE COLLECTED:** 7 / 23 / 1962  
**SURFACE ELEVATION (FT.):** 651.0    **LOGGED (FT.):** 100.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    69    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
651.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0
644.0	PLEISTOCENE		CLAY	17.0	7.0
627.0	SHELburn		SHALE	72.0	24.0 BLUE
555.0	SHELburn	DANVILLE	COAL	3.0	96.0 GOOD
552.0	SHELburn		UNDERCLAY	1.0	99.0

MAPID: 18390483000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 8 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: HUMRICK LONGITUDE: -87.624445 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.953093 DATE COLLECTED: 7 / 24 / 1962

SURFACE ELEVATION (FT.): 656.0 LOGGED (FT.): 158.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 70 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
656.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
647.0	PLEISTOCENE		SAND & GRAVEL	5.0	9.0	
642.0	PLEISTOCENE		CLAY	32.0	14.0	
610.0	SHELBURN		DARK SHALE	36.3	46.0	
573.7	SHELBURN		BLACK SHALE	1.8	82.3	
572.0	SHELBURN		GRAY SHALE	4.9	84.0	
567.1	SHELBURN	DANVILLE	COAL	1.3	88.9	
565.8	SHELBURN		UNDERCLAY	3.8	90.2	
562.0	SHELBURN		GRAY SHALE	30.0	94.0	
532.0	SHELBURN		SANDSTONE	5.3	124.0	
526.7	SHELBURN		GRAY SHALE	28.8	129.3	

MAPID: 18301647000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 9 QUARTERS/FOOTAGES: 630' S line, 1194' W line

QUADRANGLE: HUMRICK LONGITUDE: -87.612721 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.942162 DATE COLLECTED: 5 / 0 / 1968

SURFACE ELEVATION (FT.): 669.0 LOGGED (FT.): 200.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-127 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
611.8	SHELBURN	DANVILLE	COAL	3.2	57.2	REMOVED BY CO./WATER IN COAL
502.0	CARBONDALE	HERRIN	COAL	4.1	167.0	REMOVED BY CO.
489.7	CARBONDALE	SPRINGFIELD	COAL	0.4	179.3	

MAPID: 18301647000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 9 QUARTERS/FOOTAGES: 630' S line, 1194' W line

QUADRANGLE: HUMRICK LONGITUDE: -87.612721

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.942162

DATE COLLECTED:

SURFACE ELEVATION (FT.): 669.0 LOGGED (FT.): 167.1

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-127

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.4	MODESTO		SHALE	17.7	38.6	
612.8	CARBONDALE	DANVILLE	COAL	3.2	56.2	
609.6	CARBONDALE		GRAY SHALE	3.7	59.4	
605.9	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	5.6	63.1	
600.3	CARBONDALE	ENERGY	SILTY SHALE	6.2	68.7	
594.2	CARBONDALE	ENERGY	SHALE & SANDSTONE	16.8	74.8	
577.4	CARBONDALE	ENERGY	VARRIGATED SHALE	58.5	91.6	
518.9	CARBONDALE	ENERGY	GRAY SHALE	7.6	150.1	
511.3	CARBONDALE	ENERGY	DARK GRAY SHALE	5.3	157.7	
506.0	CARBONDALE	HERRIN	COAL	4.1	163.0	

MAPID: 18390471000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 9 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: HUMRICK LONGITUDE: -87.610218

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.953255

DATE COLLECTED: 7 / 18 / 1962

SURFACE ELEVATION (FT.): 658.0 LOGGED (FT.): 164.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 58

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
658.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
647.0	PLEISTOCENE		CLAY	23.0	11.0	
624.0	PLEISTOCENE			3.0	34.0	
621.0	PLEISTOCENE		CLAY	3.0	37.0	
618.0	SHELBURN		SHALE	6.0	40.0	BLUE
612.0	SHELBURN	DANVILLE	COAL	3.3	46.0	GOOD
608.7	SHELBURN		UNDERCLAY	3.7	49.3	
605.0	SHELBURN		SHALE	85.0	53.0	ROCK STREAKS
520.0	SHELBURN		DARK SHALE	14.0	138.0	
506.0	SHELBURN		SHALE	12.0	152.0	ROCK STREAKS

MAPID: 18390475000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 9 QUARTERS/FOOTAGES: NW SE NW

QUADRANGLE: HUMRICK LONGITUDE: GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: DATE COLLECTED: 7 / 20 / 1962

SURFACE ELEVATION (FT.): 658.0 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 62 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
658.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
653.0	PLEISTOCENE		CLAY	7.0	5.0	
646.0	PLEISTOCENE		CLAY	27.0	12.0	
619.0	SHELBURN		SHALE	11.0	39.0	BLUE
604.8	SHELBURN		UNDERCLAY	2.8	53.2	
604.8	SHELBURN		UNDERCLAY	2.8	53.2	

MAPID: 18390476000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 9 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: HUMRICK LONGITUDE: -87.613645 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.948647 DATE COLLECTED: 7 / 20 / 1962

SURFACE ELEVATION (FT.): 658.0 LOGGED (FT.): 58.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 63 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
658.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
650.0	PLEISTOCENE		CLAY	6.0	8.0	
644.0	PLEISTOCENE		CLAY	22.0	14.0	
622.0	SHELBURN		SHALE	16.0	36.0	BLUE
606.0	SHELBURN	DANVILLE	COAL	3.2	52.0	GOOD
602.8	SHELBURN		UNDERCLAY	2.8	55.2	

MAPID: 18390477000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 9 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: HUMRICK LONGITUDE: -87.614947 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.95321 DATE COLLECTED: 7 / 23 / 1962

SURFACE ELEVATION (FT.): 656.0 LOGGED (FT.): 80.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 64 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
656.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
642.0	PLEISTOCENE		CLAY	15.0	14.0	
627.0	SHELBURN		SHALE	46.0	29.0	
581.0	SHELBURN	DANVILLE	COAL	3.4	75.0	GOOD
577.6	SHELBURN		UNDERCLAY	1.6	78.4	

MAPID: 18390478000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 9 QUARTERS/FOOTAGES: SW NE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.605413 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.949651 DATE COLLECTED: 7 / 23 / 1962

SURFACE ELEVATION (FT.): 652.0 LOGGED (FT.): 139.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 65 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
652.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
648.0	PLEISTOCENE		CLAY	5.0	4.0	
643.0	PLEISTOCENE		CLAY	9.0	9.0	
634.0	PLEISTOCENE			28.0	18.0	
606.0	SHELBURN		GRAY SHALE	38.0	46.0	
568.0	CARBONDALE	ANNA	DARK SHALE	48.0	84.0	ROCK STREAKS
520.0	CARBONDALE	HERRIN	COAL	4.1	132.0	GOOD
515.9	CARBONDALE		UNDERCLAY	2.9	136.1	



MAPID: 18390486000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 9 QUARTERS/FOOTAGES: NW SE SW

QUADRANGLE: HUMRICK LONGITUDE: -87.611152 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.943188 DATE COLLECTED: 7 / 23 / 1962

SURFACE ELEVATION (FT.): 657.0 LOGGED (FT.): 68.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 73 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
657.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
643.0	PLEISTOCENE		CLAY	14.0	14.0	
629.0	SHELBURN		SHALE	24.0	28.0	BLUE
605.0	SHELBURN	DANVILLE	COAL	3.3	52.0	
601.7	SHELBURN		UNDERCLAY	8.7	55.3	
593.0	SHELBURN		SANDY SHALE	4.0	64.0	

MAPID: 18300474000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 11 QUARTERS/FOOTAGES: 1520' S line, 1460' E line

QUADRANGLE: HUMRICK LONGITUDE: -87.565354 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.945329 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 623.0 LOGGED (FT.): 57.0 LOG TYPE: Drillers Log

SOURCE: CENTRAL INDIANA COAL CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
623.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
615.0	PLEISTOCENE		SAND	29.0	8.0	
586.0	CARBONDALE		SHALE	16.0	37.0	
570.0	CARBONDALE	HERRIN	COAL	4.0	53.0	

MAPID: 18300476000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 11 QUARTERS/FOOTAGES: 1380' S line, 2530' E line

QUADRANGLE: HUMRICK LONGITUDE: -87.569175 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.944906 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 89.0 LOG TYPE: Drillers Log

SOURCE: CENTRAL INDIANA COAL CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
640.0	PLEISTOCENE		HARD PAN	59.0	10.0	
581.0	CARBONDALE		SHALE	17.0	69.0	
564.0	CARBONDALE	HERRIN	COAL	1.0	86.0	
563.0	CARBONDALE		UNDERCLAY	2.0	87.0	

MAPID: 18300477000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 11 QUARTERS/FOOTAGES: 2520' S line, 1980' E line  
 QUADRANGLE: HUMRICK LONGITUDE: -87.567301 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 39.948069 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 71.3 LOG TYPE: Drillers Log  
 SOURCE: CENTRAL INDIANA COAL CO WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
650.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
640.0	PLEISTOCENE		HARD PAN	30.0	10.0
610.0	CARBONDALE		SHALE	27.5	40.0
582.5	CARBONDALE	HERRIN	COAL	3.8	67.5

MAPID: 18300493000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 11 QUARTERS/FOOTAGES: 2500' S line, 1470' E line  
 QUADRANGLE: HUMRICK LONGITUDE: -87.565473 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 39.948031 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 64.7 LOG TYPE: Drillers Log  
 SOURCE: CENTRAL INDIANA COAL CO WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
650.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0
637.0	PLEISTOCENE		HARD PAN	34.0	13.0
603.0	CARBONDALE		SHALE	14.0	47.0
589.0	CARBONDALE	HERRIN	COAL	3.7	61.0

MAPID: 18300494000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 11 QUARTERS/FOOTAGES: 2910' S line, 2580' E line  
 QUADRANGLE: HUMRICK LONGITUDE: -87.569485 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 39.949123 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 648.0 LOGGED (FT.): 89.0 LOG TYPE: Drillers Log  
 SOURCE: CENTRAL INDIANA COAL CO WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
648.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
638.0	PLEISTOCENE		HARD PAN	50.0	10.0
588.0	PLEISTOCENE		SAND	8.5	60.0
579.5	CARBONDALE		SHALE	3.0	68.5
576.5	CARBONDALE	HERRIN	COAL	1.0	71.5
575.5	CARBONDALE		UNDERCLAY	2.0	72.5
573.5			SHALE	14.5	74.5

MAPID: 18300495000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 11 QUARTERS/FOOTAGES: 2750' S line, 3640' E line  
 QUADRANGLE: HUMRICK LONGITUDE: -87.573268 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 39.948641 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 657.0 LOGGED (FT.): 91.7 LOG TYPE: Drillers Log  
 SOURCE: CENTRAL INDIANA COAL CO 18 WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
657.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
642.0	PLEISTOCENE		HARD PAN	68.7	15.0
573.3	CARBONDALE		SHALE	4.0	83.7
569.3	CARBONDALE	HERRIN	COAL	4.0	87.7

MAPID: 18300496000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 11 QUARTERS/FOOTAGES: 3600' S line, 1720' E line  
 QUADRANGLE: HUMRICK LONGITUDE: -87.566462 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 39.951056 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 648.0 LOGGED (FT.): 48.8 LOG TYPE: Drillers Log  
 SOURCE: CENTRAL INDIANA COAL CO WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
648.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
633.0	PLEISTOCENE		HARD PAN	20.0	15.0
613.0	CARBONDALE		SHALE	10.5	35.0
602.5	CARBONDALE	HERRIN	COAL	3.3	45.5

MAPID: 18300498000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 11 QUARTERS/FOOTAGES: 3910' S line, 2710' E line  
 QUADRANGLE: HUMRICK LONGITUDE: -87.570033 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 39.951876 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 644.0 LOGGED (FT.): 58.5 LOG TYPE: Drillers Log  
 SOURCE: CENTRAL INDIANA COAL CO WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
644.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
636.0	PLEISTOCENE		HARD PAN	32.0	8.0
604.0	CARBONDALE		SHALE	7.0	40.0
597.0	CARBONDALE	HERRIN	COAL	0.5	47.0
596.5	CARBONDALE		UNDERCLAY	2.0	47.5
594.5	CARBONDALE		SHALE	9.0	49.5

**MAPID:** 18300499000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 3950' S line, 3800' E line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.573945    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.951946    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 646.0    **LOGGED (FT.):** 44.8    **LOG TYPE:** Drillers Log  
**SOURCE:** CENTRAL INDIANA COAL CO    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
646.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
638.0	PLEISTOCENE		HARD PAN	20.0	8.0	
618.0	CARBONDALE		SHALE	13.0	28.0	
605.0	CARBONDALE	HERRIN	COAL	3.8	41.0	

**MAPID:** 18300500000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 4250' S line, 800' E line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.563223    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.952883    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 618.2    **LOGGED (FT.):** 60.0    **LOG TYPE:** Drillers Log  
**SOURCE:** CENTRAL INDIANA COAL CO    33    **WELL TYPE:** Water Well  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
618.2			UNCONSOLIDATED	6.0	0.0	
612.2			SAND	24.0	6.0	
588.2			SHALE	30.0	30.0	NO COAL

**MAPID:** 18300506000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 4570' S line, 1700' E line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.566474    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.953731    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 600.0    **LOGGED (FT.):** 60.0    **LOG TYPE:** Drillers Log  
**SOURCE:** CENTRAL INDIANAN COAL CO    **WELL TYPE:** Water Well  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
595.0	PLEISTOCENE		SAND	25.0	5.0	
570.0			SHALE	30.0	30.0	NO COAL

**MAPID:** 18300507000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 4480' S line, 3940' E line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.574489    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.953404    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 604.0    **LOGGED (FT.):** 21.7    **LOG TYPE:** Drillers Log  
**SOURCE:** CENTRAL INDIANA COAL CO    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
604.0	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	
601.0	CARBONDALE		SHALE	14.8	3.0	
586.2	CARBONDALE	HERRIN	COAL	3.9	17.8	

**MAPID:** 18300508000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 5000' S line, 1540' E line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.565935    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.954923    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 624.0    **LOGGED (FT.):** 70.0    **LOG TYPE:** Drillers Log  
**SOURCE:** CENTRAL INDIANA COAL CO    **WELL TYPE:** Water Well  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
624.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
619.0	PLEISTOCENE		SAND	15.0	5.0	
604.0	PLEISTOCENE		HARD PAN	30.0	20.0	
574.0			SHALE	20.0	50.0	NO COAL

**MAPID:** 18300511000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 4850' S line, 3340' E line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.572373    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.954446    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 644.0    **LOGGED (FT.):** 49.5    **LOG TYPE:** Drillers Log  
**SOURCE:** CENTRAL INDIANA COAL CO    16    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
644.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
638.0	PLEISTOCENE		HARD PAN	18.0	6.0	
620.0	CARBONDALE		SHALE	22.0	24.0	
598.0	CARBONDALE	HERRIN	COAL	3.5	46.0	

**MAPID:** 18300038000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 70' S line, 2960' E line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.551572    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.94145    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 594.7    **LOGGED (FT.):** 56.0    **LOG TYPE:** Drillers Log  
**SOURCE:** CENTRAL INDIANA COAL CO    28    **WELL TYPE:** Water Well  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
594.7	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
584.7	PLEISTOCENE		SAND	46.0	10.0	NO COAL

**MAPID:** 18300129000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 1290' S line, 500' E line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.542847    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.944886    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 663.0    **LOGGED (FT.):** 80.0    **LOG TYPE:** Drillers Log  
**SOURCE:** CENTRAL INDIANA COAL CO    30    **WELL TYPE:** Water Well  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
663.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
653.0	PLEISTOCENE		SAND	70.0	10.0	NO COAL

**MAPID:** 18300135000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 1080' S line, 2410' E line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.549675    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.944251    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 636.0    **LOGGED (FT.):** 70.0    **LOG TYPE:** Drillers Log  
**SOURCE:** CENTRAL INDIANA COAL CO    29    **WELL TYPE:** Water Well  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
636.0			UNCONSOLIDATED	10.0	0.0	
626.0			SAND	60.0	10.0	NO COAL

MAPID: 18300181000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 12 QUARTERS/FOOTAGES: 4030' S line, 4030' E line  
 QUADRANGLE: HUMRICK LONGITUDE: -87.555691 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 39.952342 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 658.0 LOGGED (FT.): 66.5 LOG TYPE: Drillers Log  
 SOURCE: CENTRAL INDIANA COAL CO 57 WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
658.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
638.0	PLEISTOCENE		HARD PAN	20.0	20.0
618.0	CARBONDALE	ENERGY	SHALE	22.5	40.0
595.5	CARBONDALE	HERRIN	COAL	4.0	62.5

MAPID: 18300183000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 12 QUARTERS/FOOTAGES: 3920' S line, 5250' E line  
 QUADRANGLE: HUMRICK LONGITUDE: -87.560055 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 39.952003 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 636.0 LOGGED (FT.): 39.9 LOG TYPE: Drillers Log  
 SOURCE: CENTRAL INDIANA COAL CO 34 WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
636.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0
630.0	PLEISTOCENE		SAND	14.0	6.0
616.0	CARBONDALE	ENERGY	SHALE	16.5	20.0
599.5	CARBONDALE	HERRIN	COAL	3.4	36.5

MAPID: 18300187000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 12 QUARTERS/FOOTAGES: 5150' S line, 4050' E line  
 QUADRANGLE: HUMRICK LONGITUDE: -87.555842 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 39.955431 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 83.8 LOG TYPE: Drillers Log  
 SOURCE: CENTRAL INDIANA COAL CO 35 WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
655.0	PLEISTOCENE		HARD PAN	47.0	15.0
608.0	PLEISTOCENE		CLAY	6.0	62.0
602.0	CARBONDALE	ENERGY	SHALE	12.0	68.0
590.0	CARBONDALE	HERRIN	COAL	3.8	80.0

**MAPID:** 18300193000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 5150' S line, 2510' E line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.550324    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.955475    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 672.0    **LOGGED (FT.):** 87.0    **LOG TYPE:** Drillers Log  
**SOURCE:** CENTRAL INDIANA COAL CO    36    **WELL TYPE:** Water Well  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
672.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
657.0	PLEISTOCENE		HARD PAN	60.0	15.0	
597.0			SHALE	12.0	75.0	NO COAL

**MAPID:** 18300007000C    **VERSION:** 1    **PROJECT:** NCRDS88  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 330' N line, 330' W line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.5778    **GEOLOGIST:** R. SMITH  
**CONFIDENTIAL:** N    **LATITUDE:** 39.940099    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 650.0    **LOGGED (FT.):** 78.0    **LOG TYPE:** Drillers Log  
**SOURCE:** DERING COAL CO.    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0			UNCONSOLIDATED	43.0	0.0	
607.0	CARBONDALE	ENERGY	SHALE	15.0	43.0	
592.0	CARBONDALE	HERRIN	COAL	4.0	58.0	
588.0	CARBONDALE		UNDERCLAY	3.0	62.0	
585.0	CARBONDALE		CLAYSTONE & SHALE	3.0	65.0	
582.0	CARBONDALE		LIMESTONE	1.5	68.0	
580.5	CARBONDALE		SHALE	8.5	69.5	

**MAPID:** 18300007000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 330' N line, 330' W line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.5778    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.940099    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 652.0    **LOGGED (FT.):** 62.0    **LOG TYPE:** Drillers Log  
**SOURCE:**    **WELL TYPE:** Coal Test  
**COMMENT:** POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
609.0	CARBONDALE	ENERGY	MOTTLED SHALE	15.0	43.0	
594.0	CARBONDALE	HERRIN	COAL	4.0	58.0	



**MAPID:** 18300008000C    **VERSION:** 1    **PROJECT:** NCRDS88  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 16    **QUARTERS/FOOTAGES:** 1320' S line, 660' E line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.600378    **GEOLOGIST:** R. SMITH  
**CONFIDENTIAL:** N    **LATITUDE:** 39.929577    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 662.8    **LOGGED (FT.):** 93.6    **LOG TYPE:** Drillers Log  
**SOURCE:** DERING COAL CO.    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
662.8			UNCONSOLIDATED	50.0	0.0	
612.8	CARBONDALE	ENERGY	SANDY SHALE	30.0	50.0	
582.8	CARBONDALE	ENERGY	CLAYSTONE & SHALE	8.6	80.0	
574.2	CARBONDALE	HERRIN	COAL	2.8	88.6	
571.5	CARBONDALE		UNDERCLAY	2.3	91.3	

**MAPID:** 18300008000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 16    **QUARTERS/FOOTAGES:** 1320' S line, 660' E line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.600378    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.929577    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 663.0    **LOGGED (FT.):** 91.6    **LOG TYPE:** Drillers Log  
**SOURCE:**    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
626.6	CARBONDALE	ENERGY	CLAYSTONE & SHALE	14.0	36.4	
612.6	CARBONDALE	ENERGY	SILTY SHALE	30.0	50.4	
582.6	CARBONDALE	ENERGY	CLAYSTONE & SHALE	8.6	80.4	
574.0	CARBONDALE	HERRIN	COAL	2.6	89.0	

**MAPID:** 18390484000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW SE SW  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.610906    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 39.926716    **DATE COLLECTED:** 7 / 24 / 1962  
**SURFACE ELEVATION (FT.):** 662.0    **LOGGED (FT.):** 68.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    71    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
662.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
648.0	PLEISTOCENE		CLAY	42.0	14.0	
606.0	SHELBURN		SHALE	6.0	56.0	BLUE
600.0	SHELBURN	DANVILLE	COAL	3.3	62.0	GOOD
596.7	SHELBURN		UNDERCLAY	2.8	65.3	

MAPID: 18390487000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 16 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: HUMRICK LONGITUDE: -87.609888 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.938631 DATE COLLECTED: 7 / 23 / 1962

SURFACE ELEVATION (FT.): 664.0 LOGGED (FT.): 98.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 74 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
664.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
649.0	PLEISTOCENE		CLAY	29.0	15.0	
620.0	SHELBURN		SHALE	13.1	44.0	SOFT
606.9	SHELBURN	DANVILLE	COAL	2.8	57.1	
604.2	SHELBURN		UNDERCLAY	4.2	59.8	
600.0	SHELBURN		SANDY SHALE	34.0	64.0	

MAPID: 18301643000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 17 QUARTERS/FOOTAGES: 1999' N line, 2585' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.626697 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.93466 DATE COLLECTED: 4 / 0 / 1968

SURFACE ELEVATION (FT.): 672.0 LOGGED (FT.): 227.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAEER COAL CO RF-119 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
568.9	SHELBURN	DANVILLE	COAL	3.1	103.1	REMOVED BY CO.
465.6	CARBONDALE	HERRIN	COAL	4.0	206.4	REMOVED BY CO.
450.2	CARBONDALE	SPRINGFIELD	COAL	0.4	221.8	REMOVED BY CO.

MAPID: 18301643000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 17 QUARTERS/FOOTAGES: 1999' N line, 2585' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.626697

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.93466

DATE COLLECTED:

SURFACE ELEVATION (FT.): 672.0 LOGGED (FT.): 210.1

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-119

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
631.3	MODESTO		SILTY SHALE	62.1	40.7	
569.2	CARBONDALE	DANVILLE	COAL	3.1	102.8	
566.1	CARBONDALE		GRAY SHALE	7.8	105.9	
558.3	CARBONDALE	ENERGY	SILTY SHALE	1.5	113.7	
556.8	CARBONDALE	ENERGY	ARGILLACEOUS SANDSTONE	24.7	115.2	
532.1	CARBONDALE	ENERGY	SHALE & SILTSTONE	52.4	139.9	
479.7	CARBONDALE	ENERGY	DARK GRAY SHALE	10.9	192.3	
468.8	CARBONDALE	ENERGY	CARBONACEOUS SHALE	2.8	203.2	
466.0	CARBONDALE	HERRIN	COAL	4.1	206.0	

MAPID: 18390479000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 17 QUARTERS/FOOTAGES: NE NE NW

QUADRANGLE: HUMRICK LONGITUDE: -87.627701

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.939239

DATE COLLECTED: 7 / 23 / 1962

SURFACE ELEVATION (FT.): 664.0 LOGGED (FT.): 118.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 66

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
664.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
653.0	PLEISTOCENE		CLAY	1.0	11.0	
652.0	PLEISTOCENE		SAND	3.0	12.0	
649.0	PLEISTOCENE		CLAY	22.0	15.0	
627.0	SHELBURN		SHALE	72.5	37.0	
554.5	SHELBURN	DANVILLE	COAL	3.4	109.5	GOOD
551.1	SHELBURN		UNDERCLAY	5.1	112.9	

MAPID: 18390485000C VERSION: 1

PROJECT: OMM

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

QUADRANGLE: HUMRICK LONGITUDE: -87.625078 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.926482 DATE COLLECTED: 7 / 24 / 1962

SURFACE ELEVATION (FT.): 664.0 LOGGED (FT.): 103.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 72 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
664.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
651.0	PLEISTOCENE		CLAY	33.0	13.0	
618.0	SHELBURN		SHALE	52.0	46.0	
566.0	SHELBURN	DANVILLE	COAL	3.2	98.0	GOOD
562.8	SHELBURN		UNDERCLAY	1.8	101.2	

MAPID: 18301648000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 18 QUARTERS/FOOTAGES: 50' S line, 147' W line of NE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.644966 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.932679 DATE COLLECTED: 4 / 6 / 1968

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 255.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-120 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
545.6	SHELBURN	DANVILLE	COAL	3.6	124.4	REMOVED BY CO.
441.5	CARBONDALE	HERRIN	COAL	4.2	228.5	
423.8	CARBONDALE	SPRINGFIELD	COAL	0.3	246.2	

MAPID: 18301691000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 18 QUARTERS/FOOTAGES: 1200' N line, 1405' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.650103 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.936512 DATE COLLECTED: 2 / 27 / 1968

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 670.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-107 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
521.4	SHELBURN	DANVILLE	COAL	3.3	148.6	
415.1	CARBONDALE	HERRIN	COAL	4.9	254.9	
397.2	CARBONDALE	SPRINGFIELD	COAL	1.6	272.8	

MAPID: 18301691000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 18 QUARTERS/FOOTAGES: 1200' N line, 1405' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.650103

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.936512

DATE COLLECTED:

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 259.9

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-107

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
587.3	MODESTO		SHALE & SANDSTONE	69.8	82.7	
517.5	CARBONDALE	DANVILLE	COAL	3.3	152.5	
514.3	CARBONDALE		GRAY SHALE	7.9	155.7	
506.3	CARBONDALE	ENERGY	SHALE & SANDSTONE	23.6	163.7	
482.8	CARBONDALE	ENERGY	SILTY SHALE	3.7	187.2	
479.1	CARBONDALE	ENERGY	SHALE & SANDSTONE	18.3	190.9	
460.8	CARBONDALE	ENERGY	SILTY SHALE	45.6	209.2	
415.3	CARBONDALE	ENERGY	BLACK SHALE	0.3	254.7	
415.0	CARBONDALE	HERRIN	COAL	4.9	255.0	

MAPID: 18390490000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 21 QUARTERS/FOOTAGES: SW SE NW

QUADRANGLE: HUMRICK LONGITUDE: -87.6108

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.919392

DATE COLLECTED: 7 / 26 / 1962

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 58.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 77

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
670.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
661.0	PLEISTOCENE		CLAY	39.0	9.0	
622.0	SHELBURN		BLACK SHALE	5.0	48.0	SOFT
617.0	SHELBURN	DANVILLE	COAL	2.9	53.0	GOOD
614.1	SHELBURN		UNDERCLAY	2.1	55.9	

MAPID: 18390491000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 21 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: HUMRICK LONGITUDE: -87.598968 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.919579 DATE COLLECTED: 7 / 26 / 1962

SURFACE ELEVATION (FT.): 664.0 LOGGED (FT.): 138.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 78 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
664.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
650.0	PLEISTOCENE		CLAY	32.0	14.0	
618.0	SHELBURN		SANDY SHALE	31.0	46.0	
587.0	SHELBURN		DARK SHALE	48.0	77.0	ROCK STREAKS
539.0	SHELBURN	DANVILLE	COAL	2.5	125.0	
536.5	SHELBURN		UNDERCLAY	3.5	127.5	
533.0	SHELBURN		SANDY SHALE	7.0	131.0	HARD

MAPID: 18390493000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 22 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: HUMRICK LONGITUDE: GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: DATE COLLECTED: 7 / 26 / 1962

SURFACE ELEVATION (FT.): 666.0 LOGGED (FT.): 158.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 81 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
666.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
657.0	PLEISTOCENE		CLAY	77.0	9.0	
580.0			SANDSTONE	15.0	86.0	SOFT
565.0			SANDY SHALE	57.0	101.0	

**MAPID:** 1839047000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 23    **QUARTERS/FOOTAGES:** NE NE NE  
**QUADRANGLE:** HUMRICK    **LONGITUDE:**    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:**    **DATE COLLECTED:** 7 / 18 / 1962  
**SURFACE ELEVATION (FT.):** 648.0    **LOGGED (FT.):** 200.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    57    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
648.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0
635.0	PLEISTOCENE		CLAY	86.0	13.0
549.0			SHALE	19.0	99.0
530.0			SANDSTONE	5.0	118.0
525.0			SANDY SHALE	77.0	123.0

**MAPID:** 18390492000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 28    **QUARTERS/FOOTAGES:** SW SE NW  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.610563    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 39.904621    **DATE COLLECTED:** 7 / 26 / 1962  
**SURFACE ELEVATION (FT.):** 703.0    **LOGGED (FT.):** 130.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    79    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
703.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0
689.0	PLEISTOCENE		CLAY	91.0	14.0
598.0	PLEISTOCENE		SAND	7.0	105.0
591.0	SHELBURN		SHALE	12.8	112.0
578.2	SHELBURN	DANVILLE	COAL	3.1	124.8
575.1	SHELBURN		UNDERCLAY	2.1	127.9

**MAPID:** 18301685000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 30    **QUARTERS/FOOTAGES:** 60' S line, 631' E line of SE NE NE  
**QUADRANGLE:** GEORGETOWN    **LONGITUDE:** -87.637562    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.907188    **DATE COLLECTED:** 2 / 29 / 1968  
**SURFACE ELEVATION (FT.):** 691.0    **LOGGED (FT.):** 275.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAEER COAL CO    RF-108    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
539.7	SHELBURN	DANVILLE	COAL	1.3	151.3
441.8	CARBONDALE	HERRIN	COAL	3.0	249.2

**MAPID:** 18301686000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 30    **QUARTERS/FOOTAGES:** 147' S line, 122' E line  
**QUADRANGLE:** GEORGETOWN    **LONGITUDE:** -87.635436    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.896297    **DATE COLLECTED:** 3 / 4 / 1968  
**SURFACE ELEVATION (FT.):** 718.0    **LOGGED (FT.):** 304.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-109    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
533.9	SHELBURN	DANVILLE	COAL	3.4	184.1
438.4	CARBONDALE	HERRIN	COAL	2.7	279.6
419.1	CARBONDALE	SPRINGFIELD	COAL	0.2	298.9

**MAPID:** 18301686000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 11W    **SECTION:** 30    **QUARTERS/FOOTAGES:** 147' S line, 122' E line  
**QUADRANGLE:** GEORGETOWN    **LONGITUDE:** -87.635436    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.896297    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 718.0    **LOGGED (FT.):** 282.7    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-109    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
615.7	MODESTO		SILTY SHALE	82.1	102.3
533.6	CARBONDALE	DANVILLE	COAL	3.4	184.4
530.2	CARBONDALE		CLAYSTONE & SHALE	5.7	187.8
524.5	CARBONDALE	ENERGY	SHALE & SANDSTONE	32.3	193.5
492.2	CARBONDALE	ENERGY	SILTY SHALE	41.7	225.8
450.5	CARBONDALE	ENERGY	SILTY SHALE	0.8	267.5
449.8	CARBONDALE	ENERGY	GRAY SHALE	5.0	268.2
444.8	CARBONDALE	ENERGY	CARBONACEOUS SHALE	6.8	273.2
438.0	CARBONDALE	HERRIN	COAL	2.7	280.0



MAPID: 18390494000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 35 QUARTERS/FOOTAGES: SW SW NW

QUADRANGLE: HOMER LONGITUDE: -87.576469 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 39.890461 DATE COLLECTED: 7 / 26 / 1962

SURFACE ELEVATION (FT.): 676.0 LOGGED (FT.): 118.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 82 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
676.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0
667.0	PLEISTOCENE		UNCONSOLIDATED	49.0	9.0
618.0	SHELBURN		DARK SHALE	50.0	58.0
568.0	SHELBURN		BLACK SHALE	3.0	108.0
565.0	SHELBURN	DANVILLE	COAL	3.4	111.0
561.6	SHELBURN		UNDERCLAY	3.6	114.4

MAPID: 18390495000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 17N 11W SECTION: 35 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: OAKWOOD LONGITUDE: GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: DATE COLLECTED: 7 / 27 / 1962

SURFACE ELEVATION (FT.): 655.0 LOGGED (FT.): 144.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 83 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
655.0	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0
652.0	PLEISTOCENE		SAND	4.0	3.0
648.0	PLEISTOCENE		CLAY	105.0	7.0
543.0	PLEISTOCENE		SAND	12.0	112.0
531.0	PLEISTOCENE		CLAY	15.0	124.0
516.0			SHALE	5.0	139.0

MAPID: 18300011000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 1    QUARTERS/FOOTAGES: NW NE

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.662917    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.967301    DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 677.6    LOGGED (FT.): 205.2    LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
677.6			UNCONSOLIDATED	44.0	0.0
633.6	MODESTO		BLACK SHALE	47.0	44.0
586.6	MODESTO		DARK SHALE	8.6	91.0
578.0	CARBONDALE	DANVILLE	COAL	2.4	99.6
575.6	CARBONDALE		COAL WITH SHALE	0.8	102.0
574.8	CARBONDALE		UNDERCLAY	4.8	102.8
570.1	CARBONDALE		CLAYSTONE & SHALE	4.0	107.5
566.1	CARBONDALE		SANDSTONE	15.5	111.5
550.6	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	127.0
546.1	CARBONDALE	ENERGY	SANDSTONE	60.0	131.5
486.1	CARBONDALE	ENERGY	GRAY SHALE	6.5	191.5
479.6	CARBONDALE	ENERGY	DARK SHALE	0.3	198.0
479.4	CARBONDALE	HERRIN	COAL	6.3	198.2
473.1	CARBONDALE		UNDERCLAY	0.8	204.5

MAPID: 18300012000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 1 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.667507 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.956046 DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 667.6 LOGGED (FT.): 211.9 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
667.6			UNCONSOLIDATED	43.0	0.0	
624.6	MODESTO	FARMINGTON	BLACK SHALE	50.0	43.0	UNCERTAIN CORRELATION
574.6	MODESTO	FARMINGTON	SHALE	17.2	93.0	UNCERTAIN CORRELATION
557.4	CARBONDALE	DANVILLE	COAL	2.0	110.2	
555.4	CARBONDALE		UNDERCLAY	2.8	112.2	
552.6	CARBONDALE		SHALE/COAL	1.0	115.0	
551.6	CARBONDALE		BLACK SHALE	12.0	116.0	
539.6	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	128.0	
537.1	CARBONDALE	ENERGY	SANDSTONE	53.5	130.5	
483.6	CARBONDALE	ENERGY	SANDY SHALE	12.0	184.0	
471.6	CARBONDALE	ENERGY	GRAY SHALE	8.7	196.0	
462.9	CARBONDALE	HERRIN	COAL	6.5	204.7	
456.4	CARBONDALE		UNDERCLAY	0.7	211.2	

MAPID: 18300013000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 1 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.657867 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.95623 DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 669.4 LOGGED (FT.): 234.1 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
669.4			UNCONSOLIDATED	66.0	0.0	
603.4	MODESTO	FARMINGTON	BLACK SHALE	60.3	66.0	UNCERTAIN CORRELATION
543.1	CARBONDALE	DANVILLE	COAL	3.0	126.3	
540.1	CARBONDALE		UNCLASSIFIED	0.4	129.3	
539.7	CARBONDALE		UNDERCLAY	7.0	129.7	
532.7	CARBONDALE		SHALE	14.8	136.7	
517.9	CARBONDALE	BANKSTON FORK	LIMESTONE	3.3	151.5	
514.6	CARBONDALE	ENERGY	SANDSTONE	48.8	154.8	
465.9	CARBONDALE	ENERGY	SANDY SHALE	23.3	203.5	
442.6	CARBONDALE	ENERGY	BLACK SHALE	2.0	226.8	
440.6	CARBONDALE	HERRIN	COAL	4.9	228.8	
435.8	CARBONDALE		UNDERCLAY	0.5	233.6	

MAPID: 18300014000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 1    QUARTERS/FOOTAGES: 1650' N line, 990' W line

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.671387    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.964586    DATE COLLECTED:

SURFACE ELEVATION (FT.): 672.1    LOGGED (FT.): 207.0    LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
672.1			UNCONSOLIDATED	50.0	0.0
622.1	MODESTO		BLACK SHALE	44.0	50.0
578.1	MODESTO		DARK SHALE	12.5	94.0
565.6	CARBONDALE	DANVILLE	COAL	3.3	106.5
562.3	CARBONDALE		UNDERCLAY	3.3	109.8
559.1	CARBONDALE		BLACK SHALE	7.0	113.0
552.1	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	120.0
550.1	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	8.0	122.0
542.1	CARBONDALE	ENERGY	SANDSTONE	51.0	130.0
491.1	CARBONDALE	ENERGY	SANDY SHALE	4.0	181.0
487.1	CARBONDALE	ENERGY	BLACK SHALE	7.4	185.0
479.7	CARBONDALE	ENERGY	COAL	0.2	192.4
479.5	CARBONDALE	ENERGY	BLACK SHALE	5.3	192.6
474.3	CARBONDALE	HERRIN	COAL	0.2	197.8
474.1	CARBONDALE	HERRIN	BLACK SHALE	1.5	198.0
472.6	CARBONDALE	HERRIN	COAL	6.5	199.5
466.1	CARBONDALE		UNDERCLAY	1.0	206.0

MAPID: 18300014000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 1 QUARTERS/FOOTAGES: 1650' N line, 990' W line

QUADRANGLE: GEORGETOWN

LONGITUDE: -87.671387

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.964586

DATE COLLECTED:

SURFACE ELEVATION (FT.): 672.0

LOGGED (FT.): 206.5

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
621.5	MODESTO		DARK GRAY SHALE	56.5	50.5
565.0	CARBONDALE	DANVILLE	COAL	3.3	107.0
561.7	CARBONDALE		CLAYSTONE	3.3	110.3
558.5	CARBONDALE		BLACK SHALE	7.0	113.5
551.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	120.5
549.5	CARBONDALE	LAWSON	LIMESTONE W/ SHALE	8.0	122.5
541.5	CARBONDALE	ENERGY	SANDSTONE	51.0	130.5
490.5	CARBONDALE	ENERGY	SILTY SHALE	4.0	181.5
486.5	CARBONDALE	ENERGY	BLACK SHALE	7.4	185.5
479.1	CARBONDALE	ENERGY	BONE COAL	7.1	192.9
472.0	CARBONDALE	HERRIN	COAL	6.5	200.0

MAPID: 18300015000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 1    QUARTERS/FOOTAGES: SE NE

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.658013    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.963627    DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 668.9    LOGGED (FT.): 226.5    LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
668.9			UNCONSOLIDATED	39.0	0.0
629.9	MODESTO		SHALE	8.0	39.0
621.9	MODESTO		BLACK SHALE	10.0	47.0
611.9	MODESTO		BROWN SHALE	15.0	57.0
596.9	MODESTO		SANDY SHALE	44.0	72.0
552.9	MODESTO		BLACK SHALE	5.5	116.0
547.4	CARBONDALE	DANVILLE	COAL	3.4	121.5
544.0	CARBONDALE		UNDERCLAY	4.1	124.9
539.9	CARBONDALE		SHALE	10.0	129.0
529.9	CARBONDALE		SANDSTONE	12.0	139.0
517.9	CARBONDALE		SHALE	3.0	151.0
514.9	CARBONDALE	BANKSTON FORK	LIMESTONE	7.0	154.0
507.9	CARBONDALE	ENERGY	SHALE	9.0	161.0
498.9	CARBONDALE	ENERGY	DARK SHALE	49.1	170.0
449.8	CARBONDALE	ENERGY	BLACK SHALE	0.5	219.1
449.3	CARBONDALE	HERRIN	COAL	6.0	219.6
443.4	CARBONDALE		UNDERCLAY	1.0	225.5

MAPID: 18300017000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 2    QUARTERS/FOOTAGES: 1980' S line, 660' E line

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.677186    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.959555    DATE COLLECTED:

SURFACE ELEVATION (FT.): 638.0    LOGGED (FT.): 200.7    LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
638.0			UNCONSOLIDATED	20.0	0.0	
618.0	MODESTO	FARMINGTON	SHALE	79.1	20.0	UNCERTAIN CORRELATION
538.9	CARBONDALE	DANVILLE	COAL	2.5	99.1	
536.4	CARBONDALE		SHALE/COAL	0.7	101.6	
535.7	CARBONDALE		UNDERCLAY	5.7	102.3	
530.0	CARBONDALE		SHALE	7.0	108.0	
523.0	CARBONDALE		LIMESTONE	2.0	115.0	
521.0	CARBONDALE		SANDSTONE	27.0	117.0	
494.0	CARBONDALE		LIMESTONE	3.0	144.0	
491.0	CARBONDALE	ENERGY	SANDSTONE	8.0	147.0	
483.0	CARBONDALE	ENERGY	SANDY SHALE	20.0	155.0	
463.0	CARBONDALE	ENERGY	BLUE SHALE	13.1	175.0	
449.9	CARBONDALE	HERRIN	COAL	0.3	188.1	
449.7	CARBONDALE	HERRIN	GRAY SHALE	3.5	188.3	
446.2	CARBONDALE	HERRIN	COAL	0.2	191.8	
446.0	CARBONDALE	HERRIN	GRAY SHALE	1.6	192.0	
444.4	CARBONDALE	HERRIN	COAL	6.1	193.6	
438.3	CARBONDALE		UNDERCLAY	1.0	199.7	

MAPID: 18300017000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 2 QUARTERS/FOOTAGES: 1980' S line, 660' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.677186

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.959555

DATE COLLECTED:

SURFACE ELEVATION (FT.): 638.0

LOGGED (FT.): 200.1

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
627.5	MODESTO		SHALE	79.1	10.5	
548.4	CARBONDALE	DANVILLE	COAL	2.5	89.6	
545.9	CARBONDALE		CLAYSTONE	6.4	92.1	
539.5	CARBONDALE		GRAY SHALE	7.0	98.5	
532.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	105.5	
530.5	CARBONDALE	LAWSON	SANDSTONE	27.0	107.5	
503.5	CARBONDALE	BRERETON	LIMESTONE	3.0	134.5	
500.5	CARBONDALE	ENERGY	SANDSTONE	8.0	137.5	
492.5	CARBONDALE	ENERGY	SILTY SHALE	30.0	145.5	
462.5	CARBONDALE	ENERGY	GRAY SHALE	13.1	175.5	
449.5	CARBONDALE	ENERGY	BONE COAL	5.5	188.5	
444.0	CARBONDALE	HERRIN	COAL	6.1	194.0	

MAPID: 18300018000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.682006

GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.967315

DATE COLLECTED:

SURFACE ELEVATION (FT.): 665.0

LOGGED (FT.): 200.7

LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO.

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
665.0			UNCONSOLIDATED	30.0	0.0	
635.0	MODESTO	FARMINGTON	SHALE	71.2	30.0	UNCERTAIN CORRELATION
563.8	CARBONDALE	DANVILLE	COAL	3.3	101.2	
560.5	CARBONDALE		UNDERCLAY	7.7	104.5	
552.8	CARBONDALE	BANKSTON FORK	LIMESTONE	3.8	112.2	
549.0	CARBONDALE	ENERGY	SANDY SHALE	5.0	116.0	
544.0	CARBONDALE	ENERGY	SANDSTONE	39.0	121.0	
505.0	CARBONDALE	ENERGY	SANDY SHALE	32.9	160.0	
472.1	CARBONDALE	HERRIN	COAL	6.6	192.9	
465.5	CARBONDALE		UNDERCLAY	1.2	199.5	



MAPID: 18300019000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 2 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.677333 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.967265 DATE COLLECTED:

SURFACE ELEVATION (FT.): 671.4 LOGGED (FT.): 207.3 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
671.4			UNCONSOLIDATED	40.3	0.0	
631.1	MODESTO	FARMINGTON	SHALE	2.0	40.3	UNCERTAIN CORRELATION
629.1	MODESTO	FARMINGTON	BLACK SHALE	58.0	42.3	UNCERTAIN CORRELATION
571.1	MODESTO	FARMINGTON	DARK SHALE	5.8	100.3	UNCERTAIN CORRELATION
565.3	CARBONDALE	DANVILLE	COAL	3.7	106.1	
561.6	CARBONDALE		UNDERCLAY	10.5	109.8	
551.1	CARBONDALE	ENERGY	SANDY SHALE	29.5	120.3	
521.6	CARBONDALE	ENERGY	SANDSTONE	2.5	149.8	
519.1	CARBONDALE	ENERGY	SANDY SHALE	47.5	152.3	
471.7	CARBONDALE	HERRIN	COAL	4.7	199.7	
467.1	CARBONDALE	HERRIN	SHALE	0.1	204.3	
467.0	CARBONDALE	HERRIN	COAL	0.3	204.4	
466.7	CARBONDALE	HERRIN	SHALE	0.1	204.7	
466.6	CARBONDALE	HERRIN	COAL	1.8	204.8	
464.9	CARBONDALE		UNDERCLAY	0.8	206.5	

MAPID: 18300020000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 2 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.691258 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.963716 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 662.9 LOGGED (FT.): 219.0 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
662.9			UNCONSOLIDATED	47.0	0.0	
615.9	MODESTO	FARMINGTON	DARK SHALE	48.0	47.0	UNCERTAIN CORRELATION
567.9	MODESTO		UNCLASSIFIED	22.5	95.0	
545.4	CARBONDALE	DANVILLE	COAL	3.2	117.5	
542.2	CARBONDALE		UNDERCLAY	4.3	120.7	
537.9	CARBONDALE		DARK SHALE	4.0	125.0	
533.9	CARBONDALE		BLACK SHALE	2.0	129.0	
531.9	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	131.0	
525.9	CARBONDALE	ENERGY	SANDSTONE	53.0	137.0	
472.9	CARBONDALE	ENERGY	SANDY SHALE	18.7	190.0	
454.2	CARBONDALE	HERRIN	COAL	1.1	208.7	
453.1	CARBONDALE	HERRIN	SANDY SHALE	0.5	209.8	
452.6	CARBONDALE	HERRIN	COAL	0.2	210.3	
452.5	CARBONDALE	HERRIN	SANDY SHALE	1.4	210.4	
451.1	CARBONDALE	HERRIN	COAL	6.3	211.8	
444.7	CARBONDALE		BLACK SHALE	0.8	218.2	

MAPID: 18300021000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 2 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.686586 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.963642 DATE COLLECTED:

SURFACE ELEVATION (FT.): 673.0 LOGGED (FT.): 247.1 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
673.0			UNCONSOLIDATED	115.0	0.0	
558.0	MODESTO		BLUE SHALE	43.0	115.0	
515.0	CARBONDALE	DANVILLE	COAL	3.2	158.0	
511.8	CARBONDALE		UNDERCLAY	7.8	161.2	
504.0	CARBONDALE	ENERGY	BLUE SHALE	70.3	169.0	
433.7	CARBONDALE	HERRIN	COAL	6.8	239.3	
426.8	CARBONDALE		UNDERCLAY	0.8	246.2	

MAPID: 18300022000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 3 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.695789 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.956365 DATE COLLECTED:

SURFACE ELEVATION (FT.): 674.0 LOGGED (FT.): 257.3 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
674.0			UNKNOWN	148.0	0.0
526.0	MODESTO		BLUE SHALE	12.8	148.0
513.2	CARBONDALE	DANVILLE	COAL	2.4	160.8
510.8	CARBONDALE	DANVILLE	UNCLASSIFIED	0.1	163.2
510.7	CARBONDALE	DANVILLE	COAL	1.1	163.3
509.7	CARBONDALE		UNDERCLAY	1.7	164.3
508.0	CARBONDALE		UNKNOWN	73.7	166.0
434.3	CARBONDALE	ENERGY	BLUE SHALE	10.3	239.7
424.1	CARBONDALE	HERRIN	COAL	6.8	249.9
417.3	CARBONDALE		UNDERCLAY	0.7	256.7

MAPID: 18300023000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 3 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.71121 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.955363 DATE COLLECTED:

SURFACE ELEVATION (FT.): 651.7 LOGGED (FT.): 247.3 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
651.7			UNKNOWN	149.0	0.0
502.7	CARBONDALE	DANVILLE	COAL	7.2	149.0
495.5	CARBONDALE		UNKNOWN	85.5	156.2
410.0	CARBONDALE	HERRIN	COAL	5.7	241.7

MAPID: 18300024000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 3    QUARTERS/FOOTAGES: NW SW

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.710123    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.959992    DATE COLLECTED:

SURFACE ELEVATION (FT.):    LOGGED (FT.): 223.0    LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	29.0	0.0	
-	MODESTO		SANDSTONE	3.0	29.0	
-	MODESTO		SANDSTONE/SHALE	28.0	32.0	
-	MODESTO		DARK SHALE	91.0	60.0	
-	CARBONDALE	DANVILLE	COAL	3.7	151.0	
-	CARBONDALE		UNDERCLAY	5.3	154.7	
-	CARBONDALE	ENERGY	SANDSTONE	35.0	160.0	
-	CARBONDALE	ENERGY	SANDY SHALE	21.5	195.0	
-	CARBONDALE	HERRIN	COAL	5.6	216.5	
-	CARBONDALE		UNDERCLAY	0.9	222.1	

MAPID: 18301219000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 3    QUARTERS/FOOTAGES: 1320' S line, 1320' E line

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.698189    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.958149    DATE COLLECTED: 6 / 8 / 1909

SURFACE ELEVATION (FT.):    LOGGED (FT.): 257.3    LOG TYPE: Drillers Log

SOURCE: DONK BROS.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	40.0	0.0	
-	MODESTO		SANDY SHALE	6.0	40.0	
-	MODESTO		SANDSTONE	8.0	46.0	
-	MODESTO		SANDY SHALE	21.0	54.0	
-	MODESTO	FARMINGTON	BLUE SHALE	85.0	75.0	UNCERTAIN CORRELATION
-	CARBONDALE	DANVILLE	COAL	3.2	160.0	
-	CARBONDALE	DANVILLE	UNCLASSIFIED	0.1	163.2	
-	CARBONDALE	DANVILLE	COAL	1.1	163.3	
-	CARBONDALE		UNDERCLAY	1.7	164.3	
-	CARBONDALE	ENERGY	SANDSTONE	53.0	166.0	
-	CARBONDALE	ENERGY	SANDY SHALE	11.0	219.0	
-	CARBONDALE	ENERGY	BLUE SHALE	19.9	230.0	
-	CARBONDALE	HERRIN	COAL	6.8	249.9	
-	CARBONDALE		UNDERCLAY	0.7	256.7	

MAPID: 18301219000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 3 QUARTERS/FOOTAGES: 1320' S line, 1320' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.698189

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.958149

DATE COLLECTED:

SURFACE ELEVATION (FT.): 680.0

LOGGED (FT.): 256.8

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.1	MODESTO		SHALE	90.0	69.9
520.1	CARBONDALE	DANVILLE	COAL	4.5	159.9
515.6	CARBONDALE		CLAYSTONE	1.7	164.4
513.9	CARBONDALE	ENERGY	SANDSTONE	53.0	166.1
460.9	CARBONDALE	ENERGY	SILTY SHALE	11.0	219.1
449.9	CARBONDALE	ENERGY	GRAY SHALE	19.9	230.1
430.0	CARBONDALE	HERRIN	COAL	6.8	250.0

MAPID: 18390082000C VERSION: 1

PROJECT: LUMP

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 3 QUARTERS/FOOTAGES: 50' N line, 1' W line of NW NE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.703209

GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 39.969119

DATE COLLECTED:

SURFACE ELEVATION (FT.): 673.0

LOGGED (FT.): 237.8

LOG TYPE: Drillers Log

SOURCE: CATLIN COAL CO. CC12

WELL TYPE: Coal Test

COMMENT: PERMIT 292 CROSS SECTION AVAIL.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
673.0	PLEISTOCENE		UNCONSOLIDATED	48.0	0.0
625.0	MODESTO		SHALE	91.0	48.0
534.0	MODESTO		DARK SHALE	13.0	139.0
521.0	CARBONDALE	DANVILLE	COAL	3.1	152.0
517.9	CARBONDALE		UNDERCLAY	7.9	155.1
510.0	CARBONDALE		GRAY SHALE	14.0	163.0
496.0	CARBONDALE		SANDSTONE	14.0	177.0
482.0	CARBONDALE		MICACEOUS SHALE	37.0	191.0
445.0	CARBONDALE	HERRIN	COAL	6.8	228.0
438.2	CARBONDALE		UNDERCLAY	3.0	234.8

MAPID: 18390083000C VERSION: 1

PROJECT: LUMP

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 3 QUARTERS/FOOTAGES: 150' S line, 125' W line of SE NW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.707353

GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 39.962267

DATE COLLECTED:

SURFACE ELEVATION (FT.): 675.0 LOGGED (FT.): 256.0

LOG TYPE: Drillers Log

SOURCE: CATLIN COAL CO. RIOLA MINE CC11

WELL TYPE: Coal Test

COMMENT: PERMIT 292 CROSS SECTION AVAIL.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
675.0	PLEISTOCENE		UNCONSOLIDATED	55.0	0.0
620.0	MODESTO		SHALE	94.0	55.0
526.0	MODESTO		DARK SHALE	16.0	149.0
510.0	CARBONDALE	DANVILLE	COAL	3.3	165.0
506.7	CARBONDALE		UNDERCLAY	4.7	168.3
502.0	CARBONDALE		GRAY SHALE	14.0	173.0
488.0	CARBONDALE		SANDSTONE	18.0	187.0
470.0	CARBONDALE		MICACEOUS SHALE	38.0	205.0
432.0	CARBONDALE	HERRIN	COAL	7.0	243.0
425.0	CARBONDALE		UNDERCLAY	2.0	250.0
423.0	CARBONDALE		SHALE	4.0	252.0

MAPID: 18300025000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 4 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.713613

GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.957197

DATE COLLECTED:

SURFACE ELEVATION (FT.): 652.0 LOGGED (FT.): 241.7

LOG TYPE: Drillers Log

SOURCE: DERING COAL CO.

WELL TYPE: Coal Test

COMMENT: LOC. ON SEC. LINE SESE SEC.4 & SW SEC.3

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
652.0			UNKNOWN	147.0	0.0
505.0	CARBONDALE	DANVILLE	COAL	2.0	147.0
503.0	CARBONDALE		UNKNOWN	87.2	149.0
415.8	CARBONDALE	HERRIN	COAL	5.5	236.2

MAPID: 18300026000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 4 QUARTERS/FOOTAGES: SW SE NW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.725357 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.962685 DATE COLLECTED:

SURFACE ELEVATION (FT.): 672.0 LOGGED (FT.): 258.0 LOG TYPE: Drillers Log

SOURCE: DERING COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
672.0			UNCONSOLIDATED	61.0	0.0	
611.0	MODESTO		SANDSTONE	27.0	61.0	
584.0	MODESTO		SHALE	9.0	88.0	
575.0	MODESTO		SANDSTONE	48.0	97.0	
527.0	MODESTO		DARK SHALE	42.0	145.0	
485.0	MODESTO		BLACK SHALE	6.0	187.0	
479.0	CARBONDALE	DANVILLE	COAL	3.6	193.0	
475.4	CARBONDALE		UNDERCLAY	10.4	196.6	
465.0	CARBONDALE	ENERGY	SHALE	40.0	207.0	
425.0	CARBONDALE	HERRIN	COAL	6.0	247.0	
419.0	CARBONDALE		UNDERCLAY	4.0	253.0	
415.0	CARBONDALE		SHALE	1.0	257.0	

MAPID: 18300027000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 4 QUARTERS/FOOTAGES: 0' N line, 1320' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.717431 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.969218 DATE COLLECTED: 7 / 0 / 1909

SURFACE ELEVATION (FT.): 672.6 LOGGED (FT.): 238.7 LOG TYPE: Drillers Log

SOURCE: W.J. SANDUSKY WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
672.6			UNCONSOLIDATED	110.0	0.0	
562.6	MODESTO	FARMINGTON	SANDY SHALE	40.0	110.0	UNCERTAIN CORRELATION
522.6	MODESTO	FARMINGTON	GRAY SHALE	20.7	150.0	UNCERTAIN CORRELATION
501.9	CARBONDALE	DANVILLE	COAL	3.7	170.7	
498.3	CARBONDALE		UNDERCLAY	3.7	174.3	
494.6	CARBONDALE		SHALE	6.0	178.0	
488.6	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	184.0	
486.1	CARBONDALE	ENERGY	SANDSTONE	23.5	186.5	
462.6	CARBONDALE	ENERGY	SANDY SHALE	10.0	210.0	
452.6	CARBONDALE	ENERGY	GRAY SHALE	11.7	220.0	
440.9	CARBONDALE	HERRIN	COAL	2.8	231.7	
438.2	CARBONDALE	HERRIN	COAL	3.0	234.4	
435.2	CARBONDALE		UNDERCLAY	1.2	237.4	

MAPID: 18300027000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 4 QUARTERS/FOOTAGES: 0' N line, 1320' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.717431

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.969218

DATE COLLECTED:

SURFACE ELEVATION (FT.): 673.0

LOGGED (FT.): 237.8

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
562.7	MODESTO		SHALE	60.7	110.3
502.0	CARBONDALE	DANVILLE	COAL	3.7	171.0
498.3	CARBONDALE		CLAYSTONE	3.7	174.7
494.7	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	8.5	178.3
486.2	CARBONDALE	ENERGY	SANDSTONE	23.5	186.8
462.7	CARBONDALE	ENERGY	SILTY SHALE	10.0	210.3
452.7	CARBONDALE	ENERGY	GRAY SHALE	11.7	220.3
441.0	CARBONDALE	HERRIN	COAL	5.8	232.0

MAPID: 18324489000C VERSION: 1

PROJECT: LUMP

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 4 QUARTERS/FOOTAGES: 1056' N line, 1307' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.717323

GEOLOGIST: J. MCBETH

CONFIDENTIAL: N LATITUDE: 39.966304

DATE COLLECTED: 0 / 0 / 1995

SURFACE ELEVATION (FT.):

LOGGED (FT.): 237.6

LOG TYPE: Drillers Log

SOURCE: CATLIN COAL BC49

WELL TYPE: Coal Test

COMMENT: PERMIT 292; RIOLA MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			SOIL	3.0	0.0
-			SAND	14.0	3.0
-			CLAY	85.0	17.0
-			SAND	8.0	102.0
-	MODESTO		SHALE	60.7	110.0
-	CARBONDALE	DANVILLE	COAL	3.7	170.7
-	CARBONDALE		UNDERCLAY	3.7	174.4
-	CARBONDALE		SHALE	6.0	178.1
-	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	184.1
-	CARBONDALE	ENERGY	SANDSTONE	23.5	186.6
-	CARBONDALE	ENERGY	SHALE	21.7	210.1
-	CARBONDALE	HERRIN	COAL	5.8	231.8



MAPID: 1832449000C VERSION: 1

PROJECT: LUMP

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 4 QUARTERS/FOOTAGES: 1307' N line, 1609' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.725348 GEOLOGIST: J. MCBETH

CONFIDENTIAL: N LATITUDE: 39.965591 DATE COLLECTED: 0 / 0 / 1995

SURFACE ELEVATION (FT.): LOGGED (FT.): 251.9 LOG TYPE: Drillers Log

SOURCE: CATLIN COAL 720403 WELL TYPE: Coal Test

COMMENT: PERMIT 292; RIOLA MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SOIL	14.0	0.0	SOIL & CLAY
-			SAND	8.0	14.0	
-			GRAVEL	20.0	22.0	
-			CLAY	19.0	42.0	
-	MODESTO		SANDSTONE	27.0	61.0	
-	MODESTO		SHALE	9.0	88.0	
-	MODESTO		SANDSTONE	48.0	97.0	
-	MODESTO		DARK SHALE	48.0	145.0	
-	CARBONDALE	DANVILLE	COAL	3.6	193.0	
-	CARBONDALE		UNDERCLAY	10.0	196.6	
-	CARBONDALE	ENERGY	SHALE	40.0	206.6	
-	CARBONDALE	HERRIN	COAL	5.3	246.6	

MAPID: 18300028000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 5 QUARTERS/FOOTAGES: 2775' S line, 675' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.733609 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.96195 DATE COLLECTED: 6 / 23 / 1909

SURFACE ELEVATION (FT.): 675.0 LOGGED (FT.): 282.6 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
675.0			UNCONSOLIDATED	67.0	0.0	
608.0	MODESTO		SHALE	63.0	67.0	
545.0	MODESTO		SANDSTONE	6.0	130.0	
539.0	MODESTO		SANDY SHALE	14.0	136.0	
525.0	MODESTO	FARMINGTON	BLUE SHALE	63.2	150.0	UNCERTAIN CORRELATION
461.8	CARBONDALE	DANVILLE	COAL	3.6	213.2	
458.2	CARBONDALE		UNDERCLAY	2.2	216.8	
456.0	CARBONDALE		SHALE	10.0	219.0	
446.0	CARBONDALE	ENERGY	SANDSTONE	42.0	229.0	
404.0	CARBONDALE	ENERGY	BLUE SHALE	5.5	271.0	
398.5	CARBONDALE	HERRIN	COAL	2.5	276.5	
396.0	CARBONDALE		UNDERCLAY	3.4	279.0	
392.6	CARBONDALE		LIMESTONE	0.2	282.4	

**MAPID:** 18301657000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 12W    **SECTION:** 5    **QUARTERS/FOOTAGES:** 2589' S line, 2594' E line  
**QUADRANGLE:** GEORGETOWN    **LONGITUDE:** -87.740499    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.961531    **DATE COLLECTED:** 5 / 0 / 1968  
**SURFACE ELEVATION (FT.):** 675.0    **LOGGED (FT.):** 305.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-132    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.4	SHELBURN	DANVILLE	COAL	3.9	219.6	REMOVED BY CO.
403.4	CARBONDALE	HERRIN	COAL	5.7	271.6	REMOVED BY CO.

**MAPID:** 18301657000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 12W    **SECTION:** 5    **QUARTERS/FOOTAGES:** 2589' S line, 2594' E line  
**QUADRANGLE:** GEORGETOWN    **LONGITUDE:** -87.740499    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.961531    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 675.0    **LOGGED (FT.):** 277.7    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-132    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
545.0	MODESTO		SHALE & SANDSTONE	90.0	130.0	
455.0	CARBONDALE	DANVILLE	COAL	3.8	220.0	
451.2	CARBONDALE		GRAY SHALE	5.3	223.8	
445.9	CARBONDALE	GALUM	CALCAREOUS SHALE	2.5	229.1	
443.4	CARBONDALE		SILTY SHALE	9.5	231.6	
433.9	CARBONDALE	BANKSTON FORK	LIMESTONE	1.6	241.1	
432.3	CARBONDALE	ENERGY	SILTY SHALE	2.5	242.7	
429.8	CARBONDALE	ENERGY	SANDSTONE	8.3	245.2	
421.6	CARBONDALE	ENERGY	SILTY SHALE	18.3	253.4	
403.3	CARBONDALE	ENERGY	CARBONACEOUS SHALE	0.3	271.7	
403.0	CARBONDALE	HERRIN	COAL	5.7	272.0	

MAPID: 18326602000C VERSION: 1

PROJECT: NCRDS 2011

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 5 QUARTERS/FOOTAGES: 1777' S line, 2108' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.738757 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 39.959241 DATE COLLECTED: 7 / 13 / 2005

SURFACE ELEVATION (FT.): 674.6 LOGGED (FT.): 295.9 LOG TYPE: Other Core Study

SOURCE: BLACK BEAUTY COAL CO. 5-K12 WELL TYPE: Coal Test

COMMENT: JANET CLEVINGER 5-K12

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
411.6			GREEN SHALE	15.3	263.0	GOOD FISSILITY
396.3	CARBONDALE	ANNA	DARK SHALE	2.7	278.3	
393.6	CARBONDALE	ENERGY	DARK SHALE	0.9	281.0	PLANT FOSSILS, DUNBARELLA
392.7	CARBONDALE	HERRIN	COAL	6.0	281.9	BRIGHT BANDED
386.7	CARBONDALE		CLAYSTONE & SILTSTONE	8.0	287.9	

MAPID: 18301649000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 7 QUARTERS/FOOTAGES: 400' S line, 1256' E line

QUADRANGLE: SIDELL LONGITUDE: -87.754347 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.94079 DATE COLLECTED: 4 / 0 / 1968

SURFACE ELEVATION (FT.): 672.0 LOGGED (FT.): 320.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-122 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.9	SHELBURN	DANVILLE	COAL	3.5	236.1	REMOVED BY CO.
373.8	CARBONDALE	HERRIN	COAL	6.5	298.2	REMOVED BY CO.
355.3	CARBONDALE	SPRINGFIELD	COAL	0.2	316.7	REMOVED BY CO.

MAPID: 18301650000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 7 QUARTERS/FOOTAGES: 55' S line, 30' W line

QUADRANGLE: SIDELL LONGITUDE: -87.76632 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.939683 DATE COLLECTED: 4 / 0 / 1968

SURFACE ELEVATION (FT.): 675.0 LOGGED (FT.): 365.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-123 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
392.8	SHELBURN	DANVILLE	COAL	4.8	282.2	REMOVED BY CO.
336.1	CARBONDALE	HERRIN	COAL	2.6	338.9	REMOVED BY CO.
319.2	CARBONDALE	SPRINGFIELD	COAL	0.6	355.8	REMOVED BY CO.

**MAPID:** 18301651000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 12W    **SECTION:** 7    **QUARTERS/FOOTAGES:** 49' N line, 63' E line of SE NE  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.750101    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.950684    **DATE COLLECTED:** 4 / 0 / 1967  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 320.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-124    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
439.9	SHELburn	DANVILLE	COAL	4.3	230.1	REMOVED BY CO.
376.2	CARBONDALE	HERRIN	COAL	6.4	293.8	REMOVED BY CO.
356.0	CARBONDALE	SPRINGFIELD	COAL	0.9	314.0	REMOVED BY CO.

**MAPID:** 18301676000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 12W    **SECTION:** 7    **QUARTERS/FOOTAGES:** 68' S line, 86' W line of SE SW NW  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.766123    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.94707    **DATE COLLECTED:** 7 / 0 / 1968  
**SURFACE ELEVATION (FT.):** 668.0    **LOGGED (FT.):** 334.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-152    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
420.2	SHELburn	DANVILLE	COAL	4.5	247.8	REMOVED BY CO.
367.8	CARBONDALE	HERRIN	COAL	6.0	300.2	REMOVED BY CO.
341.7	CARBONDALE	SPRINGFIELD	COAL	0.8	326.3	REMOVED BY CO.

**MAPID:** 18301687000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 12W    **SECTION:** 7    **QUARTERS/FOOTAGES:** 98' N line, 1405' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.754925    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.954159    **DATE COLLECTED:** 4 / 5 / 1960  
**SURFACE ELEVATION (FT.):** 671.0    **LOGGED (FT.):** 303.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-21    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
422.0	SHELburn	DANVILLE	COAL	2.5	249.0	
375.5	CARBONDALE	HERRIN	COAL	5.9	295.5	

MAPID: 18301687000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 7 QUARTERS/FOOTAGES: 98' N line, 1405' E line

QUADRANGLE: SIDELL LONGITUDE: -87.754925

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.954159

DATE COLLECTED:

SURFACE ELEVATION (FT.): 671.0 LOGGED (FT.): 301.9

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-21

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
517.5	MODESTO		GRAY SHALE	90.0	153.5
427.5	CARBONDALE	DANVILLE	COAL	2.5	243.5
425.0	CARBONDALE		CLAYSTONE	2.5	246.0
422.5	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	6.0	248.5
416.5	CARBONDALE	ENERGY	SILTY SHALE	24.5	254.5
392.0	CARBONDALE	ENERGY	CARBONACEOUS SHALE	1.7	279.0
390.3	CARBONDALE	ENERGY	SILTY SHALE	5.8	280.7
384.5	CARBONDALE	ENERGY	GRAY SHALE	9.5	286.5
375.0	CARBONDALE	HERRIN	COAL	5.9	296.0

MAPID: 18300029000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 8 QUARTERS/FOOTAGES: 2780' S line, 1375' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.736152

GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.947451

DATE COLLECTED:

SURFACE ELEVATION (FT.): 669.9 LOGGED (FT.): 288.3

LOG TYPE: Drillers Log

SOURCE: DERING COAL CO.

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
669.9			UNKNOWN	217.5	0.0
452.4	CARBONDALE	DANVILLE	COAL	3.8	217.5
448.6	CARBONDALE		UNKNOWN	60.3	221.3
388.3	CARBONDALE	HERRIN	COAL	6.8	281.6

MAPID: 18300030000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 9 QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.720591

GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.94796

DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 679.0

LOGGED (FT.): 275.0

LOG TYPE: Drillers Log

SOURCE: DERING COAL CO.

WELL TYPE: Coal Test

COMMENT: TOTAL DEPTH UNSURE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
679.0			UNCONSOLIDATED	62.0	0.0
617.0	MODESTO		SHALE	36.0	62.0
581.0	MODESTO		SANDSTONE	4.0	98.0
577.0	MODESTO		DARK SHALE	7.0	102.0
570.0	MODESTO		SANDSTONE	4.0	109.0
566.0	MODESTO	FARMINGTON	DARK SHALE	65.0	113.0
501.0	CARBONDALE	DANVILLE	COAL	2.7	178.0
498.3	CARBONDALE		DARK SHALE	13.3	180.7
485.0	CARBONDALE	ENERGY	SANDSTONE	70.0	194.0
415.0	CARBONDALE	HERRIN	COAL	3.0	264.0
412.0	CARBONDALE		UNDERCLAY	3.0	267.0
409.0	CARBONDALE		SHALE	4.0	270.0
405.0	CARBONDALE		LIMESTONE	1.0	274.0

MAPID: 18300031000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 9 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.719334 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.941559 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 672.0 LOGGED (FT.): 296.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
672.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
664.0	PLEISTOCENE		SAND	21.0	8.0
643.0	PLEISTOCENE		HARD PAN	5.0	29.0
638.0	PLEISTOCENE		SAND	7.0	34.0
631.0	PLEISTOCENE		UNCONSOLIDATED	30.0	41.0
601.0	MODESTO		CALCAREOUS SHALE	4.0	71.0
597.0	MODESTO		LIMESTONE	1.7	75.0
595.3	MODESTO		SANDSTONE	15.3	76.7
580.0	MODESTO		LIGHT SHALE	33.0	92.0
547.0	MODESTO		BLUE SHALE	22.9	125.0
524.1	MODESTO		SANDSTONE	3.1	147.9
521.0	MODESTO		BLUE SHALE	37.8	151.0
483.2	MODESTO		BLUE SHALE	3.1	188.8
480.1	CARBONDALE	DANVILLE	COAL	3.5	191.9
476.6	CARBONDALE		UNDERCLAY	5.6	195.4
471.0	CARBONDALE	ENERGY	DARK SHALE	2.2	201.0
468.8	CARBONDALE	ENERGY	SANDSTONE	6.8	203.2
462.0	CARBONDALE	ENERGY	SANDSTONE	76.4	210.0
385.6	CARBONDALE	ENERGY	GRAY SHALE	2.8	286.4
382.8	CARBONDALE	HERRIN	COAL	6.5	289.2
376.3	CARBONDALE		UNDERCLAY	0.3	295.7

MAPID: 18300032000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 9    QUARTERS/FOOTAGES: 660' N line, 1980' W line

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.724206    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 39.952503    DATE COLLECTED: 7 / 0 / 1909

SURFACE ELEVATION (FT.): 673.0    LOGGED (FT.): 262.0    LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
673.0	PLEISTOCENE		CLAY	26.0	0.0	
647.0	PLEISTOCENE		CLAY	4.0	26.0	BOULDERS
643.0	PLEISTOCENE		HARD PAN	30.0	30.0	
613.0	PLEISTOCENE		GRAVEL	5.0	60.0	
608.0	PLEISTOCENE		BOULDER	4.0	65.0	
604.0	PLEISTOCENE		CLAY	15.0	69.0	
589.0	PLEISTOCENE		SAND	3.0	84.0	
586.0	PLEISTOCENE		CLAY	34.0	87.0	
552.0	PLEISTOCENE		HARD PAN	8.0	121.0	
544.0	MODESTO		DARK SHALE	7.0	129.0	
537.0	MODESTO		DARK SANDSTONE	44.0	136.0	
493.0	MODESTO		DARK SANDSTONE	10.0	180.0	HARD BANDS
483.0	MODESTO		SHALE	2.6	190.0	
480.4	CARBONDALE	DANVILLE	COAL	3.0	192.6	
477.4	CARBONDALE		CLAYSTONE & SILTSTONE	14.4	195.6	
463.0	CARBONDALE	ENERGY	SANDSTONE	5.0	210.0	
458.0	CARBONDALE	ENERGY	SANDSTONE	39.5	215.0	
418.5	CARBONDALE	HERRIN	COAL	5.2	254.5	
413.3	CARBONDALE	HERRIN	IRONSTONE	0.2	259.7	
413.2	CARBONDALE	HERRIN	COAL	1.4	259.8	
411.7	CARBONDALE		UNDERCLAY	0.8	261.3	



MAPID: 18300032000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 9 QUARTERS/FOOTAGES: 660' N line, 1980' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.724206

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.952503

DATE COLLECTED:

SURFACE ELEVATION (FT.): 673.0

LOGGED (FT.): 261.8

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
543.5	MODESTO		SILTY SHALE	63.6	129.5
479.9	CARBONDALE	DANVILLE	COAL	3.0	193.1
476.9	CARBONDALE		CLAYSTONE	14.4	196.1
462.5	CARBONDALE	ENERGY	SILTY SHALE	5.0	210.5
457.5	CARBONDALE	ENERGY	ARGILLACEOUS SANDSTONE	39.5	215.5
418.0	CARBONDALE	HERRIN	COAL	6.8	255.0

MAPID: 18326416000C VERSION: 1

PROJECT:

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 9 QUARTERS/FOOTAGES: 610' S, 1270' W, NE/c NE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.716889

GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 39.952718

DATE COLLECTED: 7 / 20 / 1999

SURFACE ELEVATION (FT.): 674.0

LOGGED (FT.): 278.0

LOG TYPE: Drillers Log

SOURCE: BLACK BEAUTY COAL CO. VGM14

WELL TYPE: Coal Test

COMMENT: RIOLA MINE PERMIT 292 REV5

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
674.0			UNCONSOLIDATED	50.0	0.0
624.0			SHALE	10.0	50.0
614.0			SANDY SHALE	106.0	60.0
508.0	SHELBURN	DANVILLE	COAL	3.6	166.0
504.4			UNDERCLAY	3.4	169.6
501.0			SANDY SHALE	4.0	173.0
497.0			SANDSTONE	57.7	177.0
439.3			GRAY SHALE	9.1	234.7
430.2			SANDY SHALE	1.3	243.8
428.9			SANDSTONE	0.1	245.1
428.8			GRAY SHALE	0.4	245.2
428.4	CARBONDALE	HERRIN	COAL	0.1	245.6
428.3	CARBONDALE	HERRIN	SHALE	0.1	245.7
428.2	CARBONDALE	HERRIN	COAL	5.4	245.8
422.8			DARK SHALE	0.5	251.2
422.3			CLAYSTONE & LIMESTONE	6.3	251.7
416.0			SANDY SHALE	20.0	258.0

WITH SS  
STREAKS

LS NODULES

MAPID: 18300033000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 10 QUARTERS/FOOTAGES: SW NE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.700445 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.948989 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 669.9 LOGGED (FT.): 273.7 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
669.9	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0
665.9	PLEISTOCENE		UNCONSOLIDATED	5.0	4.0
660.9	PLEISTOCENE		SAND	19.0	9.0
641.9	PLEISTOCENE		HARD PAN	8.0	28.0
633.9	PLEISTOCENE		UNCONSOLIDATED	28.0	36.0
605.9	MODESTO		BLACK SHALE	6.0	64.0
599.9	MODESTO		SHALE	40.0	70.0
559.9	MODESTO		BLACK SHALE	60.0	110.0
499.9	MODESTO		BLACK SHALE	12.6	170.0
487.3	CARBONDALE	DANVILLE	COAL	3.4	182.6
483.9	CARBONDALE		UNDERCLAY	2.0	186.0
481.9	CARBONDALE	ENERGY	LIGHT SHALE	6.0	188.0
475.9	CARBONDALE	ENERGY	SANDSTONE	71.2	194.0
404.7	CARBONDALE	HERRIN	COAL	0.1	265.2
404.6	CARBONDALE	HERRIN	SANDSTONE	0.6	265.3
404.0	CARBONDALE	HERRIN	COAL	0.1	265.9
403.9	CARBONDALE	HERRIN	SANDSTONE	0.7	266.0
403.2	CARBONDALE	HERRIN	COAL	6.3	266.7
396.9	CARBONDALE		CLAYSTONE & SILTSTONE	0.7	273.0

MAPID: 18300033000C VERSION: 2

PROJECT: NCRDS87

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 10 QUARTERS/FOOTAGES: SW NE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.700445 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.948989 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 669.9 LOGGED (FT.): 373.7 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
669.9			UNCONSOLIDATED	64.0	0.0
605.9			UNCLASSIFIED	106.0	64.0
499.9	MODESTO		BLACK SHALE	12.6	170.0
487.3	CARBONDALE	DANVILLE	COAL	3.4	182.6
483.9	CARBONDALE		UNDERCLAY	2.5	186.0
481.4	CARBONDALE		SHALE	6.0	188.5
475.4	CARBONDALE	ENERGY	SANDSTONE	71.2	194.5
404.3	CARBONDALE	HERRIN	COAL	0.1	265.6
404.2	CARBONDALE	HERRIN	SANDSTONE	0.6	265.7
403.6	CARBONDALE	HERRIN	COAL	0.1	266.3
403.5	CARBONDALE	HERRIN	SANDSTONE	0.7	266.4
402.8	CARBONDALE	HERRIN	COAL	6.3	267.1
396.5	CARBONDALE		UNDERCLAY	8.3	273.4

MAPID: 18300034000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 10    QUARTERS/FOOTAGES: NW SW

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.709916    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.945237    DATE COLLECTED: 10 / 0 / 1909

SURFACE ELEVATION (FT.):    LOGGED (FT.): 259.5    LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			UNCONSOLIDATED	30.5	0.0
-	MODESTO		SHALE	7.5	30.5
-	MODESTO	WEST FRANKLIN	LIMESTONE	4.0	38.0
-	MODESTO		SHALE	6.0	42.0
-	MODESTO		SANDY SHALE	20.0	48.0
-	MODESTO		SANDSTONE	42.0	68.0
-	MODESTO		SANDY SHALE	20.0	110.0
-	MODESTO		SHALE	26.5	130.0
-	CARBONDALE	DANVILLE	COAL	3.1	156.5
-	CARBONDALE		UNDERCLAY	1.3	159.7
-	CARBONDALE		GRAY SHALE	19.0	161.0
-	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	180.0
-	CARBONDALE	ENERGY	SANDSTONE	68.8	182.5
-	CARBONDALE	ENERGY	SANDY SHALE	1.1	251.3
-	CARBONDALE	HERRIN	COAL	5.3	252.3
-	CARBONDALE		UNDERCLAY	1.9	257.6

MAPID: 18300035000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 10 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.70041 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.945317 DATE COLLECTED: 6 / 8 / 1909

SURFACE ELEVATION (FT.): LOGGED (FT.): 247.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		CLAY	11.0	0.0
-	PLEISTOCENE		CLAY	30.0	11.0
-	MODESTO		SANDSTONE	12.0	41.0
-	MODESTO		SANDSTONE	25.0	53.0
-	MODESTO		DARK SHALE	82.2	78.0
-	CARBONDALE	DANVILLE	COAL	1.9	160.2
-	CARBONDALE		UNDERCLAY	1.9	162.1
-	CARBONDALE	ENERGY	DARK SHALE	8.0	164.0
-	CARBONDALE	ENERGY	GRAY SHALE	8.0	172.0
-	CARBONDALE	ENERGY	SANDSTONE	26.0	180.0
-	CARBONDALE	ENERGY	SANDSTONE	34.0	206.0
-	CARBONDALE	HERRIN	COAL	5.7	240.0
-	CARBONDALE		BLUE SHALE	1.3	245.7

MAPID: 18301688000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 10 QUARTERS/FOOTAGES: 735' N line, 2195' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.701219 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.952465 DATE COLLECTED: 12 / 2 / 1959

SURFACE ELEVATION (FT.): 675.0 LOGGED (FT.): 265.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-10 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
500.0	SHELBURN	DANVILLE	COAL	2.7	175.0
421.1	CARBONDALE	HERRIN	COAL	5.8	253.9

MAPID: 18301688000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 10    QUARTERS/FOOTAGES: 735' N line, 2195' E line

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.701219

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.952465

DATE COLLECTED:

SURFACE ELEVATION (FT.): 675.0    LOGGED (FT.): 259.8

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO    RF-10

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.1	MODESTO		SHALE & SANDSTONE	90.0	84.9
500.1	CARBONDALE	DANVILLE	COAL	2.7	174.9
497.5	CARBONDALE		CLAYSTONE	6.3	177.5
491.1	CARBONDALE	ENERGY	SILTY SHALE	49.7	183.9
441.4	CARBONDALE	ENERGY	SILTSTONE	19.6	233.6
421.8	CARBONDALE	ENERGY	CARBONACEOUS SHALE	0.8	253.2
421.0	CARBONDALE	HERRIN	COAL	5.8	254.0

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MAPID: 18326417000C VERSION: 1

PROJECT:

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 10 QUARTERS/FOOTAGES: 1290' S, 40' E, NW/c SW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.712134

GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 39.943522

DATE COLLECTED: 7 / 21 / 1999

SURFACE ELEVATION (FT.): 655.0 LOGGED (FT.): 279.0

LOG TYPE: Drillers Log

SOURCE: BLACK BEAUTY COAL CO. VGM17

WELL TYPE: Coal Test

COMMENT: RIOLA MIINE PERMIT 292 REV5

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
655.0			UNCONSOLIDATED	60.0	0.0	
595.0			SANDY SHALE	26.0	60.0	
569.0			GRAY SHALE	12.0	86.0	WITH SS STREAKS
557.0			SANDY SHALE	67.0	98.0	
490.0	SHELBURN	DANVILLE	COAL	3.1	165.0	
486.9			UNDERCLAY	7.9	168.1	
479.0			SANDY SHALE	4.0	176.0	
475.0			GRAY SHALE	8.0	180.0	
467.0			GRAY SANDSTONE	45.0	188.0	
422.0			GRAY SANDSTONE	11.0	233.0	WITH SHALE STREAKS
411.0			GRAY SHALE	5.3	244.0	WITH SS STREAKS
405.7			GRAY SANDSTONE	7.2	249.3	WITH SHALE STREAKS
398.5			GRAY SHALE	4.4	256.5	WITH SS STREAKS
394.1	CARBONDALE	HERRIN	COAL	1.0	260.9	
393.1	CARBONDALE	HERRIN	PYRITE	0.1	261.9	
393.0	CARBONDALE	HERRIN	COAL	3.9	262.0	
389.1	CARBONDALE	HERRIN	SHALE	0.2	265.9	
388.9	CARBONDALE	HERRIN	COAL	0.6	266.1	
388.3	CARBONDALE	HERRIN	PYRITE	0.1	266.7	
388.2	CARBONDALE	HERRIN	COAL	0.8	266.8	
387.4	CARBONDALE		UNDERCLAY	1.6	267.6	
385.8	CARBONDALE		UNDERCLAY & LIMESTONE	10.0	269.2	

MAPID: 18326418000C    VERSION: 1

PROJECT:

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 10    QUARTERS/FOOTAGES: 230' N, 695' W, SE/c SE

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.695711

GEOLOGIST: NORTH

CONFIDENTIAL: N    LATITUDE: 39.940486

DATE COLLECTED: 7 / 20 / 1999

SURFACE ELEVATION (FT.): 628.0    LOGGED (FT.): 235.0

LOG TYPE: Drillers Log

SOURCE: BLACK BEAUTY COAL CO.    VGM11

WELL TYPE: Coal Test

COMMENT: RIOLA MINE PERMIT 292 REV5

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
628.0			UNCONSOLIDATED	55.0	0.0
573.0			SANDY SHALE	76.0	55.0
497.0			DARK SHALE	3.0	131.0
494.0			SANDY SHALE	2.0	134.0
492.0	SHELburn	DANVILLE	COAL	3.5	136.0
488.5			UNDERCLAY	8.5	139.5
480.0			SANDY SHALE	40.0	148.0
440.0			GRAY SHALE	16.0	188.0
424.0			GRAY SANDSTONE	12.0	204.0
412.0			SANDY SHALE	0.5	216.0
411.5	CARBONDALE	HERRIN	COAL	6.5	216.5
405.0			UNDERCLAY & LIMESTONE	7.7	223.0
397.3			LIMESTONE	3.4	230.7
393.9			SANDY CLAYSTONE	0.9	234.1



MAPID: 18300036000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 11    QUARTERS/FOOTAGES: NW SE

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.681589    GEOLOGIST: C TREWORYG

CONFIDENTIAL: N    LATITUDE: 39.945031    DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 620.6    LOGGED (FT.): 212.5    LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.6	PLEISTOCENE		SAND	2.0	0.0
618.6	PLEISTOCENE		CLAY	6.0	2.0
612.6	PLEISTOCENE		SAND	7.0	8.0
605.6	PLEISTOCENE		HARD PAN	15.0	15.0
590.6	MODESTO		BLACK SHALE	60.0	30.0
530.6	MODESTO		BLACK SHALE	20.9	90.0
509.7	CARBONDALE	DANVILLE	COAL	1.7	110.9
508.0	CARBONDALE	DANVILLE	PYRITE	0.3	112.6
507.8	CARBONDALE	DANVILLE	COAL	1.3	112.8
506.4	CARBONDALE		UNDERCLAY	4.8	114.2
501.6	CARBONDALE	ENERGY	DARK SHALE	4.0	119.0
497.6	CARBONDALE	ENERGY	SHALE	31.0	123.0
466.6	CARBONDALE	ENERGY	SANDSTONE	18.0	154.0
448.6	CARBONDALE	ENERGY	DARK SHALE	18.0	172.0
430.6	CARBONDALE	ENERGY	DARK SHALE	14.8	190.0
415.8	CARBONDALE	HERRIN	COAL	0.3	204.8
415.5	CARBONDALE	HERRIN	COAL	6.5	205.1
409.0	CARBONDALE		BLACK SHALE	0.9	211.6

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MAPID: 18300037000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 11    QUARTERS/FOOTAGES: 1320' N line, 1320' W line

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.688602    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.950756    DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 668.7    LOGGED (FT.): 254.5    LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
668.7			UNCONSOLIDATED	36.0	0.0
632.7	MODESTO		SHALE	14.0	36.0
618.7	MODESTO	WEST FRANKLIN	LIMESTONE	2.6	50.0
616.2	MODESTO		SHALE	12.5	52.5
603.7	MODESTO		SANDY SHALE	25.0	65.0
578.7	MODESTO		SANDSTONE	22.0	90.0
556.7	MODESTO		SANDY SHALE	14.0	112.0
542.7	MODESTO	FARMINGTON	BLACK SHALE	14.0	126.0
528.7	MODESTO	FARMINGTON	GRAY SHALE	8.0	140.0
520.7	MODESTO	FARMINGTON	BLACK SHALE	1.5	148.0
519.2	MODESTO	FARMINGTON	GRAY SHALE	4.0	149.5
515.2	MODESTO	FARMINGTON	BLACK SHALE	0.3	153.5
514.9	CARBONDALE	DANVILLE	COAL	3.4	153.8
511.5	CARBONDALE		UNDERCLAY	5.8	157.2
505.7	CARBONDALE		SHALE	7.0	163.0
498.7	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	170.0
495.7	CARBONDALE		SHALE	9.0	173.0
486.7	CARBONDALE	ENERGY	SANDSTONE	43.0	182.0
443.7	CARBONDALE	ENERGY	SANDY SHALE	10.0	225.0
433.7	CARBONDALE	ENERGY	GRAY SHALE	9.0	235.0
424.7	CARBONDALE	HERRIN	COAL	0.3	244.0
424.4	CARBONDALE	HERRIN	GRAY SHALE	1.8	244.3
422.7	CARBONDALE	HERRIN	COAL	0.2	246.0
422.5	CARBONDALE	HERRIN	GRAY SHALE	2.0	246.2
420.5	CARBONDALE	HERRIN	COAL	4.9	248.2
415.6	CARBONDALE	HERRIN	UNCLASSIFIED	0.3	253.1
415.3	CARBONDALE	HERRIN	COAL	0.6	253.4
414.7	CARBONDALE		UNDERCLAY	0.5	254.0

MAPID: 18300037000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 11 QUARTERS/FOOTAGES: 1320' N line, 1320' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.688602

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.950756

DATE COLLECTED:

SURFACE ELEVATION (FT.): 669.0

LOGGED (FT.): 253.8

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.4	MODESTO		SHALE & SANDSTONE	90.0	63.6	
515.4	CARBONDALE	DANVILLE	COAL	3.4	153.6	
512.0	CARBONDALE		CLAYSTONE	5.8	157.0	
506.2	CARBONDALE		GRAY SHALE	7.0	162.8	
499.2	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	169.8	
496.2	CARBONDALE	LAWSON	CALCAREOUS SHALE	3.0	172.8	
493.2	CARBONDALE	ENERGY	GRAY SHALE	6.0	175.8	
487.2	CARBONDALE	ENERGY	SANDSTONE	43.0	181.8	
444.2	CARBONDALE	ENERGY	SILTY SHALE	10.0	224.8	
434.2	CARBONDALE	ENERGY	GRAY SHALE	9.0	234.8	
425.2	CARBONDALE	ENERGY	CARBONACEOUS SHALE	4.2	243.8	
421.0	CARBONDALE	HERRIN	COAL	5.8	248.0	

MAPID: 18300039000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 11 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.686348

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 39.952505

DATE COLLECTED:

SURFACE ELEVATION (FT.): 624.0

LOGGED (FT.): 210.3

LOG TYPE: Drillers Log

SOURCE: DERING COAL CO.

WELL TYPE: Coal Test

COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
517.1	CARBONDALE	DANVILLE	COAL	3.6	106.9	ONLY LOGGED COAL
419.9	CARBONDALE	HERRIN	COAL	6.3	204.1	ONLY LOGGED COAL

MAPID: 18300040000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 11 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.690942 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.945304 DATE COLLECTED: 9 / 0 / 1908

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 230.1 LOG TYPE: Drillers Log

SOURCE: DERING COAL CO. 117 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
635.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
620.0	MODESTO		SHALE	35.0	15.0
585.0	MODESTO		SHALE	91.0	50.0
494.0	CARBONDALE	DANVILLE	COAL	4.4	141.0
489.6	CARBONDALE		UNDERCLAY	5.0	145.4
484.6	CARBONDALE	ENERGY	SHALE	73.0	150.4
411.6	CARBONDALE	HERRIN	COAL	6.7	223.4

MAPID: 18326414000C VERSION: 1

PROJECT: NCRDS

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 11 QUARTERS/FOOTAGES: 660' S, 1260' E, NW/c NW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.688859 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 39.952599 DATE COLLECTED: 7 / 22 / 1999

SURFACE ELEVATION (FT.): 664.0 LOGGED (FT.): 252.0 LOG TYPE: Drillers Log

SOURCE: BLACK BEAUTY COAL CO. VGM7 WELL TYPE: Coal Test

COMMENT: RIOLA MINE PERMIT 262 REV5

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
664.0			UNCONSOLIDATED	24.0	0.0
640.0			SHALE	4.0	24.0
636.0			GRAY SHALE	15.0	28.0
621.0			SANDSTONE	10.0	43.0
611.0			GRAY SHALE	88.0	53.0
523.0	SHELBURN	DANVILLE	COAL	3.5	141.0
519.5			UNDERCLAY	7.5	144.5
512.0			DARK GRAY SHALE	16.0	152.0
496.0			GRAY SHALE	64.0	168.0
432.0			GRAY SHALE	4.2	232.0
427.8	CARBONDALE	HERRIN	COAL	0.6	236.2
427.2	CARBONDALE	HERRIN	SHALE	0.1	236.8
427.1	CARBONDALE	HERRIN	COAL	5.0	236.9
422.1	CARBONDALE	HERRIN	PYRITE	0.6	241.9
421.5	CARBONDALE	HERRIN	COAL	0.9	242.5
420.6	CARBONDALE		UNDERCLAY	4.2	243.4
416.4	CARBONDALE		UNDERCLAY & LIMESTONE	4.4	247.6

MAPID: 18326415000C VERSION: 1

PROJECT:

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 11 QUARTERS/FOOTAGES: 795' N, 1260' W, SE/c NE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.679115 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 39.948978 DATE COLLECTED: 7 / 21 / 1999

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 255.0 LOG TYPE: Drillers Log

SOURCE: BLACK BEAUTY COAL CO. VGM8 WELL TYPE: Coal Test

COMMENT: RIOLA MINE PERMIT 292 REV5

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
670.0			UNCONSOLIDATED	68.0	0.0	
602.0			GRAY SHALE	74.0	68.0	
528.0			DARK GRAY SHALE	6.0	142.0	
522.0	SHELBURN	DANVILLE	COAL	3.3	148.0	
518.7			UNDERCLAY	5.7	151.3	
512.0			SANDY SHALE	26.0	158.0	
487.0			GRAY SANDSTONE	35.0	183.0	
452.0			SANDY SHALE	19.6	218.0	
432.4			GRAY SHALE	3.7	237.6	
428.7			GRAY SHALE	0.5	241.3	WITH COAL STREAKS
428.2	CARBONDALE	HERRIN	COAL	6.5	241.8	
421.7			UNDERCLAY	3.3	248.3	
418.4			SANDY CLAYSTONE	1.8	251.6	WITH LS NODULES
416.6			UNDERCLAY	1.7	253.4	GREEN GRAY

MAPID: 18326575000C VERSION: 1

PROJECT:

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 11 QUARTERS/FOOTAGES: 1961' S, 1567' E, NW/c

QUADRANGLE: GEORGETOWN LONGITUDE: -87.687731 GEOLOGIST: NELSON

CONFIDENTIAL: N LATITUDE: 39.948997 DATE COLLECTED: 2 / 17 / 1977

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 226.4 LOG TYPE: Lithologic Log

SOURCE: U.S. STEEL WI-4-77 WELL TYPE: Coal Test

COMMENT: COAL PICKS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0			UNCONSOLIDATED	110.1	0.0	BEDROCK SURFACE 38.35'
519.9	SHELBURN	DANVILLE	COAL	3.3	110.1	
423.9	CARBONDALE	HERRIN	COAL	6.2	206.1	
405.1	CARBONDALE	SPRINGFIELD	COAL	1.5	224.9	

MAPID: 18300041000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 12    QUARTERS/FOOTAGES: 1824' S line, 2448' E line

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.664041    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.944586    DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 620.1    LOGGED (FT.): 207.0    LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.1			UNCONSOLIDATED	39.0	0.0
581.1	MODESTO	FARMINGTON	BLACK SHALE	58.3	39.0
522.8	MODESTO	FARMINGTON	DARK SHALE	2.5	97.3
520.3	MODESTO	FARMINGTON	LIGHT SHALE	1.5	99.8
518.8	CARBONDALE	DANVILLE	COAL	3.5	101.3
515.3	CARBONDALE		UNDERCLAY	10.5	104.8
504.8	CARBONDALE		SHALE	3.0	115.3
501.8	CARBONDALE	BANKSTON FORK	SANDSTONE/LIMESTONE	13.8	118.3
488.1	CARBONDALE		SHALE	3.3	132.0
484.8	CARBONDALE		SANDSTONE	4.7	135.3
480.1	CARBONDALE		SHALE	6.0	140.0
474.1	CARBONDALE		LIMESTONE	0.2	146.0
473.9	CARBONDALE	ENERGY	SANDY SHALE	41.8	146.2
432.1	CARBONDALE	ENERGY	BLACK SHALE	12.0	188.0
420.1	CARBONDALE	ENERGY	SANDY SHALE	0.4	200.0
419.7	CARBONDALE	HERRIN	COAL	3.4	200.4
416.3	CARBONDALE	HERRIN	SHALE	0.1	203.8
416.2	CARBONDALE	HERRIN	COAL	2.2	203.9
414.0	CARBONDALE		UNDERCLAY	0.9	206.1

MAPID: 18300041000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 12 QUARTERS/FOOTAGES: 1824' S line, 2448' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.664041

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.944586

DATE COLLECTED:

SURFACE ELEVATION (FT.): 620.0

LOGGED (FT.): 205.7

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
581.4	MODESTO		DARK GRAY SHALE	62.3	38.6
519.1	CARBONDALE	DANVILLE	COAL	3.5	100.9
515.6	CARBONDALE		CLAYSTONE	10.4	104.4
505.2	CARBONDALE		MOTTLED SHALE	3.0	114.8
502.2	CARBONDALE	BANKSTON FORK	LIMESTONE AND SANDSTONE	13.8	117.8
488.4	CARBONDALE	ENERGY	SHALE & SANDSTONE	14.0	131.6
474.4	CARBONDALE	ENERGY	LIMESTONE	0.2	145.6
474.2	CARBONDALE	ENERGY	SILTY SHALE	41.8	145.8
432.4	CARBONDALE	ENERGY	BLACK SHALE	12.0	187.6
420.4	CARBONDALE	ENERGY	SILTY SHALE	0.4	199.6
420.0	CARBONDALE	HERRIN	COAL	5.7	200.0

MAPID: 18300042000C VERSION: 1

PROJECT: NCRDS87

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 12 QUARTERS/FOOTAGES: 1965' N line, 720' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.657915

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.948959

DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 615.9

LOGGED (FT.): 191.3

LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO.

WELL TYPE: Coal Test

COMMENT: HOLE #7

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
615.9			UNCONSOLIDATED	5.0	0.0
610.9	MODESTO		SANDSTONE	10.0	5.0
600.9	MODESTO	FARMINGTON	DARK SHALE	67.5	15.0
533.4	CARBONDALE	DANVILLE	COAL	3.2	82.5
530.2	CARBONDALE		UNDERCLAY/SHALE	4.3	85.7
525.9	CARBONDALE		SHALE	8.0	90.0
517.9	CARBONDALE	ENERGY	SANDSTONE	75.3	98.0
442.6	CARBONDALE	ENERGY	SANDSTONE/SHALE	11.3	173.3
431.3	CARBONDALE	HERRIN	COAL	5.9	184.6
425.4	CARBONDALE		UNDERCLAY/SHALE	9.0	190.5

MAPID: 18300043000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 12 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.672259 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.952233 DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 668.2 LOGGED (FT.): 235.5 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
668.2	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0
652.2	PLEISTOCENE		SAND	6.0	16.0
646.2	PLEISTOCENE		HARD PAN	8.0	22.0
638.2	PLEISTOCENE		SAND	11.5	30.0
626.7	MODESTO		BLACK SHALE	83.5	41.5
543.2	MODESTO		BLACK SHALE	7.0	125.0
536.2	CARBONDALE	DANVILLE	COAL	3.1	132.0
533.1	CARBONDALE	DANVILLE	JACK	0.3	135.1
532.9	CARBONDALE		CLAYSTONE & SILTSTONE	9.2	135.3
523.7	CARBONDALE	ENERGY	SHALE	21.0	144.5
502.7	CARBONDALE	ENERGY	SANDSTONE	56.5	165.5
446.2	CARBONDALE	ENERGY	SHALE	6.4	222.0
439.8	CARBONDALE	HERRIN	COAL	6.3	228.4
433.5	CARBONDALE		UNDERCLAY	0.8	234.7



MAPID: 18326419000C    VERSION: 1

PROJECT:

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 12    QUARTERS/FOOTAGES: 445' S, 1180' E, NW/c SW

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.670373

GEOLOGIST: NORTH

CONFIDENTIAL: N    LATITUDE: 39.945538

DATE COLLECTED: 7 / 22 / 1999

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 243.0

LOG TYPE: Drillers Log

SOURCE: BLACK BEAUTY COAL CO.    VGM15

WELL TYPE: Coal Test

COMMENT: RIOLA MINE PERMIT 292 REV5

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0			UNCONSOLIDATED	62.0	0.0	
578.0			SANDY SHALE	58.0	62.0	
520.0			DARK SHALE	7.0	120.0	
513.0	SHELBURN	DANVILLE	COAL	3.6	127.0	
509.4			SANDY SHALE	22.4	130.6	
487.0			GRAY SANDSTONE	27.0	153.0	
460.0			GRAY SHALE	16.0	180.0	
444.0			SANDY SHALE	8.7	196.0	
435.3			GRAY SHALE	19.8	204.7	SIDERITE
415.5	CARBONDALE	HERRIN	COAL	5.8	224.5	
409.7			UNDERCLAY	0.9	230.3	
408.8			UNDERCLAY & LIMESTONE	1.0	231.2	
407.8			CORE LOSS	0.8	232.2	
407.0			UNDERCLAY & LIMESTONE	10.0	233.0	WITH LS NODULES

MAPID: 18300044000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 14    QUARTERS/FOOTAGES: 602' N line, 267' W line of NE NW

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.687558

GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.938042

DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 623.1

LOGGED (FT.): 222.8

LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
623.1			UNCONSOLIDATED	50.5	0.0
572.6	MODESTO	FARMINGTON	BLACK SHALE	76.4	50.5
496.2	CARBONDALE	DANVILLE	COAL	2.8	126.9
493.4	CARBONDALE		UNDERCLAY	2.3	129.7
491.1	CARBONDALE		SANDY SHALE	2.0	132.0
489.1	CARBONDALE	ENERGY	SANDSTONE	22.0	134.0
467.1	CARBONDALE	ENERGY	SANDY SHALE	2.0	156.0
465.1	CARBONDALE	ENERGY	SANDSTONE	8.0	158.0
457.1	CARBONDALE	ENERGY	LIGHT SHALE	41.0	166.0
416.1	CARBONDALE	ENERGY	BLACK SHALE	7.8	207.0
408.3	CARBONDALE	HERRIN	SHALE/COAL	2.2	214.8
406.1	CARBONDALE	HERRIN	COAL	4.7	217.0
401.4	CARBONDALE		UNDERCLAY	1.1	221.7

MAPID: 18301221000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 14 QUARTERS/FOOTAGES: SW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.688345 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 39.92871 DATE COLLECTED: 10 / 0 / 1909

SURFACE ELEVATION (FT.): LOGGED (FT.): 259.5 LOG TYPE: Drillers Log

SOURCE: DONK BROS WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	2.0	0.0	
-	PLEISTOCENE		SAND	8.0	2.0	
-	PLEISTOCENE		HARD PAN	20.5	10.0	
-	MODESTO		LIGHT SHALE	4.5	30.5	
-	MODESTO		CALCAREOUS SHALE	3.0	35.0	
-	MODESTO		LIMESTONE	4.0	38.0	
-	MODESTO		LIGHT SHALE	6.0	42.0	
-	MODESTO		SANDSTONE	20.0	48.0	
-	MODESTO		SANDSTONE	42.0	68.0	
-	MODESTO		SANDSTONE	20.0	110.0	
-	MODESTO		BLUE SHALE	15.0	130.0	
-	MODESTO		BLACK SHALE	11.5	145.0	
-	CARBONDALE	DANVILLE	COAL	3.1	156.5	
-	CARBONDALE		UNDERCLAY	1.3	159.7	
-	CARBONDALE		GRAY SHALE	19.0	161.0	
-	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	180.0	
-	CARBONDALE	ENERGY	GRAY SHALE	10.5	182.5	
-	CARBONDALE	ENERGY	SANDSTONE	58.3	193.0	
-	CARBONDALE		SANDSTONE	1.1	251.3	
-	CARBONDALE	HERRIN	COAL	5.3	252.3	
-	CARBONDALE		UNDERCLAY	1.9	257.6	

MAPID: 18301444000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 14 QUARTERS/FOOTAGES: 1135' S line, 2594' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.683767 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.928137 DATE COLLECTED: 4 / 4 / 1968

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 673.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-116 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
393.5	CARBONDALE	HERRIN	COAL	5.8	276.5
374.0	CARBONDALE	SPRINGFIELD	COAL	1.0	296.0
312.3	CARBONDALE	HOUCHIN CREEK	COAL	0.0	357.7
230.0			COAL	0.1	440.0
195.4	CARBONDALE	COLCHESTER	COAL	2.0	474.6
172.7			COAL	3.3	497.3
161.0			COAL	0.4	509.0
160.6			COAL	1.3	509.4
151.4			COAL	1.9	518.6
132.0			COAL	2.0	538.0
113.0			COAL	0.4	557.0
43.7			COAL	2.5	626.3

MAPID: 18301444000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 14 QUARTERS/FOOTAGES: 1135' S line, 2594' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.683767 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.928137 DATE COLLECTED:

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 282.3 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-116 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
581.8	MODESTO		SILTY SHALE	90.0	88.2
491.8	CARBONDALE	DANVILLE	COAL	3.1	178.2
488.7	CARBONDALE		CLAYSTONE & SHALE	6.2	181.3
482.6	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	1.3	187.4
481.3	CARBONDALE	ENERGY	SHALE & SANDSTONE	35.5	188.7
445.8	CARBONDALE	ENERGY	SILTY SHALE	31.8	224.2
414.1	CARBONDALE	ENERGY	GRAY SHALE	20.3	255.9
393.8	CARBONDALE	ENERGY	CARBONACEOUS SHALE	0.3	276.2
393.5	CARBONDALE	ENERGY	BONE COAL	0.5	276.5
393.0	CARBONDALE	HERRIN	COAL	5.3	277.0

MAPID: 18300045000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 15 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.709846 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.937882 DATE COLLECTED: 6 / 16 / 1909

SURFACE ELEVATION (FT.): 656.0 LOGGED (FT.): 278.4 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
656.0	PLEISTOCENE		UNCONSOLIDATED	2.0	0.0
654.0	PLEISTOCENE		UNCONSOLIDATED	4.0	2.0
650.0	PLEISTOCENE		SAND	14.0	6.0
636.0	PLEISTOCENE		HARD PAN	6.0	20.0
630.0	PLEISTOCENE		UNCONSOLIDATED	4.0	26.0
626.0	PLEISTOCENE		SAND	25.0	30.0
601.0	MODESTO		BLUE SHALE	55.0	55.0
546.0	MODESTO		BROWN SHALE	10.0	110.0
536.0	MODESTO		BLUE SHALE	51.7	120.0
484.3	MODESTO		BLACK SHALE	10.1	171.7
474.2	CARBONDALE	DANVILLE	COAL	2.0	181.8
472.2	CARBONDALE	DANVILLE	COAL	1.0	183.8
471.2	CARBONDALE		UNDERCLAY	2.8	184.8
468.3	CARBONDALE	ENERGY	LIGHT SHALE	6.3	187.7
462.0	CARBONDALE	ENERGY	SANDSTONE	58.8	194.0
403.2	CARBONDALE	ENERGY	SANDSTONE	14.7	252.8
388.4	CARBONDALE	ENERGY	COAL	0.1	267.6
388.4	CARBONDALE	ENERGY	SANDSTONE	4.2	267.6
384.2	CARBONDALE	HERRIN	COAL	6.1	271.8
378.1	CARBONDALE		UNDERCLAY	0.5	277.9

MAPID: 18300046000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 15    QUARTERS/FOOTAGES: SW NE

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.700285    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.934281    DATE COLLECTED:

SURFACE ELEVATION (FT.): 655.0    LOGGED (FT.): 263.8    LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
655.0			UNCONSOLIDATED	77.0	0.0
578.0	MODESTO		BLUE SHALE	13.0	77.0
565.0	MODESTO		SANDY SHALE	40.0	90.0
525.0	MODESTO		BLUE SHALE	36.6	130.0
488.4	CARBONDALE	DANVILLE	COAL	2.9	166.6
485.5	CARBONDALE		UNDERCLAY	1.5	169.5
484.0	CARBONDALE		LIGHT SHALE	6.0	171.0
478.0	CARBONDALE	ENERGY	SANDSTONE	80.1	177.0
397.9	CARBONDALE	HERRIN	COAL	6.2	257.1
391.7	CARBONDALE		UNDERCLAY	0.5	263.3

MAPID: 18300047000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 15    QUARTERS/FOOTAGES: SW SW

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.709718    GEOLOGIST: C TREWORYG

CONFIDENTIAL: N    LATITUDE: 39.926905    DATE COLLECTED: 6 / 28 / 1909

SURFACE ELEVATION (FT.):    LOGGED (FT.): 253.0    LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		CLAY	6.0	0.0
-	PLEISTOCENE		CLAY	19.0	6.0
-	MODESTO		LIMESTONE	3.0	25.0
-	MODESTO		SHALE	8.0	28.0
-	MODESTO		BLUE SHALE	46.0	36.0
-	MODESTO		DARK SHALE	69.4	82.0
-	CARBONDALE	DANVILLE	COAL	3.1	151.4
-	CARBONDALE		UNDERCLAY	5.5	154.5
-	CARBONDALE	ENERGY	SANDSTONE	26.0	160.0
-	CARBONDALE	ENERGY	DARK SHALE	58.8	186.0
-	CARBONDALE	HERRIN	COAL	5.8	244.8
-	CARBONDALE		UNDERCLAY	2.4	250.6

MAPID: 18300049000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 15 QUARTERS/FOOTAGES: 1700' S line, 2180' E line of SE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.700896 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.92976 DATE COLLECTED:

SURFACE ELEVATION (FT.): 631.0 LOGGED (FT.): 236.8 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
631.0			UNCONSOLIDATED	81.0	0.0
550.0	MODESTO	FARMINGTON	BLUE SHALE	63.0	81.0
487.0	CARBONDALE	DANVILLE	COAL	2.8	144.0
484.2	CARBONDALE		UNDERCLAY	3.2	146.8
481.0	CARBONDALE		SHALE	21.0	150.0
460.0	CARBONDALE	ENERGY	SANDSTONE	51.0	171.0
409.0	CARBONDALE	ENERGY	BLUE SHALE	8.5	222.0
400.5	CARBONDALE	HERRIN	COAL	5.3	230.5
395.1	CARBONDALE		UNDERCLAY	0.9	235.9

MAPID: 18301689000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 15 QUARTERS/FOOTAGES: 2611' S line, 730' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.695736 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.932271 DATE COLLECTED: 4 / 25 / 1960

SURFACE ELEVATION (FT.): 649.0 LOGGED (FT.): 265.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-27 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
474.5	SHELBURN	DANVILLE	COAL	4.5	174.5
391.3	CARBONDALE	HERRIN	COAL	5.3	257.7

MAPID: 18301689000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 15 QUARTERS/FOOTAGES: 2611' S line, 730' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.695736

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.932271

DATE COLLECTED:

SURFACE ELEVATION (FT.): 649.0 LOGGED (FT.): 263.3

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-27

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
563.4	MODESTO		SHALE & SANDSTONE	90.0	85.6
473.4	CARBONDALE	DANVILLE	COAL	4.5	175.6
468.9	CARBONDALE		CLAYSTONE	3.0	180.1
465.9	CARBONDALE	ENERGY	SILTY SHALE	18.0	183.1
447.9	CARBONDALE	ENERGY	GRAY SHALE	54.4	201.1
393.5	CARBONDALE	ENERGY	CARBONACEOUS SHALE	2.6	255.5
391.0	CARBONDALE	HERRIN	COAL	5.3	258.0

MAPID: 18326420000C VERSION: 1

PROJECT:

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 15 QUARTERS/FOOTAGES: 110' N, 50' E, SW/c NW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.711985

GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 39.932687

DATE COLLECTED: 7 / 20 / 1999

SURFACE ELEVATION (FT.): 658.0 LOGGED (FT.): 300.0

LOG TYPE: Drillers Log

SOURCE: BLACK BEAUTY COAL CO. VGM16

WELL TYPE: Coal Test

COMMENT: RIOLA MINE PERMIT 292 REV5

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
658.0			UNCONSOLIDATED	101.0	0.0
557.0			SANDY SHALE	89.0	101.0
468.0	SHELBURN	DANVILLE	COAL	3.5	190.0
464.5			UNDERCLAY	10.5	193.5
454.0			SANDY SHALE	4.0	204.0
450.0			GRAY SANDSTONE	55.0	208.0
395.0			GRAY SHALE	20.8	263.0
374.2	CARBONDALE	HERRIN	COAL	4.7	283.8
369.5	CARBONDALE	HERRIN	SHALE	0.1	288.5
369.4	CARBONDALE	HERRIN	COAL	1.2	288.6
368.2			UNDERCLAY & LIMESTONE	7.3	289.8
360.9			LIMESTONE	1.6	297.1
359.3			CLAYSTONE & SILTSTONE	1.3	298.7



MAPID: 18300048000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 16    QUARTERS/FOOTAGES: 900' S line, 30' W line of NE

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.72148    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 39.934897    DATE COLLECTED: 9 / 0 / 1908

SURFACE ELEVATION (FT.): 656.0    LOGGED (FT.): 272.0    LOG TYPE: Drillers Log

SOURCE: DERING COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
656.0	PLEISTOCENE		SOIL	2.0	0.0
654.0	PLEISTOCENE		CLAY	7.0	2.0
647.0	PLEISTOCENE		CLAY	4.0	9.0
643.0	PLEISTOCENE		SAND	20.0	13.0
623.0	PLEISTOCENE		CLAY	7.0	33.0
616.0	PLEISTOCENE		CLAY	9.0	40.0
607.0	MODESTO		BLUE SHALE	60.0	49.0
547.0	MODESTO		SHALE	17.0	109.0
530.0	MODESTO		DARK SHALE	43.2	126.0
486.8	CARBONDALE	DANVILLE	COAL	2.8	169.2
484.0	CARBONDALE	ENERGY	DARK SHALE	6.0	172.0
478.0	CARBONDALE	ENERGY	SHALE	19.0	178.0
459.0	CARBONDALE	ENERGY	SANDSTONE	3.0	197.0
456.0	CARBONDALE	ENERGY	SHALE	26.0	200.0
430.0	CARBONDALE	ENERGY	SANDSTONE	29.0	226.0
401.0	CARBONDALE	ENERGY	DARK SHALE	6.0	255.0
395.0	CARBONDALE	HERRIN	COAL	7.0	261.0
388.0	CARBONDALE		UNDERCLAY	2.0	268.0
386.0	CARBONDALE		UNDERCLAY	2.0	270.0

MAPID: 18300094000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 16 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.727543 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.938856 DATE COLLECTED: 7 / 0 / 1909

SURFACE ELEVATION (FT.): 683.0 LOGGED (FT.): 284.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 39 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
683.0	PLEISTOCENE		CLAY	11.0	0.0
672.0	PLEISTOCENE		CLAY	44.0	11.0
628.0	PLEISTOCENE		HARD PAN	10.0	55.0
618.0	PLEISTOCENE		HARD PAN	5.0	65.0
613.0	MODESTO		BLUE SHALE	35.0	70.0
578.0	MODESTO		DARK SHALE	34.0	105.0
544.0	MODESTO		SANDSTONE	8.0	139.0
536.0	MODESTO		DARK SHALE	40.5	147.0
495.5	CARBONDALE	DANVILLE	COAL	3.8	187.5
491.7	CARBONDALE		UNDERCLAY	7.8	191.3
484.0	CARBONDALE	ENERGY	SANDSTONE	6.0	199.0
478.0	CARBONDALE	ENERGY	SANDSTONE	38.0	205.0
440.0	CARBONDALE	ENERGY	SANDSTONE	12.0	243.0
428.0	CARBONDALE	ENERGY	SHALE	20.7	255.0
407.3	CARBONDALE	HERRIN	COAL	6.7	275.7
400.7	CARBONDALE		UNDERCLAY	1.7	282.3

MAPID: 18300857000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 16 QUARTERS/FOOTAGES: 2640' S line, 1320' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.726194 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.932379 DATE COLLECTED: 7 / 0 / 1909

SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 277.2 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL COMPANY 34 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
660.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
650.0	PLEISTOCENE		SAND	8.0	10.0
642.0	PLEISTOCENE		HARD PAN	18.0	18.0
624.0	PLEISTOCENE		SAND	2.0	36.0
622.0	PLEISTOCENE		HARD PAN	24.0	38.0
598.0	PLEISTOCENE		SAND	9.5	62.0
588.5	MODESTO		SANDSTONE	1.5	71.5
587.0	MODESTO		LIGHT SHALE	24.7	73.0
562.3	MODESTO		SANDSTONE	18.6	97.7
543.7	MODESTO		BLUE SHALE	7.7	116.3
536.1	MODESTO		LIGHT SHALE	20.0	123.9
516.1	MODESTO		BLUE SHALE	33.0	143.9
483.1	MODESTO		BLUE SHALE	1.3	176.9
481.8	CARBONDALE	DANVILLE	COAL	2.8	178.2
479.1	CARBONDALE		UNDERCLAY	5.3	180.9
473.8	CARBONDALE	ENERGY	SANDSTONE	51.8	186.2
422.0	CARBONDALE	ENERGY	SANDSTONE	8.0	238.0
414.0	CARBONDALE	ENERGY	GRAY SHALE	7.4	246.0
406.6	CARBONDALE	ENERGY	LIMESTONE	0.9	253.4
405.7	CARBONDALE	ENERGY	LIGHT SHALE	4.7	254.3
401.0	CARBONDALE	ENERGY	BLACK SHALE	10.6	259.0
390.4	CARBONDALE	ENERGY	COAL	0.2	269.6
390.2	CARBONDALE	ENERGY	BLACK SHALE	1.1	269.8
389.1	CARBONDALE	HERRIN	COAL	5.9	270.9
383.2	CARBONDALE		UNDERCLAY	0.4	276.8

MAPID: 18300857000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 16 QUARTERS/FOOTAGES: 2640' S line, 1320' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.726194

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.932379

DATE COLLECTED:

SURFACE ELEVATION (FT.): 660.0

LOGGED (FT.): 276.9

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
571.7	MODESTO		SHALE	90.0	88.3	
481.7	CARBONDALE	DANVILLE	COAL	2.8	178.3	
478.9	CARBONDALE		CLAYSTONE	5.3	181.1	
473.7	CARBONDALE	ENERGY	SANDSTONE	51.8	186.3	
421.9	CARBONDALE	ENERGY	SILTY SHALE	16.3	238.1	
405.5	CARBONDALE	ENERGY	GRAY SHALE	15.3	254.5	
390.2	CARBONDALE	ENERGY	COAL	0.2	269.8	
390.1	CARBONDALE	ENERGY	GRAY SHALE	1.1	269.9	
389.0	CARBONDALE	HERRIN	COAL	5.9	271.0	

MAPID: 18301652000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 17 QUARTERS/FOOTAGES: 2215' N line, 1350' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.74497

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.933645

DATE COLLECTED: 4 / 0 / 1968

SURFACE ELEVATION (FT.): 659.0

LOGGED (FT.): 290.0

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-121

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
473.7	SHELBURN	DANVILLE	COAL	2.8	185.3	REMOVED BY CO.
394.7	CARBONDALE	HERRIN	COAL	6.5	264.3	REMOVED BY CO.
376.2	CARBONDALE	SPRINGFIELD	COAL	0.7	282.8	REMOVED BY CO.

MAPID: 18301690000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 17 QUARTERS/FOOTAGES: 2465' N line, 310' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.732049

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.932991

DATE COLLECTED: 4 / 11 / 1960

SURFACE ELEVATION (FT.): 674.0

LOGGED (FT.): 295.0

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-22

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
476.5	SHELBURN	DANVILLE	COAL	5.0	197.5	
387.0	CARBONDALE	HERRIN	COAL	6.6	287.0	

MAPID: 18301690000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 17 QUARTERS/FOOTAGES: 2465' N line, 310' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.732049 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.932991 DATE COLLECTED:

SURFACE ELEVATION (FT.): 674.0 LOGGED (FT.): 293.6 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-22 WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
566.5	MODESTO		GRAY SHALE	90.0	107.5
476.5	CARBONDALE	DANVILLE	COAL	5.0	197.5
471.5	CARBONDALE		CLAYSTONE	1.5	202.5
470.0	CARBONDALE	ENERGY	SANDSTONE	29.0	204.0
441.0	CARBONDALE	ENERGY	SILTY SHALE	54.0	233.0
387.0	CARBONDALE	HERRIN	COAL	6.6	287.0

MAPID: 18300050000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 20 QUARTERS/FOOTAGES: 480' S line, 75' W line of NE SE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.735186 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.915402 DATE COLLECTED: 9 / 0 / 1908

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 278.0 LOG TYPE: Drillers Log

SOURCE: DERING COAL CO. WELL TYPE: Coal Test

COMMENT: 30' BELOW AVE. LEVEL OF SURROUNDING AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
635.0			UNCONSOLIDATED	79.0	0.0
556.0	MODESTO		SANDSTONE	3.0	79.0
553.0	MODESTO		CLAYSTONE	16.0	82.0
537.0	MODESTO		SANDY SHALE	57.0	98.0
480.0	MODESTO		DARK SHALE	23.3	155.0
456.7	CARBONDALE	DANVILLE	COAL	2.7	178.3
454.0	CARBONDALE		DARK SHALE	2.0	181.0
452.0	CARBONDALE		UNDERCLAY	2.0	183.0
450.0	CARBONDALE		DARK SHALE	3.0	185.0
447.0	CARBONDALE	ENERGY	SANDY SHALE	29.5	188.0
417.5	CARBONDALE	ENERGY	SANDSTONE	1.5	217.5
416.0	CARBONDALE	ENERGY	SHALE	33.0	219.0
383.0	CARBONDALE	ENERGY	SANDY SHALE	18.7	252.0
364.3	CARBONDALE	ENERGY	DARK SHALE	0.7	270.7
363.7	CARBONDALE	HERRIN	COAL	5.7	271.3
358.0	CARBONDALE		DARK SHALE	1.0	277.0

**MAPID:** 18301718000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 12W    **SECTION:** 20    **QUARTERS/FOOTAGES:** 415' N line, 1358' W line  
**QUADRANGLE:** GEORGETOWN    **LONGITUDE:** -87.744891    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.92393    **DATE COLLECTED:** 2 / 5 / 1968  
**SURFACE ELEVATION (FT.):** 676.0    **LOGGED (FT.):** 340.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-101    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
447.6	SHELburn	DANVILLE	COAL	2.9	228.4
361.7	CARBONDALE	HERRIN	COAL	6.8	314.3
340.0	CARBONDALE	SPRINGFIELD	COAL	0.7	336.0

**MAPID:** 18301718000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 12W    **SECTION:** 20    **QUARTERS/FOOTAGES:** 415' N line, 1358' W line  
**QUADRANGLE:** GEORGETOWN    **LONGITUDE:** -87.744891    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.92393    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 676.0    **LOGGED (FT.):** 320.8    **LOG TYPE:** Drillers Log  
**SOURCE:** TRUAX-TRAER COAL CO    RF-101    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
522.8	MODESTO		SILTY SHALE	74.9	153.2
447.9	CARBONDALE	DANVILLE	COAL	2.9	228.1
445.0	CARBONDALE		CLAYSTONE & SHALE	4.2	231.0
440.8	CARBONDALE	ENERGY	SANDSTONE	26.0	235.2
414.8	CARBONDALE	ENERGY	ARGILLACEOUS SANDSTONE	47.3	261.2
367.5	CARBONDALE	ENERGY	SANDSTONE	4.7	308.5
362.9	CARBONDALE	ENERGY	SILTY SHALE	0.9	313.1
362.0	CARBONDALE	HERRIN	COAL	6.8	314.0

**MAPID:** 18301692000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 12W    **SECTION:** 21    **QUARTERS/FOOTAGES:** 124' S line, 63' E line  
**QUADRANGLE:** GEORGETOWN    **LONGITUDE:** -87.71203    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.910827    **DATE COLLECTED:** 10 / 26 / 1959  
**SURFACE ELEVATION (FT.):** 650.0    **LOGGED (FT.):** 302.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-6    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
446.1	SHELburn	DANVILLE	COAL	2.8	203.9
358.0	CARBONDALE	HERRIN	COAL	5.2	292.0

MAPID: 18301692000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 21 QUARTERS/FOOTAGES: 124' S line, 63' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.71203 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.910827 DATE COLLECTED:

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 297.2 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-6 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
536.1	MODESTO		GRAY SHALE	90.0	113.9
446.1	CARBONDALE	DANVILLE	COAL	2.8	203.9
443.3	CARBONDALE		CLAYSTONE	5.3	206.7
438.0	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	9.0	212.0
429.0	CARBONDALE	ENERGY	SILTY SHALE	51.0	221.0
378.0	CARBONDALE	ENERGY	GRAY SHALE	11.4	272.0
366.6	CARBONDALE	ENERGY	DARK GRAY SHALE	5.0	283.4
361.6	CARBONDALE	ENERGY	CARBONACEOUS SHALE	3.6	288.4
358.0	CARBONDALE	HERRIN	COAL	5.2	292.0

MAPID: 18301693000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 21 QUARTERS/FOOTAGES: 1980' N line, 1385' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.725751 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.919627 DATE COLLECTED: 1 / 31 / 1968

SURFACE ELEVATION (FT.): 655.0 LOGGED (FT.): 305.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-100 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
473.8	SHELBURN	DANVILLE	COAL	2.7	181.2
377.9	CARBONDALE	HERRIN	COAL	6.8	277.1
354.1	CARBONDALE	SPRINGFIELD	COAL	0.5	300.9

MAPID: 18301694000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 22 QUARTERS/FOOTAGES: 1940' N line, 1380' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.707031 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.91972 DATE COLLECTED: 1 / 25 / 1968

SURFACE ELEVATION (FT.): 657.0 LOGGED (FT.): 330.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-99 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
447.1	SHELBURN	DANVILLE	COAL	2.9	209.9
352.9	CARBONDALE	HERRIN	COAL	5.7	304.1
330.9	CARBONDALE	SPRINGFIELD	COAL	0.8	326.1

MAPID: 18301694000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 22 QUARTERS/FOOTAGES: 1940' N line, 1380' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.707031

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.91972

DATE COLLECTED:

SURFACE ELEVATION (FT.): 657.0 LOGGED (FT.): 309.7

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-99

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
537.2	MODESTO		SILTY SHALE	90.0	119.8
447.2	CARBONDALE	DANVILLE	COAL	2.9	209.8
444.3	CARBONDALE		CLAYSTONE & SHALE	3.7	212.7
440.6	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	2.5	216.4
438.1	CARBONDALE	ENERGY	SILTY SHALE	71.0	218.9
367.1	CARBONDALE	ENERGY	GRAY SHALE	6.5	289.9
360.6	CARBONDALE	ENERGY	CARBONACEOUS SHALE	7.0	296.4
353.6	CARBONDALE	ENERGY	BONE COAL	0.6	303.4
353.0	CARBONDALE	HERRIN	COAL	5.7	304.0

MAPID: 18301695000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 22 QUARTERS/FOOTAGES: 60' N line, 576' W line of NE NE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.695715

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.9249

DATE COLLECTED: 3 / 7 / 1968

SURFACE ELEVATION (FT.): 658.0 LOGGED (FT.): 300.0

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-111

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
482.5	SHELBURN	DANVILLE	COAL	2.9	175.5
391.8	CARBONDALE	HERRIN	COAL	4.6	266.2
373.5	CARBONDALE	SPRINGFIELD	COAL	1.1	284.5

MAPID: 18301645000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 24 QUARTERS/FOOTAGES: 20' S line, 2625' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.664154

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.910373

DATE COLLECTED: 3 / 0 / 1968

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 285.0

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-113

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
508.0	SHELBURN	DANVILLE	COAL	3.1	162.0
413.0	CARBONDALE	HERRIN	COAL	4.3	257.0



MAPID: 18301653000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 24 QUARTERS/FOOTAGES: 42' S line, 367' E line of SE SW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.665619 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.910426 DATE COLLECTED: 5 / 0 / 1968

SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 290.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-125 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
499.7	SHELburn	DANVILLE	COAL	3.2	180.3	REMOVED BY CO.
410.6	CARBONDALE	HERRIN	COAL	3.3	269.4	REMOVED BY CO.
394.7	CARBONDALE	SPRINGFIELD	COAL	0.6	285.3	REMOVED BY CO.

MAPID: 18301696000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 24 QUARTERS/FOOTAGES: 1546' S line, 116' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.673502 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.914538 DATE COLLECTED: 4 / 13 / 1960

SURFACE ELEVATION (FT.): 681.0 LOGGED (FT.): 285.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-23 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
489.0	SHELburn	DANVILLE	COAL	4.5	192.0	
401.2	CARBONDALE	HERRIN	COAL	4.2	279.8	

MAPID: 18301696000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 24 QUARTERS/FOOTAGES: 1546' S line, 116' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.673502 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.914538 DATE COLLECTED:

SURFACE ELEVATION (FT.): 681.0 LOGGED (FT.): 284.2 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-23 WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
578.8	MODESTO		GRAY SHALE	90.0	102.2	
488.8	CARBONDALE	DANVILLE	COAL	4.5	192.2	
484.3	CARBONDALE		CLAYSTONE	1.5	196.7	
482.8	CARBONDALE		SILTY SHALE	6.0	198.2	
476.8	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	26.0	204.2	
450.8	CARBONDALE	ENERGY	SILTY SHALE	8.0	230.2	
442.8	CARBONDALE	ENERGY	SANDSTONE	3.0	238.2	
439.8	CARBONDALE	ENERGY	SILTY SHALE	23.6	241.2	
416.2	CARBONDALE	ENERGY	GRAY SHALE	15.2	264.8	
401.0	CARBONDALE	HERRIN	COAL	4.2	280.0	

MAPID: 18301697000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 24 QUARTERS/FOOTAGES: 63' S line, 173' E line of SE NE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.655472 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.917865 DATE COLLECTED: 3 / 6 / 1968

SURFACE ELEVATION (FT.): 677.0 LOGGED (FT.): 260.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-110 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
534.3	SHELburn	DANVILLE	COAL	3.0	142.7	
445.4	CARBONDALE	HERRIN	COAL	3.3	231.6	

MAPID: 18301644000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 26 QUARTERS/FOOTAGES: 1667' N line, 2572' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.683547 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.905807 DATE COLLECTED: 4 / 0 / 1968

SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 304.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-117 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
488.4	SHELburn	DANVILLE	COAL	3.2	191.6	REMOVED BY CO.
399.8	CARBONDALE	HERRIN	COAL	3.8	280.2	REMOVED BY CO.
382.2	CARBONDALE	SPRINGFIELD	COAL	0.3	297.8	REMOVED BY CO.

MAPID: 18301644000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 26 QUARTERS/FOOTAGES: 1667' N line, 2572' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.683547 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.905807 DATE COLLECTED:

SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 283.8 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-117 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
577.6	MODESTO		SILTY SHALE	90.0	102.4	
487.6	CARBONDALE	DANVILLE	COAL	3.2	192.4	
484.4	CARBONDALE		CLAYSTONE & SHALE	3.8	195.6	
480.7	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	4.0	199.3	
476.7	CARBONDALE	ENERGY	ARGILLACEOUS SANDSTONE	18.8	203.3	
457.9	CARBONDALE	ENERGY	SILTY SHALE	53.5	222.1	
404.4	CARBONDALE	ENERGY	DARK GRAY SHALE	3.8	275.6	
400.6	CARBONDALE	ENERGY	BLACK SHALE	0.3	279.4	
400.3	CARBONDALE	ENERGY	BONE COAL	0.3	279.7	
400.0	CARBONDALE	HERRIN	COAL	3.8	280.0	

MAPID: 18301654000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 27 QUARTERS/FOOTAGES: 1247' S line, 997' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.69619 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.899118 DATE COLLECTED: 5 / 0 / 1968

SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 325.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-126 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.7	SHELBURN	DANVILLE	COAL	3.1	214.3	REMOVED BY CO.
377.2	CARBONDALE	HERRIN	COAL	3.8	302.8	REMOVED BY CO.
358.7	CARBONDALE	SPRINGFIELD	COAL	0.3	321.3	REMOVED BY CO.

MAPID: 18301654000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 27 QUARTERS/FOOTAGES: 1247' S line, 997' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.69619 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.899118 DATE COLLECTED:

SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 306.8 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-126 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
554.2	MODESTO		SILTY SHALE	90.0	125.8
464.2	CARBONDALE	DANVILLE	COAL	3.1	215.8
461.1	CARBONDALE		GRAY SHALE	6.2	218.9
455.0	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	3.1	225.0
451.9	CARBONDALE	ENERGY	SILTY SHALE	52.3	228.1
399.6	CARBONDALE	ENERGY	SILTSTONE	2.6	280.4
397.0	CARBONDALE	ENERGY	GRAY SHALE	12.1	283.0
384.9	CARBONDALE	ENERGY	DARK GRAY SHALE	7.7	295.1
377.2	CARBONDALE	ENERGY	BONE COAL	0.3	302.8
377.0	CARBONDALE	HERRIN	COAL	3.8	303.0

MAPID: 18301698000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 29 QUARTERS/FOOTAGES: 2557' N line, 224' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.748921 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.903308 DATE COLLECTED: 2 / 4 / 1960

SURFACE ELEVATION (FT.): 667.0 LOGGED (FT.): 467.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-16 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
583.0			COAL	2.5	84.0
412.0	SHELBURN	DANVILLE	COAL	4.5	255.0
321.6	CARBONDALE	HERRIN	COAL	6.4	345.4
299.2	CARBONDALE	SPRINGFIELD	COAL	0.1	367.8
217.4			COAL	0.8	449.6

MAPID: 18301698000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 29 QUARTERS/FOOTAGES: 2557' N line, 224' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.748921

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.903308

DATE COLLECTED:

SURFACE ELEVATION (FT.): 667.0 LOGGED (FT.): 351.4

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-16

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
502.3	MODESTO		SILTY SHALE	90.0	164.7
412.3	CARBONDALE	DANVILLE	COAL	4.5	254.7
407.8	CARBONDALE		CLAYSTONE	2.5	259.2
405.3	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	12.0	261.7
393.3	CARBONDALE	ENERGY	SILTY SHALE	71.3	273.7
322.0	CARBONDALE	HERRIN	COAL	6.4	345.0

MAPID: 18301699000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 31 QUARTERS/FOOTAGES: 73' S line, 25' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.749865

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.88118

DATE COLLECTED: 11 / 19 / 1959

SURFACE ELEVATION (FT.): 710.0 LOGGED (FT.): 375.0

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-8

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
415.0	SHELburn	DANVILLE	COAL	2.7	295.0
342.2	CARBONDALE	HERRIN	COAL	4.9	367.8

MAPID: 18301699000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION    TWP/RNG: 17N 12W    SECTION: 31    QUARTERS/FOOTAGES: 73' S line, 25' E line

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.749865

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.88118

DATE COLLECTED:

SURFACE ELEVATION (FT.): 710.0    LOGGED (FT.): 372.9

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO    RF-8

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
504.3	MODESTO		SHALE & SANDSTONE	90.0	205.7
414.3	CARBONDALE	DANVILLE	COAL	2.7	295.7
411.7	CARBONDALE		CLAYSTONE	2.3	298.3
409.3	CARBONDALE	ENERGY	SILTY SHALE	48.0	300.7
361.3	CARBONDALE	ENERGY	GRAY SHALE	8.0	348.7
353.3	CARBONDALE	ENERGY	DARK GRAY SHALE	10.5	356.7
342.8	CARBONDALE	ENERGY	CARBONACEOUS SHALE	0.5	367.2
342.3	CARBONDALE	ENERGY	BLACK SHALE	0.4	367.7
342.0	CARBONDALE	HERRIN	COAL	4.9	368.0

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MAPID: 18300052000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 33 QUARTERS/FOOTAGES: 250' S line, 225' W line of NW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.729748 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.889029 DATE COLLECTED: 9 / 0 / 1908

SURFACE ELEVATION (FT.): 683.0 LOGGED (FT.): 380.0 LOG TYPE: Drillers Log

SOURCE: DERING COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
683.0			UNCONSOLIDATED	34.0	0.0	
649.0	MODESTO		SANDSTONE	35.0	34.0	
614.0	MODESTO		CLAYSTONE	7.9	69.0	
606.1	MODESTO		COAL	1.1	76.9	
605.0	MODESTO		UNDERCLAY	7.0	78.0	
598.0	MODESTO		SHALE	33.0	85.0	
565.0	MODESTO		DARK SHALE	12.0	118.0	
553.0	MODESTO		SANDSTONE	5.0	130.0	
548.0	MODESTO		SANDY SHALE	61.0	135.0	
487.0	MODESTO		BLUE SHALE	7.0	196.0	
480.0	MODESTO		DARK SHALE	42.2	203.0	
437.8	CARBONDALE	DANVILLE	COAL	2.8	245.2	
435.0	CARBONDALE		UNDERCLAY	5.0	248.0	
430.0	CARBONDALE	ENERGY	SHALE	72.5	253.0	
357.5	CARBONDALE	HERRIN	COAL	5.0	325.5	
352.5	CARBONDALE		UNDERCLAY	2.5	330.5	
350.0	CARBONDALE		BLUE SHALE	8.0	333.0	
342.0	CARBONDALE		DARK SHALE	11.0	341.0	
331.0	CARBONDALE		SHALE	28.0	352.0	

MAPID: 18301646000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 33 QUARTERS/FOOTAGES: 1343' N line, 1406' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.725523 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.892019 DATE COLLECTED: 4 / 0 / 1968

SURFACE ELEVATION (FT.): 679.0 LOGGED (FT.): 349.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAEER COAL CO RF-118 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
616.3			COAL	0.3	62.7	REMOVED BY CO.
444.4	SHELBURN	DANVILLE	COAL	3.5	234.6	REMOVED BY CO.
364.9	CARBONDALE	HERRIN	COAL	4.7	314.1	REMOVED BY CO.
345.1	CARBONDALE	SPRINGFIELD	COAL	0.2	333.9	REMOVED BY CO.

MAPID: 18301646000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 33 QUARTERS/FOOTAGES: 1343' N line, 1406' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.725523 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.892019 DATE COLLECTED:

SURFACE ELEVATION (FT.): 679.0 LOGGED (FT.): 318.7 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-118 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
533.8	MODESTO		SILTY SHALE	90.0	145.2
443.8	CARBONDALE	DANVILLE	COAL	3.5	235.2
440.3	CARBONDALE		GRAY SHALE	5.6	238.7
434.7	CARBONDALE		CALCAREOUS SHALE	1.0	244.3
433.7	CARBONDALE	BANKSTON FORK	LIMESTONE	2.9	245.3
430.8	CARBONDALE	ENERGY	SHALE & SANDSTONE	21.2	248.2
409.6	CARBONDALE	ENERGY	SILTY SHALE	28.5	269.4
381.1	CARBONDALE	ENERGY	GRAY SHALE	13.0	297.9
368.1	CARBONDALE	ENERGY	DARK GRAY SHALE	3.0	310.9
365.1	CARBONDALE	ENERGY	CARBONACEOUS SHALE	0.1	313.9
365.0	CARBONDALE	HERRIN	COAL	4.7	314.0

MAPID: 18301700000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 34 QUARTERS/FOOTAGES: 1707' N line, 1268' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.707004 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.89096 DATE COLLECTED: 4 / 15 / 1960

SURFACE ELEVATION (FT.): 693.0 LOGGED (FT.): 333.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-24 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
447.3	SHELBURN	DANVILLE	COAL	2.8	245.7
366.3	CARBONDALE	HERRIN	COAL	3.8	326.7



MAPID: 18301700000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 34 QUARTERS/FOOTAGES: 1707' N line, 1268' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.707004 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.89096 DATE COLLECTED:

SURFACE ELEVATION (FT.): 693.0 LOGGED (FT.): 330.8 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-24 WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
536.7	MODESTO		SILTY SHALE	90.0	156.3
446.7	CARBONDALE	DANVILLE	COAL	2.8	246.3
443.8	CARBONDALE		CLAYSTONE	2.0	249.2
441.8	CARBONDALE		GRAY SHALE	4.5	251.2
437.3	CARBONDALE	BANKSTON FORK	LIMESTONE	0.3	255.7
437.0	CARBONDALE	LAWSON	MOTTLED SHALE	5.0	256.0
432.0	CARBONDALE	ANNA	BLACK SHALE	4.2	261.0
427.9	CARBONDALE	ENERGY	GRAY SHALE	4.5	265.1
423.4	CARBONDALE	ENERGY	SILTY SHALE	49.1	269.6
374.3	CARBONDALE	ENERGY	GRAY SHALE	2.5	318.7
371.8	CARBONDALE	ENERGY	CARBONACEOUS SHALE	5.6	321.2
366.2	CARBONDALE	ENERGY	BLACK SHALE	0.2	326.8
366.0	CARBONDALE	HERRIN	COAL	3.8	327.0

MAPID: 18301701000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 35 QUARTERS/FOOTAGES: 88' N line, 1348' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.687717 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.895408 DATE COLLECTED: 2 / 22 / 1968

SURFACE ELEVATION (FT.): 691.0 LOGGED (FT.): 304.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-106 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
492.8	SHELBURN	DANVILLE	COAL	2.8	198.2
409.7	CARBONDALE	HERRIN	COAL	3.3	281.3
391.1	CARBONDALE	SPRINGFIELD	COAL	0.3	299.9 WITH SULFUR

MAPID: 18301701000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 12W SECTION: 35 QUARTERS/FOOTAGES: 88' N line, 1348' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.687717 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.895408 DATE COLLECTED:

SURFACE ELEVATION (FT.): 691.0 LOGGED (FT.): 284.3 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-106 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
582.0	MODESTO		SILTY SHALE	90.0	109.0
492.0	CARBONDALE	DANVILLE	COAL	1.8	199.0
490.1	CARBONDALE	ENERGY	GRAY SHALE	17.3	200.9
472.9	CARBONDALE	ENERGY	ARGILLACEOUS SANDSTONE	24.8	218.1
448.1	CARBONDALE	ENERGY	SILTY SHALE	37.0	242.9
411.1	CARBONDALE	ENERGY	DARK GRAY SHALE	0.9	279.9
410.2	CARBONDALE	ENERGY	BLACK SHALE	0.3	280.8
410.0	CARBONDALE	HERRIN	COAL	3.3	281.0

MAPID: 18300053000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 1 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: SIDELL LONGITUDE: -87.78316 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.967006 DATE COLLECTED: 10 / 0 / 1908

SURFACE ELEVATION (FT.): 677.0 LOGGED (FT.): 308.0 LOG TYPE: Drillers Log

SOURCE: DERING COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
677.0			UNCONSOLIDATED	165.0	0.0
512.0	MODESTO		SHALE	33.0	165.0
479.0	MODESTO		SANDSTONE	2.0	198.0
477.0	MODESTO		DARK SHALE	31.0	200.0
446.0	MODESTO		SANDSTONE/SHALE	11.0	231.0
435.0	MODESTO		DARK SHALE	27.0	242.0
408.0	CARBONDALE	DANVILLE	COAL	3.0	269.0
405.0	CARBONDALE		SHALE	16.0	272.0
389.0	CARBONDALE	ENERGY	SANDSTONE	8.0	288.0
381.0	CARBONDALE	ENERGY	DARK SHALE	6.0	296.0
375.0	CARBONDALE	HERRIN	COAL	1.7	302.0
373.3	CARBONDALE		SHALE	4.3	303.7

**MAPID:** 18301655000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 1    **QUARTERS/FOOTAGES:** 2611' S line, 2450' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.776712    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.961237    **DATE COLLECTED:** 5 / 0 / 1968  
**SURFACE ELEVATION (FT.):** 677.0    **LOGGED (FT.):** 350.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-130    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
392.6	SHELBURN	DANVILLE	COAL	5.2	284.4	REMOVED BY CO.
360.2	CARBONDALE	HERRIN	COAL	3.8	316.8	REMOVED BY CO.

**MAPID:** 18301655000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 1    **QUARTERS/FOOTAGES:** 2611' S line, 2450' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.776712    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.961237    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 677.0    **LOGGED (FT.):** 320.8    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-130    **WELL TYPE:** Coal Test  
**COMMENT:** POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
479.4	MODESTO		SILTY SHALE	90.0	197.6	
389.4	CARBONDALE	DANVILLE	COAL	5.2	287.6	
384.2	CARBONDALE		GRAY SHALE	7.4	292.8	
376.8	CARBONDALE		SANDSTONE	4.2	300.2	
372.6	CARBONDALE	BANKSTON FORK	LIMESTONE	3.8	304.4	
368.8	CARBONDALE	LAWSON	SHALE	2.8	308.2	
365.9	CARBONDALE	LAWSON	CALCAREOUS SHALE	2.3	311.1	
363.7	CARBONDALE	ANNA	BLACK SHALE	3.7	313.3	
360.0	CARBONDALE	HERRIN	COAL	3.8	317.0	

**MAPID:** 18301662000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 2    **QUARTERS/FOOTAGES:** 89' S line, 551' W line of SE  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.79297    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.953893    **DATE COLLECTED:** 7 / 0 / 1968  
**SURFACE ELEVATION (FT.):** 680.0    **LOGGED (FT.):** 350.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-148    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
401.2	SHELBURN	DANVILLE	COAL	5.3	278.8	REMOVED BY CO.
367.5	CARBONDALE	HERRIN	COAL	4.8	312.5	REMOVED BY CO.
349.7	CARBONDALE	SPRINGFIELD	COAL	0.4	330.3	REMOVED BY CO.

**MAPID:** 18301702000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 2    **QUARTERS/FOOTAGES:** 471' N line, 1055' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.789293    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.967528    **DATE COLLECTED:** 1 / 29 / 1960  
**SURFACE ELEVATION (FT.):** 718.0    **LOGGED (FT.):** 375.5    **LOG TYPE:** Drillers Log  
**SOURCE:** TRUAX-TRAER COAL CO    RF-15    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
423.0	SHELburn	DANVILLE	COAL	3.0	295.0	
398.4	CARBONDALE	HERRIN	COAL	3.5	319.6	

**MAPID:** 18301702000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 2    **QUARTERS/FOOTAGES:** 471' N line, 1055' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.789293    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.967528    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 718.0    **LOGGED (FT.):** 323.5    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-15    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
512.6	MODESTO		SHALE & SANDSTONE	90.0	205.4	
422.6	CARBONDALE	DANVILLE	COAL	3.0	295.4	
419.6	CARBONDALE		CLAYSTONE	5.0	298.4	
414.6	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	7.7	303.4	UPPER BENCH
406.9	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	2.0	311.1	SHALE PARTING
404.9	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	1.3	313.1	LOWER BENCH
403.6	CARBONDALE	LAWSON	MOTTLED SHALE	3.5	314.4	
400.1	CARBONDALE	LAWSON	DARK GRAY SHALE	1.3	317.9	
398.8	CARBONDALE	ANNA	BLACK SHALE	0.8	319.2	
398.0	CARBONDALE	HERRIN	COAL	3.5	320.0	

**MAPID:** 18322971000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 2    **QUARTERS/FOOTAGES:** 50' S line, 100' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.804046    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.953735    **DATE COLLECTED:** 12 / 0 / 1970  
**SURFACE ELEVATION (FT.):** 685.0    **LOGGED (FT.):** 400.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PB-57    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-	-	NO COAL PICKS

**MAPID:** 18301663000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 3    **QUARTERS/FOOTAGES:** 2595' N line, 1389' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.809545    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.961405    **DATE COLLECTED:** 7 / 0 / 1968  
**SURFACE ELEVATION (FT.):** 674.0    **LOGGED (FT.):** 335.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-149    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
578.2			COAL	1.7	95.8	REMOVED BY CO.
536.9			COAL	0.5	137.1	REMOVED BY CO.
401.0	SHELBURN	DANVILLE	COAL	5.3	273.0	REMOVED BY CO.
364.3	CARBONDALE	HERRIN	COAL	4.5	309.7	REMOVED BY CO.

**MAPID:** 18301663000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 3    **QUARTERS/FOOTAGES:** 2595' N line, 1389' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.809545    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.961405    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 674.0    **LOGGED (FT.):** 314.5    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-149    **WELL TYPE:** Coal Test  
**COMMENT:** GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
490.7	MODESTO		SHALE	90.0	183.3	
400.7	CARBONDALE	DANVILLE	COAL	5.3	273.3	
395.3	CARBONDALE		GRAY SHALE	6.2	278.7	
389.2	CARBONDALE		CLAYSTONE	2.5	284.8	
386.7	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	2.0	287.3	UPPER BENCH
384.7	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	10.6	289.3	LOWER BENCH
374.1	CARBONDALE	LAWSON	MOTTLED SHALE	3.0	299.9	
371.1	CARBONDALE	LAWSON	DARK GRAY SHALE	2.0	302.9	
369.1	CARBONDALE	LAWSON	CARBONACEOUS SHALE	3.3	304.9	
365.8	CARBONDALE	ANNA	BLACK SHALE	1.8	308.2	
364.0	CARBONDALE	HERRIN	COAL	4.5	310.0	

**MAPID:** 18301656000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 4    **QUARTERS/FOOTAGES:** 52' S line, 76' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.823205    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.95363    **DATE COLLECTED:** 5 / 0 / 1968  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 365.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-131    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.3			COAL	1.9	49.7	REMOVED BY CO.
370.5	SHELBURN	DANVILLE	COAL	4.5	299.5	REMOVED BY CO.
331.3	CARBONDALE	HERRIN	COAL	4.6	338.7	REMOVED BY CO.
311.8	CARBONDALE	SPRINGFIELD	COAL	0.2	358.2	REMOVED BY CO.

**MAPID:** 18301656000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 4    **QUARTERS/FOOTAGES:** 52' S line, 76' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.823205    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.95363    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 343.6    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-131    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
451.0	MODESTO		SHALE & SANDSTONE	90.0	219.0	
361.0	CARBONDALE	DANVILLE	COAL	4.5	309.0	
356.5	CARBONDALE		GRAY SHALE	4.0	313.5	
352.5	CARBONDALE		CALCAREOUS SHALE	16.0	317.5	
336.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	333.5	
332.0	CARBONDALE	ANNA	BLACK SHALE	1.0	338.0	
331.0	CARBONDALE	HERRIN	COAL	4.6	339.0	

**MAPID:** 18322972000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 4    **QUARTERS/FOOTAGES:** 1430' N line, 50' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.823412    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.964313    **DATE COLLECTED:** 11 / 0 / 1970  
**SURFACE ELEVATION (FT.):** 671.0    **LOGGED (FT.):** 371.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PB-48    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-	-	NO COAL PICKS

**MAPID:** 18301703000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 5    **QUARTERS/FOOTAGES:** 59' S line, 44' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.842012    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.953446    **DATE COLLECTED:** 3 / 1 / 1960  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 363.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-18    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
456.0			COAL	1.0	214.0	
352.5	SHELBURN	DANVILLE	COAL	2.5	317.5	
313.5	CARBONDALE	HERRIN	COAL	4.9	356.5	

**MAPID:** 18301703000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 5    **QUARTERS/FOOTAGES:** 59' S line, 44' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.842012    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.953446    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 361.9    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-18    **WELL TYPE:** Coal Test  
**COMMENT:** GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
428.7	MODESTO	PIASA	LIMESTONE	4.0	241.3	
424.7	MODESTO		SILTY SHALE	81.0	245.3	
343.7	CARBONDALE	DANVILLE	COAL	2.5	326.3	
341.2	CARBONDALE		CLAYSTONE	2.5	328.8	
338.7	CARBONDALE		SILTY SHALE	4.0	331.3	
334.7	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	8.8	335.3	UPPER BENCH
325.9	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	2.9	344.1	SHALE PARTING
323.0	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	4.1	347.0	LOWER BENCH
318.9	CARBONDALE	LAWSON	DARK GRAY SHALE	3.4	351.1	
315.5	CARBONDALE	ANNA	BLACK SHALE	2.5	354.5	
313.0	CARBONDALE	HERRIN	COAL	4.9	357.0	

**MAPID:** 18322973000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 5    **QUARTERS/FOOTAGES:** 40' S line, 10' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.841891    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.953394    **DATE COLLECTED:** 9 / 0 / 1970  
**SURFACE ELEVATION (FT.):** 667.0    **LOGGED (FT.):** 342.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PB-41    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-	-	NO COAL PICKS

MAPID: 183HCSOPB41Z VERSION: 1

PROJECT: CGT-MISC

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 5 QUARTERS/FOOTAGES: 400' S line, 150' E line  
 QUADRANGLE: SIDELL LONGITUDE: -87.842409 GEOLOGIST: C.TREWORY  
 CONFIDENTIAL: N LATITUDE: 39.954387 DATE COLLECTED: 2 / 0 / 1974  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 356.0 LOG TYPE: Company map  
 SOURCE: HYDROCARBON SURVEY NO.PB-41 WELL TYPE: Coal Test  
 COMMENT: ISGS MAP LIBRARY 4103 i5, 1-27&28

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	152.0	0.0	
-			ROCK	200.0	152.0	
-	CARBONDALE	HERRIN	COAL	4.0	352.0	COAL THICKER THAN 4'

MAPID: 18301664000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 8 QUARTERS/FOOTAGES: 115' S line, 40' W line  
 QUADRANGLE: SIDELL LONGITUDE: -87.860731 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 39.938914 DATE COLLECTED: 4 / 0 / 1968  
 SURFACE ELEVATION (FT.): 672.0 LOGGED (FT.): 375.0 LOG TYPE: Survey Core Study  
 SOURCE: TRUAX-TRAER COAL CO RF-136 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.1			COAL	0.5	96.9	REMOVED BY CO.
559.0			COAL	0.7	113.0	REMOVED BY CO.
533.8			COAL	2.8	138.2	REMOVED BY CO.
460.2			COAL	0.5	211.8	REMOVED BY CO.
361.5	SHELBURN	DANVILLE	COAL	5.1	310.5	REMOVED BY CO.
323.3	CARBONDALE	HERRIN	COAL	3.3	348.7	REMOVED BY CO.
308.0	CARBONDALE	SPRINGFIELD	COAL	0.3	364.0	REMOVED BY CO.



MAPID: 18301664000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 8 QUARTERS/FOOTAGES: 115' S line, 40' W line

QUADRANGLE: SIDELL LONGITUDE: -87.860731

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.938914

DATE COLLECTED:

SURFACE ELEVATION (FT.): 672.0 LOGGED (FT.): 352.3

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-136

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
407.9	MODESTO	PIASA	LIMESTONE	1.3	264.1	
406.7	MODESTO		SILTY SHALE	45.5	265.3	
361.2	CARBONDALE	DANVILLE	COAL	5.1	310.8	
356.1	CARBONDALE		GRAY SHALE	6.5	315.9	
349.6	CARBONDALE	GALUM	CALCAREOUS SHALE	2.0	322.4	
347.6	CARBONDALE		SHALE & SANDSTONE	10.9	324.4	
336.7	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	3.0	335.3	UPPER BENCH
333.7	CARBONDALE	BANKSTON FORK	LIMESTONE AND SANDSTONE	1.5	338.3	LOWER BENCH
332.2	CARBONDALE	LAWSON	CALCAREOUS SHALE	2.5	339.8	
329.7	CARBONDALE	LAWSON	MOTTLED SHALE	6.4	342.3	
323.3	CARBONDALE	ANNA	LIMESTONE W/ SHALE	0.3	348.7	
323.0	CARBONDALE	HERRIN	COAL	3.3	349.0	

MAPID: 18301665000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 8 QUARTERS/FOOTAGES: 694' N line, 59' E line of SW

QUADRANGLE: SIDELL LONGITUDE: -87.851588

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.944026

DATE COLLECTED: 6 / 0 / 1968

SURFACE ELEVATION (FT.): 662.0 LOGGED (FT.): 379.0

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-137

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
345.6	SHELBURN	DANVILLE	COAL	4.8	316.4	REMOVED BY CO.
306.2	CARBONDALE	HERRIN	COAL	4.9	355.8	REMOVED BY CO.
287.2	CARBONDALE	SPRINGFIELD	COAL	0.3	374.8	REMOVED BY CO.

**MAPID:** 18301666000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 8    **QUARTERS/FOOTAGES:** 31' N line, 44' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.84201    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.953197    **DATE COLLECTED:** 7 / 0 / 1968  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 379.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-139    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
353.8	SHELburn	DANVILLE	COAL	5.3	316.2	REMOVED BY CO.
312.5	CARBONDALE	HERRIN	COAL	4.7	357.5	REMOVED BY CO.
297.2	CARBONDALE	SPRINGFIELD	COAL	0.3	372.8	REMOVED BY CO.

**MAPID:** 18322974000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 8    **QUARTERS/FOOTAGES:** 40' S line, 10' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.86084    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.938709    **DATE COLLECTED:** 11 / 0 / 1970  
**SURFACE ELEVATION (FT.):** 672.0    **LOGGED (FT.):** 444.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PB-47    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-	-	NO COAL PICKS

**MAPID:** 183HCSOPB47Z    **VERSION:** 1    **PROJECT:** CGT-MISC  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 8    **QUARTERS/FOOTAGES:** 250' S line, 200' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.860155    **GEOLOGIST:** C.TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.93929    **DATE COLLECTED:** 2 / 0 / 1974  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 347.0    **LOG TYPE:** Company map  
**SOURCE:** HYDROCARBON SURVEY NO. PB-47    **WELL TYPE:** Coal Test  
**COMMENT:** ISGS MAP LIBRARY 4103 i5, 1-27&28

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	62.0	0.0	
-			ROCK	281.0	62.0	
-	CARBONDALE	HERRIN	COAL	4.0	343.0	

**MAPID:** 18322975000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 9    **QUARTERS/FOOTAGES:** 200' S line, 100' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.823235    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.939401    **DATE COLLECTED:** 12 / 0 / 1970  
**SURFACE ELEVATION (FT.):** 673.0    **LOGGED (FT.):** 400.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PA-50    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

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

- NO COAL PICKS

**MAPID:** 18301658000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 27' S line, 57' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.785413    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.939216    **DATE COLLECTED:** 5 / 0 / 1968  
**SURFACE ELEVATION (FT.):** 672.0    **LOGGED (FT.):** 358.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAEER COAL CO    RF-128    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

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

385.7	SHELBURN	DANVILLE	COAL	4.7	286.3	REMOVED BY CO.
343.3	CARBONDALE	HERRIN	COAL	5.4	328.7	REMOVED BY CO.
324.0	CARBONDALE	SPRINGFIELD	COAL	0.6	348.0	REMOVED BY CO.

MAPID: 18301658000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 11 QUARTERS/FOOTAGES: 27' S line, 57' E line

QUADRANGLE: SIDELL LONGITUDE: -87.785413 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.939216 DATE COLLECTED:

SURFACE ELEVATION (FT.): 672.0 LOGGED (FT.): 334.4 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-128 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
475.4	MODESTO		SILTY SHALE	90.0	196.6	
385.4	CARBONDALE	DANVILLE	COAL	4.7	286.6	
380.7	CARBONDALE		GRAY SHALE	4.9	291.3	
375.8	CARBONDALE	GALUM	CALCAREOUS SHALE	2.1	296.2	
373.7	CARBONDALE		SANDSTONE	8.1	298.3	
365.6	CARBONDALE	BANKSTON FORK	LIMESTONE AND SANDSTONE	4.4	306.4	UPPER BENCH
361.2	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	4.0	310.8	SHALE PARTING
357.2	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	2.5	314.8	LOWER BENCH
354.7	CARBONDALE	LAWSON	MOTTLED SHALE	2.5	317.3	
352.2	CARBONDALE	ANNA	BLACK SHALE	9.2	319.8	
343.0	CARBONDALE	HERRIN	COAL	5.4	329.0	

MAPID: 18301659000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 11 QUARTERS/FOOTAGES: 1430' N line, 38' W line of SW NE

QUADRANGLE: SIDELL LONGITUDE: -87.794664 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.946047 DATE COLLECTED: 5 / 0 / 1968

SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 334.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-129 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.3			COAL	0.3	71.7	REMOVED BY CO.
562.1			COAL	0.7	117.9	REMOVED BY CO.
422.8	SHELBURN	DANVILLE	COAL	5.7	257.2	REMOVED BY CO.
383.7	CARBONDALE	HERRIN	COAL	5.1	296.3	REMOVED BY CO.
363.9	CARBONDALE	SPRINGFIELD	COAL	0.3	316.1	REMOVED BY CO.

MAPID: 18300054000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 12 QUARTERS/FOOTAGES: SW SE SW

QUADRANGLE: SIDELL LONGITUDE: -87.779354 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.94018 DATE COLLECTED: 10 / 0 / 1908

SURFACE ELEVATION (FT.): 672.0 LOGGED (FT.): 302.0 LOG TYPE: Drillers Log

SOURCE: DERING COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
672.0			UNCONSOLIDATED	165.0	0.0	
507.0			SHALE	75.0	165.0	
432.0			UNCLASSIFIED	2.0	240.0	
430.0			BLUE SHALE	5.0	242.0	
425.0			UNCLASSIFIED	13.0	247.0	
412.0			DARK SHALE	25.0	260.0	
387.0	CARBONDALE		BLACK SHALE	1.0	285.0	
386.0	CARBONDALE		DARK SHALE	4.0	286.0	
382.0	CARBONDALE		BLACK SHALE	7.0	290.0	
375.0	CARBONDALE	HERRIN	COAL	4.5	297.0	
370.5	CARBONDALE		DARK SHALE	0.5	301.5	

MAPID: 18301667000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 12 QUARTERS/FOOTAGES: 2610' S line, 2113' E line

QUADRANGLE: SIDELL LONGITUDE: -87.774083 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.946571 DATE COLLECTED: 7 / 0 / 1968

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 350.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-146 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
393.7	SHELBURN	DANVILLE	COAL	5.3	276.3	REMOVED BY CO.
353.0	CARBONDALE	HERRIN	COAL	5.4	317.0	REMOVED BY CO.

MAPID: 18301667000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION    TWP/RNG: 17N 13W    SECTION: 12    QUARTERS/FOOTAGES: 2610' S line, 2113' E line

QUADRANGLE: SIDELL    LONGITUDE: -87.774083    GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.946571    DATE COLLECTED:

SURFACE ELEVATION (FT.): 670.0    LOGGED (FT.): 322.4    LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO    RF-146    WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
484.7	MODESTO		DARK GRAY SHALE	90.0	185.3	
394.7	CARBONDALE	DANVILLE	COAL	5.3	275.3	
389.3	CARBONDALE		CLAYSTONE & SHALE	3.3	280.7	
386.0	CARBONDALE		GRAY SHALE	3.3	284.0	
382.7	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	19.7	287.3	
363.0	CARBONDALE	LAWSON	CALCAREOUS SHALE	0.6	307.0	
362.4	CARBONDALE	ANNA	BLACK SHALE	9.5	307.6	
353.0	CARBONDALE	HERRIN	COAL	5.4	317.0	

MAPID: 18301668000C    VERSION: 1

PROJECT: CONF

COUNTY: VERMILION    TWP/RNG: 17N 13W    SECTION: 13    QUARTERS/FOOTAGES: 2529' N line, 2602' W line

QUADRANGLE: SIDELL    LONGITUDE: -87.775796    GEOLOGIST: LOG BOOK

CONFIDENTIAL: N    LATITUDE: 39.93236    DATE COLLECTED: 7 / 0 / 1968

SURFACE ELEVATION (FT.): 673.0    LOGGED (FT.): 364.0    LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO    RF-145    WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
567.2			COAL	0.7	105.8	REMOVED BY CO.
381.4	SHELBURN	DANVILLE	COAL	5.0	291.6	REMOVED BY CO.
331.3	CARBONDALE	HERRIN	COAL	6.8	341.7	REMOVED BY CO.
312.8	CARBONDALE	SPRINGFIELD	COAL	1.9	360.2	REMOVED BY CO.

MAPID: 18301668000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 13 QUARTERS/FOOTAGES: 2529' N line, 2602' W line

QUADRANGLE: SIDELL LONGITUDE: -87.775796 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.93236 DATE COLLECTED:

SURFACE ELEVATION (FT.): 673.0 LOGGED (FT.): 348.8 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-145 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
583.0	MODESTO		SILTY SHALE	201.6	90.0	
381.4	CARBONDALE	DANVILLE	COAL	5.0	291.6	
376.4	CARBONDALE		GRAY SHALE	5.9	296.6	
370.5	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	1.5	302.5	UPPER BENCH
369.0	CARBONDALE	BANKSTON FORK	SILTY SHALE	3.8	304.0	SHALE PARTING
365.2	CARBONDALE	BANKSTON FORK	LIMESTONE AND SANDSTONE	3.8	307.8	LOWER BENCH
361.4	CARBONDALE	ENERGY	SILTY SHALE	7.2	311.6	
354.2	CARBONDALE	ENERGY	SANDSTONE/SILTSTONE	1.1	318.8	
353.1	CARBONDALE	ENERGY	SILTSTONE	10.1	319.9	
343.0	CARBONDALE	ENERGY	SILTY SHALE	11.1	330.0	
331.7	CARBONDALE	ENERGY	DARK GRAY SHALE	0.6	341.3	
331.3	CARBONDALE	HERRIN	COAL	6.8	341.7	

MAPID: 18301669000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 13 QUARTERS/FOOTAGES: 53' S line, 125' E line

QUADRANGLE: SIDELL LONGITUDE: -87.766696 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.924956 DATE COLLECTED: 7 / 0 / 1968

SURFACE ELEVATION (FT.): 677.0 LOGGED (FT.): 371.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-147 WELL TYPE: Coal Test

COMMENT: ELEV ADDED, FROM DEM

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
594.2			COAL	0.5	82.8	REMOVED BY CO.
333.8	CARBONDALE	HERRIN	COAL	7.0	343.2	REMOVED BY CO.
313.0	CARBONDALE	SPRINGFIELD	COAL	0.3	364.0	REMOVED BY CO.

**MAPID:** 18301704000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 1324' S line, 2582' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.794804    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.92796    **DATE COLLECTED:** 3 / 30 / 1960  
**SURFACE ELEVATION (FT.):** 674.0    **LOGGED (FT.):** 363.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-20    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
554.0			COAL	1.0	120.0
514.0			COAL	3.0	160.0
366.2	SHELburn	DANVILLE	COAL	4.3	307.8
319.2	CARBONDALE	HERRIN	COAL	6.0	354.8

**MAPID:** 18301704000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 1324' S line, 2582' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.794804    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.92796    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 674.0    **LOGGED (FT.):** 361.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-20    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
456.2	MODESTO		SHALE	90.0	217.8
366.2	CARBONDALE	DANVILLE	COAL	4.3	307.8
361.9	CARBONDALE		CLAYSTONE	1.9	312.1
360.0	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	22.8	314.0
337.2	CARBONDALE	LAWSON	MOTTLED SHALE	4.6	336.8
332.6	CARBONDALE	ANNA	BLACK SHALE	0.5	341.4
332.1	CARBONDALE	ENERGY	DARK GRAY SHALE	2.1	341.9
330.0	CARBONDALE	ENERGY	GRAY SHALE	11.0	344.0
319.0	CARBONDALE	HERRIN	COAL	6.0	355.0

**MAPID:** 18322976000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 1400' S line, 700' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.801552    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.928096    **DATE COLLECTED:** 9 / 0 / 1970  
**SURFACE ELEVATION (FT.):** 667.0    **LOGGED (FT.):** 372.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PA-28    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-				-	NO COAL PICKS



**MAPID:** 18301705000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 16    **QUARTERS/FOOTAGES:** 2422' N line, 2536' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.832729    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.932088    **DATE COLLECTED:** 1 / 21 / 1960  
**SURFACE ELEVATION (FT.):** 671.0    **LOGGED (FT.):** 346.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-14    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
387.0	SHELburn	DANVILLE	COAL	4.0	284.0	
347.8	CARBONDALE	HERRIN	COAL	5.3	323.2	
329.2	CARBONDALE	SPRINGFIELD	COAL	1.7	341.8	

**MAPID:** 18301705000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 16    **QUARTERS/FOOTAGES:** 2422' N line, 2536' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.832729    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.932088    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 671.0    **LOGGED (FT.):** 328.3    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-14    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
476.9	MODESTO		SHALE & SANDSTONE	90.0	194.1	
386.9	CARBONDALE	DANVILLE	COAL	4.0	284.1	
382.9	CARBONDALE		CLAYSTONE	3.0	288.1	
379.9	CARBONDALE		SILTY SHALE	9.0	291.1	
370.9	CARBONDALE	BANKSTON FORK	LIMESTONE	10.0	300.1	
360.9	CARBONDALE	LAWSON	MOTTLED SHALE	0.9	310.1	
360.0	CARBONDALE	BRERETON	LIMESTONE	3.3	311.0	
356.7	CARBONDALE	ANNA	BLACK SHALE	8.8	314.3	
348.0	CARBONDALE	HERRIN	COAL	5.3	323.0	

**MAPID:** 18301660000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 17    **QUARTERS/FOOTAGES:** 2615' S line, 2582' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.851561    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.931151    **DATE COLLECTED:** 5 / 0 / 1968  
**SURFACE ELEVATION (FT.):** 660.0    **LOGGED (FT.):** 360.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-133    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
366.8	SHELburn	DANVILLE	COAL	4.9	293.2	REMOVED BY CO.
327.4	CARBONDALE	HERRIN	COAL	4.0	332.6	REMOVED BY CO.
308.7	CARBONDALE	SPRINGFIELD	COAL	0.2	351.3	REMOVED BY CO.

MAPID: 1830166000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 17 QUARTERS/FOOTAGES: 2615' S line, 2582' W line

QUADRANGLE: SIDELL LONGITUDE: -87.851561

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.931151

DATE COLLECTED:

SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 337.1

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-133

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
456.0	MODESTO		SHALE & SANDSTONE	90.0	204.0	
366.0	CARBONDALE	DANVILLE	COAL	4.9	294.0	
361.1	CARBONDALE		GRAY SHALE	9.7	298.9	
351.4	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	3.3	308.6	UPPER BENCH
348.2	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	7.5	311.8	SHALE PARTING
340.7	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	7.0	319.3	LOWER BENCH
333.7	CARBONDALE	LAWSON	CALCAREOUS SHALE	4.2	326.3	
329.5	CARBONDALE	BRERETON	NODULAR LIMESTONE	1.3	330.5	
328.2	CARBONDALE	ANNA	BLACK SHALE	1.2	331.8	
327.0	CARBONDALE	HERRIN	COAL	4.1	333.0	

MAPID: 18300055000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 18 QUARTERS/FOOTAGES: 330' N line, 330' W line

QUADRANGLE: ALLERTON LONGITUDE: -87.880292

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.93739

DATE COLLECTED:

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 377.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0	MODESTO		SHALE	90.0	240.0	
340.0	CARBONDALE	DANVILLE	COAL	3.0	330.0	
337.0	CARBONDALE		GRAY SHALE	6.0	333.0	
331.0	CARBONDALE	BANKSTON FORK	LIMESTONE	13.0	339.0	
318.0	CARBONDALE	LAWSON	GRAY SHALE	10.0	352.0	
308.0	CARBONDALE	ANNA	BLACK SHALE	9.0	362.0	
299.0	CARBONDALE	HERRIN	COAL	6.0	371.0	

**MAPID:** 18301670000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 19    **QUARTERS/FOOTAGES:** 139' N line, 40' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.860896    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.923458    **DATE COLLECTED:** 7 / 0 / 1968  
**SURFACE ELEVATION (FT.):** 668.0    **LOGGED (FT.):** 395.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-144    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
350.4	SHELburn	DANVILLE	COAL	5.3	317.6	REMOVED BY CO.
308.4	CARBONDALE	HERRIN	COAL	5.7	359.6	REMOVED BY CO.
287.8	CARBONDALE	SPRINGFIELD	COAL	2.0	380.2	REMOVED BY CO.

**MAPID:** 18301670000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 19    **QUARTERS/FOOTAGES:** 139' N line, 40' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.860896    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.923458    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 668.0    **LOGGED (FT.):** 365.7    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-144    **WELL TYPE:** Coal Test  
**COMMENT:** GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
414.0	MODESTO	PIASA	LIMESTONE AND SANDSTONE	2.0	254.0	
412.0	MODESTO		DARK GRAY SHALE	61.9	256.0	
350.1	CARBONDALE	DANVILLE	COAL	5.3	317.9	
344.7	CARBONDALE		CLAYSTONE	8.6	323.3	
336.2	CARBONDALE		ARGILLACEOUS SANDSTONE	4.1	331.8	
332.1	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	7.9	335.9	UPPER BENCH
324.3	CARBONDALE	BANKSTON FORK	DARK GRAY SHALE	4.8	343.7	SHALE PARTING
319.5	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	7.3	348.5	LOWER BENCH
312.2	CARBONDALE	ANNA	BLACK SHALE	4.1	355.8	
308.0	CARBONDALE	HERRIN	COAL	5.7	360.0	

**MAPID:** 18301661000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 20    **QUARTERS/FOOTAGES:** 2359' N line, 2563' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.851526    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.917429    **DATE COLLECTED:** 5 / 0 / 1968  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 394.8    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-134    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
469.6			COAL	0.2	200.4	REMOVED BY CO.
346.1	SHELBURN	DANVILLE	COAL	4.9	323.9	REMOVED BY CO.
304.7	CARBONDALE	HERRIN	COAL	4.9	365.3	REMOVED BY CO.
286.5	CARBONDALE	SPRINGFIELD	COAL	2.2	383.5	REMOVED BY CO.

**MAPID:** 18301661000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 20    **QUARTERS/FOOTAGES:** 2359' N line, 2563' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.851526    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.917429    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 369.9    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-134    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
409.0	MODESTO	PIASA	LIMESTONE AND SANDSTONE	3.7	261.0	
405.4	MODESTO		SHALE & SANDSTONE	54.9	264.6	
350.5	CARBONDALE	DANVILLE	COAL	4.9	319.5	
345.5	CARBONDALE		GRAY SHALE	7.3	324.5	
338.2	CARBONDALE		GRAY SHALE	3.1	331.8	
335.1	CARBONDALE		SANDSTONE	4.8	334.9	
330.3	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	2.0	339.7	UPPER BENCH
328.3	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	5.5	341.7	SHALE PARTING
322.8	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	7.5	347.2	LOWER BENCH
315.3	CARBONDALE	LAWSON	CALCAREOUS SHALE	3.1	354.7	
312.2	CARBONDALE	LAWSON	DARK GRAY SHALE	1.8	357.8	
310.4	CARBONDALE	BRERETON	NODULAR LIMESTONE	0.8	359.6	
309.6	CARBONDALE	ANNA	BLACK SHALE	4.6	360.4	
305.0	CARBONDALE	HERRIN	COAL	4.9	365.0	

**MAPID:** 18322977000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 21    **QUARTERS/FOOTAGES:** 300' S line, 300' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.823678    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.910566    **DATE COLLECTED:** 12 / 0 / 1970  
**SURFACE ELEVATION (FT.):** 685.0    **LOGGED (FT.):** 400.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PB-52    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
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-    -    NO COAL PICKS

**MAPID:** 18301447000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 22    **QUARTERS/FOOTAGES:** 210' N line, 466' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.820816    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.923621    **DATE COLLECTED:** 6 / 4 / 1968  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 632.5    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-135    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
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348.5	CARBONDALE	HERRIN	COAL	5.2	321.5
330.5	CARBONDALE	SPRINGFIELD	COAL	1.3	339.5
270.0	CARBONDALE	HOUCHIN CREEK	COAL	1.7	400.0
198.4	CARBONDALE	COLCHESTER	COAL	1.5	471.6
170.9			COAL	1.4	499.1
157.6			COAL	0.3	512.4
156.5			COAL	0.3	513.5
113.9			COAL	1.0	556.1
91.3			COAL	0.4	578.7

MAPID: 18301447000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 22 QUARTERS/FOOTAGES: 210' N line, 466' W line

QUADRANGLE: SIDELL LONGITUDE: -87.820816 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.923621 DATE COLLECTED:

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 327.2 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-135 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
478.8	MODESTO		SHALE & SANDSTONE	90.0	191.2	
388.8	CARBONDALE	DANVILLE	COAL	5.5	281.2	
383.3	CARBONDALE		GRAY SHALE	2.5	286.7	
380.8	CARBONDALE	GALUM	CALCAREOUS SHALE	2.2	289.2	
378.7	CARBONDALE		SANDSTONE	3.9	291.3	
374.7	CARBONDALE	BANKSTON FORK	LIMESTONE AND SANDSTONE	3.0	295.3	UPPER BENCH
371.7	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	12.0	298.3	LOWER BENCH
359.7	CARBONDALE	LAWSON	LIMESTONE W/ SHALE	0.3	310.3	
359.5	CARBONDALE	LAWSON	CALCAREOUS SHALE	8.0	310.5	
351.5	CARBONDALE	LAWSON	DARK GRAY SHALE	1.5	318.5	
350.0	CARBONDALE	ANNA	BLACK SHALE	2.0	320.0	
348.0	CARBONDALE	HERRIN	COAL	5.2	322.0	

MAPID: 18322978000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 22 QUARTERS/FOOTAGES: 27' S line, 2640' W line

QUADRANGLE: SIDELL LONGITUDE: -87.813147 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.909828 DATE COLLECTED: 6 / 0 / 1971

SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 409.0 LOG TYPE: Electric Log

SOURCE: HYDROCARBON SURVEY PD-27 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-	-	NO COAL PICKS

**MAPID:** 18301706000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 23    **QUARTERS/FOOTAGES:** 2537' N line, 731' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.787615    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.917388    **DATE COLLECTED:** 2 / 7 / 1968  
**SURFACE ELEVATION (FT.):** 682.0    **LOGGED (FT.):** 408.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-102    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
569.0			COAL	0.8	113.0	
499.2			COAL	0.5	182.8	
361.7	SHELBURN	DANVILLE	COAL	4.7	320.3	
305.5	CARBONDALE	HERRIN	COAL	6.6	376.5	
284.5	CARBONDALE	SPRINGFIELD	COAL	0.2	397.5	

**MAPID:** 18301706000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 23    **QUARTERS/FOOTAGES:** 2537' N line, 731' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.787615    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.917388    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 682.0    **LOGGED (FT.):** 383.6    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-102    **WELL TYPE:** Coal Test  
**COMMENT:** POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
451.2	MODESTO		SILTY SHALE	90.0	230.8	
361.2	CARBONDALE	DANVILLE	COAL	4.7	320.8	
356.5	CARBONDALE		CLAYSTONE	0.2	325.5	
356.3	CARBONDALE		SILTY SHALE	9.9	325.7	
346.4	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	1.9	335.6	UPPER BENCH
344.5	CARBONDALE	BANKSTON FORK	SILTY SHALE	5.5	337.5	SHALE PARTING
339.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.7	343.0	LOWER BENCH
335.3	CARBONDALE	ENERGY	SILTY SHALE	28.7	346.7	
306.6	CARBONDALE	ENERGY	CARBONACEOUS SHALE	1.6	375.4	
305.0	CARBONDALE	HERRIN	COAL	6.6	377.0	

**MAPID:** 18322979000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 23    **QUARTERS/FOOTAGES:** 100' S line, 100' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.785339    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.91007    **DATE COLLECTED:** 12 / 0 / 1970  
**SURFACE ELEVATION (FT.):** 690.0    **LOGGED (FT.):** 420.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PB-54    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

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

-    -    NO COAL PICKS

**MAPID:** 18301707000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 24    **QUARTERS/FOOTAGES:** 2595' S line, 1662' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.7721    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.91711    **DATE COLLECTED:** 11 / 24 / 1959  
**SURFACE ELEVATION (FT.):** 682.0    **LOGGED (FT.):** 380.0    **LOG TYPE:** Drillers Log  
**SOURCE:** TRUAX-TRAER COAL CO    RF-9    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

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

375.2	SHELBURN	DANVILLE	COAL	4.2	306.8	
311.2	CARBONDALE	HERRIN	COAL	6.4	370.8	

**MAPID:** 18301707000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 24    **QUARTERS/FOOTAGES:** 2595' S line, 1662' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.7721    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.91711    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 682.0    **LOGGED (FT.):** 377.4    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-9    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

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

465.0	MODESTO		SHALE	90.0	217.0	
375.0	CARBONDALE	DANVILLE	COAL	4.2	307.0	
370.8	CARBONDALE		CLAYSTONE	6.0	311.2	
364.8	CARBONDALE	ENERGY	SILTY SHALE	33.6	317.2	
331.2	CARBONDALE	ENERGY	SILTSTONE	7.9	350.8	
323.3	CARBONDALE	ENERGY	SILTY SHALE	11.2	358.7	
312.1	CARBONDALE	ENERGY	CARBONACEOUS SHALE	1.1	369.9	
311.0	CARBONDALE	HERRIN	COAL	6.4	371.0	



**MAPID:** 1832298000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 25    **QUARTERS/FOOTAGES:** 100' N line, 50' W line of SE  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.77531    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.902338    **DATE COLLECTED:** 12 / 0 / 1970  
**SURFACE ELEVATION (FT.):** 650.0    **LOGGED (FT.):** 400.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PA-52    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
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-    -    NO COAL PICKS

**MAPID:** 18300056000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 26    **QUARTERS/FOOTAGES:** NW SW  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.801285    **GEOLOGIST:** C TREWORYG  
**CONFIDENTIAL:** N    **LATITUDE:** 39.900681    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 657.3    **LOGGED (FT.):** 585.0    **LOG TYPE:** Drillers Log  
**SOURCE:** DR HOLTEN    **WELL TYPE:** Coal Test  
**COMMENT:** DEPTHS OFF +100FT; DEPTH OR LOC IS WRONG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
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657.3	PLEISTOCENE		SOIL	3.0	0.0
654.3	PLEISTOCENE		CLAY	10.0	3.0
644.3	PLEISTOCENE		SAND	42.0	13.0
602.3	PLEISTOCENE		CLAY	110.0	55.0
492.3			RED SHALE	30.0	165.0
462.3			LIGHT SHALE	135.0	195.0
327.3			LIMESTONE	10.0	330.0
317.3			BROWN SHALE	50.0	340.0
267.3	CARBONDALE	DANVILLE	COAL	2.0	390.0
265.3	CARBONDALE		SHALE	63.0	392.0
202.3	CARBONDALE	HERRIN	COAL	7.0	455.0
195.3	CARBONDALE		SHALE	123.0	462.0

**MAPID:** 18301708000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 26    **QUARTERS/FOOTAGES:** 15' N line, 2463' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.7938    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.909735    **DATE COLLECTED:** 2 / 12 / 1968  
**SURFACE ELEVATION (FT.):** 673.0    **LOGGED (FT.):** 395.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-103    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
541.5			COAL	0.8	131.5
493.1			COAL	0.5	179.9
357.0	SHELburn	DANVILLE	COAL	4.4	316.0
302.9	CARBONDALE	HERRIN	COAL	6.0	370.1
282.2	CARBONDALE	SPRINGFIELD	COAL	0.3	390.8

**MAPID:** 18301709000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 26    **QUARTERS/FOOTAGES:** 312' S line, 33' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.803404    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.896093    **DATE COLLECTED:** 2 / 19 / 1968  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 400.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-105    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
489.5			COAL	0.5	180.5
349.4	SHELburn	DANVILLE	COAL	3.4	320.6
298.2	CARBONDALE	HERRIN	COAL	5.9	371.8
277.0	CARBONDALE	SPRINGFIELD	COAL	0.5	393.0

**MAPID:** 18301710000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 26    **QUARTERS/FOOTAGES:** 80' N line, 1501' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.790352    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.909563    **DATE COLLECTED:** 4 / 20 / 1960  
**SURFACE ELEVATION (FT.):** 677.0    **LOGGED (FT.):** 373.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-26    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
571.0			COAL	2.0	106.0
497.0			COAL	3.0	180.0
355.5	SHELburn	DANVILLE	COAL	4.0	321.5
312.0	CARBONDALE	HERRIN	COAL	6.3	365.0

MAPID: 1830171000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 26 QUARTERS/FOOTAGES: 80' N line, 1501' E line

QUADRANGLE: SIDELL LONGITUDE: -87.790352 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.909563 DATE COLLECTED:

SURFACE ELEVATION (FT.): 677.0 LOGGED (FT.): 371.3 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-26 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
443.4	MODESTO		GRAY SHALE	90.0	233.6
353.4	CARBONDALE	DANVILLE	COAL	4.0	323.6
349.4	CARBONDALE		CLAYSTONE	2.5	327.6
346.9	CARBONDALE		DARK GRAY SHALE	14.0	330.1
332.9	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	13.5	344.1
319.4	CARBONDALE	LAWSON	MOTTLED SHALE	0.7	357.6
318.7	CARBONDALE	ANNA	BLACK SHALE	3.0	358.3
315.7	CARBONDALE	ENERGY	DARK GRAY SHALE	0.3	361.3
315.4	CARBONDALE	ENERGY	CARBONACEOUS SHALE	3.4	361.6
312.0	CARBONDALE	HERRIN	COAL	6.3	365.0

MAPID: 18301711000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 27 QUARTERS/FOOTAGES: 105' S line, 2062' W line

QUADRANGLE: SIDELL LONGITUDE: -87.815057 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.895415 DATE COLLECTED: 3 / 18 / 1968

SURFACE ELEVATION (FT.): 677.0 LOGGED (FT.): 400.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-114 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
328.0	SHELburn	DANVILLE	COAL	4.7	349.0
305.4	CARBONDALE	HERRIN	COAL	5.9	371.6
283.7	CARBONDALE	SPRINGFIELD	COAL	0.5	393.3

MAPID: 18301711000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 27 QUARTERS/FOOTAGES: 105' S line, 2062' W line

QUADRANGLE: SIDELL LONGITUDE: -87.815057 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.895415 DATE COLLECTED:

SURFACE ELEVATION (FT.): 677.0 LOGGED (FT.): 377.5 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-114 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
432.5	MODESTO		SILTY SHALE	90.0	244.5
342.5	CARBONDALE	DANVILLE	COAL	4.7	334.5
337.9	CARBONDALE		CLAYSTONE & SHALE	4.5	339.1
333.4	CARBONDALE	GALUM	CALCAREOUS SHALE	3.0	343.6
330.4	CARBONDALE		SANDSTONE	6.0	346.6
324.4	CARBONDALE	BANKSTON FORK	LIMESTONE	6.8	352.6
317.6	CARBONDALE	LAWSON	MOTTLED SHALE	3.0	359.4
314.7	CARBONDALE	LAWSON	SHALE & SILTSTONE	4.5	362.3
310.2	CARBONDALE	LAWSON	DARK GRAY SHALE	1.3	366.8
308.8	CARBONDALE	ANNA	BLACK SHALE	3.9	368.2
305.0	CARBONDALE	HERRIN	COAL	5.5	372.0

MAPID: 18322981000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 27 QUARTERS/FOOTAGES: 42' S line, 195' W line

QUADRANGLE: SIDELL LONGITUDE: -87.821743 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.895176 DATE COLLECTED: 6 / 0 / 1971

SURFACE ELEVATION (FT.): 672.0 LOGGED (FT.): 374.0 LOG TYPE: Electric Log

SOURCE: HYDROCARBON SURVEY PD-28 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-				-	NO COAL PICKS

**MAPID:** 18301671000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 28    **QUARTERS/FOOTAGES:** 119' N line, 19' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.841612    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.909188    **DATE COLLECTED:** 7 / 0 / 1968  
**SURFACE ELEVATION (FT.):** 674.0    **LOGGED (FT.):** 380.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-141    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
553.5			COAL	0.7	120.5	REMOVED BY CO.
532.3			COAL	3.9	141.7	REMOVED BY CO.
503.7			COAL	0.3	170.3	REMOVED BY CO.
485.6			COAL	0.5	188.4	REMOVED BY CO.
361.2	SHELBURN	DANVILLE	COAL	4.4	312.8	REMOVED BY CO.
318.2	CARBONDALE	HERRIN	COAL	5.3	355.8	REMOVED BY CO.
299.6	CARBONDALE	SPRINGFIELD	COAL	0.3	374.4	REMOVED BY CO.

**MAPID:** 18301671000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 28    **QUARTERS/FOOTAGES:** 119' N line, 19' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.841612    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.909188    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 674.0    **LOGGED (FT.):** 361.3    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-141    **WELL TYPE:** Coal Test  
**COMMENT:** GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
461.0	MODESTO	PIASA	LIMESTONE AND SANDSTONE	5.0	213.0	
456.0	MODESTO		SHALE & SANDSTONE	95.3	218.0	
360.7	CARBONDALE	DANVILLE	COAL	4.4	313.3	
356.3	CARBONDALE		CLAYSTONE	7.6	317.7	
348.7	CARBONDALE		SHALE & SANDSTONE	4.8	325.3	
343.9	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	5.8	330.1	UPPER BENCH
338.1	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	1.8	335.9	SHALE PARTING
336.3	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	5.5	337.7	LOWER BENCH
330.8	CARBONDALE	LAWSON	GRAY SHALE	1.5	343.2	
329.3	CARBONDALE	ANNA	BLACK SHALE	10.5	344.7	
318.0	CARBONDALE	HERRIN	COAL	5.3	356.0	

**MAPID:** 18301712000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 235' S line, 25' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.860354    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.895333    **DATE COLLECTED:** 3 / 29 / 1960  
**SURFACE ELEVATION (FT.):** 721.0    **LOGGED (FT.):** 373.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-19    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
515.0			COAL	1.0	206.0	
394.1	SHELBURN	DANVILLE	COAL	4.5	326.9	
355.2	CARBONDALE	HERRIN	COAL	5.8	365.8	

**MAPID:** 18301712000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 235' S line, 25' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.860354    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.895333    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 721.0    **LOGGED (FT.):** 371.8    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-19    **WELL TYPE:** Coal Test  
**COMMENT:** POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
475.6	MODESTO	PIASA	LIMESTONE	7.0	245.4	
468.6	MODESTO		SHALE & SANDSTONE	81.9	252.4	
386.7	CARBONDALE	DANVILLE	COAL	4.1	334.3	
382.6	CARBONDALE		CLAYSTONE	2.6	338.4	
380.0	CARBONDALE		SHALE & SANDSTONE	8.7	341.0	
371.3	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	8.8	349.7	UPPER BENCH
362.5	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	0.5	358.5	SHALE PARTING
362.1	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	1.0	358.9	LOWER BENCH
361.1	CARBONDALE	LAWSON	MOTTLED SHALE	1.1	359.9	
360.0	CARBONDALE	LAWSON	DARK GRAY SHALE	4.0	361.0	
356.0	CARBONDALE	ANNA	BLACK SHALE	1.0	365.0	
355.0	CARBONDALE	HERRIN	COAL	5.8	366.0	

**MAPID:** 18322982000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 100' N line, 100' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.860291    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.909192    **DATE COLLECTED:** 12 / 0 / 1970  
**SURFACE ELEVATION (FT.):** 680.0    **LOGGED (FT.):** 400.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PB-53    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

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

-    -    NO COAL PICKS

**MAPID:** 18322983000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 75' S line, 1200' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.845723    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.895098    **DATE COLLECTED:** 1 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 719.0    **LOGGED (FT.):** 404.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PB-62    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

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

-    -    NO COAL PICKS

**MAPID:** 183HCSOPB53Z    **VERSION:** 1    **PROJECT:** CGT-MISC  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 100' N line, 150' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.860112    **GEOLOGIST:** C.TREWORYG  
**CONFIDENTIAL:** N    **LATITUDE:** 39.909192    **DATE COLLECTED:** 2 / 0 / 1974  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 373.5    **LOG TYPE:** Company map  
**SOURCE:** HYDROCARBON SURVEY NO.PB-53    **WELL TYPE:** Coal Test  
**COMMENT:** ISGS MAP LIBRARY 4103 i5, 1-27&28

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

-			UNCONSOLIDATED	56.0	0.0	
-			ROCK	311.0	56.0	
-	CARBONDALE	HERRIN	COAL	6.5	367.0	

MAPID: 183HCSOPB62Z VERSION: 1

PROJECT: CGT-MISC

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 29 QUARTERS/FOOTAGES: 150' S line, 1200' E line  
 QUADRANGLE: SIDELL LONGITUDE: -87.845726 GEOLOGIST: C.TREWORY  
 CONFIDENTIAL: N LATITUDE: 39.895305 DATE COLLECTED: 2 / 0 / 1974  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 392.0 LOG TYPE: Company map  
 SOURCE: HYDROCARBON SURVEY NO.PB-62 WELL TYPE: Coal Test  
 COMMENT: ISGS MAP LIBRARY 4103 i5, 1-27&28

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	164.0	0.0	
-			ROCK	222.0	164.0	
-	CARBONDALE	HERRIN	COAL	6.0	386.0	

MAPID: 18301680000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 30 QUARTERS/FOOTAGES: 86' N line, 2591' E line  
 QUADRANGLE: SIDELL LONGITUDE: -87.869927 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 39.909121 DATE COLLECTED: 8 / 0 / 1968  
 SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 375.0 LOG TYPE: Survey Core Study  
 SOURCE: TRUAX-TRAER COAL CO RF-159 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
379.0	SHELBURN	DANVILLE	COAL	4.7	303.0	REMOVED BY CO.
333.7	CARBONDALE	HERRIN	COAL	3.8	348.3	REMOVED BY CO.
316.5	CARBONDALE	SPRINGFIELD	COAL	2.2	365.5	REMOVED BY CO.



MAPID: 1830168000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 30 QUARTERS/FOOTAGES: 86' N line, 2591' E line

QUADRANGLE: SIDELL LONGITUDE: -87.869927 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.909121 DATE COLLECTED:

SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 351.8 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-159 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
469.1	MODESTO		SILTY SHALE	90.0	212.9	
379.1	CARBONDALE	DANVILLE	COAL	4.7	302.9	
374.5	CARBONDALE		CLAYSTONE & SHALE	8.2	307.5	
366.3	CARBONDALE	GALUM	LIMESTONE	0.7	315.7	
365.6	CARBONDALE		CLAYSTONE & SHALE	4.5	316.4	
361.1	CARBONDALE		SANDSTONE/SILTSTONE	5.9	320.9	
355.3	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	3.5	326.7	UPPER BENCH
351.8	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	8.8	330.2	LOWER BENCH
343.0	CARBONDALE	LAWSON	CALCAREOUS SHALE	7.2	339.0	
335.8	CARBONDALE	LAWSON	DARK GRAY SHALE	1.8	346.2	
334.0	CARBONDALE	HERRIN	COAL	3.8	348.0	

MAPID: 18301681000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 31 QUARTERS/FOOTAGES: 77' N line, 1378' E line

QUADRANGLE: SIDELL LONGITUDE: -87.865373 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.894469 DATE COLLECTED: 8 / 0 / 1968

SURFACE ELEVATION (FT.): 722.0 LOGGED (FT.): 334.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-160 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
452.2	SHELBURN	DANVILLE	COAL	4.8	269.8	REMOVED BY CO.
415.3	CARBONDALE	HERRIN	COAL	5.4	306.7	REMOVED BY CO.
395.0	CARBONDALE	SPRINGFIELD	COAL	2.7	327.0	REMOVED BY CO.

MAPID: 18301681000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 31 QUARTERS/FOOTAGES: 77' N line, 1378' E line

QUADRANGLE: SIDELL LONGITUDE: -87.865373

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.894469

DATE COLLECTED:

SURFACE ELEVATION (FT.): 722.0 LOGGED (FT.): 312.4

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-160

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
516.0	MODESTO	PIASA	LIMESTONE	1.8	206.0
514.2	MODESTO		SHALE	61.7	207.8
452.6	CARBONDALE	DANVILLE	COAL	4.8	269.4
447.7	CARBONDALE		GRAY SHALE	7.1	274.3
440.7	CARBONDALE		SANDSTONE	5.8	281.3
434.8	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	5.6	287.2
429.2	CARBONDALE	LAWSON	SHALE	6.8	292.8
422.4	CARBONDALE	ENERGY	DARK GRAY SHALE	0.9	299.6
421.5	CARBONDALE	ENERGY	MOTTLED SHALE	1.4	300.5
420.1	CARBONDALE	ENERGY	GRAY SHALE	3.4	301.9
416.7	CARBONDALE	ENERGY	CARBONACEOUS SHALE	1.1	305.3
415.0	CARBONDALE	HERRIN	COAL	5.4	307.0

MAPID: 18322180000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 31 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: SIDELL LONGITUDE: -87.866834

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.881032

DATE COLLECTED: 12 / 1 / 1978

SURFACE ELEVATION (FT.): LOGGED (FT.): 363.0

LOG TYPE: Electric Log

SOURCE: FREEMAN UNITED V-2-78

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	SHELburn	DANVILLE	COAL	5.0	264.0
-	CARBONDALE	HERRIN	COAL	3.4	302.0
-	CARBONDALE	SPRINGFIELD	COAL	2.0	323.5

**MAPID:** 18301677000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 32    **QUARTERS/FOOTAGES:** 42' S line, 79' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.841732    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.880553    **DATE COLLECTED:** 8 / 0 / 1968  
**SURFACE ELEVATION (FT.):** 706.0    **LOGGED (FT.):** 410.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-153    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.6	SHELBURN	DANVILLE	COAL	5.0	330.4	REMOVED BY CO.
332.8	CARBONDALE	HERRIN	COAL	4.3	373.2	REMOVED BY CO.
312.9	CARBONDALE	SPRINGFIELD	COAL	2.5	393.1	REMOVED BY CO.

**MAPID:** 18301677000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 32    **QUARTERS/FOOTAGES:** 42' S line, 79' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.841732    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.880553    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 706.0    **LOGGED (FT.):** 377.3    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-153    **WELL TYPE:** Coal Test  
**COMMENT:** GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.7	MODESTO		SILTY SHALE	90.0	240.3	
375.7	CARBONDALE	DANVILLE	COAL	5.0	330.3	
370.7	CARBONDALE		GRAY SHALE	9.7	335.3	
361.1	CARBONDALE		SANDSTONE	3.2	344.9	
357.9	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	9.0	348.1	UPPER BENCH
348.9	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	4.6	357.1	SHALE PARTING
344.3	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	2.2	361.7	LOWER BENCH
342.1	CARBONDALE	LAWSON	MOTTLED SHALE	1.0	363.9	
341.1	CARBONDALE	ANNA	BLACK SHALE	8.1	364.9	
333.0	CARBONDALE	HERRIN	COAL	4.3	373.0	

**MAPID:** 18322984000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 13W    **SECTION:** 32    **QUARTERS/FOOTAGES:** 36' S line, 30' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.841557    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.880539    **DATE COLLECTED:** 6 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 706.0    **LOGGED (FT.):** 418.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PC-34    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-		NO COAL PICKS

MAPID: 183HCS0PC34Z VERSION: 1

PROJECT: CGT-MISC

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 32 QUARTERS/FOOTAGES: 350' S line, 150' E line  
 QUADRANGLE: SIDELL LONGITUDE: -87.841984 GEOLOGIST: C.TREWORY  
 CONFIDENTIAL: N LATITUDE: 39.881398 DATE COLLECTED: 2 / 0 / 1974  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 379.2 LOG TYPE: Company map  
 SOURCE: HYDROCARBON SURVEY NO. PC-34 WELL TYPE: Coal Test  
 COMMENT: ISGS MAP LIBRARY 4103 i5, 1-27&28

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	211.0	0.0	
-			ROCK	163.0	211.0	
-	CARBONDALE	HERRIN	COAL	5.2	374.0	

MAPID: 18301678000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 33 QUARTERS/FOOTAGES: 2538' N line, 2321' W line  
 QUADRANGLE: SIDELL LONGITUDE: -87.83312 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 39.887995 DATE COLLECTED: 8 / 0 / 1968  
 SURFACE ELEVATION (FT.): 685.0 LOGGED (FT.): 395.0 LOG TYPE: Survey Core Study  
 SOURCE: TRUAX-TRAER COAL CO RF-157 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
504.7			COAL	0.8	180.3	REMOVED BY CO.
367.3	SHELBURN	DANVILLE	COAL	5.2	317.7	REMOVED BY CO.
323.8	CARBONDALE	HERRIN	COAL	5.8	361.2	REMOVED BY CO.
300.7	CARBONDALE	SPRINGFIELD	COAL	1.4	384.3	REMOVED BY CO.

MAPID: 18301678000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 33 QUARTERS/FOOTAGES: 2538' N line, 2321' W line

QUADRANGLE: SIDELL LONGITUDE: -87.83312 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.887995 DATE COLLECTED:

SURFACE ELEVATION (FT.): 685.0 LOGGED (FT.): 366.8 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-157 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
458.0	MODESTO		SILTY SHALE	90.0	227.0
368.0	CARBONDALE	DANVILLE	COAL	5.2	317.0
362.9	CARBONDALE		GRAY SHALE	9.8	322.1
353.1	CARBONDALE		SANDSTONE	3.3	331.9
349.8	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	9.2	335.2
340.6	CARBONDALE	LAWSON	CALCAREOUS SHALE	3.4	344.4
337.2	CARBONDALE	LAWSON	MOTTLED SHALE	3.9	347.8
333.3	CARBONDALE	LAWSON	DARK GRAY SHALE	1.1	351.7
332.2	CARBONDALE	LAWSON	MOTTLED SHALE	1.6	352.8
330.6	CARBONDALE	LAWSON	BLACK SHALE	3.0	354.4
327.6	CARBONDALE	ENERGY	SILTY SHALE	0.1	357.4
327.5	CARBONDALE	ENERGY	DARK GRAY SHALE	1.9	357.5
325.6	CARBONDALE	ENERGY	BLACK SHALE	1.6	359.4
324.0	CARBONDALE	HERRIN	COAL	5.8	361.0

MAPID: 18301679000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 34 QUARTERS/FOOTAGES: 28' S line, 427' W line

QUADRANGLE: SIDELL LONGITUDE: -87.821059 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.880801 DATE COLLECTED: 8 / 0 / 1968

SURFACE ELEVATION (FT.): 696.0 LOGGED (FT.): 425.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-158 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
494.3			COAL	0.3	201.7	REMOVED BY CO.
308.6	CARBONDALE	HERRIN	COAL	5.8	387.4	REMOVED BY CO.
286.4	CARBONDALE	SPRINGFIELD	COAL	2.3	409.6	REMOVED BY CO.

MAPID: 18301679000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 34 QUARTERS/FOOTAGES: 28' S line, 427' W line

QUADRANGLE: SIDELL LONGITUDE: -87.821059 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.880801 DATE COLLECTED:

SURFACE ELEVATION (FT.): 696.0 LOGGED (FT.): 392.8 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-158 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
444.3	MODESTO		SILTY SHALE	90.0	251.7
354.3	CARBONDALE	DANVILLE	COAL	5.1	341.7
349.3	CARBONDALE		CLAYSTONE & SHALE	7.2	346.7
342.1	CARBONDALE	GALUM	LIMESTONE AND SANDSTONE	1.8	353.9
340.3	CARBONDALE		SANDSTONE	1.3	355.7
339.0	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	6.7	357.0
332.3	CARBONDALE	LAWSON	CALCAREOUS SHALE	8.0	363.7
324.3	CARBONDALE	LAWSON	DARK GRAY SHALE	1.6	371.7
322.7	CARBONDALE	LAWSON	LIMESTONE	0.3	373.3
322.4	CARBONDALE	ENERGY	SILTY SHALE	3.0	373.6
319.4	CARBONDALE	ENERGY	MOTTLED SHALE	3.0	376.6
316.4	CARBONDALE	ENERGY	UNCLASSIFIED	6.0	379.6
310.4	CARBONDALE	ENERGY	CARBONACEOUS SHALE	1.3	385.6
309.1	CARBONDALE	ENERGY	BONE COAL	0.1	386.9
309.0	CARBONDALE	HERRIN	COAL	5.8	387.0

MAPID: 18301714000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 35 QUARTERS/FOOTAGES: 323' N line, 2434' W line

QUADRANGLE: SIDELL LONGITUDE: -87.79478 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.894351 DATE COLLECTED: 2 / 15 / 1968

SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 420.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-104 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
484.5			COAL	0.9	197.5
349.4	SHELBURN	DANVILLE	COAL	4.3	332.6
289.0	CARBONDALE	HERRIN	COAL	6.1	393.0
270.0	CARBONDALE	SPRINGFIELD	COAL	2.2	412.0

MAPID: 18301714000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 35 QUARTERS/FOOTAGES: 323' N line, 2434' W line

QUADRANGLE: SIDELL LONGITUDE: -87.79478 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.894351 DATE COLLECTED:

SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 399.1 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-104 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
439.4	MODESTO		SILTY SHALE	90.0	242.6	
349.4	CARBONDALE	DANVILLE	COAL	4.3	332.6	
345.1	CARBONDALE		CLAYSTONE & SHALE	3.8	336.9	
341.3	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	4.5	340.7	UPPER BENCH
336.8	CARBONDALE	BANKSTON FORK	SHALE & SANDSTONE	4.1	345.2	SHALE PARTING
332.7	CARBONDALE	BANKSTON FORK	LIMESTONE AND SANDSTONE	1.5	349.3	LOWER BENCH
331.2	CARBONDALE	ENERGY	SILTY SHALE	34.3	350.8	
297.0	CARBONDALE	ENERGY	GRAY SHALE	2.0	385.0	
295.0	CARBONDALE	ENERGY	SILTY SHALE	5.5	387.0	
289.5	CARBONDALE	ENERGY	CARBONACEOUS SHALE	0.5	392.5	
289.0	CARBONDALE	HERRIN	COAL	6.1	393.0	

MAPID: 18301715000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 36 QUARTERS/FOOTAGES: 2336' N line, 1710' W line

QUADRANGLE: SIDELL LONGITUDE: -87.778649 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.88885 DATE COLLECTED: 12 / 19 / 1959

SURFACE ELEVATION (FT.): 686.0 LOGGED (FT.): 394.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-13 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
492.0			COAL	1.6	194.0	
368.0	SHELBURN	DANVILLE	COAL	3.6	318.0	
300.1	CARBONDALE	HERRIN	COAL	6.0	385.9	

MAPID: 18301715000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 13W SECTION: 36 QUARTERS/FOOTAGES: 2336' N line, 1710' W line

QUADRANGLE: SIDELL LONGITUDE: -87.778649 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.88885 DATE COLLECTED:

SURFACE ELEVATION (FT.): 686.0 LOGGED (FT.): 392.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-13 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
458.8	MODESTO		SILTY SHALE	90.0	227.2	
368.8	CARBONDALE	DANVILLE	COAL	3.6	317.2	
365.2	CARBONDALE	ENERGY	SILTY SHALE	51.6	320.8	
313.6	CARBONDALE	ENERGY	GRAY SHALE	10.7	372.4	
302.9	CARBONDALE	ENERGY	SHALE	2.9	383.1	
300.0	CARBONDALE	HERRIN	COAL	6.0	386.0	

MAPID: 18301672000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 14W SECTION: 1 QUARTERS/FOOTAGES: 56' N line, 45' W line

QUADRANGLE: ALLERTON LONGITUDE: -87.900313 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.96729 DATE COLLECTED: 7 / 0 / 1968

SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 380.0 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-140 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
619.0			COAL	0.8	61.0	REMOVED BY CO.
356.9	SHELBURN	DANVILLE	COAL	4.9	323.1	REMOVED BY CO.
327.7	CARBONDALE	HERRIN	COAL	4.8	352.3	REMOVED BY CO.



MAPID: 18301672000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 14W SECTION: 1 QUARTERS/FOOTAGES: 56' N line, 45' W line

QUADRANGLE: ALLERTON LONGITUDE: -87.900313

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.96729

DATE COLLECTED:

SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 356.8

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-140

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
404.4	MODESTO	PIASA	LIMESTONE	1.5	275.6
402.9	MODESTO		GRAY SHALE	44.8	277.1
358.1	CARBONDALE	DANVILLE	COAL	4.9	321.9
353.2	CARBONDALE		CLAYSTONE	0.3	326.8
352.9	CARBONDALE		SHALE & SILTSTONE	6.0	327.1
346.9	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	5.8	333.1
341.1	CARBONDALE	LAWSON	CALCAREOUS SHALE	2.8	338.9
338.3	CARBONDALE	LAWSON	MOTTLED SHALE	5.2	341.7
333.1	CARBONDALE	ENERGY	DARK GRAY SHALE	0.8	346.9
332.3	CARBONDALE	ENERGY	GRAY SHALE	3.1	347.7
329.2	CARBONDALE	ENERGY	CARBONACEOUS SHALE	1.0	350.8
328.2	CARBONDALE	ENERGY	BONE COAL	0.2	351.8
328.0	CARBONDALE	HERRIN	COAL	4.8	352.0

MAPID: 18322575000C    VERSION: 1

PROJECT: NCRDS99

COUNTY: VERMILION    TWP/RNG: 17N 14W    SECTION: 1    QUARTERS/FOOTAGES: 35' N line, 33' E line

QUADRANGLE: ALLERTON    LONGITUDE: -87.881728    GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N    LATITUDE: 39.967503    DATE COLLECTED: 7 / 13 / 1977

SURFACE ELEVATION (FT.): 675.0    LOGGED (FT.): 377.0    LOG TYPE: Drillers Log

SOURCE: GULF OIL CORPORATION    H-1-2C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
675.0	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0	
651.0	BOND	LIVINGSTON	LIMESTONE	18.0	24.0	
633.0			SHALE	53.0	42.0	
580.0			COAL	0.0	95.0	TRACE OF COAL
580.0			SHALE	21.0	95.0	
559.0			SHALY SANDSTONE	31.0	116.0	
528.0			SHALE	4.0	147.0	
524.0			SANDY SHALE	6.0	151.0	
518.0			SHALE	6.0	157.0	MULTI-COLORED SHALE
512.0			SANDY SHALE	42.5	163.0	
469.5			SANDSTONE	51.0	205.5	TRACE OF COAL
418.5			COAL	0.4	256.5	
418.1			SANDSTONE	2.1	256.9	TRACE OF COAL
416.0			CLAYSTONE & SILTSTONE	1.5	259.0	
414.5			SHALE	1.7	260.5	
412.8			LIMESTONE	1.5	262.2	
411.3			CALCAREOUS SHALE	5.8	263.7	
405.5			SANDSTONE	1.5	269.5	
404.0			SANDY SHALE	12.5	271.0	
391.5			LIMESTONE	3.5	283.5	
388.0			SHALE	50.7	287.0	
337.3	CARBONDALE	DANVILLE	COAL	5.1	337.7	
332.2	CARBONDALE		UNDERCLAY	0.3	342.8	
331.9	CARBONDALE		COAL	0.2	343.1	
331.7	CARBONDALE		SHALE	5.7	343.3	
326.0	CARBONDALE		SANDSTONE	2.0	349.0	
324.0	CARBONDALE		LIMESTONE	10.5	351.0	
313.5	CARBONDALE		SHALE	8.2	361.5	
305.3	CARBONDALE	HERRIN	COAL	5.3	369.7	
300.0	CARBONDALE		UNDERCLAY	1.3	375.0	
298.7	CARBONDALE		LIMESTONE	0.5	376.3	
298.2	CARBONDALE		CLAYSTONE & SILTSTONE	0.2	376.8	

**MAPID:** 18322575000C    **VERSION:** 2    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 14W    **SECTION:** 1    **QUARTERS/FOOTAGES:** 35' N line, 33' E line  
**QUADRANGLE:** ALLERTON    **LONGITUDE:** -87.881728    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.967503    **DATE COLLECTED:** 7 / 14 / 1977  
**SURFACE ELEVATION (FT.):** 675.0    **LOGGED (FT.):** 390.0    **LOG TYPE:** Electric Log  
**SOURCE:** GULF OIL CORPORATION    H-1-2C    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
338.4	SHELBURN	DANVILLE	COAL	4.8	336.6	
307.0	CARBONDALE	HERRIN	COAL	5.3	368.0	

**MAPID:** 18301637000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 14W    **SECTION:** 3    **QUARTERS/FOOTAGES:** 70' N line, 30' W line  
**QUADRANGLE:** ALLERTON    **LONGITUDE:** -87.93831    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.967011    **DATE COLLECTED:** 6 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 678.0    **LOGGED (FT.):** 213.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** HYDROCARBON SURVEY    XA2CC    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
477.9	CARBONDALE	HERRIN	COAL	6.8	200.1	

**MAPID:** 18322985000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 14W    **SECTION:** 3    **QUARTERS/FOOTAGES:** 60' N line, 60' W line  
**QUADRANGLE:** ALLERTON    **LONGITUDE:** -87.938201    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.96704    **DATE COLLECTED:** 1 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 678.0    **LOGGED (FT.):** 260.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    XA-2    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-		NO COAL PICKS

**MAPID:** 18322986000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 14W    **SECTION:** 3    **QUARTERS/FOOTAGES:** 72' S line, 66' W line  
**QUADRANGLE:** ALLERTON    **LONGITUDE:** -87.938044    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.952577    **DATE COLLECTED:** 1 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 673.0    **LOGGED (FT.):** 140.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    XB-2    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
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-    -    NO COAL PICKS

**MAPID:** 183HCSOXB02Z    **VERSION:** 1    **PROJECT:** CGT-MISC  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 14W    **SECTION:** 3    **QUARTERS/FOOTAGES:** 300' S line, 300' W line  
**QUADRANGLE:** ALLERTON    **LONGITUDE:** -87.937212    **GEOLOGIST:** C.TREWORYG  
**CONFIDENTIAL:** N    **LATITUDE:** 39.953209    **DATE COLLECTED:** 2 / 0 / 1974  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 134.0    **LOG TYPE:** Company map  
**SOURCE:** HYDROCARBON SURVEY NO.XB-2    **WELL TYPE:** Coal Test  
**COMMENT:** ISGS MAP LIBRARY 4103 i5, 1-27&28

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
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-			UNCONSOLIDATED	72.0	0.0
-			ROCK	55.0	72.0
-	CARBONDALE	HERRIN	COAL	7.0	127.0

MAPID: 18300058000C    VERSION: 1

PROJECT: ISGS96

COUNTY: VERMILION    TWP/RNG: 17N 14W    SECTION: 12    QUARTERS/FOOTAGES: NE NW

QUADRANGLE: ALLERTON    LONGITUDE: -87.893343    GEOLOGIST: C TREWORYG

CONFIDENTIAL: N    LATITUDE: 39.950881    DATE COLLECTED: 11 / 26 / 1923

SURFACE ELEVATION (FT.): 664.7    LOGGED (FT.): 351.0    LOG TYPE: Drillers Log

SOURCE: JAMES T CARPENTER    WELL TYPE: Coal Test

COMMENT: COAL THKNSS?-DO NOT USE FOR RESOURCE EST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
664.7	PLEISTOCENE		SOIL	2.0	0.0
662.7	PLEISTOCENE		CLAY	11.0	2.0
651.7	PLEISTOCENE		CLAY	11.0	13.0
640.7	PLEISTOCENE		SAND	5.0	24.0
635.7	PLEISTOCENE		CLAY	16.0	29.0
619.7	PLEISTOCENE		CLAY	32.0	45.0
587.7	PLEISTOCENE		SAND	2.0	77.0
585.7	PLEISTOCENE		CLAY	5.0	79.0
580.7	PLEISTOCENE		CLAY	16.0	84.0
564.7	PLEISTOCENE		CLAY	25.0	100.0
539.7	MODESTO		SANDSTONE	25.0	125.0
514.7	MODESTO		BLUE SHALE	5.0	150.0
509.7	MODESTO		RED SHALE	7.0	155.0
502.7	MODESTO		BLUE SHALE	16.0	162.0
486.7	MODESTO		SANDSTONE	1.0	178.0
485.7	MODESTO		BLACK SHALE	5.0	179.0
480.7	MODESTO		COAL	1.0	184.0
479.7	MODESTO		GRAY SHALE	33.0	185.0
446.7	MODESTO		SHALE	2.0	218.0
444.7	MODESTO		GRAY SHALE	7.0	220.0
437.7	MODESTO		LIMESTONE	6.0	227.0
431.7	MODESTO		GRAY SHALE	11.0	233.0
420.7	MODESTO		SHALE	3.0	244.0
417.7	MODESTO		GRAY SHALE	4.0	247.0
413.7	MODESTO		BROWN SHALE	3.0	251.0
410.7	MODESTO		GRAY SHALE	3.0	254.0
407.7	MODESTO		RED SHALE	6.0	257.0
401.7	MODESTO		GRAY SHALE	41.0	263.0
360.7	MODESTO		BLACK SHALE	1.0	304.0
359.7	MODESTO		GRAY SHALE	1.0	305.0
358.7	CARBONDALE	DANVILLE	COAL	6.0	306.0
352.7	CARBONDALE		UNDERCLAY	8.0	312.0
344.7	CARBONDALE		LIMESTONE	12.0	320.0
332.7	CARBONDALE		GRAY SHALE	7.0	332.0
325.7	CARBONDALE		BLACK SHALE	6.0	339.0
319.7	CARBONDALE	HERRIN	COAL	5.0	345.0
314.7	CARBONDALE		UNDERCLAY	1.0	350.0

**MAPID:** 18301673000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 14W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 49' S line, 744' W line  
**QUADRANGLE:** ALLERTON    **LONGITUDE:** -87.897646    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.938085    **DATE COLLECTED:** 7 / 0 / 1968  
**SURFACE ELEVATION (FT.):** 677.0    **LOGGED (FT.):** 410.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-143    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
329.6	SHELBURN	DANVILLE	COAL	5.3	347.4	REMOVED BY CO.
291.2	CARBONDALE	HERRIN	COAL	6.6	385.8	REMOVED BY CO.
272.5	CARBONDALE	SPRINGFIELD	COAL	0.9	404.5	REMOVED BY CO.

**MAPID:** 18301673000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 14W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 49' S line, 744' W line  
**QUADRANGLE:** ALLERTON    **LONGITUDE:** -87.897646    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.938085    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 677.0    **LOGGED (FT.):** 392.6    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-143    **WELL TYPE:** Coal Test  
**COMMENT:** GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0	MODESTO	PIASA	LIMESTONE	7.8	257.0	
412.2	MODESTO		SHALE	84.6	264.8	
327.6	CARBONDALE	DANVILLE	COAL	5.3	349.4	
322.3	CARBONDALE		CLAYSTONE	7.6	354.7	
314.7	CARBONDALE		SANDSTONE	3.2	362.3	
311.5	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	12.5	365.5	UPPER BENCH
299.0	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	0.4	378.0	SHALE PARTING
298.6	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	0.2	378.4	LOWER BENCH
298.4	CARBONDALE	LAWSON	CLAYSTONE & SHALE	1.0	378.6	
297.4	CARBONDALE	ENERGY	SILTY SHALE	0.7	379.6	
296.7	CARBONDALE	ENERGY	DARK GRAY SHALE	3.5	380.3	
293.2	CARBONDALE	ENERGY	SILTY SHALE	3.0	383.8	
290.2	CARBONDALE	ENERGY	GRAY SHALE	0.8	386.8	
291.0	CARBONDALE	HERRIN	COAL	6.6	386.0	

**MAPID:** 18301716000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 14W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 274' S line, 37' E line  
**QUADRANGLE:** ALLERTON    **LONGITUDE:** -87.881627    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.939037    **DATE COLLECTED:** 2 / 17 / 1960  
**SURFACE ELEVATION (FT.):** 672.0    **LOGGED (FT.):** 375.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-17    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
579.0			COAL	2.0	93.0	
326.2	SHELBURN	DANVILLE	COAL	5.7	345.8	

**MAPID:** 18301682000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 14W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 511' N line, 16' E line  
**QUADRANGLE:** ALLERTON    **LONGITUDE:** -87.881526    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.936871    **DATE COLLECTED:** 8 / 0 / 1968  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 394.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-161    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
598.3			COAL	0.3	71.7	REMOVED BY CO.
344.0	SHELBURN	DANVILLE	COAL	6.9	326.0	REMOVED BY CO.
304.0	CARBONDALE	HERRIN	COAL	4.4	366.0	REMOVED BY CO.

**MAPID:** 18301682000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 14W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 511' N line, 16' E line  
**QUADRANGLE:** ALLERTON    **LONGITUDE:** -87.881526    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.936871    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 0.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-161    **WELL TYPE:** Coal Test  
**COMMENT:** GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	MODESTO	PIASA	LIMESTONE W/ SHALE	6.1		
-	MODESTO		SHALE	45.8		
-	CARBONDALE	DANVILLE	COAL	5.9		
-	CARBONDALE		CLAYSTONE & SHALE	2.3		
-	CARBONDALE	GALUM	NODULAR LIMESTONE	1.4		
-	CARBONDALE		SILTSTONE	5.0		
-	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	16.8		
-	CARBONDALE	LAWSON	CALCAREOUS SHALE	4.0		
-	CARBONDALE	HERRIN	COAL	4.4		

**MAPID:** 18322987000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 14W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 20' N line, 10' W line  
**QUADRANGLE:** ALLERTON    **LONGITUDE:** -87.900276    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.937839    **DATE COLLECTED:** 9 / 0 / 1970  
**SURFACE ELEVATION (FT.):** 678.0    **LOGGED (FT.):** 370.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PB-40    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT OVERBURDEN	COMMENT
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-    -    -    -    -    NO COAL PICKS

**MAPID:** 183HCSOPB40Z    **VERSION:** 1    **PROJECT:** CGT-MISC  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 14W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 100' N line, 250' W line  
**QUADRANGLE:** ALLERTON    **LONGITUDE:** -87.899413    **GEOLOGIST:** C.TREWORYG  
**CONFIDENTIAL:** N    **LATITUDE:** 39.937637    **DATE COLLECTED:** 2 / 0 / 1974  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 347.0    **LOG TYPE:** Company map  
**SOURCE:** HYDROCARBON SURVEY NO.PB-40    **WELL TYPE:** Coal Test  
**COMMENT:** ISGS MAP LIBRARY 4103 i5, 1-27&28

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT OVERBURDEN	COMMENT
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-			UNCONSOLIDATED	161.0	0.0	
-			ROCK	181.0	161.0	
-	CARBONDALE	HERRIN	COAL	5.0	342.0	

**MAPID:** 18322988000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 14W    **SECTION:** 15    **QUARTERS/FOOTAGES:** 10' N line, 30' W line  
**QUADRANGLE:** ALLERTON    **LONGITUDE:** -87.938052    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.93793    **DATE COLLECTED:** 10 / 0 / 1970  
**SURFACE ELEVATION (FT.):** 684.0    **LOGGED (FT.):** 400.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PB-44    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT OVERBURDEN	COMMENT
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-    -    -    -    -    NO COAL PICKS



**MAPID:** 18322989000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 14W    **SECTION:** 15    **QUARTERS/FOOTAGES:** 61' S line, 13' W line  
**QUADRANGLE:** ALLERTON    **LONGITUDE:** -87.937865    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.923489    **DATE COLLECTED:** 1 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 693.0    **LOGGED (FT.):** 200.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    XA-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

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

-    -    NO COAL PICKS

**MAPID:** 18322990000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 14W    **SECTION:** 15    **QUARTERS/FOOTAGES:** 26' N line, 34' E line of NW  
**QUADRANGLE:** ALLERTON    **LONGITUDE:** -87.928756    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.93781    **DATE COLLECTED:** 1 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 683.0    **LOGGED (FT.):** 250.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    XB-3    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

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

-    -    NO COAL PICKS

**MAPID:** 183HCSOPB44Z    **VERSION:** 1    **PROJECT:** CGT-MISC  
**COUNTY:** VERMILION    **TWP/RNG:** 17N 14W    **SECTION:** 15    **QUARTERS/FOOTAGES:** 150' N line, 150' W line  
**QUADRANGLE:** ALLERTON    **LONGITUDE:** -87.937616    **GEOLOGIST:** C.TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.937541    **DATE COLLECTED:** 2 / 0 / 1974  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 65.0    **LOG TYPE:** Company map  
**SOURCE:** HYDROCARBON SURVEY NO.PB-44    **WELL TYPE:** Coal Test  
**COMMENT:** ISGS MAP LIBRARY 4103 i5, 1-27&28

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

-			UNCONSOLIDATED	5.0	0.0	
-			ROCK	56.0	5.0	
-	CARBONDALE	HERRIN	COAL	4.0	61.0	

MAPID: 183HCSOXB03Z VERSION: 1

PROJECT: CGT-MISC

COUNTY: VERMILION TWP/RNG: 17N 14W SECTION: 15 QUARTERS/FOOTAGES: 100' N line, 2700' E line  
 QUADRANGLE: ALLERTON LONGITUDE: -87.928789 GEOLOGIST: C.TREWORY  
 CONFIDENTIAL: N LATITUDE: 39.937606 DATE COLLECTED: 2 / 0 / 1974  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 158.5 LOG TYPE: Company map  
 SOURCE: HYDROCARBON SURVEY NO.XB-3 WELL TYPE: Coal Test  
 COMMENT: ISGS MAP LIBRARY 4103 i5, 1-27&28

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	118.0	0.0	
-			ROCK	33.0	118.0	
-	CARBONDALE	HERRIN	COAL	7.5	151.0	

MAPID: 18300057000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 14W SECTION: 22 QUARTERS/FOOTAGES: SW  
 QUADRANGLE: ALLERTON LONGITUDE: -87.933104 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 39.912436 DATE COLLECTED: 11 / 2 / 1932  
 SURFACE ELEVATION (FT.): 700.6 LOGGED (FT.): 200.0 LOG TYPE: Drillers Log  
 SOURCE: JAMES T CARPENTER WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
700.6	PLEISTOCENE		UNCONSOLIDATED	65.0	0.0	
635.6	PLEISTOCENE		SAND	1.0	65.0	
634.6	PLEISTOCENE		CLAY	5.0	66.0	
629.6	PLEISTOCENE		CLAY	6.0	71.0	
623.6	PLEISTOCENE		CLAY	6.0	77.0	
617.6	PLEISTOCENE		CLAY	9.0	83.0	
608.6	PLEISTOCENE		CLAY	82.0	92.0	
526.6	PLEISTOCENE		CLAY	11.0	174.0	
515.6	CARBONDALE		BLUE SHALE	2.0	185.0	
513.6	CARBONDALE	HERRIN	COAL	6.0	187.0	
507.6	CARBONDALE		UNDERCLAY	1.0	193.0	
506.6	CARBONDALE		GRAY SHALE	6.0	194.0	

MAPID: 18300059000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 17N 14W SECTION: 22 QUARTERS/FOOTAGES: N2

QUADRANGLE: ALLERTON LONGITUDE: -87.928434 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.919731 DATE COLLECTED: 4 / 22 / 1924

SURFACE ELEVATION (FT.): 689.0 LOGGED (FT.): 207.0 LOG TYPE: Drillers Log

SOURCE: JAS T CARPENTER 3 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
689.0	PLEISTOCENE		SOIL	2.0	0.0
687.0	PLEISTOCENE		CLAY	17.0	2.0
670.0	PLEISTOCENE		CLAY	24.0	19.0
646.0	PLEISTOCENE		SAND	16.0	43.0
630.0	PLEISTOCENE		CLAY	4.0	59.0
626.0	PLEISTOCENE		SAND	9.0	63.0
617.0	PLEISTOCENE		CLAY	10.0	72.0
607.0	PLEISTOCENE		CLAY	9.0	82.0
598.0	PLEISTOCENE		SAND	2.0	91.0
596.0	PLEISTOCENE		CLAY	25.0	93.0
571.0	PLEISTOCENE		CLAY	25.0	118.0
546.0	CARBONDALE	ENERGY	BLUE SHALE	16.0	143.0
530.0	CARBONDALE	HERRIN	COAL	6.0	159.0
524.0	CARBONDALE		UNDERCLAY	2.0	165.0
522.0	CARBONDALE		GREEN SHALE	13.0	167.0
509.0	CARBONDALE		BLACK SHALE	1.0	180.0
508.0	CARBONDALE		GRAY SHALE	6.0	181.0
502.0	CARBONDALE		CALCAREOUS SHALE	2.0	187.0
500.0	CARBONDALE		SHALE	18.0	189.0

MAPID: 18322991000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 14W SECTION: 23 QUARTERS/FOOTAGES: 10' N line, 60' W line

QUADRANGLE: ALLERTON LONGITUDE: -87.918765 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.923414 DATE COLLECTED: 11 / 0 / 1970

SURFACE ELEVATION (FT.): 689.0 LOGGED (FT.): 566.0 LOG TYPE: Electric Log

SOURCE: HYDROCARBON SURVEY PA-42 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-				-	NO COAL PICKS

MAPID: 183HCSOPA42Z VERSION: 1

PROJECT: CGT-MISC

COUNTY: VERMILION TWP/RNG: 17N 14W SECTION: 23 QUARTERS/FOOTAGES: 100' N line, 250' W line  
 QUADRANGLE: ALLERTON LONGITUDE: -87.918086 GEOLOGIST: C.TREWORY  
 CONFIDENTIAL: N LATITUDE: 39.92317 DATE COLLECTED: 2 / 0 / 1974  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 262.0 LOG TYPE: Company map  
 SOURCE: HYDROCARBON SURVEY NO.PA-42 WELL TYPE: Coal Test  
 COMMENT: ISGS MAP LIBRARY 4103 i5, 1-27&28

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	61.0	0.0	
-			ROCK	195.0	61.0	
-	CARBONDALE	HERRIN	COAL	6.0	256.0	COAL EXCEEDS 6' IN THICKNESS

MAPID: 18301674000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 14W SECTION: 24 QUARTERS/FOOTAGES: 78' S line, 2251' E line  
 QUADRANGLE: ALLERTON LONGITUDE: -87.889246 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 39.909348 DATE COLLECTED: 7 / 0 / 1968  
 SURFACE ELEVATION (FT.): 692.0 LOGGED (FT.): 370.0 LOG TYPE: Survey Core Study  
 SOURCE: TRUAX-TRAEER COAL CO RF-142 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
518.7			COAL	0.3	173.3	REMOVED BY CO.
489.7			COAL	1.5	202.3	REMOVED BY CO.
392.0	SHELBURN	DANVILLE	COAL	5.4	300.0	REMOVED BY CO.
349.0	CARBONDALE	HERRIN	COAL	4.4	343.0	REMOVED BY CO.
330.9	CARBONDALE	SPRINGFIELD	COAL	1.7	361.1	REMOVED BY CO.

MAPID: 18301674000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 17N 14W SECTION: 24 QUARTERS/FOOTAGES: 78' S line, 2251' E line

QUADRANGLE: ALLERTON LONGITUDE: -87.889246

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.909348

DATE COLLECTED:

SURFACE ELEVATION (FT.): 692.0 LOGGED (FT.): 347.4

LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-142

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
479.0	MODESTO	PIASA	LIMESTONE AND SANDSTONE	5.0	213.0	
474.0	MODESTO		SHALE	82.4	218.0	
391.6	CARBONDALE	DANVILLE	COAL	5.4	300.4	
386.2	CARBONDALE		CLAYSTONE	8.5	305.8	
377.7	CARBONDALE		SANDSTONE	4.7	314.3	
373.0	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	3.5	319.0	UPPER BENCH
369.6	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	1.5	322.4	SHALE PARTING
368.1	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	7.9	323.9	LOWER BENCH
360.2	CARBONDALE	LAWSON	CALCAREOUS SHALE	11.1	331.8	
349.1	CARBONDALE	ANNA	BLACK SHALE	0.5	342.9	
349.0	CARBONDALE	HERRIN	COAL	4.4	343.0	

MAPID: 18322992000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 17N 14W SECTION: 25 QUARTERS/FOOTAGES: 100' N line, 100' W line

QUADRANGLE: ALLERTON LONGITUDE: -87.899583

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.908735

DATE COLLECTED: 12 / 0 / 1970

SURFACE ELEVATION (FT.): 690.0 LOGGED (FT.): 412.0

LOG TYPE: Electric Log

SOURCE: HYDROCARBON SURVEY PA-49

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-	-	NO COAL PICKS

MAPID: 183HCSOPA49Z VERSION: 1

PROJECT: CGT-MISC

COUNTY: VERMILION TWP/RNG: 17N 14W SECTION: 25 QUARTERS/FOOTAGES: 150' N line, 150' W line  
 QUADRANGLE: ALLERTON LONGITUDE: -87.899403 GEOLOGIST: C.TREWORGY  
 CONFIDENTIAL: N LATITUDE: 39.9086 DATE COLLECTED: 2 / 0 / 1974  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 332.0 LOG TYPE: Company map  
 SOURCE: HYDROCARBON SURVEY NO.PA-49 WELL TYPE: Coal Test  
 COMMENT: ISGS MAP LIBRARY 4103 i5, 1-27&28

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	136.0	0.0	
-			ROCK	191.0	136.0	
-	CARBONDALE	HERRIN	COAL	5.0	327.0	COAL THICKNESS EXCEEDS 5'

MAPID: 183HCSOPD14Z VERSION: 1

PROJECT: CGT-MISC

COUNTY: VERMILION TWP/RNG: 17N 14W SECTION: 25 QUARTERS/FOOTAGES: 250' S line, 150' W line  
 QUADRANGLE: ALLERTON LONGITUDE: -87.899436 GEOLOGIST: C.TREWORGY  
 CONFIDENTIAL: N LATITUDE: 39.895251 DATE COLLECTED: 2 / 0 / 1974  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 0.0 LOG TYPE: Company map  
 SOURCE: HYDROCARBON SURVEY NO.PD-14 WELL TYPE: Coal Test  
 COMMENT: ISGS MAP LIBRARY 4103 i5, 1-27&28

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

MAPID: 183HCSOPC23Z VERSION: 1

PROJECT: CGT-MISC

COUNTY: VERMILION TWP/RNG: 17N 14W SECTION: 27 QUARTERS/FOOTAGES: 200' N line, 150' E line  
 QUADRANGLE: ALLERTON LONGITUDE: -87.919582 GEOLOGIST: C.TREWORGY  
 CONFIDENTIAL: N LATITUDE: 39.908209 DATE COLLECTED: 2 / 0 / 1974  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 0.0 LOG TYPE: Company map  
 SOURCE: HYDROCARBON SURVEY NO.PC-23 WELL TYPE: Coal Test  
 COMMENT: ISGS MAP LIBRARY 4103 i5, 1-27&28

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

MAPID: 183HCS0PC01Z VERSION: 1

PROJECT: CGT-MISC

COUNTY: VERMILION TWP/RNG: 17N 14W SECTION: 35 QUARTERS/FOOTAGES: 300' S line, 100' E line  
 QUADRANGLE: ALLERTON LONGITUDE: -87.900266 GEOLOGIST: C.TREWORGY  
 CONFIDENTIAL: N LATITUDE: 39.880762 DATE COLLECTED: 2 / 0 / 1974  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 0.0 LOG TYPE: Company map  
 SOURCE: HYDROCARBON SURVEY NO. PC-1 WELL TYPE: Coal Test  
 COMMENT: ISGS MAP LIBRARY 4103 i5, 1-27&28

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

MAPID: 18300946000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 4 QUARTERS/FOOTAGES: 20' S line, 40' W line of SW SW NW  
 QUADRANGLE: DANVILLE SE LONGITUDE: -87.61993 GEOLOGIST: R. SMITH  
 CONFIDENTIAL: N LATITUDE: 40.05031 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 58.7 LOG TYPE: Drillers Log  
 SOURCE: GRAPE CREEK MNG. CO. WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	56.0	0.0	
-	CARBONDALE	DANVILLE	COAL	2.7	56.0	

MAPID: 18322262000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 4 QUARTERS/FOOTAGES: 500' N line, 100' E line of NW  
 QUADRANGLE: DANVILLE SE LONGITUDE: -87.611149 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 40.056505 DATE COLLECTED: 9 / 0 / 1977  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 128.0 LOG TYPE: Drillers Log  
 SOURCE: W P WISE WELL TYPE: Water Well  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		SOIL	2.0	0.0	
-	PLEISTOCENE		CLAY	20.0	2.0	
-	PLEISTOCENE		HARD PAN	46.0	22.0	
-			SHALE	47.0	68.0	
-			GRAY SHALE	5.0	115.0	
-	CARBONDALE	HERRIN	COAL	3.0	120.0	
-	CARBONDALE		SHALE	5.0	123.0	

MAPID: 18322644000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 4 QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: DANVILLE SE LONGITUDE: -87.606973

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.049405

DATE COLLECTED: 7 / 22 / 1983

SURFACE ELEVATION (FT.): LOGGED (FT.): 154.0

LOG TYPE: Drillers Log

SOURCE: JAMES H BRENNER

WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	16.0	0.0	
-	PLEISTOCENE		CLAY	4.0	16.0	
-	PLEISTOCENE		GRAVEL	8.0	20.0	
-	PLEISTOCENE		CLAY	6.0	28.0	
-	PLEISTOCENE		CLAY	17.0	34.0	
-	PLEISTOCENE		CLAY	9.0	51.0	
-	PLEISTOCENE		CLAY	7.0	60.0	
-	CARBONDALE	DANVILLE	COAL	4.0	67.0	
-	CARBONDALE	ENERGY	GRAY SHALE	5.0	71.0	
-	CARBONDALE	ENERGY	GRAY SHALE	67.0	76.0	
-	CARBONDALE	HERRIN	MINE OPENING	11.0	143.0	MINE SHAFT OR ROOM



MAPID: 18300062000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 18N 11W    SECTION: 5    QUARTERS/FOOTAGES: 1980' N line, 1980' W line

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.631832    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 40.052235    DATE COLLECTED: 1 / 0 / 1895

SURFACE ELEVATION (FT.): 616.0    LOGGED (FT.): 307.0    LOG TYPE: Drillers Log

SOURCE: HIMROD COAL COMPANY (PAWNEE MINE)    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
616.0			UNCONSOLIDATED	4.0	0.0
612.0	MODESTO		SHALE	11.5	4.0
600.5	CARBONDALE	DANVILLE	COAL	1.9	15.5
598.6	CARBONDALE	DANVILLE	UNCLASSIFIED	0.2	17.4
598.4	CARBONDALE	DANVILLE	COAL	2.5	17.6
595.9	CARBONDALE		UNDERCLAY	3.9	20.1
592.0	CARBONDALE		GRAY SHALE	6.0	24.0
586.0	CARBONDALE	ENERGY	SANDSTONE	48.0	30.0
538.0	CARBONDALE	HERRIN	COAL	9.0	78.0
529.0	CARBONDALE		UNDERCLAY	8.0	87.0
521.0	CARBONDALE		SANDY SHALE	62.0	95.0
459.0	CARBONDALE		CLAYSTONE & SHALE	43.0	157.0
416.0	CARBONDALE		BLACK SHALE	8.3	200.0
407.7	CARBONDALE		SANDY SHALE	6.7	208.3
401.0	CARBONDALE		CLAYSTONE & SHALE	16.0	215.0
385.0	CARBONDALE		SHALE	8.0	231.0
377.0	CARBONDALE		SANDSTONE	16.0	239.0
361.0	CARBONDALE		SANDY SHALE	3.0	255.0
358.0	CARBONDALE		BLACK SHALE	8.2	258.0
349.8	CARBONDALE		GRAY SHALE	7.8	266.2
342.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	4.0	274.0
338.0	SPOON		GRAY SHALE	1.2	278.0
336.8	SPOON		COAL WITH SHALE	0.5	279.2
336.3	SPOON		UNCLASSIFIED	0.3	279.7
336.0	SPOON		SHALE	1.3	280.0
334.7	SPOON		COAL WITH SHALE	0.8	281.3
334.0	SPOON		SANDY SHALE	1.7	282.0
332.3	SPOON	SEELYVILLE	COAL WITH SHALE	1.3	283.7
331.0	SPOON	SEELYVILLE	COAL	0.3	285.0
330.7	SPOON	SEELYVILLE	SHALE	0.3	285.3
330.4	SPOON	SEELYVILLE	COAL	1.3	285.6
329.2	SPOON		SHALE	13.2	286.8
316.0	SPOON		DARK SHALE	3.1	300.0
312.9	SPOON		COAL	0.8	303.1
312.1	SPOON		BLACK SHALE	3.1	303.9

MAPID: 1830062000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 5 QUARTERS/FOOTAGES: 1980' N line, 1980' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.631832

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.052235

DATE COLLECTED:

SURFACE ELEVATION (FT.): 616.0

LOGGED (FT.): 87.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0	MODESTO		SHALE	11.5	4.0	
600.5	CARBONDALE	DANVILLE	COAL	4.6	15.5	
595.9	CARBONDALE		CLAYSTONE	3.9	20.1	
592.0	CARBONDALE	ENERGY	GRAY SHALE	6.0	24.0	
586.0	CARBONDALE	ENERGY	SANDSTONE	48.0	30.0	
538.0	CARBONDALE	HERRIN	COAL	9.0	78.0	

MAPID: 18300944000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 5 QUARTERS/FOOTAGES: 60' N line, 175' W line of NW NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.629038

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.05756

DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 58.0

LOG TYPE: Drillers Log

SOURCE: GRAPE CREEK MNG CO 3

WELL TYPE: Coal Test

COMMENT: ELEV. TOP OF COAL 597'+

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	DANVILLE	COAL	0.0	58.0	

MAPID: 18300945000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 5 QUARTERS/FOOTAGES: NW SE NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.633078

GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.052923

DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 77.4

LOG TYPE: Drillers Log

SOURCE: GRAPE CREEK CO.

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	73.0	0.0	
-	CARBONDALE	DANVILLE	COAL	4.4	73.0	

MAPID: 18322157000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 6 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.640148

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.054757

DATE COLLECTED: 12 / 19 / 1977

SURFACE ELEVATION (FT.): LOGGED (FT.): 150.0

LOG TYPE: Drillers Log

SOURCE: CHARLES BARTHOLOMEW ENG 1

WELL TYPE: Engineering Test Holes

COMMENT: WESTVILLE HIGH SCHOOL ADDITION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		CLAY	2.0	0.0
-	PLEISTOCENE		CLAY	3.0	2.0
-	PLEISTOCENE		SANDY CLAY	15.0	5.0
-	PLEISTOCENE		SANDY CLAY	10.0	20.0
-	PLEISTOCENE		SAND	13.0	30.0
-			GRAY SHALE	45.0	43.0
-			DARK GRAY SHALE	14.0	88.0
-			GRAY SHALE	4.0	102.0
-	CARBONDALE	DANVILLE	COAL	4.0	106.0
-			GRAY SHALE	32.0	110.0
-			GRAY SHALE	8.0	142.0

MAPID: 18322157000C VERSION: 2

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 6 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.640148

GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.054757

DATE COLLECTED: 12 / 19 / 1977

SURFACE ELEVATION (FT.): LOGGED (FT.): 196.0

LOG TYPE: Drillers Log

SOURCE: CHARLES BARTHOLOMEW ENGINEERING

WELL TYPE: Engineering Test Holes

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			UNCONSOLIDATED	43.0	0.0
-	MODESTO	FARMINGTON	GRAY SHALE	63.0	43.0
-	CARBONDALE	DANVILLE	COAL	4.0	106.0
-	CARBONDALE	ENERGY	GRAY SHALE	40.0	110.0
-	CARBONDALE	ENERGY	SHALE	33.0	150.0
-	CARBONDALE	HERRIN	COAL	7.5	183.0
-	CARBONDALE		CLAYSTONE & SILTSTONE	3.2	190.5
-	CARBONDALE		LIMESTONE	1.0	193.7
-	CARBONDALE		CLAYSTONE & SILTSTONE	1.2	194.7

MAPID: 18322158000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 6 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.640074 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.050938 DATE COLLECTED: 12 / 19 / 1977

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

SOURCE: CHARLES BARTHOLOMEW ENG 2 WELL TYPE: Engineering Test Holes

COMMENT: WESTVILLE HIGH SCHOOL ADDITION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		CLAY	3.0	0.0
-	PLEISTOCENE		SANDY CLAY	8.0	3.0
-	PLEISTOCENE		SANDY CLAY	13.0	11.0
-	PLEISTOCENE		SAND	12.0	24.0
-	PLEISTOCENE		SANDY CLAY	7.0	36.0
-			GRAY SHALE	54.0	43.0
-			DARK GRAY SHALE	7.0	97.0
-	CARBONDALE	HERRIN	COAL	4.0	104.0
-			GRAY SHALE	42.0	108.0

MAPID: 18323361000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 6 QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.647039 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.050937 DATE COLLECTED: 10 / 23 / 1984

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

SOURCE: JAMES H BRENNER WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		SOIL	2.0	0.0
-	PLEISTOCENE		CLAY	3.0	2.0
-	PLEISTOCENE		CLAY	8.0	5.0
-	PLEISTOCENE		CLAY	23.0	13.0
-	MODESTO		GRAY SHALE	65.0	36.0
-	CARBONDALE	DANVILLE	COAL	5.0	101.0
-	CARBONDALE		LIGHT SHALE	6.0	106.0
-	CARBONDALE	ENERGY	GRAY SHALE	53.0	112.0
-	CARBONDALE	HERRIN	COAL	6.0	165.0
-			LIGHT SHALE	6.0	171.0
-			ROCK	2.0	177.0
-			GRAY SHALE	1.0	179.0

MAPID: 18301074000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 18N 11W    SECTION: 7    QUARTERS/FOOTAGES: 1390' N line, 2490' E line

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.647537    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 40.038528    DATE COLLECTED: 1 / 13 / 1922

SURFACE ELEVATION (FT.): 680.8    LOGGED (FT.): 1001.5    LOG TYPE: Drillers Log

SOURCE: U.S. COAL AND COKE CO. (KELLY #3 MINE)    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
680.8			UNCONSOLIDATED	41.0	0.0
639.8	MODESTO	FARMINGTON	SHALE	56.2	41.0
583.6	CARBONDALE	DANVILLE	COAL	3.7	97.2
579.9	CARBONDALE		UNDERCLAY	6.1	100.9
573.8	CARBONDALE	ENERGY	SANDSTONE/SHALE	15.0	107.0
558.8	CARBONDALE	ENERGY	SANDY SHALE	65.0	122.0
493.8	CARBONDALE	ENERGY	UNCLASSIFIED	1.0	187.0
492.8	CARBONDALE	HERRIN	COAL	6.4	188.0
486.4	CARBONDALE		SHALE	0.5	194.4
485.9	CARBONDALE		LIMESTONE	2.6	194.9
483.3	CARBONDALE		SHALE	88.3	197.5
395.0	CARBONDALE		BLACK SHALE	1.9	285.8
393.0	CARBONDALE		LIMESTONE	1.5	287.8
391.5	CARBONDALE		BLACK SHALE	2.6	289.3
389.0	CARBONDALE		DARK SHALE	30.9	291.8
358.0	CARBONDALE		GRAY SHALE	4.3	322.8
353.8	CARBONDALE		DARK SHALE	0.5	327.0
353.3	CARBONDALE		GRAY SHALE	26.5	327.5
326.8	CARBONDALE		BLACK SHALE	4.4	354.0
322.4	CARBONDALE		DARK SHALE	3.8	358.4
318.6	CARBONDALE		UNCLASSIFIED	0.1	362.2
318.5	CARBONDALE		BLACK SHALE	10.5	362.3
308.0	CARBONDALE		COAL	0.3	372.8
307.8	CARBONDALE		SANDSTONE/SHALE	5.9	373.0
301.9	CARBONDALE		BLACK SHALE	0.2	378.9
301.7	CARBONDALE		COAL	1.8	379.1
299.9	CARBONDALE		BLACK SHALE	0.3	380.9
299.6	CARBONDALE		UNDERCLAY	3.8	381.2
295.8	CARBONDALE		GRAY SHALE	7.5	385.0
288.3	CARBONDALE		DARK SHALE	7.3	392.5
281.0	CARBONDALE		COAL	0.6	399.8
280.5	CARBONDALE		BLACK SHALE	3.8	400.3
276.7			COAL	2.5	404.1
274.2			BLACK SHALE	0.2	406.6
274.0			LIMESTONE/UNDERCLAY	5.8	406.8
268.3			GRAY SHALE	22.3	412.5
246.0			UNDERCLAY	4.3	434.8
241.8			COAL	0.1	439.0
241.7			LIMESTONE W/ SHALE	8.9	439.1

232.8	SANDSTONE	25.0	448.0
207.8	LIMESTONE W/ SHALE	5.0	473.0
202.8	DARK SHALE	8.1	478.0
194.7	COAL	0.9	486.1
193.8	SHALE	5.3	487.0
188.5	COAL	0.2	492.3
188.3	BLACK SHALE	0.3	492.5
188.0	COAL	0.9	492.8
187.1	SANDY SHALE	7.3	493.7
179.8	SANDSTONE	56.8	501.0
123.0	BLACK SHALE	1.3	557.8
121.8	SANDSTONE	2.3	559.0
119.5	SANDSTONE/SHALE	36.1	561.3
83.4	SANDSTONE	4.6	597.4
78.8	SANDSTONE/SHALE	5.0	602.0
73.8	SANDSTONE	78.0	607.0
-4.2	LIMESTONE AND SANDSTONE	15.3	685.0
-19.5	SANDSTONE	2.7	700.3
-22.2	LIMESTONE	2.0	703.0
-24.2	SANDSTONE	81.5	705.0
-105.7	LIMESTONE	1.3	786.5
-107.0	SANDSTONE	43.4	787.8
-150.4	LIMESTONE	0.6	831.2
-151.0	BLUE SHALE	116.1	831.8
-267.0	SANDSTONE/SHALE	18.7	947.8
-285.7	SANDSTONE	3.0	966.5
-288.7	SHALE & SANDSTONE	11.0	969.5
-299.7	SANDSTONE	4.5	980.5
-304.2	GRAY SHALE	1.5	985.0
-305.7	SANDSTONE	4.0	986.5
-309.7	SHALE & SANDSTONE	11.0	990.5

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MAPID: 18301074000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 7 QUARTERS/FOOTAGES: 1390' N line, 2490' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.647537 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.038528 DATE COLLECTED:

SURFACE ELEVATION (FT.): 681.0 LOGGED (FT.): 194.4 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
640.0	MODESTO		GRAY SHALE	56.2	41.0
583.8	CARBONDALE	DANVILLE	COAL	3.7	97.2
580.1	CARBONDALE		CLAYSTONE & SHALE	6.1	100.9
574.0	CARBONDALE	ENERGY	UNCLASSIFIED	81.0	107.0
493.0	CARBONDALE	HERRIN	COAL	6.4	188.0

MAPID: 18323417000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 7 QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.6562 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.041468 DATE COLLECTED: 12 / 12 / 1989

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

SOURCE: HAROLD E ERWIN WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		SOIL	3.0	0.0
-	PLEISTOCENE		CLAY	4.0	3.0
-	PLEISTOCENE		SAND	5.0	7.0
-	PLEISTOCENE		HARD PAN	9.0	12.0
-	PLEISTOCENE		GRAVEL	1.0	21.0
-	PLEISTOCENE		HARD PAN	2.0	22.0
-	PLEISTOCENE		GRAVEL	1.0	24.0
-	PLEISTOCENE		HARD PAN	3.0	25.0
-	PLEISTOCENE		HARD PAN	3.0	28.0
-	PLEISTOCENE		GRAVEL	4.0	31.0
-	PLEISTOCENE		HARD PAN	18.0	35.0
-			GRAY SHALE	43.0	53.0
-	CARBONDALE	DANVILLE	COAL	4.0	96.0

MAPID: 18300063000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 8 QUARTERS/FOOTAGES: 901' N line, 586' E line of SW

QUADRANGLE: DANVILLE SW

LONGITUDE: -87.631077

GEOLOGIST: R. SMITH

CONFIDENTIAL: N

LATITUDE: 40.032666

DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 675.0

LOGGED (FT.): 173.0

LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO.

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
675.0			UNCONSOLIDATED	48.0	0.0
627.0			BLACK SHALE	25.7	48.0
601.3			COAL WITH SHALE	0.3	73.7
601.0	CARBONDALE	DANVILLE	COAL	3.4	74.0
597.6	CARBONDALE		UNDERCLAY	17.6	77.4
580.0	CARBONDALE		BLUE SHALE	5.0	95.0
575.0	CARBONDALE	ENERGY	SANDSTONE	30.0	100.0
545.0	CARBONDALE	ENERGY	SHALE & SANDSTONE	24.9	130.0
520.1	CARBONDALE	HERRIN	COAL	0.2	154.9
519.9	CARBONDALE	HERRIN	GRAY SHALE	0.9	155.1
519.0	CARBONDALE	HERRIN	SANDSTONE	1.7	156.0
517.3	CARBONDALE	HERRIN	COAL	6.6	157.7
510.7	CARBONDALE		DARK SHALE	1.8	164.3
509.0	CARBONDALE		UNDERCLAY	7.0	166.0



MAPID: 18300064000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 8 QUARTERS/FOOTAGES: 1367' N line, 190' E line

QUADRANGLE: DANVILLE SE LONGITUDE: -87.62042 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.038912 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 678.8 LOGGED (FT.): 160.5 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
678.8	PLEISTOCENE		UNCONSOLIDATED	2.0	0.0
676.8	PLEISTOCENE		SAND	23.0	2.0
653.8	PLEISTOCENE		HARD PAN	15.0	25.0
638.8	PLEISTOCENE		SAND	23.0	40.0
615.8	MODESTO		BLACK SHALE	7.3	63.0
608.5	CARBONDALE	DANVILLE	COAL	3.6	70.3
604.8	CARBONDALE		UNDERCLAY	6.0	74.0
598.8	CARBONDALE	ENERGY	LIGHT SHALE	6.0	80.0
592.8	CARBONDALE	ENERGY	LIGHT SHALE	14.0	86.0
578.8	CARBONDALE	ENERGY	SANDSTONE	36.0	100.0
542.8	CARBONDALE	ENERGY	BLACK SHALE	9.0	136.0
533.8	CARBONDALE	ENERGY	BLACK SHALE	8.0	145.0
525.8	CARBONDALE	ENERGY	BLACK SHALE	0.5	153.0
525.3	CARBONDALE	HERRIN	COAL	6.1	153.5
519.3	CARBONDALE		UNDERCLAY	1.0	159.5

MAPID: 18300064000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 8 QUARTERS/FOOTAGES: 1367' N line, 190' E line

QUADRANGLE: DANVILLE SE LONGITUDE: -87.62042 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.038912 DATE COLLECTED:

SURFACE ELEVATION (FT.): 679.0 LOGGED (FT.): 159.1 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
616.4	MODESTO		BLACK SHALE	7.3	62.6
609.1	CARBONDALE	DANVILLE	COAL	3.6	69.9
605.5	CARBONDALE		CLAYSTONE	6.0	73.5
599.5	CARBONDALE	ENERGY	GRAY SHALE	20.0	79.5
579.5	CARBONDALE	ENERGY	SANDSTONE	36.0	99.5
543.5	CARBONDALE	ENERGY	SILTY SHALE	9.0	135.5
534.5	CARBONDALE	ENERGY	DARK GRAY SHALE	8.0	144.5
526.5	CARBONDALE	ENERGY	BLACK SHALE	0.5	152.5
526.0	CARBONDALE	HERRIN	COAL	6.1	153.0

MAPID: 18300065000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 8 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.626528 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.029706 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 680.5 LOGGED (FT.): 153.8 LOG TYPE: Drillers Log

SOURCE: VERMILION COAL & COKE WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
680.5	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0
667.5	PLEISTOCENE		HARD PAN	24.0	13.0
643.5	PLEISTOCENE		SAND	11.0	37.0
632.5	PLEISTOCENE		HARD PAN	16.8	48.0
615.7	CARBONDALE	DANVILLE	COAL	3.3	64.8
612.5	CARBONDALE		UNDERCLAY	5.6	68.0
606.9	CARBONDALE	ENERGY	BLACK SHALE	22.0	73.6
584.9	CARBONDALE	ENERGY	LIGHT SHALE	17.3	95.6
567.7	CARBONDALE	ENERGY	SHALE	17.2	112.8
550.5	CARBONDALE	ENERGY	BLACK SHALE	17.9	130.0
532.6	CARBONDALE	HERRIN	COAL	3.2	147.9
529.4	CARBONDALE	HERRIN	COAL	0.2	151.1
529.2	CARBONDALE	HERRIN	COAL	1.5	151.3
527.7	CARBONDALE		UNDERCLAY	1.0	152.8

MAPID: 18300066000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 8 QUARTERS/FOOTAGES: NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.624456 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.038929 DATE COLLECTED:

SURFACE ELEVATION (FT.): 675.0 LOGGED (FT.): 157.5 LOG TYPE: Drillers Log

SOURCE: C L ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
675.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
667.0	PLEISTOCENE		SAND	5.0	8.0
662.0	PLEISTOCENE		HARD PAN	32.0	13.0
630.0	PLEISTOCENE		SAND	4.0	45.0
626.0	MODESTO		BLACK SHALE	14.0	49.0
612.0	MODESTO		BLACK SHALE	5.5	63.0
606.5	CARBONDALE	DANVILLE	COAL	3.2	68.5
603.3	CARBONDALE		UNDERCLAY	6.0	71.7
597.3	CARBONDALE	ENERGY	BLACK SHALE	19.0	77.7
578.3	CARBONDALE	ENERGY	SANDSTONE	29.0	96.7
549.3	CARBONDALE	ENERGY	BLACK SHALE	25.3	125.7
524.0	CARBONDALE	HERRIN	COAL	6.5	151.0

MAPID: 18300067000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 9 QUARTERS/FOOTAGES: 24' S line, 8' E line of NW SW

QUADRANGLE: DANVILLE SE LONGITUDE: -87.614805 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.031767 DATE COLLECTED:

SURFACE ELEVATION (FT.): 683.0 LOGGED (FT.): 161.2 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
683.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0
669.0	PLEISTOCENE		SAND	22.0	14.0
647.0	PLEISTOCENE		HARD PAN	6.0	36.0
641.0	PLEISTOCENE		SAND	7.0	42.0
634.0	PLEISTOCENE		HARD PAN	17.0	49.0
617.0	PLEISTOCENE		SAND	10.0	66.0
607.0	PLEISTOCENE		CLAY	4.0	76.0
603.0	CARBONDALE	ENERGY	LIGHT SHALE	29.0	80.0
574.0	CARBONDALE	ENERGY	BLUE SHALE	38.0	109.0
536.0	CARBONDALE	ENERGY	BLUE SHALE	6.6	147.0
529.4	CARBONDALE	HERRIN	COAL	3.1	153.6
526.3	CARBONDALE	HERRIN	COAL	3.2	156.7
523.1	CARBONDALE		UNDERCLAY	1.3	159.9

MAPID: 18300068000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 9 QUARTERS/FOOTAGES: 0' S line, 2640' E line

QUADRANGLE: DANVILLE SE LONGITUDE: -87.609877 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.0281 DATE COLLECTED:

SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 162.5 LOG TYPE: Drillers Log

SOURCE: C.L. ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
680.0			UNCONSOLIDATED	44.0	0.0
636.0			GRAY SHALE	33.5	44.0
602.5	CARBONDALE	DANVILLE	COAL	3.5	77.5
599.0	CARBONDALE		UNDERCLAY	8.0	81.0
591.0	CARBONDALE	ENERGY	CLAYSTONE & SHALE	24.5	89.0
566.5	CARBONDALE	ENERGY	GRAY SHALE	42.0	113.5
524.5	CARBONDALE	HERRIN	COAL	6.5	155.5
518.0	CARBONDALE		UNDERCLAY	0.5	162.0

MAPID: 18300068000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 9 QUARTERS/FOOTAGES: 0' S line, 2640' E line

QUADRANGLE: DANVILLE SE LONGITUDE: -87.609877

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.0281

DATE COLLECTED:

SURFACE ELEVATION (FT.): 685.0

LOGGED (FT.): 161.5

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
641.5	MODESTO		GRAY SHALE	33.5	43.5
608.0	CARBONDALE	DANVILLE	COAL	3.5	77.0
604.5	CARBONDALE		CLAYSTONE	8.0	80.5
596.5	CARBONDALE	ENERGY	CLAYSTONE & SHALE	24.5	88.5
572.0	CARBONDALE	ENERGY	GRAY SHALE	42.0	113.0
530.0	CARBONDALE	HERRIN	COAL	6.5	155.0

MAPID: 18300069000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 9 QUARTERS/FOOTAGES:

QUADRANGLE: DANVILLE SE LONGITUDE: -87.61011

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.03543

DATE COLLECTED:

SURFACE ELEVATION (FT.):

LOGGED (FT.): 182.5

LOG TYPE: Drillers Log

SOURCE: C L ENGLISH

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
-	PLEISTOCENE		SAND	4.0	8.0
-	PLEISTOCENE		HARD PAN	28.0	12.0
-	MODESTO		BLACK SHALE	46.0	40.0
-	CARBONDALE	DANVILLE	COAL	3.5	86.0
-	CARBONDALE		CLAYSTONE & SILTSTONE	11.5	89.5
-	CARBONDALE	ENERGY	BLACK SHALE	37.0	101.0
-	CARBONDALE	ENERGY	SANDSTONE	12.0	138.0
-	CARBONDALE	ENERGY	BLACK SHALE	25.5	150.0
-	CARBONDALE	HERRIN	COAL	7.0	175.5

MAPID: 18300071000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 13 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: DANVILLE SE LONGITUDE: -87.559755 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.01992 DATE COLLECTED: 0 / 0 / 1906

SURFACE ELEVATION (FT.): 645.0 LOGGED (FT.): 264.0 LOG TYPE: Drillers Log

SOURCE: C.L. ENGLISH WELL TYPE: Coal Test

COMMENT: 3 MI. NE OF GEORGETOWN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
645.0			UNCONSOLIDATED	71.2	0.0
573.8	MODESTO		GRAY SHALE	64.3	71.2
509.5	MODESTO		UNCLASSIFIED	0.5	135.5
509.0	MODESTO		SHALE	24.5	136.0
484.5	MODESTO		BLACK SHALE	2.5	160.5
482.0	CARBONDALE		SHALE	27.5	163.0
454.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	190.5
450.5	CARBONDALE	ENERGY	SANDSTONE	42.0	194.5
408.5	CARBONDALE	ENERGY	BLACK SHALE	15.5	236.5
393.0	CARBONDALE	HERRIN	COAL	5.1	252.0
387.9	CARBONDALE	HERRIN	UNDERCLAY	0.8	257.1
387.1	CARBONDALE	HERRIN	COAL	2.1	257.9
385.0	CARBONDALE		UNDERCLAY	4.0	260.0

MAPID: 18300070000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 15 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: DANVILLE SE LONGITUDE: -87.593174 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.022943 DATE COLLECTED:

SURFACE ELEVATION (FT.): 676.0 LOGGED (FT.): 112.6 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
676.0	PLEISTOCENE		CLAY	51.0	0.0
625.0	CARBONDALE	ENERGY	SANDSTONE	41.0	51.0
584.0	CARBONDALE	ENERGY	SANDSTONE	4.0	92.0
580.0	CARBONDALE	ENERGY	BLUE SHALE	6.0	96.0
574.0	CARBONDALE	ENERGY	COAL	0.8	102.0
573.2	CARBONDALE	ENERGY	BLUE SHALE	2.8	102.8
570.4	CARBONDALE	HERRIN	COAL	6.0	105.6
564.4	CARBONDALE		UNDERCLAY	1.0	111.6

MAPID: 18300072000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 15 QUARTERS/FOOTAGES: 152' N line, 139' W line of NE NW

QUADRANGLE: DANVILLE SE LONGITUDE: -87.595188 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.027972 DATE COLLECTED:

SURFACE ELEVATION (FT.): 637.0 LOGGED (FT.): 124.4 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
637.0	PLEISTOCENE		SAND & GRAVEL	87.0	0.0
550.0	PLEISTOCENE		SAND	4.0	87.0
546.0	CARBONDALE	ENERGY	BLUE SHALE	22.3	91.0
523.7	CARBONDALE	ENERGY	COAL	0.3	113.3
523.4	CARBONDALE	ENERGY	BLUE SHALE	3.1	113.6
520.3	CARBONDALE	HERRIN	COAL	2.3	116.7
518.1	CARBONDALE	HERRIN	COAL	4.0	118.9
514.1	CARBONDALE	HERRIN	COAL	0.5	122.9
513.6	CARBONDALE		UNDERCLAY	1.0	123.4

MAPID: 18300073000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 16 QUARTERS/FOOTAGES: 990' N line, 990' E line

QUADRANGLE: DANVILLE SE LONGITUDE: -87.603884 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.025464 DATE COLLECTED:

SURFACE ELEVATION (FT.): 687.0 LOGGED (FT.): 142.8 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
687.0	PLEISTOCENE		UNCONSOLIDATED	75.0	0.0
612.0	CARBONDALE	ENERGY	SHALE	5.0	75.0
607.0	CARBONDALE	ENERGY	SANDSTONE	4.0	80.0
603.0	CARBONDALE	ENERGY	LIGHT SHALE	28.0	84.0
575.0	CARBONDALE	ENERGY	BLUE SHALE	19.0	112.0
556.0	CARBONDALE	ENERGY	BLACK SHALE	5.0	131.0
551.0	CARBONDALE	HERRIN	COAL	2.3	136.0
548.7	CARBONDALE	HERRIN	COAL	2.8	138.3
546.0	CARBONDALE	HERRIN	COAL	1.8	141.0

MAPID: 18300073000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 16 QUARTERS/FOOTAGES: 990' N line, 990' E line

QUADRANGLE: DANVILLE SE LONGITUDE: -87.603884

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.025464

DATE COLLECTED:

SURFACE ELEVATION (FT.): 687.0

LOGGED (FT.): 142.8

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
603.0	CARBONDALE	ENERGY	GRAY SHALE	28.0	84.0
575.0	CARBONDALE	ENERGY	DARK GRAY SHALE	19.0	112.0
556.0	CARBONDALE	ENERGY	SILTY SHALE	5.0	131.0
551.0	CARBONDALE	HERRIN	COAL	6.8	136.0

MAPID: 18300074000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 16 QUARTERS/FOOTAGES: 120' S line, 5' E line of SW NE

QUADRANGLE: DANVILLE SE LONGITUDE: -87.604992

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.021178

DATE COLLECTED:

SURFACE ELEVATION (FT.): 675.0

LOGGED (FT.): 137.2

LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
675.0	PLEISTOCENE		UNCONSOLIDATED	70.0	0.0
605.0	CARBONDALE	ENERGY	LIGHT SHALE	14.0	70.0
591.0	CARBONDALE	ENERGY	SANDSTONE	6.0	84.0
585.0	CARBONDALE	ENERGY	LIGHT SHALE	33.0	90.0
552.0	CARBONDALE	ENERGY	BLACK SHALE	8.1	123.0
543.9	CARBONDALE	HERRIN	COAL	6.1	131.1

MAPID: 18300075000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 16 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: DANVILLE SE LONGITUDE: -87.602428 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.015379 DATE COLLECTED:

SURFACE ELEVATION (FT.): 665.0 LOGGED (FT.): 137.2 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
665.0	PLEISTOCENE		UNCONSOLIDATED	59.0	0.0	
606.0			LIGHT SHALE	8.0	59.0	
598.0	CARBONDALE		SANDSTONE	13.0	67.0	
585.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	80.0	
581.0	CARBONDALE	ENERGY	BLUE SHALE	39.0	84.0	
542.0	CARBONDALE	ENERGY	BLACK SHALE	7.0	123.0	
535.0	CARBONDALE	HERRIN	COAL	7.2	130.0	

MAPID: 18300076000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 16 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE SE LONGITUDE: -87.611962 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.015281 DATE COLLECTED:

SURFACE ELEVATION (FT.): 665.0 LOGGED (FT.): 137.2 LOG TYPE: Drillers Log

SOURCE: C.L. ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
665.0			UNCONSOLIDATED	73.1	0.0	
591.9	CARBONDALE	ENERGY	SANDY SHALE	57.3	73.1	
534.7	CARBONDALE	HERRIN	COAL	6.8	130.3	



MAPID: 18300077000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 17 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.621545 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.018826 DATE COLLECTED:

SURFACE ELEVATION (FT.): 674.0 LOGGED (FT.): 165.6 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
674.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
664.0	PLEISTOCENE		SAND	31.0	10.0
633.0	PLEISTOCENE		HARD PAN	14.0	41.0
619.0	PLEISTOCENE		SAND	4.0	55.0
615.0	MODESTO		BLUE SHALE	7.0	59.0
608.0	MODESTO		BLUE SHALE	2.3	66.0
605.7	CARBONDALE	DANVILLE	COAL	3.9	68.3
601.7	CARBONDALE		UNDERCLAY	5.8	72.3
596.0	CARBONDALE	ENERGY	LIGHT SHALE	20.0	78.0
576.0	CARBONDALE	ENERGY	BLUE SHALE	52.0	98.0
524.0	CARBONDALE	ENERGY	BLACK SHALE	9.3	150.0
514.7	CARBONDALE	HERRIN	COAL	3.4	159.3
511.3	CARBONDALE		UNDERCLAY	1.6	162.7
509.7	CARBONDALE		LIMESTONE	1.3	164.3

MAPID: 18300078000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 17 QUARTERS/FOOTAGES: 1276' S line, 1847' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.631253 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.016813 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 682.3 LOGGED (FT.): 173.0 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
682.3			UNCONSOLIDATED	66.0	0.0
616.3	MODESTO		LIGHT SHALE	11.7	66.0
604.6	MODESTO		BLACK SHALE	3.2	77.7
601.5	MODESTO		UNCLASSIFIED	0.1	80.8
601.4	CARBONDALE	DANVILLE	COAL	1.6	80.9
599.8	CARBONDALE		SHALE	1.8	82.5
598.0	CARBONDALE		UNDERCLAY	4.8	84.3
593.3	CARBONDALE	ENERGY	SANDY SHALE	9.0	89.0
584.3	CARBONDALE	ENERGY	SANDSTONE	14.0	98.0
570.3	CARBONDALE	ENERGY	LIGHT SHALE	16.0	112.0
554.3	CARBONDALE	ENERGY	SHALE & SANDSTONE	37.2	128.0
517.1	CARBONDALE	HERRIN	COAL	1.8	165.2
515.3	CARBONDALE	HERRIN	GRAY SHALE	0.9	167.0
514.4	CARBONDALE	HERRIN	COAL	3.4	167.9
511.0	CARBONDALE		UNDERCLAY	1.4	171.3
509.5	CARBONDALE		LIMESTONE	0.3	172.8

MAPID: 18300078000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 17 QUARTERS/FOOTAGES: 1276' S line, 1847' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.631253 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.016813 DATE COLLECTED:

SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 171.2 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
616.2	MODESTO		SHALE	14.8	65.8
601.3	CARBONDALE	DANVILLE	BONE COAL	3.4	80.7
597.9	CARBONDALE		CLAYSTONE	4.8	84.1
593.2	CARBONDALE	ENERGY	SILTY SHALE	9.0	88.8
584.2	CARBONDALE	ENERGY	SANDSTONE	14.0	97.8
570.2	CARBONDALE	ENERGY	GRAY SHALE	16.0	111.8
554.2	CARBONDALE	ENERGY	SILTY SHALE	37.2	127.8
517.0	CARBONDALE	HERRIN	COAL	6.2	165.0

MAPID: 18300079000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 18N 11W    SECTION: 18    QUARTERS/FOOTAGES: 250' N line, 1990' W line

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.649937    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 40.027077    DATE COLLECTED:

SURFACE ELEVATION (FT.): 689.0    LOGGED (FT.): 700.0    LOG TYPE: Drillers Log

SOURCE: DERING COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
689.0			UNCONSOLIDATED	49.0	0.0
640.0	MODESTO		BLUE SHALE	52.5	49.0
587.5	CARBONDALE	DANVILLE	COAL	3.5	101.5
584.0	CARBONDALE		UNDERCLAY	5.0	105.0
579.0	CARBONDALE	ENERGY	SANDY SHALE	10.0	110.0
569.0	CARBONDALE	ENERGY	SANDSTONE	44.0	120.0
525.0	CARBONDALE	ENERGY	BLUE SHALE	38.8	164.0
486.2	CARBONDALE	HERRIN	COAL	7.3	202.8
479.0	CARBONDALE		UNDERCLAY	4.5	210.0
474.5			LIMESTONE	3.0	214.5
471.5			SHALE	68.5	217.5
403.0			SANDSTONE	58.0	286.0
345.0			LIMESTONE	2.0	344.0
343.0			LIGHT SHALE	4.0	346.0
339.0			SANDSTONE	47.7	350.0
291.3			COAL	1.8	397.7
289.5			UNDERCLAY	1.5	399.5
288.0			SANDSTONE	11.0	401.0
277.0			LIGHT SHALE	2.0	412.0
275.0			SANDSTONE	2.5	414.0
272.5			BLACK SHALE	0.8	416.5
271.7			COAL	2.5	417.3
269.2			SANDSTONE	20.3	419.8
249.0			BLUE SHALE	14.0	440.0
235.0			SANDSTONE	11.0	454.0
224.0			BLUE SHALE	1.0	465.0
223.0			LIMESTONE	7.0	466.0
216.0			SANDY SHALE	6.0	473.0
210.0			SANDSTONE	12.0	479.0
198.0			SHALE	17.7	491.0
180.3			COAL	1.3	508.7
179.1			UNDERCLAY	1.6	509.9
177.5			SANDSTONE	2.5	511.5
175.0			BLACK SHALE	4.0	514.0
171.0			BLUE SHALE	9.0	518.0
162.0			SANDSTONE	173.0	527.0

MAPID: 18300079000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 18 QUARTERS/FOOTAGES: 250' N line, 1990' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.649937 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.027077 DATE COLLECTED:

SURFACE ELEVATION (FT.): 689.0 LOGGED (FT.): 210.3 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
639.7	MODESTO		SHALE	52.5	49.3
587.2	CARBONDALE	DANVILLE	COAL	3.5	101.8
583.7	CARBONDALE		CLAYSTONE	5.0	105.3
578.7	CARBONDALE	ENERGY	SILTY SHALE	10.0	110.3
568.7	CARBONDALE	ENERGY	SANDSTONE	44.0	120.3
524.7	CARBONDALE	ENERGY	GRAY SHALE	38.8	164.3
486.0	CARBONDALE	HERRIN	COAL	7.3	203.0

MAPID: 18300080000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 18 QUARTERS/FOOTAGES: 111' N line, 410' W line of SW SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.645925 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.01658 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 678.6 LOGGED (FT.): 192.0 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
678.6	PLEISTOCENE		CLAY	16.0	0.0
662.6	PLEISTOCENE		CLAY	10.0	16.0
652.6	PLEISTOCENE		GRAVEL	2.0	26.0
650.6	PLEISTOCENE		SAND	9.0	28.0
641.6	PLEISTOCENE		CLAY	9.0	37.0
632.6	PLEISTOCENE		GRAVEL	1.0	46.0
631.6	PLEISTOCENE		CLAY	5.0	47.0
626.6	MODESTO		DARK SHALE	39.5	52.0
587.1	CARBONDALE	DANVILLE	COAL	3.7	91.5
583.4	CARBONDALE		UNDERCLAY	7.8	95.2 SS
575.6	CARBONDALE	ENERGY	SANDSTONE	59.0	103.0
516.6	CARBONDALE	ENERGY	DARK SHALE	20.0	162.0
496.6	CARBONDALE	ENERGY	DARK SHALE	2.3	182.0
494.3	CARBONDALE	HERRIN	COAL	0.3	184.3
494.0	CARBONDALE	HERRIN	COAL	5.5	184.6
488.5	CARBONDALE	HERRIN	COAL	0.2	190.1
488.3	CARBONDALE	HERRIN	COAL	1.0	190.3
487.3	CARBONDALE		BLACK SHALE	0.8	191.3

MAPID: 18300081000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 19 QUARTERS/FOOTAGES: 1980' N line, 1980' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.644679 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.007796 DATE COLLECTED:

SURFACE ELEVATION (FT.): 675.0 LOGGED (FT.): 174.0 LOG TYPE: Drillers Log

SOURCE: LITTLE VERMILION COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
675.0	PLEISTOCENE		SOIL	3.0	0.0
672.0	PLEISTOCENE		CLAY	5.0	3.0
667.0	PLEISTOCENE		SAND	7.0	8.0
660.0	PLEISTOCENE		CLAY	20.0	15.0
640.0	PLEISTOCENE		GRAVEL	5.0	35.0
635.0	PLEISTOCENE		CLAY	20.0	40.0
615.0	PLEISTOCENE		CLAY	15.0	60.0
600.0	PLEISTOCENE		CLAY	3.0	75.0
597.0	CARBONDALE	DANVILLE	COAL	3.0	78.0
594.0	CARBONDALE		UNDERCLAY	2.0	81.0
592.0	CARBONDALE	ENERGY	CALCAREOUS SHALE	11.0	83.0
581.0	CARBONDALE	ENERGY	BLUE SHALE	10.0	94.0
571.0	CARBONDALE	ENERGY	LIGHT SHALE	33.0	104.0
538.0	CARBONDALE	ENERGY	BLUE SHALE	28.0	137.0
510.0	CARBONDALE	HERRIN	COAL	6.5	165.0
503.5	CARBONDALE		LIMESTONE	2.5	171.5

MAPID: 18300081000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 19 QUARTERS/FOOTAGES: 1980' N line, 1980' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.644679 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.007796 DATE COLLECTED:

SURFACE ELEVATION (FT.): 675.0 LOGGED (FT.): 171.5 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
635.0	MODESTO		CLAYSTONE & SHALE	38.0	40.0
597.0	CARBONDALE	DANVILLE	COAL	3.0	78.0
594.0	CARBONDALE		CLAYSTONE	2.0	81.0
592.0	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	11.0	83.0
581.0	CARBONDALE	ENERGY	SILTY SHALE	71.0	94.0
510.0	CARBONDALE	HERRIN	COAL	6.5	165.0

MAPID: 18300082000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 18N 11W    SECTION: 19    QUARTERS/FOOTAGES: SE SE

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.639712    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 40.00048    DATE COLLECTED:

SURFACE ELEVATION (FT.): 670.0    LOGGED (FT.): 184.0    LOG TYPE: Drillers Log

SOURCE: LITTLE VERMILION COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.0	PLEISTOCENE		UNCONSOLIDATED	37.0	0.0
633.0	PLEISTOCENE		CLAY	3.0	37.0
630.0	PLEISTOCENE		SAND	3.0	40.0
627.0	PLEISTOCENE		CLAY	34.0	43.0
593.0	PLEISTOCENE		CLAY	2.0	77.0
591.0	CARBONDALE	DANVILLE	COAL	3.5	79.0
587.5	CARBONDALE		UNDERCLAY	6.5	82.5
581.0	CARBONDALE		CALCAREOUS SHALE	48.0	89.0
533.0	CARBONDALE	ENERGY	SANDSTONE	6.0	137.0
527.0	CARBONDALE	ENERGY	SANDSTONE	30.0	143.0
497.0	CARBONDALE	HERRIN	COAL	6.7	173.0
490.3	CARBONDALE		UNDERCLAY	0.3	179.7
490.0	CARBONDALE		LIMESTONE	4.0	180.0

TOP OF COAL  
ERODED

MAPID: 18300083000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 20 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.620941 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.000327 DATE COLLECTED: 9 / 0 / 1908

SURFACE ELEVATION (FT.): 651.0 LOGGED (FT.): 217.7 LOG TYPE: Drillers Log

SOURCE: DERING COAL COMPANY WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
651.0	PLEISTOCENE		SOIL	4.0	0.0
647.0	PLEISTOCENE		SAND	17.0	4.0
630.0	PLEISTOCENE		SANDSTONE	11.0	21.0
619.0	PLEISTOCENE		SANDSTONE	4.0	32.0
615.0	CARBONDALE	ENERGY	GRAY SHALE	8.0	36.0
607.0	CARBONDALE	ENERGY	BROWN SHALE	6.0	44.0
601.0	CARBONDALE	ENERGY	LIGHT SHALE	5.0	50.0
596.0	CARBONDALE	ENERGY	SANDSTONE	27.0	55.0
569.0	CARBONDALE	ENERGY	BLACK SHALE	25.0	82.0
544.0	CARBONDALE	ENERGY	SANDSTONE	2.0	107.0
542.0	CARBONDALE	ENERGY	SANDSTONE	5.0	109.0
537.0	CARBONDALE	ENERGY	BLACK SHALE	13.0	114.0
524.0	CARBONDALE	HERRIN	COAL	6.7	127.0
517.3	CARBONDALE		UNDERCLAY	2.0	133.7
515.3			LIMESTONE	2.0	135.7
513.3			BLACK SHALE	4.0	137.7
509.3			CLAYSTONE & SILTSTONE	13.0	141.7
496.3			BLACK SHALE	39.0	154.7
457.3			DARK SHALE	22.0	193.7
435.3			BLACK SHALE	2.0	215.7

MAPID: 18300084000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 20 QUARTERS/FOOTAGES: 1980' N line, 660' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.635213 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.007802 DATE COLLECTED:

SURFACE ELEVATION (FT.): 672.0 LOGGED (FT.): 169.0 LOG TYPE: Drillers Log

SOURCE: LITTLE VERMILION COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
672.0			UNCONSOLIDATED	60.0	0.0
612.0	MODESTO		BLACK SHALE	2.0	60.0
610.0	CARBONDALE	DANVILLE	COAL	3.0	62.0
607.0	CARBONDALE		UNDERCLAY	1.0	65.0
606.0	CARBONDALE		SHALE	53.0	66.0
553.0	CARBONDALE		LIMESTONE W/ SHALE	5.0	119.0
548.0	CARBONDALE	ENERGY	SANDY SHALE	24.0	124.0
524.0	CARBONDALE	HERRIN	COAL	6.0	148.0
518.0	CARBONDALE		UNDERCLAY	2.0	154.0
516.0	CARBONDALE		LIMESTONE	2.0	156.0
514.0	CARBONDALE		CLAYSTONE & SHALE	11.0	158.0

MAPID: 18300084000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 20 QUARTERS/FOOTAGES: 1980' N line, 660' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.635213 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.007802 DATE COLLECTED:

SURFACE ELEVATION (FT.): 672.0 LOGGED (FT.): 154.0 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
629.0	MODESTO		CLAYSTONE & SHALE	19.0	43.0
610.0	CARBONDALE	DANVILLE	COAL	3.0	62.0
607.0	CARBONDALE		CLAYSTONE & SHALE	11.0	65.0
596.0	CARBONDALE	ENERGY	SILTY SHALE	43.0	76.0
553.0	CARBONDALE	ENERGY	ROCK	5.0	119.0
548.0	CARBONDALE	ENERGY	SILTY SHALE	24.0	124.0
524.0	CARBONDALE	HERRIN	COAL	6.0	148.0



MAPID: 1830187000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 20 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.619739 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.999383 DATE COLLECTED: 5 / 25 / 1973

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

SOURCE: LARRY P GOODMAN WELL TYPE: Dry Hole

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		SOIL	2.0	0.0
-	PLEISTOCENE		CLAY	7.0	2.0
-	PLEISTOCENE		SANDY CLAY	44.0	9.0
-			GREEN SHALE	22.0	53.0
-			SHALE	44.0	75.0
-	CARBONDALE	HERRIN	COAL	1.0	119.0

MAPID: 18301871000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 20 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.619739 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.999383 DATE COLLECTED: 5 / 20 / 1973

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

SOURCE: LARRY P GOODMAN WELL TYPE: Dry Hole

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		SOIL	2.0	0.0
-	PLEISTOCENE		CLAY	5.0	2.0
-	PLEISTOCENE		CLAY	33.0	7.0
-	PLEISTOCENE		SAND	1.0	40.0
-	PLEISTOCENE		CLAY	10.0	41.0
-			GREEN SHALE	11.0	51.0
-			GREEN SHALE	10.0	62.0
-			SHALE	60.0	72.0
-	CARBONDALE	HERRIN	COAL	8.0	132.0

MAPID: 18300085000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 21 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: DANVILLE SE LONGITUDE: -87.611699 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.007881 DATE COLLECTED:

SURFACE ELEVATION (FT.): 667.0 LOGGED (FT.): 149.5 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
667.0	PLEISTOCENE		UNCONSOLIDATED	70.0	0.0	
597.0	CARBONDALE	ENERGY	SANDSTONE	19.0	70.0	
578.0	CARBONDALE	ENERGY	BLUE SHALE	32.0	89.0	
546.0	CARBONDALE	ENERGY	SHALE	21.2	121.0	
524.8	CARBONDALE	HERRIN	COAL	0.5	142.2	
524.3	CARBONDALE	HERRIN	COAL	6.8	142.7	

MAPID: 18300086000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 21 QUARTERS/FOOTAGES: 908' S line, 2457' W line

QUADRANGLE: DANVILLE SE LONGITUDE: -87.609821 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.001135 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 668.8 LOGGED (FT.): 144.7 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
668.8			UNCONSOLIDATED	70.0	0.0	
598.8	CARBONDALE		SANDSTONE	16.0	70.0	
582.8	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	86.0	
578.8	CARBONDALE	ENERGY	SANDSTONE	10.0	90.0	
568.8	CARBONDALE	ENERGY	SANDY SHALE	25.0	100.0	
543.8	CARBONDALE	ENERGY	BLACK SHALE	12.4	125.0	
531.4	CARBONDALE	HERRIN	COAL	6.3	137.4	
525.1	CARBONDALE		UNDERCLAY	1.0	143.7	

MAPID: 18300086000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 21 QUARTERS/FOOTAGES: 908' S line, 2457' W line

QUADRANGLE: DANVILLE SE LONGITUDE: -87.609821

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.001135

DATE COLLECTED:

SURFACE ELEVATION (FT.): 669.0

LOGGED (FT.): 143.3

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
599.4	CARBONDALE		SANDSTONE	16.0	69.6
583.4	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	85.6
579.4	CARBONDALE	ENERGY	SANDSTONE	10.0	89.6
569.4	CARBONDALE	ENERGY	SILTY SHALE	25.0	99.6
544.4	CARBONDALE	ENERGY	BLACK SHALE	12.4	124.6
532.0	CARBONDALE	HERRIN	COAL	6.3	137.0

MAPID: 18300087000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 21 QUARTERS/FOOTAGES: NW SW SW

QUADRANGLE: DANVILLE SE LONGITUDE: -87.617437

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.001265

DATE COLLECTED:

SURFACE ELEVATION (FT.): 663.0

LOGGED (FT.): 124.0

LOG TYPE: Drillers Log

SOURCE: DERING COAL CO.

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
663.0	PLEISTOCENE		SOIL	5.0	0.0
658.0	PLEISTOCENE		HARD PAN	33.0	5.0
625.0	PLEISTOCENE		SANDY CLAY	29.0	38.0
596.0	CARBONDALE	ENERGY	SHALE	36.0	67.0
560.0	CARBONDALE	ENERGY	BLUE SHALE	10.0	103.0
550.0	CARBONDALE	ENERGY	BLUE SHALE	2.3	113.0
547.7	CARBONDALE	HERRIN	COAL	6.2	115.3
541.5	CARBONDALE		UNDERCLAY	2.5	121.5

MAPID: 18300088000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 22 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: DANVILLE SE LONGITUDE: -87.588886 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.001977 DATE COLLECTED:

SURFACE ELEVATION (FT.): 685.0 LOGGED (FT.): 199.0 LOG TYPE: Drillers Log

SOURCE: DERING COAL CO. WELL TYPE: Coal Test

COMMENT: NO COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
685.0	PLEISTOCENE		SOIL	2.0	0.0	
683.0	PLEISTOCENE		CLAY	3.0	2.0	
680.0	PLEISTOCENE		CLAY	1.0	5.0	
679.0	PLEISTOCENE		SAND	1.0	6.0	
678.0	PLEISTOCENE		CLAY	2.0	7.0	
676.0	PLEISTOCENE		CLAY	41.0	9.0	
635.0	PLEISTOCENE		CLAY	31.0	50.0	CEMENTED
604.0	PLEISTOCENE		CLAY	61.0	81.0	
543.0			SHALE	57.0	142.0	

MAPID: 18300089000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 24 QUARTERS/FOOTAGES: 0' S line, 0' E line

QUADRANGLE: DANVILLE SE LONGITUDE: -87.542588 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.000007 DATE COLLECTED: 0 / 0 / 1896

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 166.7 LOG TYPE: Drillers Log

SOURCE: C L ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		SOIL	1.5	0.0	
638.5	PLEISTOCENE		CLAY	14.0	1.5	
624.5	PLEISTOCENE		HARD PAN	15.5	15.5	
609.0	PLEISTOCENE		SAND	1.0	31.0	
608.0	PLEISTOCENE		HARD PAN	23.0	32.0	
585.0	MODESTO		SANDSTONE	18.2	55.0	
566.8	CARBONDALE	DANVILLE	COAL	1.0	73.2	
565.8	CARBONDALE		UNDERCLAY	4.0	74.2	
561.8	CARBONDALE		ROCK	0.3	78.2	
561.5	CARBONDALE		UNDERCLAY	6.0	78.5	
555.5	CARBONDALE	ENERGY	SANDSTONE	5.8	84.5	
549.7	CARBONDALE	ENERGY	GRAY SHALE	13.0	90.3	
536.7	CARBONDALE	ENERGY	ROCK	1.0	103.3	
535.7	CARBONDALE	ENERGY	GRAY SHALE	6.0	104.3	
529.7	CARBONDALE	ENERGY	ROCK	2.0	110.3	
527.7	CARBONDALE	ENERGY	SHALE	47.2	112.3	
480.6	CARBONDALE	HERRIN	COAL	7.3	159.4	

MAPID: 18301408000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 24 QUARTERS/FOOTAGES: 30' S line, 200' W line of NE NW

QUADRANGLE: DANVILLE SE LONGITUDE: -87.556409 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.010872 DATE COLLECTED: 0 / 0 / 1968

SURFACE ELEVATION (FT.): LOGGED (FT.): 200.0 LOG TYPE: Drillers Log

SOURCE: W P WISE 2 WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		SAND	20.0	0.0	
-	PLEISTOCENE		HARD PAN	72.0	20.0	FULL OF ROCK AND SAND
-			SANDSTONE	3.0	92.0	
-			SHALE	55.0	95.0	
-			SHALE	30.0	150.0	
-			GRAY SANDSTONE	5.0	180.0	
-			COAL	4.0	185.0	
-			GRAY SANDSTONE	11.0	189.0	

MAPID: 18300092000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 27 QUARTERS/FOOTAGES: 1980' N line, 1980' E line

QUADRANGLE: HUMRICK LONGITUDE: -87.587466 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.993816 DATE COLLECTED: 0 / 0 / 1906

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 227.9 LOG TYPE: Drillers Log

SOURCE: C L ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
670.0	PLEISTOCENE		SOIL	10.0	0.0	
660.0	PLEISTOCENE		GRAVEL	7.0	10.0	FULL OF WATER
653.0	PLEISTOCENE		SAND	3.5	17.0	WATER
649.5	PLEISTOCENE		UNCONSOLIDATED	2.0	20.5	
647.5	PLEISTOCENE		SAND	1.4	22.5	
646.1	PLEISTOCENE		HARD PAN	17.5	23.9	
628.6	PLEISTOCENE		CLAY	6.0	41.4	
622.6	CARBONDALE	ENERGY	SHALE	59.3	47.4	
563.2	CARBONDALE	ENERGY	DARK SHALE	1.3	106.8	
562.0	CARBONDALE	HERRIN	COAL	4.4	108.0	
557.6	CARBONDALE		UNDERCLAY	3.5	112.4	
554.1			JACK	9.0	115.9	
459.5			SHALE	3.5	210.5	
456.0			BLACK SHALE	1.3	214.0	
454.7			JACK	1.2	215.3	
453.5			UNDERCLAY	2.3	216.5	
451.2			SHALE	3.0	218.8	
448.2			ROCK	6.2	221.8	

MAPID: 18300092000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION    TWP/RNG: 18N 11W    SECTION: 27    QUARTERS/FOOTAGES: 1980' N line, 1980' E line

QUADRANGLE: HUMRICK    LONGITUDE: -87.587466    GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.993816    DATE COLLECTED:

SURFACE ELEVATION (FT.): 670.0    LOGGED (FT.): 112.4    LOG TYPE: Drillers Log

SOURCE:    WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
622.6	CARBONDALE	ENERGY	GRAY SHALE	59.3	47.4	
563.2	CARBONDALE	ENERGY	DARK GRAY SHALE	1.3	106.8	
562.0	CARBONDALE	HERRIN	COAL	4.4	108.0	

MAPID: 18323615000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 18N 11W    SECTION: 27    QUARTERS/FOOTAGES: W2 NW

QUADRANGLE: HUMRICK    LONGITUDE: -87.5969    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 39.995307    DATE COLLECTED: 10 / 5 / 1992

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

SOURCE: TERRY A FINDLAY    WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		SOIL	2.0	0.0	
-	PLEISTOCENE		CLAY	14.0	2.0	
-			CLAY	9.0	16.0	
-			CLAY	1.0	25.0	
-			CLAY	59.0	26.0	
-	PLEISTOCENE		CLAY	14.0	85.0	
-	CARBONDALE	HERRIN	COAL	3.0	99.0	
-			SHALE	28.0	102.0	

MAPID: 18300093000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 28 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: HUMRICK LONGITUDE: -87.616085 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.996699 DATE COLLECTED: 0 / 0 / 1911

SURFACE ELEVATION (FT.): 658.0 LOGGED (FT.): 128.6 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
658.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
646.0	PLEISTOCENE		SAND	8.0	12.0
638.0	PLEISTOCENE		HARD PAN	8.0	20.0
630.0	PLEISTOCENE		SAND	8.0	28.0
622.0	PLEISTOCENE		HARD PAN	12.0	36.0
610.0	PLEISTOCENE		SAND	6.0	48.0
604.0	PLEISTOCENE		UNCONSOLIDATED	8.0	54.0
596.0	PLEISTOCENE		SAND	3.0	62.0
593.0	CARBONDALE	ENERGY	BLACK SHALE	10.0	65.0
583.0	CARBONDALE	ENERGY	SANDSTONE	18.0	75.0
565.0	CARBONDALE	ENERGY	LIGHT SHALE	25.0	93.0
540.0	CARBONDALE	ENERGY	BLACK SHALE	4.6	118.0
535.4	CARBONDALE	HERRIN	COAL	2.5	122.6
532.9	CARBONDALE	HERRIN	COAL	2.6	125.1
530.4	CARBONDALE		UNDERCLAY	1.0	127.6

MAPID: 18300095000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 28 QUARTERS/FOOTAGES: 660' N line, 330' W line of NW

QUADRANGLE: HUMRICK LONGITUDE: -87.6173 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 39.996644 DATE COLLECTED: 9 / 20 / 1908

SURFACE ELEVATION (FT.): 643.1 LOGGED (FT.): 255.0 LOG TYPE: Drillers Log

SOURCE: DERING COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
643.1	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0
639.1	PLEISTOCENE		SAND	3.0	4.0
636.1	PLEISTOCENE		HARD PAN	5.0	7.0
631.1	CARBONDALE	ENERGY	SANDSTONE	6.0	12.0
625.1	CARBONDALE	ENERGY	SANDSTONE	6.0	18.0
619.1	CARBONDALE	ENERGY	SANDSTONE	8.0	24.0
611.1	CARBONDALE	ENERGY	BLUE SHALE	35.0	32.0
576.1	CARBONDALE	ENERGY	SANDSTONE	37.0	67.0
539.1	CARBONDALE	ENERGY	BLUE SHALE	8.3	104.0
530.8	CARBONDALE	ENERGY	BROWN SHALE	1.3	112.3
529.4	CARBONDALE	HERRIN	COAL	5.3	113.7
524.2	CARBONDALE		UNDERCLAY	3.1	118.9
521.1			LIMESTONE	3.0	122.0
518.1			BLACK SHALE	3.0	125.0
515.1			SHALE	14.0	128.0
501.1			CLAYSTONE & SILTSTONE	6.0	142.0
495.1			LIMESTONE	1.5	148.0
493.6			BLUE SHALE	34.5	149.5
459.1			DARK SHALE	17.0	184.0
442.1			BLACK SHALE	1.3	201.0
440.8			ROCK	1.2	202.3
439.6			SHALE	2.0	203.5
437.6			CLAYSTONE & SILTSTONE	13.0	205.5
424.6			SANDSTONE	14.5	218.5
410.1			LIGHT SHALE	15.0	233.0
395.1			DARK SHALE	7.0	248.0



MAPID: 18300096000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 18N 11W    SECTION: 28    QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: HUMRICK    LONGITUDE: -87.607509    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.990561    DATE COLLECTED:

SURFACE ELEVATION (FT.): 641.7    LOGGED (FT.): 279.6    LOG TYPE: Drillers Log

SOURCE: DERING COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
641.7			UNCONSOLIDATED	58.0	0.0
583.7	CARBONDALE	ENERGY	SHALE	17.2	58.0
566.5	CARBONDALE	HERRIN	COAL	5.0	75.2
561.5	CARBONDALE		UNDERCLAY	3.8	80.2
557.7	CARBONDALE		SHALE	92.7	84.0
465.0	CARBONDALE		BLACK SHALE	3.7	176.7
461.4	CARBONDALE		UNCLASSIFIED	0.5	180.3
460.9	CARBONDALE		BLUE SHALE	5.7	180.8
455.2	CARBONDALE		SANDSTONE/SHALE	29.0	186.5
426.2	CARBONDALE		DARK SHALE	7.5	215.5
418.7	CARBONDALE		SANDSTONE/SHALE	29.8	223.0
388.9	CARBONDALE		BLACK SHALE	17.0	252.8
371.9	CARBONDALE		COAL	2.9	269.8
369.1	CARBONDALE		CLAYSTONE & SHALE	2.5	272.6
366.6	CARBONDALE		COAL	0.6	275.1
366.0	CARBONDALE		SANDSTONE	3.9	275.7

MAPID: 18300097000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 28 QUARTERS/FOOTAGES: 1980' N line, 1980' E line

QUADRANGLE: HUMRICK LONGITUDE: -87.606291 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.99325 DATE COLLECTED:

SURFACE ELEVATION (FT.): 665.0 LOGGED (FT.): 167.2 LOG TYPE: Drillers Log

SOURCE: C L ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
665.0	PLEISTOCENE		SOIL	17.4	0.0	
647.6	PLEISTOCENE		CLAY	4.0	17.4	
643.6	PLEISTOCENE		SAND	3.3	21.4	WATER
640.2	PLEISTOCENE		SANDY CLAY	18.2	24.8	
622.1	MODESTO		SHALE	19.2	42.9	
602.9	CARBONDALE	DANVILLE	COAL	3.7	62.1	
599.2	CARBONDALE		UNDERCLAY	8.0	65.8	
591.2	CARBONDALE	ENERGY	SHALE	54.3	73.8	
536.9	CARBONDALE	ENERGY	SANDSTONE	7.5	128.1	
529.4	CARBONDALE	ENERGY	SHALE	22.3	135.6	
507.2	CARBONDALE	ENERGY	SHALE	2.0	157.8	
505.2	CARBONDALE	HERRIN	COAL	7.3	159.8	

MAPID: 18300097000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 28 QUARTERS/FOOTAGES: 1980' N line, 1980' E line

QUADRANGLE: HUMRICK LONGITUDE: -87.606291 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.99325 DATE COLLECTED:

SURFACE ELEVATION (FT.): 665.0 LOGGED (FT.): 167.3 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
621.9	MODESTO		CLAYSTONE & SHALE	19.2	43.1	
602.7	CARBONDALE	DANVILLE	COAL	3.7	62.3	
599.1	CARBONDALE		CLAYSTONE	8.0	65.9	
591.1	CARBONDALE	ENERGY	UNCLASSIFIED	86.1	73.9	
505.0	CARBONDALE	HERRIN	COAL	7.3	160.0	

MAPID: 18300098000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 29 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.620625 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.989503 DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 662.7 LOGGED (FT.): 164.3 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
662.7	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0
651.7	PLEISTOCENE		SAND	40.0	11.0
611.7	PLEISTOCENE		SAND	9.0	51.0
602.7	CARBONDALE	ENERGY	GREEN SHALE	10.0	60.0
592.7	CARBONDALE	ENERGY	SHALE	2.0	70.0
590.7	CARBONDALE	ENERGY	CLAYSTONE	3.5	72.0
587.2	CARBONDALE	ENERGY	LIGHT SHALE	26.5	75.5
560.7	CARBONDALE	ENERGY	BLACK SHALE	26.0	102.0
534.7	CARBONDALE	ENERGY	GRAY SHALE	7.0	128.0
527.7	CARBONDALE	ENERGY	BLACK SHALE	22.8	135.0
504.9	CARBONDALE	HERRIN	COAL	5.8	157.8
499.1	CARBONDALE		UNDERCLAY	0.7	163.6

MAPID: 18300099000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 29 QUARTERS/FOOTAGES: 12' S line, 2240' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.626156 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 39.98415 DATE COLLECTED:

SURFACE ELEVATION (FT.): 668.0 LOGGED (FT.): 157.6 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
668.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
656.0	PLEISTOCENE		SAND	28.0	12.0
628.0	PLEISTOCENE		CLAY	2.0	40.0
626.0	MODESTO		BLUE SHALE	11.3	42.0
614.7	CARBONDALE	DANVILLE	COAL	3.0	53.3
611.7	CARBONDALE	DANVILLE	JACK	0.7	56.3
611.0	CARBONDALE	DANVILLE	COAL	0.3	57.0
610.7	CARBONDALE		UNDERCLAY	3.5	57.3
607.2	CARBONDALE	ENERGY	SHALE	24.3	60.8
583.0	CARBONDALE	ENERGY	BLUE SHALE	30.0	85.0
553.0	CARBONDALE	ENERGY	BLACK SHALE	34.0	115.0
519.0	CARBONDALE	ENERGY	BLACK SHALE	1.5	149.0
517.5	CARBONDALE	HERRIN	COAL	2.3	150.5
515.2	CARBONDALE	HERRIN	JACK	0.8	152.8
514.5	CARBONDALE	HERRIN	COAL	3.1	153.5
511.4	CARBONDALE		UNDERCLAY	1.0	156.6

MAPID: 18300099000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 29 QUARTERS/FOOTAGES: 12' S line, 2240' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.626156 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.98415 DATE COLLECTED:

SURFACE ELEVATION (FT.): 668.0 LOGGED (FT.): 157.1 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
623.5	MODESTO		GRAY SHALE	11.3	44.5
612.2	CARBONDALE	DANVILLE	COAL WITH SHALE PARTINGS	3.9	55.8
608.2	CARBONDALE		CLAYSTONE	3.5	59.8
604.7	CARBONDALE	ENERGY	SILTY SHALE	22.3	63.3
582.5	CARBONDALE	ENERGY	GRAY SHALE	30.0	85.5
552.5	CARBONDALE	ENERGY	SILTY SHALE	34.0	115.5
518.5	CARBONDALE	ENERGY	BLACK SHALE	1.5	149.5
517.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	6.1	151.0

MAPID: 1830010000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 29 QUARTERS/FOOTAGES: SW SW NW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.635951 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.99228 DATE COLLECTED: 10 / 0 / 1908

SURFACE ELEVATION (FT.): 669.0 LOGGED (FT.): 196.0 LOG TYPE: Drillers Log

SOURCE: DERING COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
669.0	PLEISTOCENE		SOIL	4.0	0.0
665.0	PLEISTOCENE		CLAY	16.0	4.0
649.0	PLEISTOCENE		HARD PAN	13.0	20.0
636.0	PLEISTOCENE		CLAY	15.0	33.0
621.0	MODESTO		BLACK SHALE	14.0	48.0
607.0	MODESTO		SANDSTONE	5.0	62.0
602.0	MODESTO		DARK SHALE	10.0	67.0
592.0	CARBONDALE	DANVILLE	COAL	1.0	77.0
591.0	CARBONDALE		UNDERCLAY	1.0	78.0
590.0	CARBONDALE		SANDSTONE	2.0	79.0
588.0	CARBONDALE	ENERGY	LIGHT SHALE	8.0	81.0
580.0	CARBONDALE	ENERGY	SHALE	8.0	89.0
572.0	CARBONDALE	ENERGY	SANDSTONE	48.0	97.0
524.0	CARBONDALE	ENERGY	DARK SHALE	45.0	145.0
479.0	CARBONDALE	HERRIN	COAL	5.0	190.0
474.0	CARBONDALE		UNDERCLAY	1.0	195.0

MAPID: 18322122000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 29 QUARTERS/FOOTAGES: 2100' N line, 350' E line of NE

QUADRANGLE: HUMRICK LONGITUDE: -87.616568 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.992658 DATE COLLECTED: 0 / 0 / 1977

SURFACE ELEVATION (FT.): LOGGED (FT.): 471.5 LOG TYPE: Survey Core Study

SOURCE: U.S. STEEL WI-9-77 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	CARBONDALE	COLCHESTER	COAL	1.2	317.7
-			COAL	0.8	320.8
-			COAL	2.1	325.2
-			COAL	0.6	346.7
-			COAL	2.0	352.5
-			COAL	2.5	386.2
-			COAL	0.9	407.7
-			COAL	1.0	440.2
-			COAL	0.4	449.8

MAPID: 18300101000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 30 QUARTERS/FOOTAGES: 33' S line, 370' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.65469 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 39.984036 DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 678.7 LOGGED (FT.): 190.5 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
678.7	PLEISTOCENE		SOIL	1.5	0.0
677.2	PLEISTOCENE		CLAY	6.0	1.5
671.2	PLEISTOCENE		SAND	0.5	7.5
670.7	PLEISTOCENE		CLAY	11.5	8.0
659.2	PLEISTOCENE		SAND	5.2	19.5
654.0	PLEISTOCENE		GRAVEL	14.3	24.7
639.7	PLEISTOCENE		CLAY	15.0	39.0
624.7	MODESTO		SHALE	21.0	54.0
603.7	MODESTO		SANDSTONE	7.8	75.0
595.9	CARBONDALE	DANVILLE	COAL	3.4	82.8
592.4	CARBONDALE		CLAYSTONE & SILTSTONE	9.8	86.3
582.7	CARBONDALE		LIMESTONE	1.0	96.0
581.7	CARBONDALE	ENERGY	SHALE	12.0	97.0
569.7	CARBONDALE	ENERGY	SANDSTONE	68.5	109.0
501.2	CARBONDALE	ENERGY	COAL	0.2	177.5
501.0	CARBONDALE	ENERGY	SANDSTONE	4.3	177.7
496.8	CARBONDALE	HERRIN	COAL	0.7	181.9
496.1	CARBONDALE	HERRIN	COAL	3.2	182.6
493.0	CARBONDALE	HERRIN	COAL	0.1	185.7
492.8	CARBONDALE	HERRIN	COAL	0.3	185.9
492.6	CARBONDALE	HERRIN	COAL	0.2	186.1
492.4	CARBONDALE	HERRIN	COAL	2.6	186.3
489.8	CARBONDALE		UNDERCLAY	1.6	188.9

MAPID: 18300101000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION    TWP/RNG: 18N 11W    SECTION: 30    QUARTERS/FOOTAGES: 33' S line, 370' W line

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.65469    GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.984036    DATE COLLECTED:

SURFACE ELEVATION (FT.): 679.0    LOGGED (FT.): 189.0    LOG TYPE: Drillers Log

SOURCE:    WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
624.9	MODESTO		DARK GRAY SHALE	28.8	54.1
596.1	CARBONDALE	DANVILLE	COAL	3.4	82.9
592.7	CARBONDALE		CLAYSTONE	9.8	86.3
582.9	CARBONDALE	BANKSTON FORK	LIMESTONE AND SANDSTONE	1.0	96.1
581.9	CARBONDALE	ENERGY	SILTY SHALE	12.0	97.1
569.9	CARBONDALE	ENERGY	SANDSTONE	68.5	109.1
501.4	CARBONDALE	ENERGY	COAL	0.2	177.6
501.2	CARBONDALE	ENERGY	SANDSTONE	4.3	177.8
497.0	CARBONDALE	HERRIN	COAL	7.0	182.0

MAPID: 18300102000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 18N 11W    SECTION: 30    QUARTERS/FOOTAGES: NE NW

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.649159    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 39.996816    DATE COLLECTED: 5 / 10 / 1905

SURFACE ELEVATION (FT.): 670.0    LOGGED (FT.): 212.0    LOG TYPE: Drillers Log

SOURCE: LITTLE VERMILION COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.0	PLEISTOCENE		UNCONSOLIDATED	44.0	0.0
626.0	PLEISTOCENE		SAND	41.0	44.0
585.0	MODESTO		SANDSTONE	1.0	85.0
584.0	MODESTO		SANDSTONE	14.0	86.0
570.0	CARBONDALE	DANVILLE	COAL	3.0	100.0
567.0	CARBONDALE	ENERGY	SANDY SHALE	8.0	103.0
559.0	CARBONDALE	ENERGY	SANDSTONE	1.0	111.0
558.0	CARBONDALE	ENERGY	SHALE	38.0	112.0
520.0	CARBONDALE	ENERGY	SANDSTONE	51.0	150.0
469.0	CARBONDALE	HERRIN	COAL	1.0	201.0
468.0	CARBONDALE	HERRIN	CLAYSTONE	0.5	202.0
467.5	CARBONDALE	HERRIN	COAL	7.5	202.5
460.0	CARBONDALE		UNDERCLAY	2.0	210.0

MAPID: 18300103000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 30 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.653937 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.996805 DATE COLLECTED: 4 / 23 / 1905

SURFACE ELEVATION (FT.): 695.0 LOGGED (FT.): 258.0 LOG TYPE: Drillers Log

SOURCE: LITTLE VERMILION COAL CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
695.0	PLEISTOCENE		SOIL	2.0	0.0	
693.0	PLEISTOCENE		CLAY	66.0	2.0	
627.0			SANDSTONE	2.0	68.0	
625.0			SHALE	7.0	70.0	
618.0			SANDSTONE	4.0	77.0	
614.0			SHALE	46.0	81.0	
568.0			SANDSTONE	3.0	127.0	
565.0			SHALE	3.0	130.0	
562.0			SANDSTONE	3.0	133.0	
559.0			SHALE	35.0	136.0	
524.0			ROCK	4.0	171.0	
520.0	CARBONDALE	ENERGY	SHALE	25.0	175.0	
495.0	CARBONDALE	ENERGY	SHALE	10.0	200.0	
485.0	CARBONDALE	ENERGY	SANDSTONE	18.0	210.0	
467.0	CARBONDALE	ENERGY	DARK SHALE	29.0	228.0	
438.0	CARBONDALE	HERRIN	COAL	1.0	257.0	MAY NOT BE FULL THICKNESS OF COAL



MAPID: 18300104000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 31 QUARTERS/FOOTAGES: NE SW SW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.652199 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.971981 DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 673.8 LOGGED (FT.): 201.0 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
673.8			UNCONSOLIDATED	45.0	0.0	
628.8	MODESTO		BROWN SHALE	49.6	45.0	
579.2	CARBONDALE	DANVILLE	COAL	2.3	94.6	
576.9	CARBONDALE		UNDERCLAY	8.1	96.9	
568.8	CARBONDALE	ENERGY	SANDY SHALE	7.0	105.0	
561.8	CARBONDALE	ENERGY	SANDSTONE	57.0	112.0	
504.8	CARBONDALE	ENERGY	SANDY SHALE	14.0	169.0	
490.8	CARBONDALE	ENERGY	SHALE	5.0	183.0	
485.8	CARBONDALE	ENERGY	DARK SHALE	2.0	188.0	
483.8	CARBONDALE	HERRIN	COAL	0.8	190.0	
483.0	CARBONDALE	HERRIN	DARK SHALE	1.7	190.8	
481.4	CARBONDALE	HERRIN	COAL	2.8	192.4	
478.5	CARBONDALE	HERRIN	SHALE	0.0	195.3	
478.5	CARBONDALE	HERRIN	COAL	2.7	195.3	
475.8	CARBONDALE		UNDERCLAY	3.0	198.0	

MAPID: 18300105000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 18N 11W    SECTION: 31    QUARTERS/FOOTAGES: 1980' N line, 1980' W line

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.648804    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 39.978534    DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 681.0    LOGGED (FT.): 351.3    LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL COMPANY    2    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
681.0	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0
656.0	PLEISTOCENE		UNCONSOLIDATED	3.0	25.0
653.0	PLEISTOCENE		HARD PAN	14.0	28.0
639.0	PLEISTOCENE		UNCONSOLIDATED	5.0	42.0
634.0	MODESTO		BLACK SHALE	45.0	47.0
589.0	MODESTO		DARK SHALE	4.5	92.0
584.5	CARBONDALE	DANVILLE	COAL	3.2	96.5
581.3	CARBONDALE		JACK	0.3	99.7
581.0	CARBONDALE		UNDERCLAY	7.0	100.0
574.0	CARBONDALE		SANDSTONE	20.0	107.0
554.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	127.0
551.0	CARBONDALE	ENERGY	SANDSTONE	47.8	130.0
503.2	CARBONDALE	ENERGY	SHALE	16.4	177.8
486.7	CARBONDALE	ENERGY	BLACK SHALE	0.3	194.3
486.4	CARBONDALE	HERRIN	COAL	6.2	194.6
480.2	CARBONDALE	HERRIN	JACK	0.5	200.8
479.7	CARBONDALE		UNDERCLAY	2.8	201.3
477.0			SANDSTONE	7.0	204.0
470.0			BROWN SHALE	1.8	211.0
468.2			COAL	0.2	212.8
468.0			BLACK SHALE	5.5	213.0
462.5			SANDSTONE	3.0	218.5
459.5			BLACK SHALE	10.3	221.5
449.2			GRAY SHALE	32.4	231.8
416.8			BLACK SHALE	3.0	264.2
413.8			BLACK SHALE	3.3	267.2
410.6			SANDSTONE	0.5	270.4
410.1			BLACK SHALE	6.3	270.9
403.7			SANDSTONE	23.0	277.3
380.7			SHALE	17.3	300.3
363.4			SANDSTONE	3.0	317.6
360.4			SHALE	2.5	320.6
357.9			BLACK SHALE	2.0	323.1
355.9			SANDSTONE	3.0	325.1
352.9			BLACK SHALE	8.3	328.1
344.7			SANDSTONE	15.0	336.3

MAPID: 18300105000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 31 QUARTERS/FOOTAGES: 1980' N line, 1980' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.648804

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.978534

DATE COLLECTED:

SURFACE ELEVATION (FT.): 681.0

LOGGED (FT.): 201.2

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
633.6	MODESTO		DARK GRAY SHALE	49.5	47.4
584.1	CARBONDALE	DANVILLE	COAL	3.2	96.9
580.9	CARBONDALE		CLAYSTONE	7.3	100.1
573.6	CARBONDALE		SANDSTONE	20.0	107.4
553.6	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	127.4
550.6	CARBONDALE	ENERGY	SANDSTONE	47.8	130.4
502.7	CARBONDALE	ENERGY	SILTY SHALE	16.4	178.3
486.3	CARBONDALE	ENERGY	BLACK SHALE	0.3	194.7
486.0	CARBONDALE	HERRIN	COAL	6.2	195.0

MAPID: 18301382000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 33 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: HUMRICK LONGITUDE: -87.600097

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.981595

DATE COLLECTED: 11 / 0 / 1967

SURFACE ELEVATION (FT.):

LOGGED (FT.): 130.0

LOG TYPE: Drillers Log

SOURCE: W P WISE

WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		CLAY	20.0	0.0
-	PLEISTOCENE		HARD PAN	4.0	20.0
-	PLEISTOCENE		SAND	1.0	24.0
-	PLEISTOCENE		HARD PAN	35.0	25.0
-			ROCK	1.0	60.0
-			SHALE	37.0	61.0
-	CARBONDALE	HERRIN	COAL	2.0	98.0
-			SHALE	30.0	100.0

**MAPID:** 18300228000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 11W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 1400' S line, 4900' E line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.5974    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.973665    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 606.0    **LOGGED (FT.):** 52.2    **LOG TYPE:** Drillers Log  
**SOURCE:** CENTRAL INDIANAN COAL CO    **WELL TYPE:** Coal Test  
**COMMENT:** COAL TEST HOLE #61

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
606.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0
601.0			SHALE	42.5	5.0
558.5	CARBONDALE	HERRIN	COAL	4.7	47.5

**MAPID:** 18300244000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 11W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 2500' S line, 5130' E line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.598286    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.976682    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 643.0    **LOGGED (FT.):** 90.0    **LOG TYPE:** Drillers Log  
**SOURCE:** CENTRAL INDIANA COAL CO    **WELL TYPE:** Coal Test  
**COMMENT:** COAL TEST HOLE #62

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
643.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
633.0	PLEISTOCENE		HARD PAN	15.0	10.0
618.0			SHALE	60.5	25.0
557.5	CARBONDALE	HERRIN	COAL	4.5	85.5

**MAPID:** 18300245000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 11W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 4040' S line, 2870' E line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.590276    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.981089    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 638.0    **LOGGED (FT.):** 48.0    **LOG TYPE:** Drillers Log  
**SOURCE:** CENTRAL INDIANA COAL CO    **WELL TYPE:** Coal Test  
**COMMENT:** TEST HOLE #59

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
638.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0
633.0			SAND	31.0	5.0
602.0			SHALE	10.0	36.0
592.0	CARBONDALE	HERRIN	COAL	2.0	46.0

**MAPID:** 18300246000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 11W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 5130' S line, 2880' E line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.590373    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.984094    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 643.0    **LOGGED (FT.):** 77.5    **LOG TYPE:** Drillers Log  
**SOURCE:** CENTRAL INDIANA COAL CO    **WELL TYPE:** Coal Test  
**COMMENT:** TEST HOLE #58

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
643.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
638.0	PLEISTOCENE		SAND	10.0	5.0	
628.0	PLEISTOCENE		SAND	51.5	15.0	
576.5			SHALE	10.0	66.5	
566.5			SANDSTONE	1.0	76.5	#6 COAL OUT

**MAPID:** 18300329000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 11W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 5150' S line, 3820' E line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.593746    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.984079    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 653.0    **LOGGED (FT.):** 83.0    **LOG TYPE:** Drillers Log  
**SOURCE:** CENTRAL INDIANA COAL CO    **WELL TYPE:** Coal Test  
**COMMENT:** TEST HOLE #60

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
653.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
638.0	PLEISTOCENE		HARD PAN	45.0	15.0	
593.0	PLEISTOCENE		SAND	10.0	60.0	
583.0	PLEISTOCENE		HARD PAN	13.0	70.0	#6 OUT

**MAPID:** 18300297000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 11W    **SECTION:** 35    **QUARTERS/FOOTAGES:** 50' S line, 2560' E line  
**QUADRANGLE:** HUMRICK    **LONGITUDE:** -87.569948    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.970415    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 676.0    **LOGGED (FT.):** 95.5    **LOG TYPE:** Drillers Log  
**SOURCE:** CENTRAL INDIANA COAL CO    **WELL TYPE:** Coal Test  
**COMMENT:** COAL TEST HOLE #47

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
676.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
661.0	PLEISTOCENE		SAND	53.0	15.0	
608.0			SHALE	26.5	68.0	
581.5			SANDSTONE	1.0	94.5	NO COAL

MAPID: 18300512000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 11W SECTION: 35 QUARTERS/FOOTAGES: 610' S line, 3660' E line  
 QUADRANGLE: HUMRICK LONGITUDE: -87.573911 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 39.971909 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 653.1 LOGGED (FT.): 72.3 LOG TYPE: Drillers Log  
 SOURCE: CENTRAL INDIANAN COAL CO WELL TYPE: Coal Test  
 COMMENT: COAL TEST HOLE #51

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
653.1	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
645.1	PLEISTOCENE		SAND	40.0	8.0	
605.1	CARBONDALE		SHALE	20.5	48.0	
584.6	CARBONDALE	HERRIN	COAL	3.8	68.5	

MAPID: 18300107000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 1 QUARTERS/FOOTAGES: 146' N line, 2383' E line  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.66612 GEOLOGIST: R. SMITH  
 CONFIDENTIAL: N LATITUDE: 40.057194 DATE COLLECTED: 0 / 0 / 1909  
 SURFACE ELEVATION (FT.): 678.0 LOGGED (FT.): 176.6 LOG TYPE: Drillers Log  
 SOURCE: BUNSEN COAL WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
678.0			UNCONSOLIDATED	43.5	0.0	
634.5	MODESTO		SHALE	62.5	43.5	
572.0	MODESTO		BLACK SHALE	17.1	106.0	
554.9	CARBONDALE	DANVILLE	COAL	4.5	123.1	
550.4	CARBONDALE		UNDERCLAY	4.4	127.6	
546.0	CARBONDALE	ENERGY	SHALE	36.8	132.0	
509.2	CARBONDALE	HERRIN	COAL	7.2	168.8	
502.0	CARBONDALE		UNDERCLAY	0.5	176.0	

MAPID: 18300107000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 1 QUARTERS/FOOTAGES: 146' N line, 2383' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.66612 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.057194 DATE COLLECTED:

SURFACE ELEVATION (FT.): 678.0 LOGGED (FT.): 176.2 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.8	MODESTO		GRAY SHALE	63.1	60.2	
554.7	CARBONDALE	DANVILLE	COAL	4.5	123.3	
550.2	CARBONDALE		CLAYSTONE	4.4	127.8	
545.8	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	4.0	132.2	
541.8	CARBONDALE	ENERGY	GRAY SHALE	14.0	136.2	
527.8	CARBONDALE	ENERGY	SILTY SHALE	18.8	150.2	
509.0	CARBONDALE	HERRIN	COAL	7.2	169.0	

MAPID: 18300109000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 2 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.678958 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.051962 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 678.7 LOGGED (FT.): 200.0 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
678.7	PLEISTOCENE		CLAY	33.0	0.0	
645.7	PLEISTOCENE		SANDY CLAY	6.0	33.0	
639.7	PLEISTOCENE		CLAY	3.0	39.0	
636.7	MODESTO		BLACK SHALE	11.0	42.0	
625.7	MODESTO		DARK SHALE	98.0	53.0	
527.7	MODESTO		DARK SHALE	1.6	151.0	
526.1	CARBONDALE	DANVILLE	COAL	4.9	152.6	
521.2	CARBONDALE	ENERGY	DARK SHALE	23.5	157.5	
497.7	CARBONDALE	ENERGY	SANDSTONE	8.0	181.0	
489.7	CARBONDALE	ENERGY	SHALE	4.4	189.0	
485.3	CARBONDALE	HERRIN	COAL	0.3	193.4	
485.0	CARBONDALE	HERRIN	COAL	3.6	193.7	
481.4	CARBONDALE	HERRIN	GRAY SHALE	0.1	197.3	
481.4	CARBONDALE	HERRIN	COAL	0.2	197.3	
481.2	CARBONDALE	HERRIN	COAL	0.2	197.5	
481.0	CARBONDALE	HERRIN	COAL	1.6	197.7	
479.4	CARBONDALE		UNDERCLAY	0.8	199.3	

MAPID: 18300110000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 2 QUARTERS/FOOTAGES: SE SW NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.682441 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.051022 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 682.6 LOGGED (FT.): 208.0 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
682.6	PLEISTOCENE		UNCONSOLIDATED	2.0	0.0
680.6	PLEISTOCENE		SAND	28.0	2.0
652.6	PLEISTOCENE		HARD PAN	16.0	30.0
636.6	MODESTO		LIGHT SHALE	9.0	46.0
627.6	MODESTO		SHALE	27.0	55.0
600.6	MODESTO		SANDSTONE	53.0	82.0
547.6	MODESTO		LIGHT SHALE	22.0	135.0
525.6	CARBONDALE	DANVILLE	COAL	4.5	157.0
521.1	CARBONDALE		UNDERCLAY	6.5	161.5
514.6	CARBONDALE	BANKSTON FORK	LIMESTONE	5.5	168.0
509.1	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	173.5
507.6	CARBONDALE	ENERGY	BLACK SHALE	26.1	175.0
481.5	CARBONDALE	HERRIN	COAL	6.5	201.1
475.0	CARBONDALE		UNDERCLAY	0.5	207.6

MAPID: 18301760000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 2 QUARTERS/FOOTAGES: 2640' N line, 2640' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.686054 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.050352 DATE COLLECTED: 5 / 9 / 1972

SURFACE ELEVATION (FT.): 677.0 LOGGED (FT.): 2180.0 LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 6 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
525.0	SHELBURN	DANVILLE	COAL	4.3	152.0
483.0	CARBONDALE	HERRIN	COAL	6.0	194.0



MAPID: 18301760000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 2 QUARTERS/FOOTAGES: 2640' N line, 2640' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.686054

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.050352

DATE COLLECTED:

SURFACE ELEVATION (FT.): 677.0 LOGGED (FT.): 200.0

LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 6

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
615.0	MODESTO		SILTY SHALE	90.0	62.0
525.0	CARBONDALE	DANVILLE	COAL	4.3	152.0
520.7	CARBONDALE		CLAYSTONE	2.7	156.3
518.0	CARBONDALE		SILTY SHALE	5.0	159.0
513.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	164.0
508.5	CARBONDALE	ENERGY	SILTY SHALE	25.5	168.5
483.0	CARBONDALE	HERRIN	COAL	6.0	194.0

MAPID: 18301770000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 2 QUARTERS/FOOTAGES: 1320' N line, 1320' E line of SE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.6811

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.042665

DATE COLLECTED: 5 / 23 / 1972

SURFACE ELEVATION (FT.): 685.0 LOGGED (FT.): 218.0

LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 30

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
542.0	SHELBURN	DANVILLE	COAL	4.0	143.0
487.0	CARBONDALE	HERRIN	COAL	5.5	198.0

MAPID: 18390448000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 2 QUARTERS/FOOTAGES: SW SE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.679912 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.043484 DATE COLLECTED: 5 / 23 / 1972

SURFACE ELEVATION (FT.): 685.0 LOGGED (FT.): 218.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE F215 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
685.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0
676.0	PLEISTOCENE		UNCONSOLIDATED	32.0	9.0
644.0	SHELBURN		GRAY SHALE	102.0	41.0
542.0	SHELBURN	DANVILLE	COAL	4.0	143.0
538.0	SHELBURN		UNDERCLAY	2.0	147.0
536.0	SHELBURN		GRAY SHALE	48.0	149.0
488.0	CARBONDALE	ANNA	DARK SHALE	1.0	197.0
487.0	CARBONDALE	HERRIN	COAL	5.5	198.0
481.5	CARBONDALE		UNDERCLAY	1.5	203.5
480.0	CARBONDALE		GRAY SHALE	13.0	205.0

MAPID: 18390450000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 2 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.687111 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.051025 DATE COLLECTED: 5 / 9 / 1972

SURFACE ELEVATION (FT.): 677.0 LOGGED (FT.): 218.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE F313 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
677.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
669.0	PLEISTOCENE		UNCONSOLIDATED	33.0	8.0
636.0	SHELBURN		SANDY SHALE	111.0	41.0
525.0	SHELBURN	DANVILLE	COAL	4.3	152.0
520.7	SHELBURN		UNDERCLAY	2.7	156.3
518.0	SHELBURN		SANDY SHALE	5.0	159.0
513.0	SHELBURN		LIMESTONE	4.5	164.0
508.5	SHELBURN		SANDY SHALE	25.5	168.5
483.0	CARBONDALE	HERRIN	COAL	6.0	194.0
477.0	CARBONDALE		UNDERCLAY	2.0	200.0
475.0	CARBONDALE		SANDY SHALE	12.0	202.0
463.0	CARBONDALE		LIMESTONE	3.0	214.0
460.0	CARBONDALE		SHALE	1.0	217.0

MAPID: 18390451000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 18N 12W    SECTION: 2    QUARTERS/FOOTAGES: SW NE

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.683627    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.051968    DATE COLLECTED: 6 / 13 / 1972

SURFACE ELEVATION (FT.): 681.0    LOGGED (FT.): 208.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    F315    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
681.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0
670.0	PLEISTOCENE		UNCONSOLIDATED	24.0	11.0
646.0	SHELBURN		GRAY SHALE	120.0	35.0
526.0	SHELBURN	DANVILLE	COAL	5.3	155.0
520.7	SHELBURN		UNDERCLAY	2.7	160.3
518.0	SHELBURN		SHALE WITH LIMESTONE	38.0	163.0
480.0	CARBONDALE	HERRIN	COAL	4.0	201.0
476.0	CARBONDALE	HERRIN	CLAYSTONE	0.3	205.0
475.7	CARBONDALE	HERRIN	COAL	1.8	205.3
473.9	CARBONDALE		UNDERCLAY	0.9	207.1

MAPID: 18390452000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 18N 12W    SECTION: 2    QUARTERS/FOOTAGES: SW NE NE

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.680195    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.054792    DATE COLLECTED: 6 / 14 / 1972

SURFACE ELEVATION (FT.): 675.0    LOGGED (FT.): 198.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    F365    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
675.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0
669.0	PLEISTOCENE		UNCONSOLIDATED	38.0	6.0
631.0	SHELBURN		GRAY SHALE	104.0	44.0
527.0	SHELBURN	DANVILLE	COAL	5.3	148.0
521.7	SHELBURN		UNDERCLAY	2.8	153.3
519.0	SHELBURN		GRAY SHALE & LIMESTONE	10.0	156.0
509.0	SHELBURN		LIMESTONE	2.0	166.0
507.0	SHELBURN		SANDY SHALE	20.0	168.0
487.0	CARBONDALE	HERRIN	COAL	6.3	188.0
480.7	CARBONDALE		UNDERCLAY	3.7	194.3

MAPID: 18300111000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 3 QUARTERS/FOOTAGES: 1320' N line, 0' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.714406 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.054093 DATE COLLECTED: 0 / 0 / 1907

SURFACE ELEVATION (FT.): 665.0 LOGGED (FT.): 212.0 LOG TYPE: Drillers Log

SOURCE: C.L. ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
665.0			UNCONSOLIDATED	60.0	0.0
605.0			BLUE SHALE	107.0	60.0
498.0	CARBONDALE	DANVILLE	COAL	4.8	167.0
493.2	CARBONDALE		SHALE/COAL	0.2	171.8
493.0	CARBONDALE		UNDERCLAY	6.0	172.0
487.0	CARBONDALE	ENERGY	SANDSTONE	2.0	178.0
485.0	CARBONDALE	ENERGY	CLAYSTONE & SHALE	10.0	180.0
475.0	CARBONDALE	ENERGY	SANDSTONE	12.0	190.0
463.0	CARBONDALE	HERRIN	COAL	5.0	202.0
458.0	CARBONDALE		UNDERCLAY	2.0	207.0
456.0	CARBONDALE		SANDY LIMESTONE	0.7	209.0
455.3	CARBONDALE		SANDY SHALE	2.3	209.7

MAPID: 18300111000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 3 QUARTERS/FOOTAGES: 1320' N line, 0' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.714406 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.054093 DATE COLLECTED:

SURFACE ELEVATION (FT.): 665.0 LOGGED (FT.): 207.0 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
588.0	MODESTO		SILTY SHALE	90.0	77.0
498.0	CARBONDALE	DANVILLE	COAL	5.0	167.0
493.0	CARBONDALE		CLAYSTONE	6.0	172.0
487.0	CARBONDALE	ENERGY	SANDSTONE	2.0	178.0
485.0	CARBONDALE	ENERGY	CLAYSTONE & SHALE	10.0	180.0
475.0	CARBONDALE	ENERGY	SANDSTONE	12.0	190.0
463.0	CARBONDALE	HERRIN	COAL	5.0	202.0

MAPID: 18300112000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 3 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.702313 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.044398 DATE COLLECTED: 0 / 0 / 1907

SURFACE ELEVATION (FT.): 685.0 LOGGED (FT.): 191.8 LOG TYPE: Drillers Log

SOURCE: C L ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
685.0	PLEISTOCENE		UNCONSOLIDATED	31.0	0.0
654.0	PLEISTOCENE		HARD PAN	13.0	31.0
641.0	MODESTO		BLUE SHALE	10.0	44.0
631.0	MODESTO		SHALE	66.0	54.0
565.0	MODESTO		BLUE SHALE	29.0	120.0
536.0	CARBONDALE	DANVILLE	COAL	5.1	149.0
530.9	CARBONDALE		UNDERCLAY	6.9	154.1
524.0	CARBONDALE	ENERGY	BROWN SHALE	15.0	161.0
509.0	CARBONDALE	ENERGY	BLACK SHALE	8.4	176.0
500.6	CARBONDALE	ENERGY	BLACK SHALE	2.0	184.4
498.6	CARBONDALE	HERRIN	COAL	4.6	186.4
494.0	CARBONDALE		UNDERCLAY	0.8	191.0

MAPID: 18300113000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 3 QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.71178 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.044414 DATE COLLECTED: 0 / 0 / 1907

SURFACE ELEVATION (FT.): LOGGED (FT.): 175.5 LOG TYPE: Drillers Log

SOURCE: C L ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
-	PLEISTOCENE		UNCONSOLIDATED	34.0	20.0
-	PLEISTOCENE		SAND	7.0	54.0
-	PLEISTOCENE		UNCONSOLIDATED	3.0	61.0
-	MODESTO		BLUE SHALE	48.0	64.0
-	MODESTO		BLUE SHALE	28.0	112.0
-	CARBONDALE	DANVILLE	COAL	5.3	140.0
-	CARBONDALE		UNDERCLAY	3.7	145.3
-	CARBONDALE	ENERGY	BLUE SHALE	16.0	149.0
-	CARBONDALE	ENERGY	BLACK SHALE	6.2	165.0
-	CARBONDALE	HERRIN	COAL	2.6	171.2
-	CARBONDALE		UNDERCLAY	1.8	173.8

MAPID: 18300807000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 4 QUARTERS/FOOTAGES: 1320' N line, 1320' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.719143 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.054101 DATE COLLECTED:

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 216.2 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.0	PLEISTOCENE		SOIL	1.0	0.0
669.0	PLEISTOCENE		CLAY	6.0	1.0
663.0	PLEISTOCENE		SAND	13.0	7.0
650.0	PLEISTOCENE		CLAY	5.0	20.0
645.0	PLEISTOCENE		CLAY	13.0	25.0
632.0	PLEISTOCENE		SAND	39.0	38.0
593.0	MODESTO		BLACK SHALE	26.1	77.0
566.9	MODESTO		SHALE	46.4	103.1
520.5	CARBONDALE	DANVILLE	COAL	3.8	149.5
516.7	CARBONDALE		UNDERCLAY	6.0	153.3
510.7	CARBONDALE		ROCK	2.0	159.3
508.7	CARBONDALE		SANDSTONE	20.0	161.3
488.7	CARBONDALE		BLACK SHALE	28.9	181.3
459.7	CARBONDALE	HERRIN	COAL	5.9	210.3

MAPID: 18300807000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 4 QUARTERS/FOOTAGES: 1320' N line, 1320' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.719143 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.054101 DATE COLLECTED:

SURFACE ELEVATION (FT.): 661.0 LOGGED (FT.): 215.9 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
601.7	MODESTO		SHALE	90.0	59.3
511.7	CARBONDALE	DANVILLE	COAL	3.8	149.3
507.9	CARBONDALE		CLAYSTONE	6.0	153.1
501.9	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	159.1
499.9	CARBONDALE	ENERGY	SANDSTONE	20.0	161.1
479.9	CARBONDALE	ENERGY	GRAY SHALE	28.9	181.1
451.0	CARBONDALE	HERRIN	COAL	5.9	210.0

**MAPID:** 18322068000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 12W    **SECTION:** 5    **QUARTERS/FOOTAGES:** SW SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.749759    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.044582    **DATE COLLECTED:** 5 / 27 / 1976  
**SURFACE ELEVATION (FT.):** 682.0    **LOGGED (FT.):** 248.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    18,12-5-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
490.6	SHELburn	DANVILLE	COAL	5.6	191.4
461.2	CARBONDALE	HERRIN	COAL	1.5	220.8

**MAPID:** 18390438000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 12W    **SECTION:** 6    **QUARTERS/FOOTAGES:** SW SW  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.76707    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.044434    **DATE COLLECTED:** 11 / 20 / 1968  
**SURFACE ELEVATION (FT.):** 680.0    **LOGGED (FT.):** 197.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    C203    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
680.0	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0
659.0	PLEISTOCENE		UNCONSOLIDATED	47.0	21.0
612.0			GRAY SHALE	129.0	68.0

MAPID: 18300188000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 8 QUARTERS/FOOTAGES: 2640' S line, 1320' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.747469 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.035238 DATE COLLECTED: 7 / 0 / 1918

SURFACE ELEVATION (FT.): 677.0 LOGGED (FT.): 236.2 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 9 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
677.0	PLEISTOCENE		SOIL	2.0	0.0
675.0	PLEISTOCENE		CLAY	4.0	2.0
671.0	PLEISTOCENE		SAND	62.0	6.0
609.0	PLEISTOCENE		SAND	27.5	68.0
581.5	MODESTO		SHALE	2.0	95.5
579.5	MODESTO		DARK SHALE	83.5	97.5
496.0	MODESTO		DARK SHALE	10.0	181.0
486.0	MODESTO		DARK SHALE	9.0	191.0
477.0	MODESTO		BLACK SHALE	5.0	200.0
472.0	CARBONDALE	DANVILLE	COAL	6.1	205.0
465.9	CARBONDALE		UNDERCLAY	0.3	211.1
465.7	CARBONDALE		BLACK SHALE	0.8	211.3
464.9	CARBONDALE		UNDERCLAY	1.1	212.1
463.9	CARBONDALE		SHALE	10.3	213.1
453.7	CARBONDALE		LIMESTONE	2.7	223.3
451.0	CARBONDALE	ANNA	BLACK SHALE	5.6	226.0
445.4	CARBONDALE	HERRIN	COAL	1.6	231.6
443.8	CARBONDALE		UNDERCLAY	1.0	233.2
442.8	CARBONDALE		GRAY SHALE	2.0	234.2

MAPID: 18300188000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 8 QUARTERS/FOOTAGES: 2640' S line, 1320' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.747469 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.035238 DATE COLLECTED:

SURFACE ELEVATION (FT.): 674.0 LOGGED (FT.): 211.1 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
578.5	CARBONDALE	ENERGY	CLAYSTONE & SHALE	2.0	95.5
576.5	CARBONDALE	ENERGY	DARK GRAY SHALE	83.5	97.5
493.0	CARBONDALE	ENERGY	DARK GRAY SHALE	19.0	181.0
474.0	CARBONDALE	ENERGY	BLACK SHALE	5.0	200.0
469.0	CARBONDALE	HERRIN	COAL	6.1	205.0



MAPID: 18300115000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 10 QUARTERS/FOOTAGES: 660' N line, 1980' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.702269 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.040679 DATE COLLECTED:

SURFACE ELEVATION (FT.): 675.0 LOGGED (FT.): 216.2 LOG TYPE: Drillers Log

SOURCE: C L ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
675.0	PLEISTOCENE		SOIL	6.0	0.0
669.0	PLEISTOCENE		SAND	5.0	6.0
664.0	PLEISTOCENE		UNCONSOLIDATED	3.0	11.0
661.0	PLEISTOCENE		CLAY	9.0	14.0
652.0	PLEISTOCENE		SAND	1.5	23.0
650.5	PLEISTOCENE		UNCONSOLIDATED	11.3	24.5
639.2	PLEISTOCENE		HARD PAN	11.2	35.8
628.0	PLEISTOCENE		UNCONSOLIDATED	4.0	47.0
624.0	MODESTO		SHALE	119.5	51.0
504.5	CARBONDALE	DANVILLE	COAL	4.3	170.5
500.2	CARBONDALE		UNDERCLAY	5.3	174.8
494.9	CARBONDALE		SHALE	3.0	180.1
491.9	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	183.1
487.9	CARBONDALE	ENERGY	SHALE	24.3	187.1
463.7	CARBONDALE	HERRIN	COAL	0.8	211.3
462.8	CARBONDALE	HERRIN	SHALE	1.0	212.2
461.8	CARBONDALE	HERRIN	COAL	3.0	213.2

MAPID: 18300115000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 10 QUARTERS/FOOTAGES: 660' N line, 1980' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.702269 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.040679 DATE COLLECTED:

SURFACE ELEVATION (FT.): 675.0 LOGGED (FT.): 215.8 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
594.8	MODESTO		GRAY SHALE	90.0	80.2
504.8	CARBONDALE	DANVILLE	COAL	4.3	170.2
500.5	CARBONDALE		CLAYSTONE	5.3	174.5
495.2	CARBONDALE		LIMESTONE W/ SHALE	3.0	179.8
492.2	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	182.8
488.2	CARBONDALE	LAWSON	LIMESTONE W/ SHALE	24.3	186.8
464.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	4.8	211.0

MAPID: 18300116000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 18N 12W    SECTION: 10    QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.702259    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 40.040662    DATE COLLECTED:

SURFACE ELEVATION (FT.): 675.0    LOGGED (FT.): 223.8    LOG TYPE: Drillers Log

SOURCE: C L ENGLISH    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
675.0	PLEISTOCENE		SOIL	9.0	0.0
666.0	PLEISTOCENE		UNCONSOLIDATED	6.0	9.0
660.0	PLEISTOCENE		CLAY	9.5	15.0
650.5	PLEISTOCENE		SAND	4.0	24.5
646.6	PLEISTOCENE		UNCONSOLIDATED	2.3	28.4
644.2	PLEISTOCENE		CLAY	11.3	30.8
632.9	PLEISTOCENE		HARD PAN	8.0	42.1
624.9	PLEISTOCENE		SANDY CLAY	6.4	50.1
618.5	MODESTO		SHALE	4.5	56.5
614.0	MODESTO		ROCK	3.0	61.0
611.0	MODESTO		SHALE	112.8	64.0
498.2	CARBONDALE	DANVILLE	COAL	4.4	176.8
493.7	CARBONDALE		UNDERCLAY	5.3	181.3
488.4	CARBONDALE	ENERGY	SHALE	3.7	186.6
484.7	CARBONDALE	ENERGY	SANDSTONE	5.2	190.3
479.6	CARBONDALE	ENERGY	SHALE	21.8	195.4
457.7	CARBONDALE	HERRIN	COAL	6.5	217.3

MAPID: 18300117000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 10 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.697431 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.033307 DATE COLLECTED: 0 / 0 / 1904

SURFACE ELEVATION (FT.): 683.0 LOGGED (FT.): 246.3 LOG TYPE: Drillers Log

SOURCE: C L ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
683.0	PLEISTOCENE		SOIL	16.0	0.0
667.0	PLEISTOCENE		CLAY	23.0	16.0
644.0	PLEISTOCENE		SAND	3.0	39.0
641.0	PLEISTOCENE		SAND	5.0	42.0
636.0	PLEISTOCENE		HARD PAN	13.5	47.0
622.5	MODESTO		SHALE	127.7	60.5
494.8	CARBONDALE	DANVILLE	COAL	4.7	188.2
490.2	CARBONDALE		UNDERCLAY	6.5	192.8
483.7	CARBONDALE		SHALE	5.0	199.3
478.7	CARBONDALE		ROCK	3.0	204.3
475.7	CARBONDALE	ENERGY	SANDSTONE	4.0	207.3
471.7	CARBONDALE	ENERGY	SHALE	18.0	211.3
453.7	CARBONDALE	ENERGY	ROCK	2.0	229.3
451.7	CARBONDALE	ENERGY	SHALE	6.3	231.3
445.3	CARBONDALE	HERRIN	COAL	6.7	237.7
438.7	CARBONDALE		UNDERCLAY	2.0	244.3

MAPID: 18300118000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 10 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.702137 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.029635 DATE COLLECTED: 0 / 0 / 1903

SURFACE ELEVATION (FT.): 685.0 LOGGED (FT.): 253.7 LOG TYPE: Drillers Log

SOURCE: C L ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
685.0	PLEISTOCENE		SOIL	15.0	0.0
670.0	PLEISTOCENE		CLAY	19.5	15.0
650.5	PLEISTOCENE		SAND	2.0	34.5
648.5	PLEISTOCENE		UNCONSOLIDATED	7.0	36.5
641.5	PLEISTOCENE		HARD PAN	20.0	43.5
621.5	MODESTO		SHALE	67.5	63.5
554.0	MODESTO		SANDSTONE	19.7	131.0
534.3	MODESTO		BLACK SHALE	5.8	150.7
528.6	MODESTO		CLAYSTONE & SILTSTONE	10.8	156.4
517.7	MODESTO		SHALE	18.3	167.3
499.4	CARBONDALE	DANVILLE	COAL	6.7	185.6
492.7	CARBONDALE		UNDERCLAY	5.0	192.3
487.7	CARBONDALE		SHALE	4.0	197.3
483.7	CARBONDALE		ROCK	1.5	201.3
482.2	CARBONDALE	ENERGY	SANDSTONE	2.3	202.8
480.0	CARBONDALE	ENERGY	ROCK	1.8	205.0
478.2	CARBONDALE	ENERGY	SANDSTONE	14.0	206.8
464.2	CARBONDALE	ENERGY	SHALE	3.0	220.8
461.2	CARBONDALE	ENERGY	SANDSTONE	21.1	223.8
440.2	CARBONDALE	HERRIN	COAL	6.3	244.8
433.8	CARBONDALE		UNDERCLAY	2.5	251.2

MAPID: 18300119000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 18N 12W    SECTION: 10    QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.697529    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 40.040653    DATE COLLECTED:

SURFACE ELEVATION (FT.): 687.0    LOGGED (FT.): 225.6    LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
687.0			UNCONSOLIDATED	65.1	0.0
621.9	MODESTO	FARMINGTON	SHALE	112.8	65.1
509.1	CARBONDALE	DANVILLE	COAL	4.4	177.9
504.7	CARBONDALE		UNDERCLAY	5.4	182.3
499.3	CARBONDALE		SHALE	4.0	187.7
495.3	CARBONDALE	ENERGY	SANDSTONE	5.2	191.7
490.2	CARBONDALE	ENERGY	UNCLASSIFIED	21.8	196.8
468.3	CARBONDALE	HERRIN	COAL	6.5	218.7

MAPID: 18300121000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 10 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.697529 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.040653 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 687.1 LOGGED (FT.): 228.6 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
687.1	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
667.1	PLEISTOCENE		UNCONSOLIDATED	21.0	20.0
646.1	MODESTO		SHALE	23.0	41.0
623.1	MODESTO		SANDSTONE	6.0	64.0
617.1	MODESTO		BLACK SHALE	17.0	70.0
600.1	MODESTO		BLACK SHALE	8.0	87.0
592.1	MODESTO		SANDSTONE	50.0	95.0
542.1	MODESTO		BLACK SHALE	11.0	145.0
531.1	MODESTO		BLACK SHALE	19.6	156.0
511.5	MODESTO		BLACK SHALE	1.0	175.6
510.5	CARBONDALE	DANVILLE	COAL	3.0	176.6
507.5	CARBONDALE	DANVILLE	COAL	0.9	179.6
506.5	CARBONDALE	DANVILLE	PYRITE	0.1	180.6
506.5	CARBONDALE	DANVILLE	COAL	0.7	180.6
505.8	CARBONDALE		UNDERCLAY	3.7	181.3
502.1	CARBONDALE	ENERGY	SHALE	3.0	185.0
499.1	CARBONDALE	ENERGY	SANDSTONE	32.9	188.0
466.2	CARBONDALE	ENERGY	LIGHT SHALE	0.3	220.9
465.9	CARBONDALE	HERRIN	COAL	6.2	221.2
459.7	CARBONDALE		UNDERCLAY	1.2	227.4

MAPID: 18300122000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 11 QUARTERS/FOOTAGES: 43' N line, 2409' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.685004 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.042402 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 685.4 LOGGED (FT.): 212.5 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
685.4			UNCONSOLIDATED	50.0	0.0
635.4	MODESTO		BLACK SHALE	2.0	50.0
633.4	MODESTO	FARMINGTON	SHALE	100.5	52.0
532.9	CARBONDALE	DANVILLE	COAL	3.8	152.5
529.1	CARBONDALE	DANVILLE	SHALE	0.1	156.3
529.1	CARBONDALE	DANVILLE	COAL	0.6	156.3
528.5	CARBONDALE		UNDERCLAY	4.1	156.9
524.4	CARBONDALE		DARK SHALE	9.0	161.0
515.4	CARBONDALE	ENERGY	SANDSTONE	17.0	170.0
498.4	CARBONDALE	ENERGY	SANDY SHALE	15.7	187.0
482.7	CARBONDALE	HERRIN	COAL	0.3	202.7
482.4	CARBONDALE	HERRIN	SHALE	2.0	203.0
480.4	CARBONDALE	HERRIN	COAL	5.9	205.0
474.5	CARBONDALE		UNDERCLAY	1.6	210.9

MAPID: 18300122000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 11 QUARTERS/FOOTAGES: 43' N line, 2409' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.685004 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.042402 DATE COLLECTED:

SURFACE ELEVATION (FT.): 685.0 LOGGED (FT.): 210.9 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
622.6	MODESTO		SILTY SHALE	90.0	62.4
532.6	CARBONDALE	DANVILLE	COAL	4.5	152.4
528.1	CARBONDALE		CLAYSTONE	4.1	156.9
524.0	CARBONDALE	ENERGY	DARK GRAY SHALE	9.0	161.0
515.0	CARBONDALE	ENERGY	SANDSTONE	17.0	170.0
498.0	CARBONDALE	ENERGY	SILTY SHALE	15.7	187.0
482.3	CARBONDALE	ENERGY	COAL	0.3	202.7
482.0	CARBONDALE	ENERGY	SHALE	2.0	203.0
480.0	CARBONDALE	HERRIN	COAL	5.9	205.0

MAPID: 18300122000C VERSION: 3

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 11 QUARTERS/FOOTAGES: 43' N line, 2409' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.685004 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.042402 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 685.4 LOGGED (FT.): 212.5 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
685.4	PLEISTOCENE		CLAY	21.0	0.0
664.4	PLEISTOCENE		CLAY	15.0	21.0
649.4	PLEISTOCENE		CLAY	8.0	36.0
641.4	PLEISTOCENE		HARD PAN	6.0	44.0
635.4	MODESTO		BLACK SHALE	2.0	50.0
633.4	MODESTO		SHALE	67.0	52.0
566.4	MODESTO		SHALE	33.4	119.0
533.0	CARBONDALE	DANVILLE	COAL	3.8	152.4
529.1	CARBONDALE	DANVILLE	SHALE	0.1	156.3
529.1	CARBONDALE	DANVILLE	COAL	0.6	156.3
528.5	CARBONDALE		UNDERCLAY	4.1	156.9
524.4	CARBONDALE	ENERGY	DARK SHALE	9.0	161.0
515.4	CARBONDALE	ENERGY	SANDSTONE	17.0	170.0
498.4	CARBONDALE	ENERGY	SHALE	15.7	187.0
482.7	CARBONDALE	HERRIN	COAL	0.3	202.7
482.4	CARBONDALE	HERRIN	SHALE	2.0	203.0
480.4	CARBONDALE	HERRIN	COAL	5.9	205.0
474.5	CARBONDALE		UNDERCLAY	1.6	210.9



MAPID: 18300218000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 11 QUARTERS/FOOTAGES: 550' N line, 175' W line of NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.68972 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.033639 DATE COLLECTED: 4 / 1 / 1942

SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 225.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL COMPANY WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
682.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
672.0	PLEISTOCENE		GRAVEL	20.0	10.0
652.0	PLEISTOCENE		SAND	25.0	30.0
627.0	MODESTO		SHALE	7.0	55.0
620.0	MODESTO		SHALE	8.0	62.0
612.0	MODESTO		GRAY SHALE	10.0	70.0
602.0	MODESTO		SHALE	76.0	80.0
526.0	CARBONDALE	DANVILLE	COAL	4.0	156.0
522.0	CARBONDALE		SHALE	2.0	160.0
520.0	CARBONDALE	ENERGY	SANDSTONE	26.0	162.0
494.0	CARBONDALE	ENERGY	LIGHT SHALE	9.0	188.0
485.0	CARBONDALE	ENERGY	GRAY SHALE	23.0	197.0
462.0	CARBONDALE	HERRIN	COAL	5.0	220.0

MAPID: 18300123000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 12 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.66447 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.040841 DATE COLLECTED: 0 / 0 / 1907

SURFACE ELEVATION (FT.): 676.4 LOGGED (FT.): 171.8 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
676.4	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0
647.4	PLEISTOCENE		HARD PAN	11.0	29.0
636.4	MODESTO		BLACK SHALE	61.2	40.0
575.2	CARBONDALE	DANVILLE	COAL	4.0	101.2
571.2	CARBONDALE		UNDERCLAY	7.8	105.2
563.4	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	113.0
560.4	CARBONDALE	ENERGY	SANDSTONE	24.0	116.0
536.4	CARBONDALE	ENERGY	BLACK SHALE	25.3	140.0
511.1	CARBONDALE	HERRIN	COAL	5.5	165.3
505.5	CARBONDALE		UNDERCLAY	0.9	170.9

MAPID: 18300124000C VERSION: 1

PROJECT: NCRDS87

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 12 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.673826

GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 40.033392

DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 681.0

LOGGED (FT.): 195.1

LOG TYPE: Drillers Log

SOURCE: BUNSEN

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
681.0			UNCONSOLIDATED	45.0	0.0	
636.0	MODESTO		UNCLASSIFIED	75.7	45.0	
560.3	CARBONDALE	DANVILLE	COAL	3.5	120.7	
556.8	CARBONDALE		UNDERCLAY	4.8	124.2	
552.0	CARBONDALE		SHALE	31.0	129.0	
521.0	CARBONDALE		SANDSTONE	28.3	160.0	
492.7	CARBONDALE		BLACK SHALE	0.5	188.3	
492.2	CARBONDALE	HERRIN	COAL	4.2	188.8	
488.0	CARBONDALE		UNDERCLAY	2.1	193.0	

MAPID: 18301771000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 12 QUARTERS/FOOTAGES: 1320' S line, 1320' W line of NW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.671625

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.042569

DATE COLLECTED: 5 / 23 / 1972

SURFACE ELEVATION (FT.): 679.0

LOGGED (FT.): 198.0

LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 31

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.0	SHELBURN	DANVILLE	COAL	4.2	119.0	
500.0	CARBONDALE	HERRIN	COAL	5.1	179.0	

MAPID: 18301791000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 12 QUARTERS/FOOTAGES: 2640' S line, 1320' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.671495

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.035194

DATE COLLECTED: 5 / 24 / 1972

SURFACE ELEVATION (FT.): 682.0

LOGGED (FT.): 208.0

LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 32

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
568.0	SHELBURN	DANVILLE	COAL	3.0	114.0	
508.0	CARBONDALE	HERRIN	COAL	5.3	174.0	

MAPID: 18301791000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 12 QUARTERS/FOOTAGES: 2640' S line, 1320' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.671495

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.035194

DATE COLLECTED:

SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 179.3

LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 32

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
639.0	MODESTO		GRAY SHALE	71.0	43.0
568.0	CARBONDALE	DANVILLE	COAL	3.0	114.0
565.0	CARBONDALE		CLAYSTONE	3.0	117.0
562.0	CARBONDALE	ENERGY	SILTY SHALE	8.0	120.0
554.0	CARBONDALE	ENERGY	SANDSTONE	20.0	128.0
534.0	CARBONDALE	ENERGY	SILTY SHALE	24.0	148.0
510.0	CARBONDALE	ENERGY	SANDSTONE	2.0	172.0
508.0	CARBONDALE	HERRIN	COAL	5.3	174.0

MAPID: 18390447000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 12 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.673822

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.033392

DATE COLLECTED: 5 / 24 / 1972

SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 208.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE F119

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
682.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0
678.0	PLEISTOCENE		CLAY	20.0	4.0
658.0	PLEISTOCENE		SAND & GRAVEL	12.0	24.0
646.0	PLEISTOCENE		CLAY	7.0	36.0
639.0	SHELBURN		GRAY SHALE	71.0	43.0
568.0	SHELBURN	DANVILLE	COAL	3.0	114.0
565.0	SHELBURN		UNDERCLAY	3.0	117.0
562.0	SHELBURN		SANDY SHALE	8.0	120.0
554.0	SHELBURN		SANDSTONE	20.0	128.0
534.0	SHELBURN		SANDY SHALE	20.0	148.0
514.0	SHELBURN		SANDY SHALE	4.0	168.0
510.0	SHELBURN		SANDSTONE	2.0	172.0
508.0	CARBONDALE	HERRIN	COAL	5.3	174.0
502.7	CARBONDALE		UNDERCLAY	1.7	179.3
501.0	CARBONDALE		SANDY SHALE	27.0	181.0

MAPID: 18390449000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 12 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.672783 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.04167 DATE COLLECTED: 5 / 23 / 1972

SURFACE ELEVATION (FT.): 679.0 LOGGED (FT.): 198.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE F219 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
679.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
673.0	PLEISTOCENE		UNCONSOLIDATED	37.0	6.0	
636.0	SHELBURN		GRAY SHALE	76.0	43.0	
560.0	SHELBURN	DANVILLE	COAL	2.5	119.0	
557.5	SHELBURN	DANVILLE	ROCK	0.3	121.5	SULPHUR
557.2	SHELBURN	DANVILLE	COAL	1.4	121.8	
555.8	SHELBURN		UNDERCLAY	1.8	123.2	
554.0	SHELBURN		GRAY SHALE & LIMESTONE	54.0	125.0	
500.0	CARBONDALE	HERRIN	COAL	5.1	179.0	
494.9	CARBONDALE		UNDERCLAY	1.9	184.1	
493.0	CARBONDALE		GRAY SHALE	12.0	186.0	

MAPID: 18300125000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 14 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.68315 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.025994 DATE COLLECTED:

SURFACE ELEVATION (FT.): 694.0 LOGGED (FT.): 230.1 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
694.0			UNCONSOLIDATED	63.0	0.0	
631.0	MODESTO		SHALE	49.0	63.0	
582.0	MODESTO		SANDSTONE	13.0	112.0	
569.0	MODESTO		SANDY SHALE	10.0	125.0	
559.0	MODESTO		BLUE SHALE	18.4	135.0	
540.6	CARBONDALE	DANVILLE	COAL	3.1	153.4	
537.5	CARBONDALE		UNDERCLAY	4.5	156.5	
533.0	CARBONDALE		CLAYSTONE & SHALE	3.0	161.0	
530.0	CARBONDALE	ENERGY	SANDSTONE	60.5	164.0	
469.5	CARBONDALE	HERRIN	COAL	5.6	224.5	

MAPID: 18300126000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 14 QUARTERS/FOOTAGES: 378' S line, 2433' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.686045 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.014196 DATE COLLECTED:

SURFACE ELEVATION (FT.): 674.0 LOGGED (FT.): 221.6 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
674.0	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0
649.0	PLEISTOCENE		SAND	6.0	25.0
643.0	PLEISTOCENE		HARD PAN	18.0	31.0
625.0	MODESTO		LIGHT SHALE	10.0	49.0
615.0	MODESTO		BLUE SHALE	61.0	59.0
554.0	MODESTO		DARK SHALE	8.0	120.0
546.0	MODESTO		LIGHT SHALE	2.0	128.0
544.0	MODESTO		BLACK SHALE	2.0	130.0
542.0	CARBONDALE	DANVILLE	COAL	3.5	132.0
538.5	CARBONDALE		UNDERCLAY	3.5	135.5
535.0	CARBONDALE		SHALE	3.0	139.0
532.0	CARBONDALE		SHALE	10.0	142.0
522.0	CARBONDALE		SANDSTONE	6.0	152.0
516.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	158.0
513.0	CARBONDALE	ENERGY	SANDSTONE	29.0	161.0
484.0	CARBONDALE	ENERGY	SANDSTONE	25.2	190.0
458.8	CARBONDALE	HERRIN	COAL	5.4	215.2
453.4	CARBONDALE		UNDERCLAY	1.0	220.6

MAPID: 18300126000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 14 QUARTERS/FOOTAGES: 378' S line, 2433' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.686045 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.014196 DATE COLLECTED:

SURFACE ELEVATION (FT.): 674.0 LOGGED (FT.): 219.4 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
632.2	MODESTO		SILTY SHALE	90.0	41.8
542.2	CARBONDALE	DANVILLE	COAL	3.5	131.8
538.7	CARBONDALE		CLAYSTONE & SHALE	6.5	135.3
532.2	CARBONDALE		SHALE & SANDSTONE	16.0	141.8
516.2	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	157.8
513.2	CARBONDALE	ENERGY	SANDSTONE	29.0	160.8
484.2	CARBONDALE	ENERGY	SILTY SHALE	24.2	189.8
460.0	CARBONDALE	HERRIN	COAL	5.4	214.0

MAPID: 18300127000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 14 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.678209 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.014998 DATE COLLECTED: 0 / 0 / 1906

SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 243.3 LOG TYPE: Drillers Log

SOURCE: C L ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
682.0	PLEISTOCENE		SOIL	12.0	0.0
670.0	PLEISTOCENE		CLAY	30.0	12.0
640.0	PLEISTOCENE		GRAVEL	3.0	42.0
637.0	PLEISTOCENE		HARD PAN	21.3	45.0
615.7	MODESTO		SHALE	97.3	66.3
518.3	MODESTO		JACK	7.5	163.7
510.8	MODESTO		SHALE	2.7	171.2
508.2	MODESTO		JACK	1.5	173.8
506.7	CARBONDALE	DANVILLE	COAL	4.0	175.3
502.7	CARBONDALE		UNDERCLAY	5.3	179.3
497.3	CARBONDALE	ENERGY	SHALE	7.3	184.7
490.1	CARBONDALE	ENERGY	SANDSTONE	14.0	191.9
476.1	CARBONDALE	ENERGY	SHALE	29.1	205.9
447.0	CARBONDALE	HERRIN	COAL	8.3	235.0

MAPID: 18300128000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 14 QUARTERS/FOOTAGES: SW SE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.679375 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.014077 DATE COLLECTED: 0 / 0 / 1938

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 128.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 3 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.0	PLEISTOCENE		SOIL	4.0	0.0
666.0	PLEISTOCENE		CLAY	8.0	4.0
658.0	PLEISTOCENE		CLAY	16.0	12.0
642.0	PLEISTOCENE		GRAVEL	6.0	28.0
636.0	PLEISTOCENE		HARD PAN	14.0	34.0
622.0	MODESTO		DARK SHALE	19.0	48.0
603.0	MODESTO		GRAY SHALE	53.0	67.0
550.0	CARBONDALE	DANVILLE	COAL	1.0	120.0
549.0	CARBONDALE		UNDERCLAY	7.0	121.0

MAPID: 18300130000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 15 QUARTERS/FOOTAGES: 1320' S line, 1320' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.709038 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.016744 DATE COLLECTED: 0 / 0 / 1907

SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 209.5 LOG TYPE: Drillers Log

SOURCE: C L ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
682.0	PLEISTOCENE		SOIL	12.0	0.0
670.0	PLEISTOCENE		CLAY	14.0	12.0
656.0	PLEISTOCENE		HARD PAN	3.2	26.0
652.8	PLEISTOCENE		UNCONSOLIDATED	2.5	29.2
650.3	PLEISTOCENE		HARD PAN	14.1	31.7
636.2	PLEISTOCENE		SANDY CLAY	5.3	45.8
631.0	MODESTO		SHALE	97.2	51.0
533.8	CARBONDALE	DANVILLE	COAL	4.3	148.2
529.5	CARBONDALE		UNDERCLAY	5.1	152.5
524.4	CARBONDALE		SHALE	2.3	157.6
522.2	CARBONDALE		ROCK	2.0	159.8
520.2	CARBONDALE	ENERGY	SHALE	40.6	161.8
479.7	CARBONDALE	HERRIN	COAL	5.3	202.3
474.3	CARBONDALE		UNDERCLAY	1.8	207.7

MAPID: 18300130000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 15 QUARTERS/FOOTAGES: 1320' S line, 1320' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.709038 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.016744 DATE COLLECTED:

SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 207.3 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
624.2	MODESTO		GRAY SHALE	90.0	57.8
534.2	CARBONDALE	DANVILLE	COAL	4.3	147.8
529.9	CARBONDALE		CLAYSTONE & SHALE	7.3	152.1
522.6	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	159.4
520.6	CARBONDALE	ENERGY	GRAY SHALE	40.6	161.4
480.0	CARBONDALE	HERRIN	COAL	5.3	202.0

MAPID: 18300131000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 15 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.7067 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.018619 DATE COLLECTED:

SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 226.3 LOG TYPE: Drillers Log

SOURCE: C.L. ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
682.0			UNCONSOLIDATED	48.0	0.0
634.0			SHALE	115.0	48.0
519.0	CARBONDALE	DANVILLE	COAL	4.5	163.0
514.5	CARBONDALE		UNDERCLAY	7.0	167.5
507.5	CARBONDALE		SHALE	2.0	174.5
505.5	CARBONDALE	ENERGY	SANDSTONE	8.0	176.5
497.5	CARBONDALE	ENERGY	SHALE	33.3	184.5
464.2	CARBONDALE	HERRIN	COAL	6.5	217.8
457.7	CARBONDALE		UNDERCLAY	2.0	224.3

MAPID: 18300132000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 15 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.69733 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.025963 DATE COLLECTED:

SURFACE ELEVATION (FT.): 685.0 LOGGED (FT.): 241.0 LOG TYPE: Drillers Log

SOURCE: C L ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
685.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
675.0	PLEISTOCENE		CLAY	24.0	10.0
651.0	PLEISTOCENE		SAND	4.0	34.0
647.0	PLEISTOCENE		HARD PAN	14.0	38.0
633.0	MODESTO		SHALE	91.8	52.0
541.2	CARBONDALE	DANVILLE	COAL	3.8	143.8
537.5	CARBONDALE		UNDERCLAY	4.0	147.5
533.5	CARBONDALE	ENERGY	SHALE	2.0	151.5
531.5	CARBONDALE	ENERGY	SHALE	10.0	153.5
521.5	CARBONDALE	ENERGY	SANDSTONE	37.0	163.5
484.5	CARBONDALE	ENERGY	SHALE	28.3	200.5
456.2	CARBONDALE	HERRIN	COAL	6.5	228.8
449.7	CARBONDALE		UNDERCLAY	4.7	235.3
445.0	CARBONDALE		ROCK	1.0	240.0



MAPID: 18300133000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 15 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.7067 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.018619 DATE COLLECTED:

SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 226.2 LOG TYPE: Drillers Log

SOURCE: C L ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
682.0	PLEISTOCENE		SOIL	20.0	0.0
662.0	PLEISTOCENE		CLAY	15.7	20.0
646.3	PLEISTOCENE		SAND	10.6	35.7
635.7	PLEISTOCENE		HARD PAN	7.0	46.3
628.7	MODESTO		SHALE	57.8	53.3
570.9	MODESTO		SANDSTONE	21.3	111.1
549.7	MODESTO		DARK SHALE	4.2	132.3
545.5	MODESTO		SHALE	40.8	136.5
504.7	CARBONDALE	DANVILLE	COAL	5.2	177.3
499.6	CARBONDALE		UNDERCLAY	6.3	182.4
493.2	CARBONDALE	ENERGY	SHALE	31.0	188.8
462.2	CARBONDALE	HERRIN	COAL	6.4	219.8

MAPID: 18301145000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 15 QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.711368 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.014936 DATE COLLECTED: 5 / 0 / 1905

SURFACE ELEVATION (FT.): 675.0 LOGGED (FT.): 217.8 LOG TYPE: Drillers Log

SOURCE: DERING COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
675.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0
669.0	MODESTO		SANDSTONE	1.5	6.0
667.5	MODESTO		SHALE	103.0	7.5
564.5	CARBONDALE	DANVILLE	COAL	3.6	110.5
560.9	CARBONDALE		UNDERCLAY	5.0	114.1
555.9	CARBONDALE		SANDSTONE	7.5	119.1
548.4	CARBONDALE		SHALE	83.8	126.6
464.7	CARBONDALE	HERRIN	COAL	6.3	210.3
458.4	CARBONDALE		UNDERCLAY	1.2	216.6

MAPID: 18300794000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 16 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.720952 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.018633 DATE COLLECTED: 10 / 0 / 1935

SURFACE ELEVATION (FT.): 690.0 LOGGED (FT.): 214.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL COMPANY 24 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
690.0	PLEISTOCENE		SAND	10.0	0.0
680.0	PLEISTOCENE		SAND	10.0	10.0
670.0	PLEISTOCENE		SAND	10.0	20.0
660.0	PLEISTOCENE		SAND	8.0	30.0
652.0	PLEISTOCENE		SAND	8.0	38.0
644.0	MODESTO		DARK SHALE	9.0	46.0
635.0	MODESTO		DARK SHALE	4.0	55.0
631.0	MODESTO		LIMESTONE	1.0	59.0
630.0	MODESTO		LIGHT SHALE	35.0	60.0
595.0	MODESTO		DARK SHALE	20.0	95.0
575.0	MODESTO		DARK SHALE	51.0	115.0
524.0	MODESTO		DARK SHALE	7.0	166.0
517.0	CARBONDALE	DANVILLE	COAL	5.0	173.0
512.0	CARBONDALE		UNDERCLAY	3.0	178.0
509.0			GRAY SHALE	33.0	181.0

MAPID: 18323438000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 16 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.729293 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.025099 DATE COLLECTED: 4 / 6 / 1989

SURFACE ELEVATION (FT.): 685.0 LOGGED (FT.): 198.0 LOG TYPE: Drillers Log

SOURCE: JAMES MICHAEL BRENNER WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
685.0	PLEISTOCENE		SOIL	3.0	0.0
682.0	PLEISTOCENE		CLAY	3.0	3.0
679.0	PLEISTOCENE		SAND	1.0	6.0
678.0	PLEISTOCENE		CLAY	5.0	7.0
673.0	PLEISTOCENE		CLAY	15.0	12.0
658.0	PLEISTOCENE		SAND	5.0	27.0
653.0	PLEISTOCENE		HARD PAN	8.0	32.0
645.0	PLEISTOCENE		SAND	4.0	40.0
641.0	PLEISTOCENE		CLAY	3.0	44.0
638.0	MODESTO		GRAY SHALE	5.0	47.0
633.0	MODESTO		GRAY SHALE	23.0	52.0
610.0	MODESTO		GRAY SHALE	75.0	75.0
535.0	CARBONDALE	DANVILLE	COAL	4.0	150.0
531.0	CARBONDALE		GRAY SHALE	6.0	154.0
525.0	CARBONDALE		GREEN SHALE	2.0	160.0
523.0	CARBONDALE		GRAY SHALE	22.0	162.0
501.0	CARBONDALE	HERRIN	COAL	7.0	184.0
494.0			GRAY SHALE	1.0	191.0
493.0			ROCK	3.0	192.0
490.0			GRAY SHALE	2.0	195.0
488.0			ROCK	1.0	197.0

MAPID: 18300194000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 17 QUARTERS/FOOTAGES: 330' S line, 330' W line

QUADRANGLE: OAKWOOD LONGITUDE: -87.750749 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.014266 DATE COLLECTED: 6 / 0 / 1918

SURFACE ELEVATION (FT.): 677.0 LOGGED (FT.): 241.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL COMPANY HOLE #2 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
677.0	PLEISTOCENE		SOIL	3.0	0.0
674.0	PLEISTOCENE		CLAY	16.0	3.0
658.0	PLEISTOCENE		HARD PAN	37.0	19.0
621.0	PLEISTOCENE		BOULDER	0.5	56.0
620.5	PLEISTOCENE		GRAVEL	1.5	56.5
619.0	PLEISTOCENE		SAND	27.0	58.0
592.0	MODESTO		SHALE	19.0	85.0
573.0	MODESTO		SANDSTONE	76.0	104.0
497.0	MODESTO		SHALE	21.8	180.0
475.2	CARBONDALE	DANVILLE	COAL	5.1	201.8
470.1	CARBONDALE		UNDERCLAY	1.2	206.9
468.9	CARBONDALE		DARK SHALE	6.6	208.1
462.3	CARBONDALE		LIMESTONE	0.3	214.7
462.0	CARBONDALE		SHALE	6.0	215.0
456.0	CARBONDALE		LIMESTONE	0.7	221.0
455.3	CARBONDALE		DARK SHALE	10.3	221.7
445.0	CARBONDALE	HERRIN	COAL	2.0	232.0
443.0	CARBONDALE		UNDERCLAY	1.8	234.0
441.2	CARBONDALE		DARK SHALE	4.8	235.8
436.4	CARBONDALE		LIMESTONE	0.4	240.6

MAPID: 18300194000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 17 QUARTERS/FOOTAGES: 330' S line, 330' W line

QUADRANGLE: OAKWOOD LONGITUDE: -87.750749 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.014266 DATE COLLECTED:

SURFACE ELEVATION (FT.): 676.0 LOGGED (FT.): 207.1 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.9	CARBONDALE		GRAY SHALE	19.0	85.1
571.9	CARBONDALE		SILTY SHALE	76.0	104.1
495.9	CARBONDALE		SILTY SHALE	21.9	180.1
474.0	CARBONDALE	HERRIN	COAL	5.1	202.0

MAPID: 18300195000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 18N 12W    SECTION: 17    QUARTERS/FOOTAGES: SE SE SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.743592

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N    LATITUDE: 40.01419

DATE COLLECTED: 7 / 0 / 1918

SURFACE ELEVATION (FT.): 677.0    LOGGED (FT.): 235.0

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL COMPANY HOLE #B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
677.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
667.0	PLEISTOCENE		SAND	7.0	10.0
660.0	PLEISTOCENE		SAND	22.0	17.0
638.0	PLEISTOCENE		GRAVEL	11.0	39.0
627.0	MODESTO		SANDSTONE	39.0	50.0
588.0	MODESTO		DARK SANDSTONE	35.0	89.0
553.0	MODESTO		DARK SANDSTONE	60.0	124.0
493.0	MODESTO		BLACK SHALE	6.5	184.0
486.5	CARBONDALE	DANVILLE	COAL	4.8	190.5
481.7	CARBONDALE		UNDERCLAY	7.2	195.3
474.5	CARBONDALE	ENERGY	SHALE	9.5	202.5
465.0	CARBONDALE	ENERGY	DARK SHALE	14.0	212.0
451.0	CARBONDALE	HERRIN	COAL	6.0	226.0
445.0	CARBONDALE		UNDERCLAY	2.0	232.0
443.0	CARBONDALE		CALCAREOUS SHALE	1.0	234.0

MAPID: 18300269000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 17 QUARTERS/FOOTAGES: NW SW NW

QUADRANGLE: OAKWOOD LONGITUDE: -87.750954 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.023403 DATE COLLECTED:

SURFACE ELEVATION (FT.): 683.0 LOGGED (FT.): 232.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
683.0			UNCONSOLIDATED	122.0	0.0
561.0	MODESTO		SHALE	2.0	122.0
559.0	MODESTO		SHALE	5.0	124.0
554.0	MODESTO		GRAY SHALE	9.0	129.0
545.0	MODESTO		SANDY SHALE	62.8	138.0
482.2	CARBONDALE	DANVILLE	COAL	5.4	200.8
476.7	CARBONDALE		SHALE	5.0	206.3
471.7	CARBONDALE	BANKSTON FORK	LIMESTONE	1.4	211.3
470.3	CARBONDALE		GRAY SHALE	3.3	212.7
467.0	CARBONDALE	ENERGY	DARK SHALE	11.9	216.0
455.1	CARBONDALE	HERRIN	COAL	3.2	227.9
451.9	CARBONDALE		UNDERCLAY	0.9	231.1

MAPID: 18323266000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 17 QUARTERS/FOOTAGES: SW SE NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.746093 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.02154 DATE COLLECTED: 6 / 21 / 1988

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

SOURCE: HAROLD E ERWIN WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		SOIL	3.0	0.0
-	PLEISTOCENE		CLAY	7.0	3.0
-	PLEISTOCENE		HARD PAN	25.0	10.0
-	PLEISTOCENE		GRAVEL	2.0	35.0
-	PLEISTOCENE		HARD PAN	23.0	37.0
-			GRAY SHALE	5.0	60.0
-			COAL	5.0	65.0
-			GRAY SHALE	50.0	70.0

MAPID: 18300114000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 20 QUARTERS/FOOTAGES: SE SW SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.747276 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.999425 DATE COLLECTED:

SURFACE ELEVATION (FT.): 677.0 LOGGED (FT.): 289.5 LOG TYPE: Drillers Log

SOURCE: DERING COAL CO. WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
677.0	PLEISTOCENE		SOIL	14.0	0.0
663.0	PLEISTOCENE		CLAY	10.5	14.0
652.5	PLEISTOCENE		SAND	5.0	24.5
647.5	PLEISTOCENE		HARD PAN	11.0	29.5
636.5	PLEISTOCENE		CLAY	90.0	40.5
546.5	PLEISTOCENE		CLAY	9.3	130.5
537.2	MODESTO		SHALE	8.3	139.8
528.9	MODESTO		SANDSTONE	10.5	148.1
518.4	MODESTO		SHALE	55.1	158.6
463.3	CARBONDALE	DANVILLE	COAL	3.8	213.7
459.5	CARBONDALE		UNDERCLAY	4.0	217.5
455.5	CARBONDALE	ENERGY	SHALE	60.1	221.5
395.4	CARBONDALE	HERRIN	COAL	6.8	281.6
388.7	CARBONDALE		UNDERCLAY	1.2	288.3

MAPID: 18300136000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 20 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.734916 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.000381 DATE COLLECTED: 0 / 0 / 1904

SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 247.9 LOG TYPE: Drillers Log

SOURCE: C.L. ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
682.0			UNCONSOLIDATED	66.2	0.0
615.8	MODESTO		SHALE	128.0	66.2
487.8	CARBONDALE	DANVILLE	COAL	3.8	194.2
484.0	CARBONDALE		UNDERCLAY	4.6	198.0
479.4	CARBONDALE	ENERGY	SANDSTONE	39.1	202.6
440.3	CARBONDALE	HERRIN	COAL	6.3	241.7

MAPID: 18300137000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 18N 12W    SECTION: 20    QUARTERS/FOOTAGES: SE

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.737242    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 40.002207    DATE COLLECTED:

SURFACE ELEVATION (FT.): 682.0    LOGGED (FT.): 227.3    LOG TYPE: Drillers Log

SOURCE: C L ENGLISH    WELL TYPE: Coal Test

COMMENT: CALCULATED & REPORTED DEPTHS DISAGREE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
682.0	PLEISTOCENE		SOIL	16.0	0.0	
666.0	PLEISTOCENE		CLAY	18.0	16.0	
648.0	PLEISTOCENE		CLAY	10.0	34.0	
638.0	PLEISTOCENE		SAND	1.2	44.0	
636.8	PLEISTOCENE		UNCONSOLIDATED	4.0	45.2	
632.8	PLEISTOCENE		SAND	4.5	49.2	STRONG
628.3	PLEISTOCENE		UNCONSOLIDATED	3.5	53.7	
624.8	MODESTO		SHALE	116.0	57.2	
508.8	MODESTO		DARK SHALE	4.0	173.2	
504.8	MODESTO		BLACK SHALE	2.0	177.2	
502.8	CARBONDALE	DANVILLE	COAL	3.8	179.2	
499.1	CARBONDALE		UNDERCLAY	4.5	182.9	
494.6	CARBONDALE	ENERGY	SHALE	6.0	187.4	
488.6	CARBONDALE	ENERGY	SANDSTONE	3.0	193.4	
485.6	CARBONDALE	ENERGY	SHALE	24.1	196.4	
461.5	CARBONDALE	ENERGY	BLACK SHALE	1.0	220.5	
460.5	CARBONDALE	HERRIN	COAL	5.8	221.5	



MAPID: 18300272000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 20 QUARTERS/FOOTAGES: 2310' S line, 2310' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.742871 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.004891 DATE COLLECTED: 6 / 0 / 1918

SURFACE ELEVATION (FT.): 676.0 LOGGED (FT.): 238.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL COMPANY HOLE #4 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
676.0	PLEISTOCENE		SOIL	26.0	0.0
650.0	PLEISTOCENE		SAND	2.0	26.0
648.0	PLEISTOCENE		CLAY	43.0	28.0
605.0	PLEISTOCENE		SAND	5.0	71.0
600.0	PLEISTOCENE		CLAY	48.0	76.0
552.0	PLEISTOCENE		SAND	48.8	124.0
503.2	MODESTO		DARK SHALE	13.5	172.8
489.7	CARBONDALE	DANVILLE	COAL	4.2	186.3
485.6	CARBONDALE		UNDERCLAY	10.3	190.4
475.3	CARBONDALE		SANDSTONE	1.0	200.7
474.3	CARBONDALE		LIGHT SHALE	12.0	201.7
462.3	CARBONDALE		SANDSTONE	12.0	213.7
450.3	CARBONDALE		BLACK SHALE	2.4	225.7
447.9	CARBONDALE	HERRIN	COAL	6.0	228.1
441.9	CARBONDALE		UNDERCLAY	3.9	234.1

MAPID: 18300272000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 20 QUARTERS/FOOTAGES: 2310' S line, 2310' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.742871 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.004891 DATE COLLECTED:

SURFACE ELEVATION (FT.): 676.0 LOGGED (FT.): 234.0 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
552.1	MODESTO		SILTY SHALE	62.3	123.9
489.8	CARBONDALE	DANVILLE	COAL	4.2	186.2
485.7	CARBONDALE		CLAYSTONE	4.3	190.3
481.4	CARBONDALE	ENERGY	GRAY SHALE	6.0	194.6
475.4	CARBONDALE	ENERGY	SANDSTONE	1.0	200.6
474.4	CARBONDALE	ENERGY	GRAY SHALE	12.0	201.6
462.4	CARBONDALE	ENERGY	SILTY SHALE	12.0	213.6
450.4	CARBONDALE	ENERGY	DARK GRAY SHALE	2.4	225.6
448.0	CARBONDALE	HERRIN	COAL	6.0	228.0

MAPID: 18300273000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 20 QUARTERS/FOOTAGES: SW SW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.750163 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.006838 DATE COLLECTED: 6 / 0 / 1918

SURFACE ELEVATION (FT.): 673.0 LOGGED (FT.): 237.7 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
673.0	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0
646.0	PLEISTOCENE		SAND	29.0	27.0
617.0	MODESTO		SANDSTONE	30.0	56.0
587.0	MODESTO		SANDSTONE	99.7	86.0
487.3	MODESTO		DARK SHALE	14.9	185.7
472.4	CARBONDALE	DANVILLE	COAL	5.3	200.6
467.1	CARBONDALE		UNDERCLAY	6.1	205.9
461.0	CARBONDALE	ENERGY	DARK SHALE	6.0	212.0
455.0	CARBONDALE	ENERGY	SHALE	2.0	218.0
453.0	CARBONDALE	ENERGY	DARK SANDSTONE	7.0	220.0
446.0	CARBONDALE	ENERGY	BLACK SHALE	4.0	227.0
442.0	CARBONDALE	HERRIN	COAL	3.2	231.0
438.8	CARBONDALE		UNDERCLAY	3.5	234.2

MAPID: 18390076000C VERSION: 1

PROJECT: LUMP

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 20 QUARTERS/FOOTAGES: 180' S line, 210' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.733385 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 39.999055 DATE COLLECTED:

SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 247.8 LOG TYPE: Drillers Log

SOURCE: CATLIN COAL CO. RIOLA MINE PCC14 WELL TYPE: Coal Test

COMMENT: PERMIT 292 CROSS SECTION AVAIL.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
682.0	PLEISTOCENE		UNCONSOLIDATED	66.0	0.0
616.0	MODESTO		SHALE	128.0	66.0
488.0	CARBONDALE	DANVILLE	COAL	3.8	194.0
484.2	CARBONDALE		UNDERCLAY	5.0	197.8
479.2	CARBONDALE		SANDSTONE	39.0	202.8
440.2	CARBONDALE	HERRIN	COAL	6.0	241.8

MAPID: 18390078000C VERSION: 1

PROJECT: LUMP

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 20 QUARTERS/FOOTAGES: 1260' S line, 1260' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.7372 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 40.002019 DATE COLLECTED:

SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 227.0 LOG TYPE: Drillers Log

SOURCE: CATLIN COAL CO. RIOLA MINE PCC26 WELL TYPE: Coal Test

COMMENT: PERMIT 292 CROSS SECTION AVAIL.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
682.0	PLEISTOCENE		UNCONSOLIDATED	57.0	0.0
625.0	MODESTO		SHALE	120.0	57.0
505.0	MODESTO		BLACK SHALE	2.0	177.0
503.0	CARBONDALE	DANVILLE	COAL	3.7	179.0
499.3	CARBONDALE		UNDERCLAY	4.5	182.7
494.8	CARBONDALE		SHALE	6.0	187.2
488.8	CARBONDALE		SANDSTONE	3.0	193.2
485.8	CARBONDALE		SHALE	24.0	196.2
461.8	CARBONDALE		BLACK SHALE	1.0	220.2
460.8	CARBONDALE	HERRIN	COAL	5.8	221.2

MAPID: 18300138000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 21 QUARTERS/FOOTAGES: 1320' S line, 1320' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.718226 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.002217 DATE COLLECTED:

SURFACE ELEVATION (FT.): 677.0 LOGGED (FT.): 204.8 LOG TYPE: Drillers Log

SOURCE: C L ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
677.0	PLEISTOCENE		SOIL	10.0	0.0
667.0	PLEISTOCENE		UNCONSOLIDATED	8.0	10.0
659.0	PLEISTOCENE		CLAY	4.0	18.0
655.0	PLEISTOCENE		SAND	1.0	22.0
654.0	PLEISTOCENE		CLAY	12.5	23.0
641.5	PLEISTOCENE		SAND	3.3	35.5
638.2	MODESTO		SHALE	125.3	38.8
512.9	MODESTO		DARK SHALE	1.8	164.1
511.1	CARBONDALE	DANVILLE	COAL	5.3	165.9
505.8	CARBONDALE		UNDERCLAY	4.5	171.2
501.3	CARBONDALE	ENERGY	SHALE	1.8	175.7
499.5	CARBONDALE	ENERGY	ROCK	1.5	177.5
498.0	CARBONDALE	ENERGY	SHALE	20.1	179.0
477.9	CARBONDALE	HERRIN	COAL	5.7	199.1

MAPID: 18300138000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 21 QUARTERS/FOOTAGES: 1320' S line, 1320' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.718226

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.002217

DATE COLLECTED:

SURFACE ELEVATION (FT.): 677.0

LOGGED (FT.): 204.7

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
601.1	MODESTO		GRAY SHALE	90.0	75.9
511.1	CARBONDALE	DANVILLE	COAL	5.3	165.9
505.8	CARBONDALE		CLAYSTONE	4.5	171.2
501.3	CARBONDALE		GRAY SHALE	1.8	175.7
499.5	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	177.5
498.0	CARBONDALE	ENERGY	GRAY SHALE	20.0	179.0
478.0	CARBONDALE	HERRIN	COAL	5.7	199.0

MAPID: 18322659000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 21 QUARTERS/FOOTAGES: 500' N line, 1200' E line of SE SW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.732265

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.006298

DATE COLLECTED: 5 / 14 / 1976

SURFACE ELEVATION (FT.):

LOGGED (FT.): 220.0

LOG TYPE: Drillers Log

SOURCE: JAMES H BRENNER

WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		SOIL	1.0	0.0
-	PLEISTOCENE		CLAY	14.0	1.0
-	PLEISTOCENE		CLAY	15.0	15.0
-	PLEISTOCENE		SAND	12.0	30.0
-	PLEISTOCENE		CLAY	18.0	42.0
-	PLEISTOCENE		CLAY	31.0	60.0
-	PLEISTOCENE		CLAY	4.0	91.0
-			GRAY SHALE	87.0	95.0
-			COAL	1.0	182.0
-			BLACK SHALE	13.0	183.0
-			SHALE	24.0	196.0

MAPID: 18300139000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 22 QUARTERS/FOOTAGES: NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.699403 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.009482 DATE COLLECTED:

SURFACE ELEVATION (FT.): 680.6 LOGGED (FT.): 247.5 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO WELL TYPE: Coal Test

COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
531.6	CARBONDALE	DANVILLE	COAL	2.0	149.0	ONLY LOGGED COAL
438.6	CARBONDALE	HERRIN	COAL	5.5	242.0	

MAPID: 18300140000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 22 QUARTERS/FOOTAGES: 2640' N line, 1320' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.699296 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.005844 DATE COLLECTED: 0 / 0 / 1905

SURFACE ELEVATION (FT.): 685.0 LOGGED (FT.): 216.1 LOG TYPE: Drillers Log

SOURCE: C.L. ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
685.0			UNCONSOLIDATED	51.0	0.0	
634.0	MODESTO		SHALE	94.0	51.0	
540.0	CARBONDALE	DANVILLE	COAL	3.6	145.0	
536.4	CARBONDALE		UNDERCLAY	4.0	148.6	
532.4	CARBONDALE		UNCLASSIFIED	33.2	152.6	
499.2	CARBONDALE	ENERGY	SHALE	23.0	185.8	
476.2	CARBONDALE	HERRIN	COAL	5.3	208.8	
470.9	CARBONDALE		UNDERCLAY	2.0	214.1	

MAPID: 18300140000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 22 QUARTERS/FOOTAGES: 2640' N line, 1320' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.699296

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.005844

DATE COLLECTED:

SURFACE ELEVATION (FT.): 685.0

LOGGED (FT.): 214.3

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
629.7	MODESTO		GRAY SHALE	90.0	55.3
539.7	CARBONDALE	DANVILLE	COAL	3.6	145.3
536.2	CARBONDALE		CLAYSTONE	4.0	148.8
532.2	CARBONDALE	ENERGY	ROCK	33.2	152.8
499.0	CARBONDALE	ENERGY	SHALE & SANDSTONE	20.0	186.0
479.0	CARBONDALE	ENERGY	GRAY SHALE	3.0	206.0
476.0	CARBONDALE	HERRIN	COAL	5.3	209.0

MAPID: 18300140000C VERSION: 3

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 22 QUARTERS/FOOTAGES: 2640' N line, 1320' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.699296

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.005844

DATE COLLECTED: 0 / 0 / 1905

SURFACE ELEVATION (FT.): 685.0

LOGGED (FT.): 216.1

LOG TYPE: Drillers Log

SOURCE: C L ENGLISH

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
685.0	PLEISTOCENE		SOIL	6.0	0.0
679.0	PLEISTOCENE		SAND	0.7	6.0
678.3	PLEISTOCENE		CLAY	3.3	6.7
675.0	PLEISTOCENE		CLAY	8.0	10.0
667.0	PLEISTOCENE		UNCONSOLIDATED	7.0	18.0
660.0	PLEISTOCENE		SAND	1.3	25.0
658.7	PLEISTOCENE		SANDY CLAY	5.0	26.3
653.7	PLEISTOCENE		SAND	1.0	31.3
652.7	PLEISTOCENE		HARD PAN	18.7	32.3
634.0	MODESTO		SHALE	94.0	51.0
540.0	CARBONDALE	DANVILLE	COAL	3.6	145.0
536.4	CARBONDALE		UNDERCLAY	4.0	148.6
532.4	CARBONDALE	ENERGY	SANDSTONE	7.2	152.6
525.2	CARBONDALE	ENERGY	SANDSTONE	26.0	159.8
499.2	CARBONDALE	ENERGY	SHALE	20.0	185.8
479.2	CARBONDALE	ENERGY	SHALE	3.0	205.8
476.2	CARBONDALE	HERRIN	COAL	5.3	208.8
470.9	CARBONDALE		UNDERCLAY	2.0	214.1

MAPID: 18300141000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 18N 12W    SECTION: 22    QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.69708    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 40.011309    DATE COLLECTED: 0 / 0 / 1905

SURFACE ELEVATION (FT.): 677.0    LOGGED (FT.): 217.3    LOG TYPE: Drillers Log

SOURCE: C L ENGLISH    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
677.0	PLEISTOCENE		SOIL	11.5	0.0
665.5	PLEISTOCENE		CLAY	5.0	11.5
660.5	PLEISTOCENE		UNCONSOLIDATED	2.5	16.5
658.0	PLEISTOCENE		SANDY CLAY	1.0	19.0
657.0	PLEISTOCENE		CLAY	4.0	20.0
653.0	PLEISTOCENE		SANDY CLAY	6.6	24.0
646.4	PLEISTOCENE		SAND	0.7	30.6
645.7	PLEISTOCENE		HARD PAN	17.0	31.3
628.7	MODESTO		SHALE	23.5	48.3
605.2	MODESTO		SHALE	73.3	71.8
532.0	CARBONDALE	DANVILLE	COAL	3.9	145.0
528.1	CARBONDALE		UNDERCLAY	6.4	148.9
521.7	CARBONDALE	ENERGY	SHALE	5.8	155.3
515.8	CARBONDALE	ENERGY	SANDSTONE	2.3	161.2
513.6	CARBONDALE	ENERGY	SHALE	45.1	163.4
468.5	CARBONDALE	HERRIN	COAL	5.8	208.5
462.7	CARBONDALE		UNDERCLAY	3.0	214.3

MAPID: 18324491000C VERSION: 1

PROJECT: LUMP

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 22 QUARTERS/FOOTAGES: 349' S line, 598' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.696534 GEOLOGIST: J. MCBETH

CONFIDENTIAL: N LATITUDE: 39.999489 DATE COLLECTED: 0 / 0 / 1995

SURFACE ELEVATION (FT.): LOGGED (FT.): 233.1 LOG TYPE: Drillers Log

SOURCE: CATLIN COAL BC63 WELL TYPE: Coal Test

COMMENT: PERMIT 292; RIOLA MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			UNCONSOLIDATED	44.0	0.0
-	MODESTO		SHALE	41.0	44.0
-	MODESTO		BLACK SHALE	62.0	85.0
-	CARBONDALE	DANVILLE	COAL	3.5	147.0
-	CARBONDALE		UNDERCLAY	4.0	150.5
-	CARBONDALE	ENERGY	SHALE	38.0	154.5
-	CARBONDALE	ENERGY	SANDSTONE	24.0	192.5
-	CARBONDALE	ENERGY	BLACK SHALE	10.0	216.5
-	CARBONDALE	HERRIN	COAL	5.6	226.5
-	CARBONDALE		UNDERCLAY	1.0	232.1



MAPID: 18300142000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 23 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.67798 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.007676 DATE COLLECTED: 4 / 13 / 1905

SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 222.1 LOG TYPE: Drillers Log

SOURCE: DERING COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
680.0	PLEISTOCENE		SOIL	9.0	0.0
671.0	PLEISTOCENE		CLAY	11.5	9.0
659.5	PLEISTOCENE		SAND	1.7	20.5
657.8	PLEISTOCENE		CLAY	8.3	22.2
649.5	PLEISTOCENE		SAND	2.0	30.5
647.5	PLEISTOCENE		CLAY	4.2	32.5
643.3	PLEISTOCENE		SAND	2.6	36.7
640.7	PLEISTOCENE		HARD PAN	20.8	39.3
619.9	PLEISTOCENE		CLAY	12.0	60.1
607.9	PLEISTOCENE		SAND	3.5	72.1
604.4	PLEISTOCENE		CLAY	14.6	75.6
589.8	MODESTO		SHALE	36.8	90.2
553.0	CARBONDALE	DANVILLE	COAL	3.4	127.0
549.6	CARBONDALE		UNDERCLAY	5.3	130.4
544.2	CARBONDALE	ENERGY	SHALE	9.3	135.8
535.0	CARBONDALE	ENERGY	SANDSTONE	12.0	145.0
523.0	CARBONDALE	ENERGY	SHALE	56.6	157.0
466.4	CARBONDALE	HERRIN	COAL	7.5	213.6
458.9	CARBONDALE		UNDERCLAY	1.0	221.1

MAPID: 18300143000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 23 QUARTERS/FOOTAGES: 2640' N line, 1320' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.680274 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.005876 DATE COLLECTED: 4 / 0 / 1905

SURFACE ELEVATION (FT.): 672.0 LOGGED (FT.): 199.8 LOG TYPE: Drillers Log

SOURCE: DERING COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
672.0	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0
669.0	PLEISTOCENE		SAND	37.0	3.0
632.0	PLEISTOCENE		SAND	6.0	40.0
626.0	MODESTO		BLUE SHALE	50.0	46.0
576.0	MODESTO		BLACK SHALE	6.5	96.0
569.5	CARBONDALE	DANVILLE	COAL	1.5	102.5
568.0	CARBONDALE	DANVILLE	COAL	1.5	104.0
566.5	CARBONDALE		UNDERCLAY	5.5	105.5
561.0	CARBONDALE		LIMESTONE	1.0	111.0
560.0	CARBONDALE	ENERGY	SANDSTONE	55.0	112.0
505.0	CARBONDALE	ENERGY	BLACK SHALE	19.1	167.0
485.9	CARBONDALE	HERRIN	COAL	0.3	186.1
485.6	CARBONDALE	HERRIN	BLACK SHALE	5.6	186.4
480.0	CARBONDALE	HERRIN	COAL	6.5	192.0
473.5	CARBONDALE		UNDERCLAY	1.3	198.5

MAPID: 18300143000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 23 QUARTERS/FOOTAGES: 2640' N line, 1320' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.680274 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.005876 DATE COLLECTED:

SURFACE ELEVATION (FT.): 672.0 LOGGED (FT.): 198.5 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
626.0	MODESTO		GRAY SHALE	56.5	46.0
569.5	CARBONDALE	DANVILLE	BONE COAL	3.0	102.5
566.5	CARBONDALE		CLAYSTONE	5.5	105.5
561.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	111.0
560.0	CARBONDALE	ENERGY	SANDSTONE	55.0	112.0
505.0	CARBONDALE	ENERGY	GRAY SHALE	19.1	167.0
485.9	CARBONDALE	ENERGY	COAL	0.3	186.1
485.6	CARBONDALE	ENERGY	GRAY SHALE	5.6	186.4
480.0	CARBONDALE	HERRIN	COAL	6.5	192.0

MAPID: 18300144000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 18N 12W    SECTION: 23    QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.692235    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 40.007661    DATE COLLECTED: 4 / 0 / 1905

SURFACE ELEVATION (FT.): 681.0    LOGGED (FT.): 241.7    LOG TYPE: Drillers Log

SOURCE: DERING COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
681.0	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0
678.0	PLEISTOCENE		SAND	7.0	3.0
671.0	PLEISTOCENE		HARD PAN	13.0	10.0
658.0	MODESTO		SANDSTONE	45.0	23.0
613.0	MODESTO		SANDSTONE	38.0	68.0
575.0	MODESTO		BLUE SHALE	34.0	106.0
541.0	MODESTO		BLACK SHALE	7.0	140.0
534.0	CARBONDALE	DANVILLE	COAL	2.0	147.0
532.0	CARBONDALE	DANVILLE	COAL	2.0	149.0
530.0	CARBONDALE		UNDERCLAY	6.0	151.0
524.0	CARBONDALE		LIGHT SHALE	8.0	157.0
516.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	165.0
515.0	CARBONDALE	ENERGY	LIGHT SHALE	8.0	166.0
507.0	CARBONDALE	ENERGY	SANDSTONE	52.0	174.0
455.0	CARBONDALE	ENERGY	BLACK SHALE	9.0	226.0
446.0	CARBONDALE	ENERGY	BLACK SHALE	1.2	235.0
444.8	CARBONDALE	HERRIN	COAL	5.5	236.2

MAPID: 18300145000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 24 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.659049 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.007778 DATE COLLECTED:

SURFACE ELEVATION (FT.): 679.6 LOGGED (FT.): 220.5 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
679.6	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0	
650.6	PLEISTOCENE		HARD PAN	18.0	29.0	
632.6	MODESTO		BLUE SHALE	32.0	47.0	
600.6	MODESTO		SHALE	24.0	79.0	
576.6	MODESTO		BLACK SHALE	8.5	103.0	
568.1	CARBONDALE	DANVILLE	COAL	4.0	111.5	
564.1	CARBONDALE		UNDERCLAY	5.5	115.5	
558.6	CARBONDALE	ENERGY	SANDSTONE	40.0	121.0	
518.6	CARBONDALE	ENERGY	BLACK SHALE	49.6	161.0	
469.0	CARBONDALE	ENERGY	BLACK SHALE	0.5	210.6	
468.5	CARBONDALE	HERRIN	COAL	8.4	211.1	
460.1	CARBONDALE		UNDERCLAY	1.0	219.5	

MAPID: 18300146000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 24 QUARTERS/FOOTAGES: 320' S line, 1730' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.669107 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.999451 DATE COLLECTED:

SURFACE ELEVATION (FT.): 667.0 LOGGED (FT.): 183.0 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
667.0	PLEISTOCENE		UNCONSOLIDATED	49.0	0.0	
618.0	MODESTO		BLUE SHALE	38.0	49.0	
580.0	MODESTO		BLACK SHALE	4.3	87.0	
575.7	CARBONDALE	DANVILLE	COAL	3.8	91.3	NOT GOOD
572.0	CARBONDALE		UNDERCLAY	8.0	95.0	
564.0	CARBONDALE	ENERGY	GRAY SHALE	6.0	103.0	
558.0	CARBONDALE	ENERGY	SANDSTONE	22.0	109.0	
536.0	CARBONDALE	ENERGY	BLACK SHALE	44.0	131.0	
492.0	CARBONDALE	HERRIN	COAL	6.8	175.0	
485.2	CARBONDALE		UNDERCLAY	1.3	181.8	

MAPID: 18300146000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 24 QUARTERS/FOOTAGES: 320' S line, 1730' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.669107 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.999451 DATE COLLECTED:

SURFACE ELEVATION (FT.): 667.0 LOGGED (FT.): 181.8 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
618.0	MODESTO		GRAY SHALE	42.3	49.0
575.7	CARBONDALE	DANVILLE	BONE COAL	3.8	91.3
572.0	CARBONDALE		CLAYSTONE	8.0	95.0
564.0	CARBONDALE	ENERGY	GRAY SHALE	6.0	103.0
558.0	CARBONDALE	ENERGY	SANDSTONE	22.0	109.0
536.0	CARBONDALE	ENERGY	SILTY SHALE	44.0	131.0
492.0	CARBONDALE	HERRIN	COAL	6.8	175.0

MAPID: 18300147000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 25 QUARTERS/FOOTAGES: 2598' S line, 2505' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.665169 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.991109 DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 677.1 LOGGED (FT.): 191.7 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
677.1			UNCONSOLIDATED	55.0	0.0
622.1	MODESTO		BLACK SHALE	30.8	55.0
591.3	MODESTO		DARK SHALE	2.5	85.8
588.8	CARBONDALE	DANVILLE	COAL	3.5	88.3
585.4	CARBONDALE		UNDERCLAY	5.3	91.7
580.1	CARBONDALE		CLAYSTONE & SHALE	3.0	97.0
577.1	CARBONDALE		SANDSTONE	8.0	100.0
569.1	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	108.0
565.1	CARBONDALE	ENERGY	SANDSTONE	58.0	112.0
507.1	CARBONDALE	ENERGY	SANDY SHALE	13.0	170.0
494.1	CARBONDALE	HERRIN	COAL	8.3	183.0
485.8	CARBONDALE		UNCLASSIFIED	0.1	191.3
485.7	CARBONDALE		UNDERCLAY	0.3	191.4

MAPID: 18300147000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 25 QUARTERS/FOOTAGES: 2598' S line, 2505' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.665169

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.991109

DATE COLLECTED:

SURFACE ELEVATION (FT.): 677.0

LOGGED (FT.): 191.3

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
622.0	MODESTO		DARK GRAY SHALE	33.3	55.0
588.7	CARBONDALE	DANVILLE	COAL	3.5	88.3
585.3	CARBONDALE		CLAYSTONE & SHALE	8.3	91.7
577.0	CARBONDALE		SANDSTONE	8.0	100.0
569.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	108.0
565.0	CARBONDALE	ENERGY	SANDSTONE	58.0	112.0
507.0	CARBONDALE	ENERGY	SILTY SHALE	13.0	170.0
494.0	CARBONDALE	HERRIN	COAL	8.3	183.0

MAPID: 18300147000C VERSION: 3

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 25 QUARTERS/FOOTAGES: 2598' S line, 2505' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.665169

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 39.991109

DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 677.1

LOGGED (FT.): 191.7

LOG TYPE: Drillers Log

SOURCE: BUNSEN CO

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
677.1	PLEISTOCENE		UNCONSOLIDATED	26.0	0.0
651.1	PLEISTOCENE		HARD PAN	7.0	26.0
644.1	PLEISTOCENE		SAND	12.0	33.0
632.1	PLEISTOCENE		UNCONSOLIDATED	10.0	45.0
622.1	MODESTO		BLACK SHALE	30.8	55.0
591.3	MODESTO		DARK SHALE	2.5	85.8
588.8	CARBONDALE	DANVILLE	COAL	3.5	88.3
585.4	CARBONDALE		UNDERCLAY	5.3	91.7
580.1	CARBONDALE		UNDERCLAY	3.0	97.0
577.1	CARBONDALE		SANDSTONE	8.0	100.0
569.1	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	108.0
565.1	CARBONDALE	ENERGY	SANDSTONE	58.0	112.0
507.1	CARBONDALE	ENERGY	SANDSTONE	13.0	170.0
494.1	CARBONDALE	HERRIN	COAL	8.3	183.0
485.8	CARBONDALE	HERRIN	JACK	0.1	191.3
485.7	CARBONDALE		UNDERCLAY	0.3	191.4

MAPID: 18300525000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 26 QUARTERS/FOOTAGES: 2310' S line, 1650' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.681076 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 39.990245 DATE COLLECTED:

SURFACE ELEVATION (FT.): 682.8 LOGGED (FT.): 197.7 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO WELL TYPE: Mine Shaft

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
682.8	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
667.8	PLEISTOCENE		SAND	21.0	15.0
646.8	PLEISTOCENE		HARD PAN	1.0	36.0
645.8	PLEISTOCENE		SAND	9.0	37.0
636.8	PLEISTOCENE		HARD PAN	0.3	46.0
636.5	PLEISTOCENE		SAND	0.3	46.3
636.1	PLEISTOCENE		UNCONSOLIDATED	13.0	46.7
623.1	MODESTO		BLUE SHALE	30.7	59.7
592.5	MODESTO		LIGHT SHALE	2.0	90.3
590.5	CARBONDALE	DANVILLE	COAL	3.3	92.3
587.2	CARBONDALE		UNDERCLAY	6.1	95.6
581.1	CARBONDALE		LIGHT SHALE	14.0	101.7
567.1	CARBONDALE	ENERGY	SANDSTONE	8.5	115.7
558.6	CARBONDALE	ENERGY	ROCK	31.5	124.2
527.1	CARBONDALE	ENERGY	SANDSTONE	32.8	155.7
494.3	CARBONDALE	HERRIN	COAL	4.4	188.5
489.9	CARBONDALE		UNDERCLAY	4.8	192.9

MAPID: 18300525000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 26 QUARTERS/FOOTAGES: 2310' S line, 1650' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.681076 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.990245 DATE COLLECTED:

SURFACE ELEVATION (FT.): 683.0 LOGGED (FT.): 200.4 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
615.8	MODESTO		GRAY SHALE	32.7	67.2
583.2	CARBONDALE	DANVILLE	COAL	3.3	99.8
579.9	CARBONDALE		CLAYSTONE	6.1	103.1
573.8	CARBONDALE		SHALE & SANDSTONE	22.5	109.2
551.3	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	131.7
549.8	CARBONDALE	ENERGY	SANDSTONE	62.8	133.2
487.0	CARBONDALE	HERRIN	COAL	4.4	196.0

MAPID: 18300526000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 26 QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.681104 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.990284 DATE COLLECTED:

SURFACE ELEVATION (FT.): 686.8 LOGGED (FT.): 216.0 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO WELL TYPE: Mine Shaft

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
686.8	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
671.8	PLEISTOCENE		HARD PAN	12.0	15.0
659.8	PLEISTOCENE		UNCONSOLIDATED	33.0	27.0
626.8	MODESTO		BLUE SHALE	48.3	60.0
578.5	CARBONDALE	DANVILLE	COAL	3.3	108.3
575.3	CARBONDALE		UNDERCLAY	4.5	111.5
570.8	CARBONDALE	ENERGY	SHALE	9.0	116.0
561.8	CARBONDALE	ENERGY	SANDSTONE	45.0	125.0
516.8	CARBONDALE	ENERGY	BLACK SHALE	30.7	170.0
486.1	CARBONDALE	HERRIN	COAL	6.9	200.7
479.2	CARBONDALE		UNDERCLAY	4.3	207.6
474.9			SHALE	1.5	211.9
473.4			SHALE	2.6	213.4



MAPID: 18300148000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 18N 12W    SECTION: 27    QUARTERS/FOOTAGES: NE SE

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.696558    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 39.989398    DATE COLLECTED:

SURFACE ELEVATION (FT.): 681.6    LOGGED (FT.): 238.4    LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO    36    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
681.6			UNKNOWN	140.0	0.0
541.6	MODESTO		BLACK SHALE	14.8	140.0
526.8	CARBONDALE	DANVILLE	COAL	1.8	154.8
525.0	CARBONDALE	DANVILLE	COAL	0.9	156.6
524.1	CARBONDALE	DANVILLE	COAL	0.4	157.5
523.7	CARBONDALE		UNDERCLAY	4.1	157.9
519.6	CARBONDALE		UNKNOWN	67.0	162.0
452.6	CARBONDALE	ENERGY	BLACK SHALE	2.5	229.0
450.1	CARBONDALE	HERRIN	COAL	0.9	231.5
449.2	CARBONDALE	HERRIN	PYRITE	0.2	232.4
449.0	CARBONDALE	HERRIN	COAL	3.2	232.6
445.8	CARBONDALE	HERRIN	COAL	0.5	235.8
445.3	CARBONDALE	HERRIN	PYRITE	0.2	236.3
445.2	CARBONDALE	HERRIN	COAL	1.4	236.4
443.8	CARBONDALE		UNDERCLAY	0.6	237.8

MAPID: 18300149000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 27 QUARTERS/FOOTAGES: 41' N line, 723' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.696957 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 39.998414 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 682.1 LOGGED (FT.): 233.3 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
682.1	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0
654.1	PLEISTOCENE		HARD PAN	16.0	28.0
638.1	MODESTO		LIGHT SHALE	6.0	44.0
632.1	MODESTO		SHALE	35.0	50.0
597.1	MODESTO		BLACK SHALE	61.6	85.0
535.5	CARBONDALE	DANVILLE	COAL	3.4	146.6
532.1	CARBONDALE		UNDERCLAY	4.0	150.0
528.1	CARBONDALE	ENERGY	BROWN SHALE	6.0	154.0
522.1	CARBONDALE	ENERGY	LIGHT SHALE	14.0	160.0
508.1	CARBONDALE	ENERGY	BLACK SHALE	18.0	174.0
490.1	CARBONDALE	ENERGY	SANDSTONE	24.0	192.0
466.1	CARBONDALE	ENERGY	BLACK SHALE	10.8	216.0
455.3	CARBONDALE	HERRIN	COAL	5.5	226.8
449.7	CARBONDALE		UNDERCLAY	1.0	232.4

MAPID: 18300149000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 27 QUARTERS/FOOTAGES: 41' N line, 723' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.696957 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.998414 DATE COLLECTED:

SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 232.5 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
625.2	MODESTO		DARK GRAY SHALE	90.0	56.8
535.2	CARBONDALE	DANVILLE	COAL	3.4	146.8
531.8	CARBONDALE		CLAYSTONE	4.0	150.2
527.8	CARBONDALE	ENERGY	DARK GRAY SHALE	6.0	154.2
521.8	CARBONDALE	ENERGY	GRAY SHALE	14.0	160.2
507.8	CARBONDALE	ENERGY	SILTY SHALE	18.0	174.2
489.8	CARBONDALE	ENERGY	SANDSTONE	24.0	192.2
465.8	CARBONDALE	ENERGY	BLACK SHALE	10.8	216.2
455.0	CARBONDALE	HERRIN	COAL	5.5	227.0

MAPID: 18324492000C VERSION: 1

PROJECT: LUMP

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 27 QUARTERS/FOOTAGES: 2341' S line, 2192' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.70546 GEOLOGIST: J. MCBETH

CONFIDENTIAL: N LATITUDE: 39.990414 DATE COLLECTED: 0 / 0 / 1995

SURFACE ELEVATION (FT.): LOGGED (FT.): 249.0 LOG TYPE: Drillers Log

SOURCE: CATLIN COAL CC3 WELL TYPE: Coal Test

COMMENT: PERMIT 292; RIOLA MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SOIL	46.0	0.0	
-	MODESTO		SANDSTONE	24.0	46.0	
-	MODESTO		SHALE	95.0	70.0	
-	MODESTO		DARK SHALE	8.0	165.0	
-	CARBONDALE	DANVILLE	COAL	4.5	173.0	
-	CARBONDALE	ENERGY	SANDY SHALE	20.5	177.5	GRAY
-	CARBONDALE	ENERGY	SANDSTONE	10.0	198.0	
-	CARBONDALE	ENERGY	SHALE	29.0	208.0	
-	CARBONDALE	HERRIN	COAL	5.8	237.0	
-	CARBONDALE		SHALE	3.9	242.8	
-	CARBONDALE		LIMESTONE	2.3	246.7	

MAPID: 18324493000C VERSION: 1

PROJECT: LUMP

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 28 QUARTERS/FOOTAGES: 2615' S line, 2122' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.720941 GEOLOGIST: J. MCBETH

CONFIDENTIAL: N LATITUDE: 39.991156 DATE COLLECTED: 0 / 0 / 1995

SURFACE ELEVATION (FT.): LOGGED (FT.): 244.6 LOG TYPE: Drillers Log

SOURCE: CATLIN COAL CC1 WELL TYPE: Coal Test

COMMENT: PERMIT 292; RIOLA MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SOIL	38.0	0.0	
-	MODESTO		SANDY SHALE	10.0	38.0	
-	MODESTO		SANDSTONE	11.0	48.0	
-	MODESTO		SHALE	111.0	59.0	
-	MODESTO		DARK SHALE	8.0	170.0	
-	CARBONDALE	DANVILLE	COAL	4.6	178.0	
-	CARBONDALE	ENERGY	SANDY SHALE	5.4	182.6	GRAY
-	CARBONDALE	ENERGY	SANDSTONE	12.5	188.0	
-	CARBONDALE	ENERGY	SHALE	18.5	200.5	
-	CARBONDALE	ENERGY	SANDSTONE	3.5	219.0	
-	CARBONDALE	ENERGY	SANDY SHALE	9.5	222.5	GRAY
-	CARBONDALE	HERRIN	COAL	6.1	232.0	
-	CARBONDALE		CLAYSTONE	1.5	238.1	CLAYSTONE
-	CARBONDALE		LIMESTONE	5.0	239.6	

MAPID: 18324494000C VERSION: 1

PROJECT: LUMP

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 28 QUARTERS/FOOTAGES: 49' S line, 493' E line  
 QUADRANGLE: GEORGETOWN LONGITUDE: -87.715013 GEOLOGIST: J. MCBETH  
 CONFIDENTIAL: N LATITUDE: 39.984107 DATE COLLECTED: 0 / 0 / 1995  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 266.1 LOG TYPE: Drillers Log  
 SOURCE: CATLIN COAL CC2 WELL TYPE: Coal Test  
 COMMENT: PERMIT 292; RIOLA MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SOIL	50.0	0.0	
-	MODESTO		SANDSTONE	1.0	50.0	BROWN
-	MODESTO		SANDSTONE	19.0	51.0	
-	MODESTO		SHALE	114.0	70.0	
-	MODESTO		DARK SHALE	2.0	184.0	
-	CARBONDALE	DANVILLE	COAL	3.6	186.0	
-	CARBONDALE	ENERGY	SANDY SHALE	12.4	189.6	GRAY
-	CARBONDALE	ENERGY	SANDSTONE	12.0	202.0	
-	CARBONDALE	ENERGY	SHALE	36.5	214.0	
-	CARBONDALE	HERRIN	COAL	5.8	250.5	
-	CARBONDALE		CLAYSTONE	2.2	256.3	
-	CARBONDALE		GRAY SHALE	2.0	258.5	
-	CARBONDALE		LIMESTONE	5.6	260.5	

MAPID: 18390074000C VERSION: 1

PROJECT: LUMP

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 28 QUARTERS/FOOTAGES: 1350' S line, 270' W line  
 QUADRANGLE: GEORGETOWN LONGITUDE: -87.731384 GEOLOGIST: NORTH  
 CONFIDENTIAL: N LATITUDE: 39.987611 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 674.0 LOGGED (FT.): 230.6 LOG TYPE: Drillers Log  
 SOURCE: CATLIN COAL CO. RIOLA MINE CC17 WELL TYPE: Coal Test  
 COMMENT: PERMIT 292 CROSS SECTION AVAIL.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
674.0	PLEISTOCENE		UNCONSOLIDATED	50.0	0.0	
624.0	MODESTO		SANDSTONE	6.0	50.0	
618.0	MODESTO		SANDY SHALE	19.0	56.0	
599.0	MODESTO		DARK SHALE	35.0	75.0	
564.0	MODESTO		GRAY SHALE	72.0	110.0	
492.0	CARBONDALE	DANVILLE	COAL	5.0	182.0	
487.0	CARBONDALE		GRAY SHALE	7.0	187.0	
480.0	CARBONDALE		SANDSTONE	6.0	194.0	
474.0	CARBONDALE		GRAY SHALE	12.0	200.0	
462.0	CARBONDALE		DARK SHALE	7.0	212.0	
455.0	CARBONDALE	HERRIN	COAL	5.6	219.0	
449.4	CARBONDALE		DARK SHALE	2.0	224.6	
447.4	CARBONDALE	HIGGINSVILLE	LIMESTONE	4.0	226.6	

MAPID: 18390075000C VERSION: 1

PROJECT: LUMP

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 28 QUARTERS/FOOTAGES: 1290' S line, 1380' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.727401 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 39.987468 DATE COLLECTED:

SURFACE ELEVATION (FT.): 672.0 LOGGED (FT.): 236.8 LOG TYPE: Drillers Log

SOURCE: CATLIN COAL CO. RIOLA MINE CC6 WELL TYPE: Coal Test

COMMENT: PERMIT 292 CROSS SECTION AVAIL.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
672.0	PLEISTOCENE		UNCONSOLIDATED	42.0	0.0
630.0	MODESTO		SANDSTONE	16.0	42.0
614.0	MODESTO		SANDY SHALE	108.0	58.0
506.0	MODESTO		DARK SHALE	6.0	166.0
500.0	CARBONDALE	DANVILLE	COAL	3.9	172.0
496.1	CARBONDALE		SANDY SHALE	51.3	175.9
444.8	CARBONDALE	HERRIN	COAL	5.6	227.2
439.2	CARBONDALE		UNDERCLAY	4.0	232.8

MAPID: 18390077000C VERSION: 1

PROJECT: LUMP

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 28 QUARTERS/FOOTAGES: 2400' N line, 1380' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.72751 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 39.991944 DATE COLLECTED:

SURFACE ELEVATION (FT.): 673.0 LOGGED (FT.): 244.2 LOG TYPE: Drillers Log

SOURCE: CATLIN COAL CO. RIOLA MINE CC7 WELL TYPE: Coal Test

COMMENT: PERMIT 292 CROSS SECTION AVAIL.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
673.0	PLEISTOCENE		UNCONSOLIDATED	48.0	0.0
625.0	MODESTO		SHALE	122.0	48.0
503.0	MODESTO		DARK SHALE	8.0	170.0
495.0	CARBONDALE	DANVILLE	COAL	4.4	178.0
490.6	CARBONDALE		SANDY SHALE	51.0	182.4
439.6	CARBONDALE	HERRIN	COAL	5.8	233.4
433.8	CARBONDALE		UNDERCLAY	3.0	239.2
430.8	CARBONDALE	HIGGINSVILLE	LIMESTONE	2.0	242.2

**MAPID:** 18301717000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 12W    **SECTION:** 31    **QUARTERS/FOOTAGES:** 78' S line, 1388' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.754914    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.969388    **DATE COLLECTED:** 7 / 29 / 1968  
**SURFACE ELEVATION (FT.):** 678.0    **LOGGED (FT.):** 330.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-151    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
428.3	SHELBURN	DANVILLE	COAL	3.0	249.7
387.5	CARBONDALE	HERRIN	COAL	5.7	290.5

**MAPID:** 18301717000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 12W    **SECTION:** 31    **QUARTERS/FOOTAGES:** 78' S line, 1388' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.754914    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.969388    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 678.0    **LOGGED (FT.):** 296.7    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-151    **WELL TYPE:** Coal Test  
**COMMENT:** POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
519.8	MODESTO		SILTY SHALE	90.0	158.2
429.8	CARBONDALE	DANVILLE	COAL	5.0	248.2
424.8	CARBONDALE		SILTY SHALE	11.5	253.2
413.3	CARBONDALE		SANDSTONE	0.8	264.7
412.6	CARBONDALE	BANKSTON FORK	LIMESTONE	0.8	265.4
411.8	CARBONDALE	ENERGY	SILTY SHALE	7.3	266.2
404.5	CARBONDALE	ENERGY	SILTSTONE	17.5	273.5
387.0	CARBONDALE	HERRIN	COAL	5.7	291.0

**MAPID:** 18326574000C    **VERSION:** 1    **PROJECT:**  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 12W    **SECTION:** 32    **QUARTERS/FOOTAGES:** 107' N, 187' W, SE/c  
**QUADRANGLE:** GEORGETOWN    **LONGITUDE:** -87.732792    **GEOLOGIST:** NELSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.969477    **DATE COLLECTED:** 2 / 8 / 1977  
**SURFACE ELEVATION (FT.):** 679.0    **LOGGED (FT.):** 256.2    **LOG TYPE:** Lithologic Log  
**SOURCE:** U.S. STEEL    WI-2-77    **WELL TYPE:** Coal Test  
**COMMENT:** COAL PICKS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
679.0			UNCONSOLIDATED	193.2	0.0    BEDROCK SURFACE 70.22'
485.9	SHELBURN	DANVILLE	COAL	4.0	193.1
428.7	CARBONDALE	HERRIN	COAL	5.9	250.3

MAPID: 18326578000C VERSION: 1

PROJECT: NCRDS

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 33 QUARTERS/FOOTAGES: 2141' N, 14' W, SE/c

QUADRANGLE: GEORGETOWN LONGITUDE: -87.713182 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 39.975106 DATE COLLECTED: 12 / 11 / 2000

SURFACE ELEVATION (FT.): 670.3 LOGGED (FT.): 239.0 LOG TYPE: Drillers Log

SOURCE: BLACK BEAUTY COAL CO. DH-37 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.3			CLAY	50.0	0.0
620.3			GRAVEL	1.0	50.0
619.3			CLAY	24.0	51.0
595.3			GRAY SHALE	79.0	75.0
516.3	SHELburn	DANVILLE	COAL	5.5	154.0
510.8	SHELburn		CLAYSTONE	7.5	159.5
503.3	CARBONDALE	ENERGY	SANDSTONE	50.0	167.0
453.3	CARBONDALE	ENERGY	SANDY SHALE	3.0	217.0
450.3	CARBONDALE	ENERGY	GRAY SHALE	10.0	220.0
440.3	CARBONDALE	HERRIN	COAL	2.0	230.0
438.3	CARBONDALE		UNDERCLAY	6.0	232.0
432.3	CARBONDALE		LIMESTONE	1.0	238.0

MAPID: 18300151000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 34 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.701138 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 39.971097 DATE COLLECTED:

SURFACE ELEVATION (FT.): 683.1 LOGGED (FT.): 238.8 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
683.1			UNKNOWN	120.0	0.0
563.1	MODESTO		BLACK SHALE	25.3	120.0
537.8	CARBONDALE	DANVILLE	COAL	2.8	145.3
535.1	CARBONDALE	DANVILLE	COAL	0.8	148.0
534.3	CARBONDALE		UNKNOWN	51.2	148.8
483.1	CARBONDALE	ENERGY	BLACK SHALE	27.3	200.0
455.8	CARBONDALE	ENERGY	BLACK SHALE	0.3	227.3
455.4	CARBONDALE		COAL	0.1	227.7
455.3	CARBONDALE		SANDSTONE	2.5	227.8
452.8	CARBONDALE		LIMESTONE	0.3	230.3
452.5	CARBONDALE		SANDSTONE	0.3	230.6
452.2	CARBONDALE	HERRIN	COAL	6.4	230.9
445.8	CARBONDALE		UNDERCLAY	1.5	237.3

MAPID: 18300152000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 34 QUARTERS/FOOTAGES: 1295' N line, 1378' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.698966 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 39.980355 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 682.5 LOGGED (FT.): 233.5 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
682.5	PLEISTOCENE		CLAY	14.0	0.0
668.5	PLEISTOCENE		CLAY	6.0	14.0
662.5	PLEISTOCENE		CLAY	2.0	20.0
660.5	PLEISTOCENE		SAND	1.0	22.0
659.5	PLEISTOCENE		CLAY	14.0	23.0
645.5	PLEISTOCENE		SAND	2.0	37.0
643.5	PLEISTOCENE		SAND	6.0	39.0
637.5	PLEISTOCENE		HARD PAN	38.0	45.0
599.5	MODESTO		SHALE	18.0	83.0
581.5	MODESTO		SHALE	9.0	101.0
572.5	MODESTO		DARK SHALE	39.2	110.0
533.3	CARBONDALE	DANVILLE	COAL	2.5	149.2
530.8	CARBONDALE		CLAYSTONE & SILTSTONE	10.3	151.7
520.5	CARBONDALE		DARK SHALE	4.0	162.0
516.5	CARBONDALE	ENERGY	BLACK SHALE	9.0	166.0
507.5	CARBONDALE	ENERGY	SHALE	48.1	175.0
459.4	CARBONDALE	HERRIN	COAL	0.3	223.1
459.2	CARBONDALE	HERRIN	DARK SHALE	3.0	223.3
456.2	CARBONDALE	HERRIN	COAL	6.2	226.3
450.0	CARBONDALE		UNDERCLAY	1.0	232.5



MAPID: 18300152000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 34 QUARTERS/FOOTAGES: 1295' N line, 1378' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.698966 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.980355 DATE COLLECTED:

SURFACE ELEVATION (FT.): 683.0 LOGGED (FT.): 232.2 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.3	MODESTO		SILTY SHALE	66.2	92.7	
524.2	CARBONDALE	DANVILLE	COAL	2.5	158.8	
521.7	CARBONDALE		CLAYSTONE	0.3	161.3	
521.3	CARBONDALE		DARK GRAY SHALE	4.0	161.7	
517.3	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	9.0	165.7	
508.3	CARBONDALE	ENERGY	SILTY SHALE	48.1	174.7	
460.2	CARBONDALE	ENERGY	COAL	0.3	222.8	
460.0	CARBONDALE	ENERGY	DARK GRAY SHALE	3.0	223.0	
457.0	CARBONDALE	HERRIN	COAL	6.2	226.0	

MAPID: 18301909000C VERSION: 1

PROJECT: LUMP

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 34 QUARTERS/FOOTAGES: 1135' N line, 1893' E line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.700816 GEOLOGIST: J. MCBETH

CONFIDENTIAL: N LATITUDE: 39.980806 DATE COLLECTED: 0 / 0 / 1995

SURFACE ELEVATION (FT.): LOGGED (FT.): 232.5 LOG TYPE: Drillers Log

SOURCE: CATLIN COAL BC112 WELL TYPE: Coal Test

COMMENT: PERMIT 292; RIOLA MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SOIL	22.0	0.0	
-			SAND	1.0	22.0	
-			CLAY	14.0	23.0	
-			SAND & GRAVEL	8.0	37.0	SAND & GRAVEL
-			CLAY	38.0	45.0	
-	MODESTO		SHALE	66.2	83.0	
-	CARBONDALE	DANVILLE	COAL	2.5	149.2	
-	CARBONDALE		UNDERCLAY	10.3	151.7	
-	CARBONDALE	ENERGY	SHALE	61.1	162.0	
-	CARBONDALE	ENERGY	DARK SHALE	3.2	223.1	
-	CARBONDALE	HERRIN	COAL	6.2	226.3	

MAPID: 18326576000C    VERSION: 1

PROJECT: NCRDS

COUNTY: VERMILION    TWP/RNG: 18N 12W    SECTION: 34    QUARTERS/FOOTAGES: 2140' S, 40' E, NW/c

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.713027    GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N    LATITUDE: 39.978108    DATE COLLECTED: 12 / 11 / 2000

SURFACE ELEVATION (FT.): 677.8    LOGGED (FT.): 263.0    LOG TYPE: Drillers Log

SOURCE: BLACK BEAUTY COAL CO.    DH-31    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
677.8			CLAY	10.0	0.0
667.8			SAND & GRAVEL	13.0	10.0
654.8			CLAY	7.0	23.0
647.8			GRAVEL	5.0	30.0
642.8			CLAY	13.0	35.0
629.8			SAND & GRAVEL	12.0	48.0
617.8			CLAY	40.0	60.0
577.8			SHALE	75.0	100.0
502.8	SHELBURN	DANVILLE	COAL	4.0	175.0
498.8	SHELBURN		CLAYSTONE	10.0	179.0
488.8	CARBONDALE	ENERGY	SANDSTONE	52.0	189.0
436.8	CARBONDALE	ENERGY	GRAY SHALE	6.0	241.0
430.8	CARBONDALE	ENERGY	DARK SHALE	3.0	247.0
427.8	CARBONDALE	HERRIN	COAL W/ PYRITE	3.0	250.0    PYRITE STREAKS
424.8	CARBONDALE	HERRIN	COAL	3.0	253.0
421.8	CARBONDALE		CLAYSTONE	4.0	256.0
417.8	CARBONDALE		SANDSTONE	3.0	260.0

MAPID: 18326577000C    VERSION: 1

PROJECT: NCRDS

COUNTY: VERMILION    TWP/RNG: 18N 12W    SECTION: 34    QUARTERS/FOOTAGES: 2623' S, 35' E, NW/c

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.713028    GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N    LATITUDE: 39.976782    DATE COLLECTED: 12 / 11 / 2000

SURFACE ELEVATION (FT.): 673.2    LOGGED (FT.): 263.0    LOG TYPE: Drillers Log

SOURCE: BLACK BEAUTY COAL CO.    DH-35    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
673.2			CLAY	10.0	0.0
663.2			SAND & GRAVEL	7.0	10.0
656.2			CLAY	6.0	17.0
650.2			GRAVEL	20.0	23.0
630.2			CLAY	49.0	43.0
581.2			SANDY SHALE	17.0	92.0
564.2			GREEN SHALE	69.0	109.0
495.2			BLACK SHALE	3.0	178.0
492.2			UNDERCLAY	3.0	181.0
489.2	SHELBURN	DANVILLE	COAL	4.0	184.0
485.2	SHELBURN		UNDERCLAY	9.0	188.0
476.2	CARBONDALE	ENERGY	SANDSTONE	40.0	197.0
436.2	CARBONDALE	ENERGY	GRAY SHALE	18.0	237.0
418.2	CARBONDALE	HERRIN	COAL	6.0	255.0
412.2	CARBONDALE		CLAYSTONE	2.0	261.0

MAPID: 18326579000C VERSION: 1

PROJECT: NCRDS

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 34 QUARTERS/FOOTAGES: 2654' S, 1373' E, NW/c

QUADRANGLE: GEORGETOWN LONGITUDE: -87.708254 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 39.976682 DATE COLLECTED: 12 / 11 / 2000

SURFACE ELEVATION (FT.): 679.7 LOGGED (FT.): 257.5 LOG TYPE: Drillers Log

SOURCE: BLACK BEAUTY COAL CO. CC-10 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
679.7			UNCONSOLIDATED	110.0	0.0	
569.7			SHALE	45.0	110.0	
524.7			DARK SHALE	5.0	155.0	
519.7	SHELBURN	DANVILLE	COAL	5.0	160.0	
514.7	SHELBURN		UNDERCLAY	5.0	165.0	
509.7	SHELBURN		DARK SHALE	9.0	170.0	
500.7	SHELBURN		LIMESTONE	1.0	179.0	
499.7	CARBONDALE	ENERGY	SANDY SHALE	49.0	180.0	
450.7	CARBONDALE	ENERGY	DARK SHALE	2.0	229.0	
448.7	CARBONDALE	HERRIN	COAL	6.0	231.0	
442.7	CARBONDALE		UNDERCLAY	3.5	237.0	
439.2	CARBONDALE		LIMESTONE	3.0	240.5	
436.2	CARBONDALE		SANDY SHALE	14.0	243.5	

MAPID: 18326580000C VERSION: 1

PROJECT: NCRDS

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 34 QUARTERS/FOOTAGES: 1016' S, 39' E, NW/c

QUADRANGLE: GEORGETOWN LONGITUDE: -87.713067 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 39.981194 DATE COLLECTED: 12 / 11 / 2000

SURFACE ELEVATION (FT.): 680.6 LOGGED (FT.): 263.0 LOG TYPE: Drillers Log

SOURCE: BLACK BEAUTY COAL CO. DH-26 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
680.6			UNCONSOLIDATED	2.0	0.0	FILL - MANMADE
678.6			UNCONSOLIDATED	49.0	2.0	CLAY
629.6			BROWN SANDSTONE	14.0	51.0	
615.6			SANDSTONE	40.0	65.0	
575.6			DARK SHALE	74.0	105.0	
501.6	SHELBURN		BLACK SHALE	4.7	179.0	
496.9	SHELBURN	DANVILLE	COAL	4.7	183.7	
492.2	SHELBURN		UNDERCLAY	5.6	188.4	
486.6	CARBONDALE	ENERGY	SANDSTONE	30.0	194.0	
456.6	CARBONDALE	ENERGY	GRAY SHALE	27.5	224.0	
429.1	CARBONDALE	HERRIN	COAL	6.0	251.5	
423.1	CARBONDALE		CLAYSTONE	2.5	257.5	
420.6	CARBONDALE		SHALE	3.0	260.0	

MAPID: 18390079000C VERSION: 1

PROJECT: LUMP

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 34 QUARTERS/FOOTAGES: 1' S line, 100' W line of SE NW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.708007 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 39.976606 DATE COLLECTED:

SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 257.5 LOG TYPE: Drillers Log

SOURCE: CATLIN COAL CO. RIOLA MINE CC10 WELL TYPE: Coal Test

COMMENT: PERMIT 292 CROSS SECTION AVAIL.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
680.0	PLEISTOCENE		UNCONSOLIDATED	110.0	0.0
570.0	MODESTO		SHALE	45.0	110.0
525.0	MODESTO		DARK SHALE	5.0	155.0
520.0	CARBONDALE	DANVILLE	COAL	5.0	160.0
515.0	CARBONDALE		UNDERCLAY	5.0	165.0
510.0	CARBONDALE		DARK SHALE	9.0	170.0
501.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	179.0
500.0	CARBONDALE		SANDY SHALE	37.0	180.0
463.0	CARBONDALE		SANDY DARK SHALE	3.0	217.0
460.0	CARBONDALE		SANDY SHALE	9.0	220.0
451.0	CARBONDALE		DARK SHALE	2.0	229.0
449.0	CARBONDALE	HERRIN	COAL	6.0	231.0
443.0	CARBONDALE		UNDERCLAY	3.5	237.0
439.5	CARBONDALE	HIGGINSVILLE	LIMESTONE	3.0	240.5
436.5	CARBONDALE		SANDY SHALE	14.0	243.5

MAPID: 18390080000C VERSION: 1

PROJECT: LUMP

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 34 QUARTERS/FOOTAGES: 1' N line, 1' W line of NE NW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.708439 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 39.983964 DATE COLLECTED:

SURFACE ELEVATION (FT.): 688.0 LOGGED (FT.): 247.6 LOG TYPE: Drillers Log

SOURCE: CATLIN COAL CO. RIOLA MINE CC8 WELL TYPE: Coal Test

COMMENT: PERMIT 292 CROSS SECTION AVAIL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
688.0	PLEISTOCENE		UNCONSOLIDATED	43.0	0.0
645.0	MODESTO		SANDSTONE	15.0	43.0
630.0	MODESTO		SHALE	114.0	58.0
516.0	CARBONDALE	DANVILLE	COAL	3.8	172.0
512.2	CARBONDALE		GRAY SHALE	14.0	175.8
498.2	CARBONDALE		SANDSTONE	14.0	189.8
484.2	CARBONDALE		SHALE	37.0	203.8
447.2	CARBONDALE	HERRIN	COAL	6.3	240.8
440.9	CARBONDALE		UNDERCLAY	0.5	247.1

MAPID: 18390081000C VERSION: 1

PROJECT: LUMP

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 34 QUARTERS/FOOTAGES: 1' S line, 225' E line of NW SE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.69957 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 39.972933 DATE COLLECTED:

SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 238.9 LOG TYPE: Drillers Log

SOURCE: CATLIN COAL CO. BC40 WELL TYPE: Coal Test

COMMENT: PERMIT 292 CROSS SECTION AVAIL.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
680.0	PLEISTOCENE		UNCONSOLIDATED	55.0	0.0
625.0	MODESTO		SHALE	10.0	55.0
615.0	MODESTO		SANDY SHALE	55.0	65.0
560.0	MODESTO		DARK SHALE	25.0	120.0
535.0	CARBONDALE	DANVILLE	COAL	3.5	145.0
531.5	CARBONDALE		UNDERCLAY	9.5	148.5
522.0	CARBONDALE		DARK SHALE	3.0	158.0
519.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	161.0
517.0	CARBONDALE		SANDSTONE	37.0	163.0
480.0	CARBONDALE		SANDY SHALE	27.0	200.0
453.0	CARBONDALE		DARK SHALE	4.0	227.0
449.0	CARBONDALE	HERRIN	COAL	6.4	231.0
442.6	CARBONDALE		UNDERCLAY	1.5	237.4

MAPID: 18300154000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 18N 12W    SECTION: 35    QUARTERS/FOOTAGES: 1980' S line, 1980' W line

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.686891    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 39.974688    DATE COLLECTED:

SURFACE ELEVATION (FT.): 658.0    LOGGED (FT.): 180.7    LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
658.0	PLEISTOCENE		UNCONSOLIDATED	2.0	0.0
656.0	PLEISTOCENE		SAND	22.0	2.0
634.0	MODESTO		BLUE SHALE	11.0	24.0
623.0	MODESTO		SANDSTONE	30.0	35.0
593.0	MODESTO		BLACK SHALE	15.3	65.0
577.7	CARBONDALE	DANVILLE	COAL	3.5	80.3
574.3	CARBONDALE		UNDERCLAY	6.3	83.7
568.0	CARBONDALE		LIMESTONE	2.0	90.0
566.0	CARBONDALE		SANDSTONE	26.0	92.0
540.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.2	118.0
534.8	CARBONDALE	ENERGY	SANDSTONE	25.0	123.2
509.8	CARBONDALE	ENERGY	SANDSTONE	5.0	148.2
504.8	CARBONDALE	ENERGY	SANDSTONE	17.5	153.2
487.4	CARBONDALE	HERRIN	COAL	0.2	170.6
487.2	CARBONDALE	HERRIN	BLACK SHALE	1.5	170.8
485.7	CARBONDALE	HERRIN	COAL	0.3	172.3
485.4	CARBONDALE	HERRIN	BLACK SHALE	0.2	172.6
485.2	CARBONDALE	HERRIN	COAL	7.1	172.8
478.1	CARBONDALE		UNDERCLAY	0.8	179.9

MAPID: 18300154000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 35 QUARTERS/FOOTAGES: 1980' S line, 1980' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.686891

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.974688

DATE COLLECTED:

SURFACE ELEVATION (FT.): 658.0

LOGGED (FT.): 180.1

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
633.8	MODESTO		SILTY SHALE	56.3	24.2	
577.5	CARBONDALE	DANVILLE	COAL	3.5	80.5	
574.1	CARBONDALE		CLAYSTONE	6.3	83.9	
567.8	CARBONDALE	GALUM	LIMESTONE AND SANDSTONE	2.0	90.2	
565.8	CARBONDALE		SANDSTONE	26.0	92.2	
539.8	CARBONDALE	BANKSTON FORK	LIMESTONE	5.2	118.2	
534.6	CARBONDALE	ENERGY	SANDSTONE	25.0	123.4	
509.6	CARBONDALE	ENERGY	SILTY SHALE	22.5	148.4	
487.2	CARBONDALE	ENERGY	CARBONACEOUS SHALE	2.2	170.8	
485.0	CARBONDALE	HERRIN	COAL	7.1	173.0	

MAPID: 18300155000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 35 QUARTERS/FOOTAGES: 0' S line, 0' E line of SE SW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.6844

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.969204

DATE COLLECTED:

SURFACE ELEVATION (FT.): 677.0

LOGGED (FT.): 198.5

LOG TYPE: Drillers Log

SOURCE: DERING COAL CO.

WELL TYPE: Coal Test

COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
574.5	CARBONDALE	DANVILLE	COAL	1.5	102.5	ONLY LOGGED COAL
490.9	CARBONDALE		COAL	0.3	186.1	ONLY LOGGED COAL
485.0	CARBONDALE	HERRIN	COAL	6.5	192.0	ONLY LOGGED COAL



MAPID: 18300156000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 35 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.691659 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.982074 DATE COLLECTED:

SURFACE ELEVATION (FT.): 682.0 LOGGED (FT.): 221.1 LOG TYPE: Drillers Log

SOURCE: DERING COAL CO. WELL TYPE: Coal Test

COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
555.0	CARBONDALE	DANVILLE	COAL	3.4	127.0	LOGGED ONLY COALS
468.4	CARBONDALE	HERRIN	COAL	7.5	213.6	LOGGED ONLY COALS

MAPID: 18300157000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 35 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.686874 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.97839 DATE COLLECTED:

SURFACE ELEVATION (FT.): 675.0 LOGGED (FT.): 184.0 LOG TYPE: Drillers Log

SOURCE: DERING COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
675.0	PLEISTOCENE		SOIL	4.0	0.0	
671.0	PLEISTOCENE		CLAY	16.0	4.0	
655.0	PLEISTOCENE		GRAVEL	20.0	20.0	
635.0	MODESTO		BLACK SHALE	24.0	40.0	
611.0	MODESTO		SANDSTONE	12.0	64.0	
599.0	MODESTO		BLACK SHALE	10.0	76.0	
589.0	CARBONDALE	DANVILLE	COAL	4.0	86.0	
585.0	CARBONDALE		CLAYSTONE & SILTSTONE	10.0	90.0	
575.0	CARBONDALE		SANDSTONE	2.0	100.0	
573.0	CARBONDALE		SANDSTONE	8.0	102.0	
565.0	CARBONDALE		LIGHT SHALE	34.0	110.0	
531.0	CARBONDALE		LIMESTONE	30.0	144.0	
501.0	CARBONDALE		DARK SHALE	2.0	174.0	
499.0	CARBONDALE	HERRIN	COAL	6.0	176.0	
493.0	CARBONDALE		UNDERCLAY	2.0	182.0	

MAPID: 18300158000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 35 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.691635 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.978413 DATE COLLECTED:

SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 166.0 LOG TYPE: Drillers Log

SOURCE: C L ENGLISH WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
680.0	PLEISTOCENE		UNCLASSIFIED	1.5	0.0
678.5	PLEISTOCENE		CLAY	6.0	1.5
672.5	PLEISTOCENE		SAND	2.0	7.5
670.5	PLEISTOCENE		CLAY	5.0	9.5
665.5	PLEISTOCENE		CLAY	18.4	14.5
647.1	PLEISTOCENE		SAND	3.0	32.9
644.1	PLEISTOCENE		HARD PAN	14.0	35.9
630.1	MODESTO		SHALE	15.8	49.9
614.3	CARBONDALE	DANVILLE	COAL	3.0	65.7
611.3	CARBONDALE		UNDERCLAY	8.0	68.7
603.3	CARBONDALE		SANDSTONE	17.9	76.7
585.4	CARBONDALE		ROCK	3.5	94.6
581.9	CARBONDALE	ENERGY	SANDSTONE	61.3	98.1
520.6	CARBONDALE	HERRIN	COAL	6.6	159.4

MAPID: 18300159000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 35 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.677309 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.974662 DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 672.6 LOGGED (FT.): 200.8 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
672.6	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
662.6	PLEISTOCENE		SAND	11.5	10.0
651.1	PLEISTOCENE		HARD PAN	11.0	21.5
640.1	PLEISTOCENE		SAND	3.5	32.5
636.6	PLEISTOCENE		HARD PAN	9.0	36.0
627.6	MODESTO		BLACK SHALE	48.8	45.0
578.8	CARBONDALE	DANVILLE	COAL	3.2	93.8
575.7	CARBONDALE		UNDERCLAY	6.0	96.9
569.7	CARBONDALE		LIGHT SHALE	6.1	102.9
563.6	CARBONDALE		SANDSTONE	26.0	109.0
537.6	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	135.0
535.1	CARBONDALE	ENERGY	SANDSTONE	30.0	137.5
505.1	CARBONDALE	ENERGY	BLACK SHALE	23.5	167.5
481.6	CARBONDALE	HERRIN	COAL	3.7	191.0
477.9	CARBONDALE		UNDERCLAY	5.0	194.7
472.9	CARBONDALE		SANDSTONE	0.8	199.7
472.2	CARBONDALE		UNDERCLAY	0.3	200.4

MAPID: 18300160000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 35 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.67736 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.978343 DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 661.3 LOGGED (FT.): 180.1 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
661.3	PLEISTOCENE		SOIL	4.7	0.0	
656.6	PLEISTOCENE		SAND	8.3	4.7	
648.3	PLEISTOCENE		HARD PAN	15.0	13.0	
633.3	MODESTO		SAND	3.0	28.0	
630.3	MODESTO		BLACK SHALE	49.3	31.0	
581.0	CARBONDALE	DANVILLE	COAL	3.2	80.3	
577.8	CARBONDALE		CLAYSTONE & SILTSTONE	9.2	83.5	
568.6	CARBONDALE	ENERGY	SANDSTONE	31.3	92.7	
537.3	CARBONDALE	ENERGY	SHALE	45.0	124.0	
492.3	CARBONDALE	ENERGY	SHALE	0.3	169.0	
492.0	CARBONDALE	HERRIN	COAL	0.2	169.3	
491.8	CARBONDALE	HERRIN	SHALE	2.0	169.5	
489.8	CARBONDALE	HERRIN	COAL	4.4	171.5	
485.4	CARBONDALE	HERRIN	COAL	0.1	175.9	
485.3	CARBONDALE	HERRIN	COAL	0.3	176.0	
485.0	CARBONDALE	HERRIN	COAL	0.1	176.3	
484.8	CARBONDALE	HERRIN	COAL	2.2	176.5	
482.6	CARBONDALE		UNDERCLAY	1.4	178.7	

MAPID: 18301148000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 35 QUARTERS/FOOTAGES: SW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.689212 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.972905 DATE COLLECTED:

SURFACE ELEVATION (FT.): 677.0 LOGGED (FT.): 192.6 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO WELL TYPE: Coal Test

COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
576.0	CARBONDALE	DANVILLE	COAL	1.5	101.0	ONLY LOGGED COAL
491.2	CARBONDALE		COAL	0.3	185.8	ONLY LOGGED COAL
490.9	CARBONDALE	HERRIN	COAL	6.5	186.1	ONLY LOGGED COAL

MAPID: 18300161000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 36 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.658208 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.974736 DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 670.8 LOGGED (FT.): 190.8 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.8	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0
666.8	PLEISTOCENE		SAND	11.0	4.0
655.8	PLEISTOCENE		SAND	17.0	15.0
638.8	PLEISTOCENE		UNCONSOLIDATED	8.5	32.0
630.3	MODESTO		BLACK SHALE	46.1	40.5
584.2	CARBONDALE	DANVILLE	COAL	3.6	86.6
580.6	CARBONDALE		UNDERCLAY	5.8	90.2
574.8	CARBONDALE		CLAYSTONE	4.0	96.0
570.8	CARBONDALE	ENERGY	SANDSTONE	48.0	100.0
522.8	CARBONDALE	ENERGY	LIGHT SHALE	12.0	148.0
510.8	CARBONDALE	ENERGY	BLACK SHALE	22.5	160.0
488.3	CARBONDALE	ENERGY	BLACK SHALE	0.3	182.5
488.0	CARBONDALE	HERRIN	COAL	7.3	182.8
480.8	CARBONDALE		UNDERCLAY	0.8	190.0

MAPID: 18300162000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 36 QUARTERS/FOOTAGES: 870' N line, 220' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.674239 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.981458 DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 670.6 LOGGED (FT.): 195.6 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.6	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0
661.6	PLEISTOCENE		SAND	52.3	9.0
609.3	MODESTO		BLACK SHALE	29.8	61.3
579.6	CARBONDALE	DANVILLE	COAL	0.3	91.0
579.3	CARBONDALE	DANVILLE	COAL	0.3	91.3
579.0	CARBONDALE	DANVILLE	COAL	2.8	91.6
576.3	CARBONDALE	DANVILLE	COAL	0.3	94.3
576.0	CARBONDALE		UNDERCLAY	7.0	94.6
569.0	CARBONDALE		LIGHT SHALE	9.4	101.6
559.6	CARBONDALE		SANDSTONE	15.0	111.0
544.6	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	126.0
541.6	CARBONDALE	ENERGY	SANDSTONE	34.0	129.0
507.6	CARBONDALE	ENERGY	SANDSTONE	24.5	163.0
483.1	CARBONDALE	HERRIN	COAL	5.1	187.5
478.0	CARBONDALE	HERRIN	COAL	0.3	192.6
477.8	CARBONDALE	HERRIN	COAL	2.1	192.8
475.7	CARBONDALE		UNDERCLAY	0.7	194.9

MAPID: 18300162000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 36 QUARTERS/FOOTAGES: 870' N line, 220' W line

QUADRANGLE: GEORGETOWN LONGITUDE: -87.674239 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.981458 DATE COLLECTED:

SURFACE ELEVATION (FT.): 671.0 LOGGED (FT.): 195.4 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
609.2	MODESTO		DARK GRAY SHALE	29.8	61.8
579.5	CARBONDALE	DANVILLE	BONE COAL	3.6	91.5
575.9	CARBONDALE		CLAYSTONE	7.0	95.1
568.9	CARBONDALE		SHALE & SANDSTONE	24.4	102.1
544.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	126.5
541.5	CARBONDALE	ENERGY	SANDSTONE	34.0	129.5
507.5	CARBONDALE	ENERGY	SILTY SHALE	24.5	163.5
483.0	CARBONDALE	HERRIN	COAL	7.4	188.0

MAPID: 18300163000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 36 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.658361 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.982147 DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 673.5 LOGGED (FT.): 186.6 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
673.5	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0
667.5	PLEISTOCENE		SAND	20.0	6.0
647.5	PLEISTOCENE		HARD PAN	6.0	26.0
641.5	PLEISTOCENE		SAND	3.0	32.0
638.5	PLEISTOCENE		HARD PAN	8.0	35.0
630.5			BLACK SHALE	38.3	43.0
592.2			BLACK SHALE	2.3	81.3
589.8	CARBONDALE	DANVILLE	COAL	1.0	83.7
588.8	CARBONDALE		UNDERCLAY	5.0	84.7
583.8	CARBONDALE		BROWN SHALE	7.3	89.7
576.5	CARBONDALE	ENERGY	SANDSTONE	67.0	97.0
509.5	CARBONDALE	ENERGY	SANDSTONE	15.3	164.0
494.2	CARBONDALE	HERRIN	COAL	4.0	179.3
490.2	CARBONDALE	HERRIN	BLACK SHALE	0.1	183.3
490.2	CARBONDALE	HERRIN	COAL	2.4	183.3
487.8	CARBONDALE		UNDERCLAY	0.9	185.7

MAPID: 18300164000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 36 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.667761 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.974686 DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 678.6 LOGGED (FT.): 202.5 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
678.6	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0
669.6	PLEISTOCENE		SAND	19.0	9.0
650.6	PLEISTOCENE		HARD PAN	9.0	28.0
641.6	PLEISTOCENE		SAND	3.0	37.0
638.6	MODESTO		BLACK SHALE	55.0	40.0
583.6	MODESTO		BLACK SHALE	4.5	95.0
579.1	CARBONDALE	DANVILLE	COAL	3.5	99.5
575.5	CARBONDALE		CLAYSTONE & SILTSTONE	8.4	103.1
567.1	CARBONDALE		BLACK SHALE	13.5	111.5
553.6	CARBONDALE		SANDSTONE	25.0	125.0
528.6	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	150.0
526.6	CARBONDALE	ENERGY	SANDSTONE	43.0	152.0
483.6	CARBONDALE	HERRIN	COAL	6.5	195.0
477.1	CARBONDALE		UNDERCLAY	1.0	201.5

MAPID: 18300165000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 36 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.663124 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.982108 DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 669.9 LOGGED (FT.): 188.6 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
669.9	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0
646.9	PLEISTOCENE		HARD PAN	12.0	23.0
634.9	PLEISTOCENE		UNCONSOLIDATED	13.5	35.0
621.4	MODESTO		BLACK SHALE	34.9	48.5
586.5	CARBONDALE	DANVILLE	COAL	2.1	83.4
584.4	CARBONDALE	DANVILLE	JACK	1.7	85.5
582.7	CARBONDALE		UNDERCLAY	7.8	87.2
574.9	CARBONDALE	ENERGY	SANDSTONE	80.0	95.0
494.9	CARBONDALE	ENERGY	BLACK SHALE	6.6	175.0
488.3	CARBONDALE	HERRIN	COAL	6.2	181.6
482.1	CARBONDALE		UNDERCLAY	0.8	187.8



MAPID: 18300166000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 36 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.658361 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.982147 DATE COLLECTED: 5 / 18 / 1905

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 184.7 LOG TYPE: Drillers Log

SOURCE: LITTLE VERMILION COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.0	PLEISTOCENE		UNCONSOLIDATED	47.0	0.0
623.0	MODESTO		SHALE	35.0	47.0
588.0	CARBONDALE	DANVILLE	COAL	3.0	82.0
585.0	CARBONDALE		SHALE	15.0	85.0
570.0	CARBONDALE	ENERGY	SANDSTONE	1.0	100.0
569.0	CARBONDALE	ENERGY	SANDSTONE	4.0	101.0
565.0	CARBONDALE	ENERGY	SANDSTONE	6.0	105.0
559.0	CARBONDALE	ENERGY	SANDSTONE	13.0	111.0
546.0	CARBONDALE	ENERGY	SANDSTONE	25.0	124.0
521.0	CARBONDALE	ENERGY	SANDSTONE	5.0	149.0
516.0	CARBONDALE	ENERGY	SANDSTONE	2.0	154.0
514.0	CARBONDALE	ENERGY	SANDSTONE	20.0	156.0
494.0	CARBONDALE	HERRIN	COAL	6.7	176.0
487.3	CARBONDALE		SANDSTONE	2.0	182.7

MAPID: 18300167000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 18N 12W    SECTION: 36    QUARTERS/FOOTAGES: SE NW

QUADRANGLE: GEORGETOWN    LONGITUDE: -87.667825    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 39.978377    DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 677.1    LOGGED (FT.): 194.8    LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
677.1	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0
663.1	PLEISTOCENE		SAND	10.0	14.0
653.1	PLEISTOCENE		HARD PAN	5.0	24.0
648.1	PLEISTOCENE		SAND	10.5	29.0
637.6	MODESTO		BLACK SHALE	47.5	39.5
590.1	MODESTO		BLACK SHALE	6.0	87.0
584.1	CARBONDALE	DANVILLE	COAL	1.3	93.0
582.8	CARBONDALE	DANVILLE	COAL	0.3	94.3
582.5	CARBONDALE	DANVILLE	COAL	1.6	94.6
580.9	CARBONDALE		UNDERCLAY	6.0	96.2
574.8	CARBONDALE	ENERGY	LIGHT SHALE	13.8	102.3
561.1	CARBONDALE	ENERGY	SANDSTONE	52.3	116.0
508.8	CARBONDALE	ENERGY	BLACK SHALE	18.8	168.3
490.1	CARBONDALE	HERRIN	COAL	7.1	187.0
483.0	CARBONDALE		UNDERCLAY	0.8	194.1

MAPID: 18300168000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 36 QUARTERS/FOOTAGES: SW NE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.663056 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.978411 DATE COLLECTED: 5 / 18 / 1905

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 194.8 LOG TYPE: Drillers Log

SOURCE: LITTLE VERMILION COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.0	PLEISTOCENE		UNCONSOLIDATED	46.0	0.0
624.0	PLEISTOCENE		SAND	34.0	46.0
590.0	MODESTO		BLACK SHALE	8.0	80.0
582.0	CARBONDALE	DANVILLE	COAL	2.7	88.0
579.3	CARBONDALE		UNDERCLAY	4.0	90.7
575.3	CARBONDALE	ENERGY	SHALE	14.0	94.7
561.3	CARBONDALE	ENERGY	SHALE	34.0	108.7
527.3	CARBONDALE	ENERGY	SANDSTONE	2.0	142.7
525.3	CARBONDALE	ENERGY	SANDSTONE	38.0	144.7
487.3	CARBONDALE	ENERGY	SANDSTONE	4.0	182.7
483.3	CARBONDALE	HERRIN	COAL	5.7	186.7
477.7	CARBONDALE		UNDERCLAY	2.5	192.3

MAPID: 18300169000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 36 QUARTERS/FOOTAGES: SE

QUADRANGLE: GEORGETOWN LONGITUDE: -87.660561 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.972871 DATE COLLECTED: 5 / 23 / 1905

SURFACE ELEVATION (FT.): LOGGED (FT.): 193.0 LOG TYPE: Drillers Log

SOURCE: LITTLE VERMILION COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	51.0	0.0
-	MODESTO		SHALE	34.0	51.0
-	MODESTO		BLACK SHALE	1.0	85.0
-	CARBONDALE	DANVILLE	COAL	2.7	86.0
-	CARBONDALE	ENERGY	SHALE	21.0	88.7
-	CARBONDALE	ENERGY	SANDSTONE	6.0	109.7
-	CARBONDALE	ENERGY	SHALE	29.0	115.7
-	CARBONDALE	ENERGY	SANDSTONE	12.0	144.7
-	CARBONDALE	ENERGY	LIMESTONE	15.0	156.7
-	CARBONDALE	ENERGY	SANDSTONE	11.3	171.7
-	CARBONDALE	HERRIN	COAL	7.0	183.0
-	CARBONDALE		UNDERCLAY	3.0	190.0

MAPID: 18300170000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 12W SECTION: 36 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: GEORGETOWN LONGITUDE: -87.667696 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.970994 DATE COLLECTED: 5 / 21 / 1905

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 186.0 LOG TYPE: Drillers Log

SOURCE: LITTLE VERMILION COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.0	PLEISTOCENE		UNCONSOLIDATED	48.0	0.0
622.0	PLEISTOCENE		CLAY	25.0	48.0
597.0	MODESTO		BLUE SHALE	3.0	73.0
594.0	MODESTO		BLACK SHALE	6.0	76.0
588.0	CARBONDALE	DANVILLE	COAL	3.7	82.0
584.3	CARBONDALE		UNDERCLAY	4.3	85.7
580.0	CARBONDALE		SHALE	19.0	90.0
561.0	CARBONDALE		SANDSTONE	13.0	109.0
548.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	122.0
545.0	CARBONDALE	ENERGY	SANDSTONE	15.0	125.0
530.0	CARBONDALE	ENERGY	SANDSTONE	30.0	140.0
500.0	CARBONDALE	ENERGY	SANDSTONE	5.0	170.0
495.0	CARBONDALE	HERRIN	COAL	6.5	175.0
488.5	CARBONDALE		DARK SHALE	1.5	181.5
487.0	CARBONDALE		CALCAREOUS SHALE	3.0	183.0

MAPID: 18322993000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 18N 13W SECTION: 1 QUARTERS/FOOTAGES: 1' S line, 33' E line

QUADRANGLE: OAKWOOD LONGITUDE: -87.767944 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.042959 DATE COLLECTED: 7 / 0 / 1971

SURFACE ELEVATION (FT.): 681.0 LOGGED (FT.): 318.0 LOG TYPE: Electric Log

SOURCE: HYDROCARBON SURVEY PD-45 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-				-	NO COAL PICKS

MAPID: 18321911000C    VERSION: 1

PROJECT: CONF

COUNTY: VERMILION    TWP/RNG: 18N 13W    SECTION: 3    QUARTERS/FOOTAGES: 842' N line, 1390' E line  
 QUADRANGLE: OAKWOOD    LONGITUDE: -87.811054    GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N    LATITUDE: 40.054441    DATE COLLECTED: 4 / 18 / 1974  
 SURFACE ELEVATION (FT.): 651.0    LOGGED (FT.): 254.0    LOG TYPE: Electric Log  
 SOURCE: PHILLIPS PETROLEUM CO.    H(2)    WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
434.1	SHELBURN	DANVILLE	COAL	5.2	216.9	
404.8	CARBONDALE	HERRIN	COAL	3.0	246.2	

MAPID: 18321911000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION    TWP/RNG: 18N 13W    SECTION: 3    QUARTERS/FOOTAGES: 842' N line, 1390' E line  
 QUADRANGLE: OAKWOOD    LONGITUDE: -87.811054    GEOLOGIST:  
 CONFIDENTIAL: N    LATITUDE: 40.054441    DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 651.0    LOGGED (FT.): 249.0    LOG TYPE: Survey Core Study  
 SOURCE: PHILLIPS PETROLEUM CO.    H(2)    WELL TYPE: Coal Test  
 COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
476.0	MODESTO	PIASA	LIMESTONE W/ SHALE	1.7	175.0	
474.3	MODESTO		DARK GRAY SHALE	41.0	176.7	
433.3	CARBONDALE	DANVILLE	COAL	5.2	217.7	
428.1	CARBONDALE		MOTTLED SHALE	2.3	222.9	
425.8	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	2.6	225.2	UPPER BENCH
423.2	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	5.7	227.8	SHALE PARTING
417.5	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	12.8	233.5	LOWER BENCH
404.7	CARBONDALE	ANNA	BLACK SHALE	0.7	246.3	
405.0	CARBONDALE	HERRIN	COAL	3.0	246.0	

MAPID: 18322576000C VERSION: 1

PROJECT: NCRDS99

COUNTY: VERMILION TWP/RNG: 18N 13W SECTION: 4 QUARTERS/FOOTAGES: 945' N line, 1662' W line

QUADRANGLE: OAKWOOD LONGITUDE: -87.837844 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 40.053604 DATE COLLECTED: 8 / 26 / 1977

SURFACE ELEVATION (FT.): 657.0 LOGGED (FT.): 273.0 LOG TYPE: Multiple log types

SOURCE: GULF OIL CORPORATION E-4-2C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
657.0	PLEISTOCENE		UNCONSOLIDATED	36.5	0.0	
620.5			SHALE	14.0	36.5	
606.5			BLACK SHALE	1.5	50.5	TRACE OF COAL
605.0			SHALE	9.0	52.0	
596.0			LIMESTONE	1.5	61.0	
594.5			SHALE	7.1	62.5	
587.4			SHALE	6.0	69.6	MULTICOLORED SHALE
581.4			SILTY SHALE	1.4	75.6	
580.0			LIMESTONE	0.6	77.0	
579.4			SHALE	17.0	77.6	
562.4			SHALE	35.6	94.6	MULTICOLORED SHALE
526.8			SANDSTONE	6.8	130.2	
520.0			SHALE	83.0	137.0	
437.0	CARBONDALE	DANVILLE	COAL	4.8	220.0	
432.2	CARBONDALE		SHALE	9.8	224.8	
422.4	CARBONDALE		LIMESTONE	0.6	234.6	
421.8	CARBONDALE		SHALE	14.1	235.2	
407.7	CARBONDALE		BLACK SHALE	1.5	249.3	
406.2	CARBONDALE	HERRIN	COAL	2.8	250.8	
403.4	CARBONDALE		CALCAREOUS SHALE	19.0	253.6	

MAPID: 18322576000C VERSION: 2

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 18N 13W SECTION: 4 QUARTERS/FOOTAGES: 945' N line, 1662' W line

QUADRANGLE: OAKWOOD LONGITUDE: -87.837844 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.053604 DATE COLLECTED: 8 / 28 / 1977

SURFACE ELEVATION (FT.): 657.0 LOGGED (FT.): 273.0 LOG TYPE: Electric Log

SOURCE: GULF OIL CORPORATION E-4-2C WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
433.8	SHELBURN	DANVILLE	COAL	5.3	223.2	
403.9	CARBONDALE	HERRIN	COAL	3.8	253.1	

**MAPID:** 18322069000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 7    **QUARTERS/FOOTAGES:** NE NE  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.86506    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.038904    **DATE COLLECTED:** 6 / 9 / 1976  
**SURFACE ELEVATION (FT.):** 695.0    **LOGGED (FT.):** 340.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    18,13-7-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
412.9	SHELburn	DANVILLE	COAL	4.8	282.1	
382.0	CARBONDALE	HERRIN	COAL	4.0	313.0	

**MAPID:** 18322043000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 8    **QUARTERS/FOOTAGES:** 100' N line, 20' W line of NE SW SE  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.860499    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.029736    **DATE COLLECTED:** 0 / 0 / 1976  
**SURFACE ELEVATION (FT.):** 700.0    **LOGGED (FT.):** 329.3    **LOG TYPE:** Survey Core Study  
**SOURCE:** FREEMAN UNITED    FQ-4-76    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
413.6	SHELburn	DANVILLE	COAL	4.9	286.4	
383.4	CARBONDALE	HERRIN	COAL	3.9	316.6	

**MAPID:** 18322994000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 8    **QUARTERS/FOOTAGES:** 48' N line, 18' W line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.862524    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.040613    **DATE COLLECTED:** 7 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 656.0    **LOGGED (FT.):** 402.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PC-55    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-		NO COAL PICKS

**MAPID:** 18321921000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 9    **QUARTERS/FOOTAGES:** 46' S line, 2102' W line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.835906    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.02671    **DATE COLLECTED:** 5 / 6 / 1974  
**SURFACE ELEVATION (FT.):** 660.0    **LOGGED (FT.):** 264.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** PHILLIPS PETROLEUM CO.    J(5)    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
426.7	SHELburn	DANVILLE	COAL	5.0	233.3
406.4	CARBONDALE	HERRIN	COAL	2.6	253.6

**MAPID:** 18321921000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 9    **QUARTERS/FOOTAGES:** 46' S line, 2102' W line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.835906    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 40.02671    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 660.0    **LOGGED (FT.):** 256.6    **LOG TYPE:** Survey Core Study  
**SOURCE:** PHILLIPS PETROLEUM CO.    J(5)    **WELL TYPE:** Coal Test  
**COMMENT:** GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
525.5	MODESTO		GRAY SHALE	90.0	134.5
435.5	CARBONDALE	DANVILLE	COAL	5.0	224.5
430.5	CARBONDALE		CLAYSTONE	8.5	229.5
422.0	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	2.4	238.0
419.6	CARBONDALE	LAWSON	CALCAREOUS SHALE	11.4	240.4
408.2	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	1.5	251.8
406.7	CARBONDALE	ANNA	BLACK SHALE	0.7	253.3
406.0	CARBONDALE	HERRIN	COAL	2.6	254.0

**MAPID:** 18322995000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 10    **QUARTERS/FOOTAGES:** 50' S line, 50' W line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.824397    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.026915    **DATE COLLECTED:** 12 / 0 / 1970  
**SURFACE ELEVATION (FT.):** 665.0    **LOGGED (FT.):** 400.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PA-51    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-				-	NO COAL PICKS



**MAPID:** 18322996000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 45' N line, 15' W line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.806005    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.041512    **DATE COLLECTED:** 7 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 659.0    **LOGGED (FT.):** 399.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PD-44    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

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

-    -    NO COAL PICKS

**MAPID:** 18322997000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 50' N line, 50' W line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.786426    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.027122    **DATE COLLECTED:** 12 / 0 / 1970  
**SURFACE ELEVATION (FT.):** 680.0    **LOGGED (FT.):** 348.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PB-58    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

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

-    -    NO COAL PICKS

**MAPID:** 18321912000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 60' N line, 902' W line of NW  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.803271    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.026887    **DATE COLLECTED:** 4 / 17 / 1974  
**SURFACE ELEVATION (FT.):** 673.0    **LOGGED (FT.):** 271.0    **LOG TYPE:** Electric Log  
**SOURCE:** PHILLIPS PETROLEUM CO.    K(1)    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

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

437.3	SHELburn	DANVILLE	COAL	5.3	235.7	
409.4	CARBONDALE	HERRIN	COAL	2.6	263.6	

MAPID: 18321912000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 13W SECTION: 14 QUARTERS/FOOTAGES: 60' N line, 902' W line of NW

QUADRANGLE: OAKWOOD LONGITUDE: -87.803271

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.026887

DATE COLLECTED:

SURFACE ELEVATION (FT.): 673.0 LOGGED (FT.): 266.6

LOG TYPE: Survey Core Study

SOURCE: PHILLIPS PETROLEUM CO. K(1)

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
526.8	MODESTO		GRAY SHALE	90.0	146.2	
436.8	CARBONDALE	DANVILLE	COAL	5.3	236.2	
431.5	CARBONDALE		MOTTLED SHALE	3.5	241.5	
428.0	CARBONDALE		CALCAREOUS SHALE	4.8	245.0	
423.2	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	4.4	249.8	UPPER BENCH
418.8	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	5.7	254.2	SHALE PARTING
413.1	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	3.2	259.9	LOWER BENCH
410.0	CARBONDALE	LAWSON	MOTTLED SHALE	1.0	263.0	
409.0	CARBONDALE	HERRIN	COAL	2.6	264.0	

MAPID: 18322577000C VERSION: 1

PROJECT: NCRDS99

COUNTY: VERMILION TWP/RNG: 18N 13W SECTION: 14 QUARTERS/FOOTAGES: 1607' N line, 1304' W line

QUADRANGLE: OAKWOOD LONGITUDE: -87.800919

GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 40.022638

DATE COLLECTED: 8 / 18 / 1977

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 276.0

LOG TYPE: Drillers Log

SOURCE: GULF OIL CORPORATION E-14-2C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
670.0	PLEISTOCENE		UNCONSOLIDATED	31.0	0.0	
639.0			SHALE	6.5	31.0	
632.5			SANDSTONE/SHALE	128.2	37.5	SHALE IS SANDY
504.3			SHALE	9.3	165.7	
495.0			SANDY SHALE	28.5	175.0	
466.5			SHALE	35.2	203.5	
431.3	CARBONDALE	DANVILLE	COAL	5.6	238.7	
425.7	CARBONDALE		CALCAREOUS SHALE	20.5	244.3	
405.2	CARBONDALE		BLACK SHALE	5.0	264.8	
400.2	CARBONDALE	HERRIN	COAL	2.8	269.8	
397.5	CARBONDALE		SHALE	3.3	272.5	CONGLOMERATIC

**MAPID:** 18322577000C    **VERSION:** 2    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 1607' N line, 1304' W line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.800919    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.022638    **DATE COLLECTED:** 8 / 18 / 1977  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 302.5    **LOG TYPE:** Electric Log  
**SOURCE:** GULF OIL CORPORATION    E-14-2C    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
429.8	SHELburn	DANVILLE	COAL	5.7	240.2
399.9	CARBONDALE	HERRIN	COAL	2.8	270.1

**MAPID:** 18322044000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 16    **QUARTERS/FOOTAGES:** 300' N line, 300' W line of SE NW NW  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.83997    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.023872    **DATE COLLECTED:** 0 / 0 / 1976  
**SURFACE ELEVATION (FT.):** 680.0    **LOGGED (FT.):** 280.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** FREEMAN UNITED    FQ-1-76    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
415.4	SHELburn	DANVILLE	COAL	5.1	264.6

**MAPID:** 18322998000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 18    **QUARTERS/FOOTAGES:** 10' N line, 30' E line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.862441    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.026231    **DATE COLLECTED:** 6 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 701.0    **LOGGED (FT.):** 385.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PC-33    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-				-	NO COAL PICKS

MAPID: 18322578000C VERSION: 1

PROJECT: NCRDS99

COUNTY: VERMILION TWP/RNG: 18N 13W SECTION: 19 QUARTERS/FOOTAGES: 2425' S line, 73' E line  
 QUADRANGLE: OAKWOOD LONGITUDE: -87.862156 GEOLOGIST: MCCRACKEN  
 CONFIDENTIAL: N LATITUDE: 40.003783 DATE COLLECTED: 7 / 19 / 1977  
 SURFACE ELEVATION (FT.): 675.0 LOGGED (FT.): 338.2 LOG TYPE: Multiple log types  
 SOURCE: GULF OIL CORPORATION E-19-2C WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
675.0	PLEISTOCENE		UNCONSOLIDATED	31.5	0.0	
643.5			LIMESTONE	21.5	31.5	
622.0			SHALE	2.0	53.0	
620.0			BLACK SHALE	3.0	55.0	
617.0			COAL	1.5	58.0	
615.5			UNDERCLAY	2.5	59.5	
613.0			SHALE	16.5	62.0	
596.5			SANDSTONE	6.5	78.5	
590.0			SANDY SHALE	10.0	85.0	
580.0			COAL	0.2	95.0	TRACE OF COAL
579.8			SANDSTONE/SHALE	39.5	95.2	SHALE IS SANDY
540.3			COAL	3.5	134.7	
536.8			UNDERCLAY	5.3	138.2	
531.5			CALCAREOUS SHALE	3.8	143.5	
527.7			LIMESTONE	2.2	147.3	
525.5			CALCAREOUS SHALE	9.8	149.5	
515.7			LIMESTONE	3.5	159.3	
512.2			SHALE	17.7	162.8	
494.5			BLACK SHALE	1.5	180.5	
493.0			SHALE	12.5	182.0	
480.5			LIMESTONE	2.0	194.5	
478.5			SHALE	2.0	196.5	MULTI-COLORED SHALE
476.5			SHALE	4.8	198.5	SHALE
471.7			LIMESTONE	0.5	203.3	
471.2			SHALE	1.9	203.8	
469.3			LIMESTONE	0.3	205.7	
469.0			SHALE	9.1	206.0	TRACE OF COAL
459.9			SHALE	3.9	215.1	MULTI-COLORED SHALE
456.0			LIMESTONE	1.0	219.0	
455.0			CLAYSTONE & SHALE	15.2	220.0	
439.8			LIMESTONE	0.8	235.2	
439.0			SHALE	4.5	236.0	
434.5			SHALE	17.8	240.5	MULTI-COLORED SHALE
416.7			LIMESTONE	1.9	258.3	
414.8			SHALE	22.2	260.2	
392.6			LIMESTONE	0.6	282.4	
392.0			SHALE	19.1	283.0	
372.9	CARBONDALE	DANVILLE	COAL	4.9	302.1	
368.0	CARBONDALE		UNDERCLAY	1.8	307.0	

366.2	CARBONDALE		NO RECORD	13.3	308.8
353.0	CARBONDALE		LIMESTONE	6.2	322.0
346.8	CARBONDALE	HERRIN	COAL	4.1	328.2 WITH SHALE
342.7	CARBONDALE	HERRIN	COAL	5.9	332.3

**MAPID:** 18322578000C    **VERSION:** 2    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 19    **QUARTERS/FOOTAGES:** 2425' S line, 73' E line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.862156    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.003783    **DATE COLLECTED:** 7 / 20 / 1977  
**SURFACE ELEVATION (FT.):** 675.0    **LOGGED (FT.):** 351.9    **LOG TYPE:** Electric Log  
**SOURCE:** GULF OIL CORPORATION    E-19-2C    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
374.0	SHELBURN	DANVILLE	COAL	4.8	301.0
343.9	CARBONDALE	HERRIN	COAL	5.8	331.1

**MAPID:** 18322045000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 20    **QUARTERS/FOOTAGES:** 10' S line, 200' W line of NW NW SW  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.861149    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.002612    **DATE COLLECTED:** 0 / 0 / 1976  
**SURFACE ELEVATION (FT.):** 679.0    **LOGGED (FT.):** 304.3    **LOG TYPE:** Survey Core Study  
**SOURCE:** FREEMAN UNITED    FQ-3-76    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
383.8	SHELBURN	DANVILLE	COAL	4.7	295.2

**MAPID:** 18301837000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 21    **QUARTERS/FOOTAGES:** 990' N line, 1650' W line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.837233    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.009309    **DATE COLLECTED:** 9 / 6 / 1972  
**SURFACE ELEVATION (FT.):** 675.0    **LOGGED (FT.):** 366.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** MATERIALS SERVICE CORP.    F-72-8    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
522.4			COAL	0.9	152.6
399.1	SHELBURN	DANVILLE	COAL	4.9	275.9
368.2	CARBONDALE	HERRIN	COAL	3.4	306.8

MAPID: 18301837000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 13W SECTION: 21 QUARTERS/FOOTAGES: 990' N line, 1650' W line

QUADRANGLE: OAKWOOD LONGITUDE: -87.837233 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.009309 DATE COLLECTED:

SURFACE ELEVATION (FT.): 675.0 LOGGED (FT.): 310.4 LOG TYPE: Survey Core Study

SOURCE: MATERIALS SERVICE CORP. F-72-8 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
454.3	MODESTO	PIASA	LIMESTONE W/ SHALE	6.3	220.7
448.0	MODESTO		GRAY SHALE	49.1	227.0
398.9	CARBONDALE	DANVILLE	COAL	5.1	276.1
393.8	CARBONDALE		CLAYSTONE	5.8	281.2
388.0	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	0.3	287.0
387.7	CARBONDALE	LAWSON	CLAYSTONE	1.7	287.3
386.0	CARBONDALE	LAWSON	SILTSTONE	2.0	289.0
384.0	CARBONDALE	LAWSON	CLAYSTONE & SHALE	10.6	291.0
373.4	CARBONDALE	LAWSON	CALCAREOUS SHALE	4.4	301.6
369.0	CARBONDALE	LAWSON	MOTTLED SHALE	0.8	306.0
368.2	CARBONDALE	ANNA	CARBONACEOUS SHALE	0.2	306.8
368.0	CARBONDALE	HERRIN	COAL	3.4	307.0

MAPID: 18322046000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 18N 13W SECTION: 21 QUARTERS/FOOTAGES: 100' S line, 200' W line of SW SE SW

QUADRANGLE: SIDELL LONGITUDE: -87.8375 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.997636 DATE COLLECTED: 0 / 0 / 1976

SURFACE ELEVATION (FT.): 681.0 LOGGED (FT.): 307.0 LOG TYPE: Survey Core Study

SOURCE: FREEMAN UNITED FQ-2-76 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
416.0	SHELBURN	DANVILLE	COAL	4.8	265.0

MAPID: 18322999000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 18N 13W SECTION: 22 QUARTERS/FOOTAGES: 30' N line, 50' E line

QUADRANGLE: OAKWOOD LONGITUDE: -87.805561 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.012409 DATE COLLECTED: 8 / 0 / 1970

SURFACE ELEVATION (FT.): 671.0 LOGGED (FT.): 370.0 LOG TYPE: Electric Log

SOURCE: HYDROCARBON SURVEY PB-34 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-				-	NO COAL PICKS

MAPID: 18300825000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 18N 13W SECTION: 24 QUARTERS/FOOTAGES: 2640' N line, 2640' E line

QUADRANGLE: OAKWOOD LONGITUDE: -87.776808 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.005835 DATE COLLECTED: 7 / 20 / 1918

SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 284.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
680.0	PLEISTOCENE		UNCONSOLIDATED	154.0	0.0
526.0	MODESTO		SANDSTONE	10.0	154.0
516.0	MODESTO		LIGHT SHALE	42.0	164.0
474.0	MODESTO		DARK SHALE	46.0	206.0
428.0	CARBONDALE	DANVILLE	COAL	5.6	252.0
422.4	CARBONDALE		UNDERCLAY	5.4	257.6
417.0	CARBONDALE		LIGHT SHALE	7.0	263.0
410.0	CARBONDALE		CALCAREOUS SHALE	5.0	270.0
405.0	CARBONDALE		BLACK SHALE	3.6	275.0
401.4	CARBONDALE		COAL	2.2	278.6
399.2	CARBONDALE	HERRIN	CLAYSTONE	3.3	280.8

MAPID: 18300825000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 13W SECTION: 24 QUARTERS/FOOTAGES: 2640' N line, 2640' E line

QUADRANGLE: OAKWOOD LONGITUDE: -87.776808 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.005835 DATE COLLECTED:

SURFACE ELEVATION (FT.): 681.0 LOGGED (FT.): 281.2 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
526.6	MODESTO		SHALE	98.0	154.4
428.6	CARBONDALE	DANVILLE	COAL	5.6	252.4
423.0	CARBONDALE		CLAYSTONE	5.4	258.0
417.6	CARBONDALE		GRAY SHALE	7.0	263.4
410.6	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	5.0	270.4
405.6	CARBONDALE	ANNA	BLACK SHALE	3.6	275.4
402.0	CARBONDALE	HERRIN	COAL	2.2	279.0

**MAPID:** 18321915000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 27    **QUARTERS/FOOTAGES:** 688' N line, 1219' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.809477    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.995845    **DATE COLLECTED:** 4 / 29 / 1974  
**SURFACE ELEVATION (FT.):** 674.0    **LOGGED (FT.):** 318.7    **LOG TYPE:** Survey Core Study  
**SOURCE:** PHILLIPS PETROLEUM CO.    M(4)    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
396.0	SHELburn	DANVILLE	COAL	5.2	278.0	
365.5	CARBONDALE	HERRIN	COAL	4.5	308.5	

**MAPID:** 18321915000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 27    **QUARTERS/FOOTAGES:** 688' N line, 1219' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.809477    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.995845    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 674.0    **LOGGED (FT.):** 308.5    **LOG TYPE:** Survey Core Study  
**SOURCE:** PHILLIPS PETROLEUM CO.    M(4)    **WELL TYPE:** Coal Test  
**COMMENT:** GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
488.5	MODESTO		GRAY SHALE	90.0	185.5	
398.5	CARBONDALE	DANVILLE	COAL	5.2	275.5	
393.3	CARBONDALE		CLAYSTONE	1.8	280.7	
391.5	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	10.0	282.5	UPPER BENCH
381.5	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	4.3	292.5	SHALE PARTING
377.2	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	3.6	296.8	LOWER BENCH
373.6	CARBONDALE	LAWSON	MOTTLED SHALE	1.8	300.4	
371.8	CARBONDALE	LAWSON	LIMESTONE W/ SHALE	1.8	302.2	
370.0	CARBONDALE	HERRIN	COAL	4.5	304.0	

**MAPID:** 18301675000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 32    **QUARTERS/FOOTAGES:** 233' S line, 644' W line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.859038    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.968429    **DATE COLLECTED:** 6 / 0 / 1968  
**SURFACE ELEVATION (FT.):** 676.0    **LOGGED (FT.):** 395.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-138    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
472.0			COAL	1.9	204.0	REMOVED BY CO.
342.8	SHELburn	DANVILLE	COAL	5.3	333.2	REMOVED BY CO.
305.6	CARBONDALE	HERRIN	COAL	5.9	370.4	REMOVED BY CO.
288.0	CARBONDALE	SPRINGFIELD	COAL	0.3	388.0	REMOVED BY CO.



MAPID: 18301675000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 13W SECTION: 32 QUARTERS/FOOTAGES: 233' S line, 644' W line

QUADRANGLE: SIDELL LONGITUDE: -87.859038 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.968429 DATE COLLECTED:

SURFACE ELEVATION (FT.): 676.0 LOGGED (FT.): 375.9 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO RF-138 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
410.6	MODESTO	PIASA	LIMESTONE AND SANDSTONE	1.3	265.4
409.3	MODESTO		SILTY SHALE	70.2	266.7
339.1	CARBONDALE	DANVILLE	COAL	5.3	336.9
333.8	CARBONDALE		GRAY SHALE	3.1	342.2
330.8	CARBONDALE		CLAYSTONE	2.8	345.2
328.0	CARBONDALE		SILTSTONE	0.5	348.0
327.5	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	19.1	348.5
308.4	CARBONDALE	LAWSON	DARK GRAY SHALE	1.4	367.6
307.0	CARBONDALE	LAWSON	CLAYSTONE	0.8	369.0
306.2	CARBONDALE	LAWSON	CARBONACEOUS SHALE	0.2	369.8
306.0	CARBONDALE	HERRIN	COAL	5.9	370.0

MAPID: 18323000000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 18N 13W SECTION: 32 QUARTERS/FOOTAGES: 18' N line, 12' E line

QUADRANGLE: SIDELL LONGITUDE: -87.84271 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.982553 DATE COLLECTED: 7 / 0 / 1971

SURFACE ELEVATION (FT.): 672.0 LOGGED (FT.): 405.0 LOG TYPE: Electric Log

SOURCE: HYDROCARBON SURVEY PC-67 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-				-	NO COAL PICKS

**MAPID:** 18301713000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 33    **QUARTERS/FOOTAGES:** 51' S line, 103' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.823716    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.968392    **DATE COLLECTED:** 7 / 25 / 1968  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 365.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-150    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
532.2			COAL	1.9	137.8
364.2	SHELBURN	DANVILLE	COAL	5.4	305.8
326.3	CARBONDALE	HERRIN	COAL	4.1	343.7

**MAPID:** 18301713000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 33    **QUARTERS/FOOTAGES:** 51' S line, 103' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.823716    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.968392    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 348.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** TRUAX-TRAER COAL CO    RF-150    **WELL TYPE:** Coal Test  
**COMMENT:** POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN COMMENT	
453.9	MODESTO		SILTY SHALE	90.0	216.1	
363.9	CARBONDALE	DANVILLE	COAL	5.4	306.1	
358.5	CARBONDALE		CLAYSTONE	9.3	311.5	
349.2	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	2.6	320.8	UPPER BENCH
346.6	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	9.9	323.4	SHALE PARTING
336.7	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	7.9	333.3	LOWER BENCH
328.8	CARBONDALE	LAWSON	MOTTLED SHALE	2.8	341.2	
326.0	CARBONDALE	HERRIN	BONE COAL	4.0	344.0	

MAPID: 18322579000C    VERSION: 1

PROJECT: NCRDS99

COUNTY: VERMILION    TWP/RNG: 18N 13W    SECTION: 33    QUARTERS/FOOTAGES: 1361' N line, 140' E line

QUADRANGLE: SIDELL    LONGITUDE: -87.824028    GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N    LATITUDE: 39.97901    DATE COLLECTED: 7 / 20 / 1977

SURFACE ELEVATION (FT.): 670.0    LOGGED (FT.): 357.0    LOG TYPE: Multiple log types

SOURCE: GULF OIL CORPORATION    E-33-2C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
670.0	PLEISTOCENE		UNCONSOLIDATED	29.5	0.0	
640.5	BOND	LIVINGSTON	LIMESTONE	23.5	29.5	
617.0	BOND		SHALE	20.0	53.0	
597.0	BOND		COAL	2.0	73.0	
595.0	BOND		SHALE	6.0	75.0	
589.0	BOND		SANDSTONE	33.0	81.0	
556.0	BOND		LIMESTONE	0.5	114.0	
555.5	BOND		SHALE	3.5	114.5	
552.0	BOND		BLACK SHALE	1.5	118.0	
550.5	BOND		CLAYSTONE & SILTSTONE	5.5	119.5	
545.0	BOND		SHALE	20.0	125.0	
525.0	BOND		COAL	2.5	145.0	BONEY
522.5	BOND		UNDERCLAY	2.5	147.5	
520.0	BOND		SHALE	3.0	150.0	
517.0	BOND	CARTHAGE	LIMESTONE	5.0	153.0	
512.0	MODESTO		BLACK SHALE	4.0	158.0	
508.0	MODESTO		SHALE	43.0	162.0	
465.0	MODESTO		LIMESTONE	0.5	205.0	
464.5	MODESTO		SHALE	9.0	205.5	
455.5	MODESTO		SHALY SANDSTONE	10.5	214.5	
445.0	MODESTO		SHALE	4.4	225.0	
440.6	MODESTO	WEST FRANKLIN	LIMESTONE	9.5	229.4	
431.1	MODESTO		SANDSTONE	9.1	238.9	
422.0	MODESTO		SHALE	59.3	248.0	
362.7	MODESTO		BLACK SHALE	0.2	307.3	
362.5	CARBONDALE	DANVILLE	COAL	5.1	307.5	
357.4	CARBONDALE		SHALE	6.5	312.6	
351.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.5	319.0	
345.5	CARBONDALE		SILTY SHALE	8.5	324.5	
337.0	CARBONDALE	BRERETON	LIMESTONE	3.6	333.0	
333.4	CARBONDALE		SHALE	3.9	336.6	
329.5	CARBONDALE		BLACK SHALE	1.4	340.5	
328.1	CARBONDALE	HERRIN	COAL	5.3	341.9	
322.8	CARBONDALE		UNDERCLAY	3.8	347.2	
319.0	CARBONDALE		SHALE	6.0	351.0	CONGLOMERATIC

**MAPID:** 18322579000C    **VERSION:** 2    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 33    **QUARTERS/FOOTAGES:** 1361' N line, 140' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.824028    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.97901    **DATE COLLECTED:** 7 / 26 / 1977  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 360.0    **LOG TYPE:** Electric Log  
**SOURCE:** GULF OIL CORPORATION    E-33-2C    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
364.5	SHELburn	DANVILLE	COAL	5.0	305.5	
330.1	CARBONDALE	HERRIN	COAL	5.4	339.9	

**MAPID:** 18323001000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 13W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 100' N line, 100' E line  
**QUADRANGLE:** SIDELL    **LONGITUDE:** -87.805441    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.982747    **DATE COLLECTED:** 12 / 0 / 1970  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 400.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PB-55    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-		NO COAL PICKS

**MAPID:** 18323002000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 14W    **SECTION:** 1    **QUARTERS/FOOTAGES:** 175' N line, 330' E line  
**QUADRANGLE:** HOMER    **LONGITUDE:** -87.883857    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.054677    **DATE COLLECTED:** 7 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 665.0    **LOGGED (FT.):** 373.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PC-53    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-		NO COAL PICKS

MAPID: 18323003000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 18N 14W SECTION: 3 QUARTERS/FOOTAGES: 200' S line, 132' E line of SW SE SE

QUADRANGLE: HOMER LONGITUDE: -87.923024 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.040488 DATE COLLECTED: 7 / 0 / 1971

SURFACE ELEVATION (FT.): 659.0 LOGGED (FT.): 403.0 LOG TYPE: Electric Log

SOURCE: HYDROCARBON SURVEY PD-43 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT	OVERBURDEN	COMMENT
-				-		NO COAL PICKS

MAPID: 18322580000C VERSION: 1

PROJECT: NCRDS99

COUNTY: VERMILION TWP/RNG: 18N 14W SECTION: 11 QUARTERS/FOOTAGES: 1059' S line, 2584' E line

QUADRANGLE: HOMER LONGITUDE: -87.910507 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 40.028399 DATE COLLECTED: 6 / 25 / 1977

SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 330.0 LOG TYPE: Drillers Log

SOURCE: GULF OIL CORPORATION F-11-2C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT	OVERBURDEN	COMMENT
660.0	PLEISTOCENE		UNCONSOLIDATED	53.0	0.0	
607.0			SHALE	5.0	53.0	
602.0			SANDSTONE	15.0	58.0	
587.0			SANDY SHALE	11.5	73.0	
575.5			SANDSTONE	3.0	84.5	
572.5			SHALE	54.0	87.5	
518.5			SHALY SANDSTONE	35.0	141.5	
483.5			COAL	0.0	176.5	TRACE OF COAL
483.5			SHALY SANDSTONE	34.9	176.5	COAL PARTINGS
448.6	MODESTO	WEST FRANKLIN	LIMESTONE	3.5	211.4	
445.1	MODESTO		CLAYSTONE & SILTSTONE	0.6	214.9	
444.5	MODESTO		SHALE	9.5	215.5	
435.0	MODESTO		SHALE	8.5	225.0	MULTI-COLORED SHALE
426.5	MODESTO		LIMESTONE	2.5	233.5	
424.0	MODESTO		SHALE	46.0	236.0	
378.0	CARBONDALE	DANVILLE	COAL	4.9	282.0	
373.1	CARBONDALE		UNDERCLAY	5.2	286.9	
367.9	CARBONDALE		BLACK SHALE	16.1	292.1	
351.9	CARBONDALE	HERRIN	COAL	5.5	308.1	
346.4	CARBONDALE	HERRIN	SHALE	0.1	313.6	
346.3	CARBONDALE	HERRIN	COAL	0.0	313.7	
346.2	CARBONDALE	HERRIN	CLAYSTONE	0.1	313.8	
346.2	CARBONDALE	HERRIN	COAL	0.3	313.8	
345.9	CARBONDALE		UNDERCLAY	2.0	314.1	
344.0	CARBONDALE		SHALE	14.0	316.0	

MAPID: 1832258000C VERSION: 2

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 18N 14W SECTION: 11 QUARTERS/FOOTAGES: 1059' S line, 2584' E line

QUADRANGLE: HOMER LONGITUDE: -87.910507 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.028399 DATE COLLECTED: 6 / 27 / 1977

SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 331.5 LOG TYPE: Electric Log

SOURCE: GULF OIL CORPORATION F-11-2C WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
377.8	SHELburn	DANVILLE	COAL	4.9	282.2	
352.1	CARBONDALE	HERRIN	COAL	6.1	307.9	SPLIT WITH SHALE

MAPID: 18322581000C VERSION: 1

PROJECT: NCRDS99

COUNTY: VERMILION TWP/RNG: 18N 14W SECTION: 13 QUARTERS/FOOTAGES: 19' S line, 20' W line

QUADRANGLE: HOMER LONGITUDE: -87.901085 GEOLOGIST: MCCrackEN

CONFIDENTIAL: N LATITUDE: 40.011159 DATE COLLECTED: 8 / 1 / 1977

SURFACE ELEVATION (FT.): 675.0 LOGGED (FT.): 379.0 LOG TYPE: Electric Log

SOURCE: GULF OIL CORPORATION F-13-3C WELL TYPE: Coal Test

COMMENT: LOG TYPE 11 DOESN'T MATCH;F-13-2C HERE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
675.0	PLEISTOCENE		UNCONSOLIDATED	41.0	0.0	
634.0			SHALE	37.0	41.0	
597.0			BLACK SHALE	4.5	78.0	
592.5			COAL	2.5	82.5	
590.0			SHALE	91.5	85.0	
498.5			BLACK SHALE	3.0	176.5	
495.5			SHALE	25.0	179.5	
470.5	BOND	CARTHAGE	LIMESTONE	6.5	204.5	
464.0	MODESTO		BLACK SHALE	2.5	211.0	
461.5	MODESTO		COAL	1.5	213.5	
460.0	MODESTO		SHALE	13.0	215.0	
447.0	MODESTO		LIMESTONE	3.0	228.0	
444.0	MODESTO		SHALE	8.5	231.0	
435.5	MODESTO		BLACK SHALE	2.0	239.5	
433.5	MODESTO		SHALE	33.5	241.5	
400.0	MODESTO		LIMESTONE	3.0	275.0	
397.0	MODESTO		SHALE	54.5	278.0	
342.5	CARBONDALE	DANVILLE	COAL	5.3	332.5	
337.2	CARBONDALE		SHALE	24.4	337.8	
312.8	CARBONDALE	HERRIN	COAL	5.7	362.2	
307.1	CARBONDALE		SHALE	11.1	367.9	

**MAPID:** 18322581000C    **VERSION:** 2    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 14W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 19' S line, 20' W line  
**QUADRANGLE:** HOMER    **LONGITUDE:** -87.901085    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.011159    **DATE COLLECTED:** 8 / 1 / 1977  
**SURFACE ELEVATION (FT.):** 675.0    **LOGGED (FT.):** 380.0    **LOG TYPE:** Electric Log  
**SOURCE:** GULF OIL CORPORATION    F-13-2C    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
342.5	SHELburn	DANVILLE	COAL	5.3	332.5	
312.8	CARBONDALE	HERRIN	COAL	5.7	362.2	

**MAPID:** 18323004000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 14W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 22' S line, 119' E line of NW  
**QUADRANGLE:** HOMER    **LONGITUDE:** -87.892196    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.018543    **DATE COLLECTED:** 6 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 685.0    **LOGGED (FT.):** 469.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PC-32    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-		NO COAL PICKS

**MAPID:** 18321916000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 14W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 1990' N line, 2455' E line  
**QUADRANGLE:** HOMER    **LONGITUDE:** -87.910002    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.019993    **DATE COLLECTED:** 5 / 31 / 1974  
**SURFACE ELEVATION (FT.):** 682.0    **LOGGED (FT.):** 355.9    **LOG TYPE:** Survey Core Study  
**SOURCE:** PHILLIPS PETROLEUM CO.    I(12)    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
365.6	SHELburn	DANVILLE	COAL	5.0	316.4	
334.6	CARBONDALE	HERRIN	COAL	3.4	347.4	

**MAPID:** 18321916000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 14W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 1990' N line, 2455' E line  
**QUADRANGLE:** HOMER    **LONGITUDE:** -87.910002    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 40.019993    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 682.0    **LOGGED (FT.):** 350.4    **LOG TYPE:** Survey Core Study  
**SOURCE:** PHILLIPS PETROLEUM CO.    I(12)    **WELL TYPE:** Coal Test  
**COMMENT:** GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
456.0	MODESTO		DARK GRAY SHALE	90.0	226.0	
366.0	CARBONDALE	DANVILLE	COAL	5.0	316.0	
361.0	CARBONDALE		CLAYSTONE	3.8	321.0	
357.2	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	2.0	324.8	UPPER BENCH
355.2	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	9.6	326.8	SHALE PARTING
345.6	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	4.4	336.4	LOWER BENCH
341.2	CARBONDALE	LAWSON	MOTTLED SHALE	1.3	340.8	
339.9	CARBONDALE	ANNA	BLACK SHALE	4.9	342.1	
335.0	CARBONDALE	HERRIN	COAL	3.4	347.0	

**MAPID:** 18323005000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 14W    **SECTION:** 15    **QUARTERS/FOOTAGES:** 15' N line, 25' W line  
**QUADRANGLE:** HOMER    **LONGITUDE:** -87.938874    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.025288    **DATE COLLECTED:** 6 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 380.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PD-25    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-	-	NO COAL PICKS

**MAPID:** 18321913000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 18N 14W    **SECTION:** 25    **QUARTERS/FOOTAGES:** 2081' N line, 83' W line  
**QUADRANGLE:** ALLERTON    **LONGITUDE:** -87.900376    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 39.990877    **DATE COLLECTED:** 4 / 23 / 1974  
**SURFACE ELEVATION (FT.):** 677.0    **LOGGED (FT.):** 383.2    **LOG TYPE:** Survey Core Study  
**SOURCE:** PHILLIPS PETROLEUM CO.    L(3)    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
332.2	SHELBURN	DANVILLE	COAL	4.9	344.8	
303.7	CARBONDALE	HERRIN	COAL	6.0	373.3	



MAPID: 18321913000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 18N 14W SECTION: 25 QUARTERS/FOOTAGES: 2081' N line, 83' W line

QUADRANGLE: ALLERTON LONGITUDE: -87.900376 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.990877 DATE COLLECTED:

SURFACE ELEVATION (FT.): 677.0 LOGGED (FT.): 379.0 LOG TYPE: Survey Core Study

SOURCE: PHILLIPS PETROLEUM CO. L(3) WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
377.0	MODESTO	PIASA	LIMESTONE W/ SHALE	10.0	300.0	
367.0	MODESTO		DARK GRAY SHALE	34.8	310.0	
332.2	CARBONDALE	DANVILLE	COAL	4.9	344.8	
327.3	CARBONDALE		DARK GRAY SHALE	3.3	349.7	
324.0	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	5.0	353.0	UPPER BENCH
319.0	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	4.2	358.0	LOWER BENCH
314.8	CARBONDALE	LAWSON	MOTTLED SHALE	1.0	362.2	
313.8	CARBONDALE	ENERGY	DARK GRAY SHALE	4.8	363.2	
309.0	CARBONDALE	ENERGY	SILTY SHALE	1.0	368.0	
308.0	CARBONDALE	ENERGY	CALCAREOUS SANDSTONE	0.5	369.0	
307.5	CARBONDALE	ENERGY	SILTY SHALE	3.6	369.5	
304.0	CARBONDALE	HERRIN	COAL	6.0	373.0	

MAPID: 18323006000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 18N 14W SECTION: 25 QUARTERS/FOOTAGES: 45' S line, 195' E line

QUADRANGLE: ALLERTON LONGITUDE: -87.882434 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.982145 DATE COLLECTED: 7 / 0 / 1971

SURFACE ELEVATION (FT.): 677.0 LOGGED (FT.): 389.0 LOG TYPE: Electric Log

SOURCE: HYDROCARBON SURVEY PC-66 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-	-	NO COAL PICKS

MAPID: 18323007000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 18N 14W SECTION: 27 QUARTERS/FOOTAGES: 120' S line, 141' E line

QUADRANGLE: ALLERTON LONGITUDE: -87.919937 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.982161 DATE COLLECTED: 7 / 0 / 1971

SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 405.0 LOG TYPE: Electric Log

SOURCE: HYDROCARBON SURVEY PC-65 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-	-	NO COAL PICKS

MAPID: 18322582000C VERSION: 1

PROJECT: NCRDS99

COUNTY: VERMILION TWP/RNG: 18N 14W SECTION: 35 QUARTERS/FOOTAGES: 471' N line, 337' E line

QUADRANGLE: ALLERTON LONGITUDE: -87.901772 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.980658 DATE COLLECTED: 7 / 14 / 1977

SURFACE ELEVATION (FT.): 685.0 LOGGED (FT.): 406.0 LOG TYPE: Drillers Log

SOURCE: GULF OIL CORPORATION F-35-2C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
685.0	PLEISTOCENE		UNCONSOLIDATED	35.5	0.0	
649.5			LIMESTONE	2.5	35.5	
647.0			SHALE	6.0	38.0	
641.0	BOND	LIVINGSTON	LIMESTONE	28.0	44.0	
613.0	BOND		BLACK SHALE	5.0	72.0	
608.0	BOND		SANDY SHALE	26.0	77.0	
582.0	BOND		SANDSTONE	21.0	103.0	
561.0	BOND		SHALE	38.0	124.0	
523.0	BOND	CARTHAGE	LIMESTONE	1.5	162.0	
521.5			SHALE	37.5	163.5	
484.0			SANDSTONE	9.0	201.0	
475.0			SANDY SHALE	69.0	210.0	
406.0			SHALE	22.0	279.0	MULTICOLORED SHALE
384.0			SHALE	43.7	301.0	
340.3			BLACK SHALE	0.3	344.7	
340.0	CARBONDALE	DANVILLE	COAL	5.4	345.0	
334.6			UNDERCLAY	0.2	350.4	
334.4	CARBONDALE	DANVILLE	COAL	0.2	350.6	
334.3			SHALE	23.8	350.7	
310.5			BLACK SHALE	2.1	374.5	
308.4	CARBONDALE	HERRIN	COAL	5.9	376.6	
302.6			UNDERCLAY	0.2	382.4	
302.4			LIMESTONE	23.4	382.6	

MAPID: 18322582000C VERSION: 2

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 18N 14W SECTION: 35 QUARTERS/FOOTAGES: 471' N line, 337' E line

QUADRANGLE: ALLERTON LONGITUDE: -87.901772 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 39.980658 DATE COLLECTED: 7 / 14 / 1977

SURFACE ELEVATION (FT.): 685.0 LOGGED (FT.): 406.0 LOG TYPE: Electric Log

SOURCE: GULF OIL CORPORATION F-35-2C WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
342.1	SHELBURN	DANVILLE	COAL	5.5	342.9	
310.8	CARBONDALE	HERRIN	COAL	5.8	374.2	

MAPID: 18323447000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 1 QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: DANVILLE NE LONGITUDE: -87.551096 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.137621 DATE COLLECTED: 7 / 20 / 1990

SURFACE ELEVATION (FT.): LOGGED (FT.): 200.0 LOG TYPE: Drillers Log

SOURCE: JERRY HARPER WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	25.0	0.0	
-	PLEISTOCENE		CLAY	29.0	25.0	
-	PLEISTOCENE		SAND	6.0	54.0	NO WATER
-	PLEISTOCENE		CLAY	40.0	60.0	
-	PLEISTOCENE		HARD PAN	26.0	100.0	
-	PLEISTOCENE		CLAY	26.0	126.0	
-			BLACK SHALE	5.0	152.0	
-			SHALE	41.0	157.0	
-			COAL	2.0	198.0	

MAPID: 18301160000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 6 QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.656441 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.132466 DATE COLLECTED:

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 35.8 LOG TYPE: Drillers Log

SOURCE: D D MORISS WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
605.0			SHALE	20.0	10.0	
585.0	CARBONDALE	HERRIN	COAL	5.8	30.0	

MAPID: 18300489000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 7 QUARTERS/FOOTAGES: E2 NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.642936 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.126872 DATE COLLECTED:

SURFACE ELEVATION (FT.): 599.1 LOGGED (FT.): 49.0 LOG TYPE: Drillers Log

SOURCE: STATE HIGHWAY DEPT 11 WELL TYPE: Engineering Test Holes

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
599.1	PLEISTOCENE		SOIL	1.0	0.0	
598.1	PLEISTOCENE		SAND	4.5	1.0	
593.6	PLEISTOCENE		SAND	3.5	5.5	CALCAREOUS
590.1	PLEISTOCENE		GLACIAL DRIFT	1.0	9.0	
589.1	PLEISTOCENE		GLACIAL DRIFT	0.8	10.0	
588.3	PLEISTOCENE		GLACIAL DRIFT	5.3	10.8	
583.1	PLEISTOCENE		GLACIAL DRIFT	15.0	16.0	
568.1	CARBONDALE	DANVILLE	COAL	2.0	31.0	
566.1	CARBONDALE	DANVILLE	COAL	4.0	33.0	CALCAREOUS
562.1	CARBONDALE		UNDERCLAY	3.0	37.0	
559.1			SHALE	9.0	40.0	CALCAREOUS, CRUMBLY, STRUCTURELESS

MAPID: 18300539000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 8 QUARTERS/FOOTAGES: E2 NE NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.632056 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.128584 DATE COLLECTED:

SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 180.0 LOG TYPE: Drillers Log

SOURCE: W C LE ROY WELL TYPE: Dry Hole

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
582.0	MODESTO		SHALE	34.0	20.0	
548.0	CARBONDALE	DANVILLE	COAL	5.5	54.0	
542.5	CARBONDALE		SHALE	18.5	59.5	
524.0	CARBONDALE	HERRIN	COAL	6.0	78.0	
518.0	CARBONDALE		SHALE	88.0	84.0	
430.0	CARBONDALE	HOUCHIN CREEK	COAL	6.0	172.0	CORRELATION UNCERTAIN
424.0	CARBONDALE		SHALE	2.0	178.0	

MAPID: 18300196000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 11W    SECTION: 14    QUARTERS/FOOTAGES: 35' S line, 2340' W line of SW

QUADRANGLE: DANVILLE SE    LONGITUDE: -87.574216    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 40.103711    DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 650.0    LOGGED (FT.): 585.0    LOG TYPE: Drillers Log

SOURCE: A L STICE    WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
650.0	PLEISTOCENE		CLAY	40.0	0.0
610.0	PLEISTOCENE		CLAY	10.0	40.0
600.0	MODESTO		DARK SHALE	25.0	50.0
575.0	MODESTO		LIGHT SHALE	15.0	75.0
560.0	MODESTO		DARK SHALE	15.0	90.0
545.0	MODESTO		GRAY SHALE	10.0	105.0
535.0	MODESTO		BROWN SHALE	5.0	115.0
530.0	MODESTO		DARK SHALE	5.0	120.0
525.0	CARBONDALE	DANVILLE	COAL	5.0	125.0
520.0	CARBONDALE	ENERGY	DARK SHALE	40.0	130.0
480.0	CARBONDALE	ENERGY	BLACK SHALE	7.0	170.0
473.0	CARBONDALE	ENERGY	DARK SHALE	20.0	177.0
453.0	CARBONDALE	ENERGY	SANDSTONE	6.0	197.0
447.0	CARBONDALE	ENERGY	DARK SHALE	5.0	203.0
442.0	CARBONDALE	HERRIN	COAL	6.5	208.0
435.5			DARK SHALE	35.5	214.5
400.0			GRAY SHALE	15.0	250.0
385.0			BROWN SHALE	15.0	265.0
370.0			DARK SHALE	5.0	280.0
365.0			LIGHT SHALE	10.0	285.0
355.0			DARK SHALE	5.0	295.0
350.0			LIGHT SHALE	35.0	300.0
315.0			SANDSTONE	22.0	335.0
293.0			LIGHT SHALE	15.0	357.0
278.0			DARK SANDSTONE	3.0	372.0
275.0			LIGHT SHALE	5.0	375.0
270.0			BROWN SHALE	5.0	380.0
265.0			DARK SHALE	10.0	385.0
255.0			ROCK	7.0	395.0
248.0			DARK SHALE	10.0	402.0
238.0			LIGHT SHALE	10.0	412.0
228.0			DARK SANDSTONE	3.0	422.0
225.0			LIGHT SHALE	7.0	425.0
218.0			HARD SHALE	15.0	432.0
203.0			SANDSTONE	5.0	447.0
198.0			LIGHT SHALE	15.0	452.0
183.0			LIGHT SHALE	10.0	467.0
173.0			LIGHT SHALE	25.0	477.0
148.0			LIGHT SHALE	83.0	502.0

MAPID: 18300197000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 19 QUARTERS/FOOTAGES: 900' S line, 30' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.65813 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.089363 DATE COLLECTED:

SURFACE ELEVATION (FT.): 657.0 LOGGED (FT.): 147.0 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
632.2	MODESTO		SHALE	80.4	24.8
551.7	CARBONDALE	DANVILLE	COAL	5.4	105.3
546.3	CARBONDALE		CLAYSTONE	3.0	110.7
543.3	CARBONDALE		GRAY SHALE	6.1	113.7
537.2	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	119.8
535.2	CARBONDALE	BANKSTON FORK	DARK GRAY SHALE	13.8	121.8
521.4	CARBONDALE	BANKSTON FORK	LIMESTONE	1.8	135.6
519.6	CARBONDALE	LAWSON	CALCAREOUS SHALE	0.4	137.4
519.2	CARBONDALE	ANNA	BLACK SHALE	4.2	137.8
515.0	CARBONDALE	HERRIN	COAL	5.0	142.0

MAPID: 18321946000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 20 QUARTERS/FOOTAGES: 686' N line, 824' E line of NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.633953 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.099727 DATE COLLECTED: 3 / 10 / 1954

SURFACE ELEVATION (FT.): 656.6 LOGGED (FT.): 108.6 LOG TYPE: Drillers Log

SOURCE: V-DAY COAL CO 23B WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
593.0	SHELBURN	DANVILLE	COAL	6.0	63.6
554.0	CARBONDALE	HERRIN	COAL	5.3	102.6

MAPID: 18300203000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 21 QUARTERS/FOOTAGES: 660' S line, 660' W line

QUADRANGLE: DANVILLE SE LONGITUDE: -87.618526 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.089074 DATE COLLECTED:

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 115.5 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
587.5	MODESTO		CLAYSTONE & SHALE	8.0	62.5
579.5	CARBONDALE	DANVILLE	COAL	6.0	70.5
573.5	CARBONDALE		CLAYSTONE	10.5	76.5
563.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	87.0
561.5	CARBONDALE	BANKSTON FORK	CLAYSTONE & SHALE	19.0	88.5
542.5	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	107.5
541.0	CARBONDALE	ANNA	BLACK SHALE	2.0	109.0
539.0	CARBONDALE	HERRIN	COAL	4.5	111.0

MAPID: 18300205000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 29 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.633866 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.076939 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 656.1 LOGGED (FT.): 128.0 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
656.1	PLEISTOCENE		CLAY	26.0	0.0
630.1	MODESTO		SANDSTONE	4.0	26.0
626.1	MODESTO		BLACK SHALE	49.8	30.0
576.3	CARBONDALE	DANVILLE	COAL	4.9	79.8
571.3	CARBONDALE	DANVILLE	SHALE	0.3	84.8
571.0	CARBONDALE	DANVILLE	COAL	0.4	85.1
570.6	CARBONDALE	ENERGY	SHALE	12.5	85.5
558.1	CARBONDALE	ENERGY	SHALE	19.0	98.0
539.1	CARBONDALE	ENERGY	DARK SHALE	1.5	117.0
537.6	CARBONDALE	HERRIN	COAL	3.7	118.5
533.9	CARBONDALE	HERRIN	SHALE	0.3	122.2
533.7	CARBONDALE	HERRIN	COAL	1.8	122.4
531.8	CARBONDALE		UNDERCLAY	3.8	124.3

MAPID: 18300206000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 29 QUARTERS/FOOTAGES: NW NE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.624259 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.07888 DATE COLLECTED: 0 / 0 / 1909

SURFACE ELEVATION (FT.): 649.4 LOGGED (FT.): 100.0 LOG TYPE: Drillers Log

SOURCE: VERMILION COAL & COKE WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
649.4	PLEISTOCENE		SAND	22.0	0.0	
627.4	PLEISTOCENE		SAND	14.0	22.0	
613.4	PLEISTOCENE		SAND	15.5	36.0	
597.9	CARBONDALE	DANVILLE	COAL	1.0	51.5	
596.9	CARBONDALE	DANVILLE	COAL	2.4	52.5	
594.5	CARBONDALE		UNDERCLAY	1.1	54.9	
593.4	CARBONDALE		CLAYSTONE & SILTSTONE	14.0	56.0	
579.4	CARBONDALE	ENERGY	DARK SHALE	22.6	70.0	
556.8	CARBONDALE	HERRIN	COAL	3.8	92.6	
553.0			SHALE	0.2	96.4	
552.7			COAL	1.9	96.7	
550.8			UNDERCLAY	1.4	98.6	

MAPID: 18321933000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 29 QUARTERS/FOOTAGES: 1290' N line, 550' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.638104 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.083341 DATE COLLECTED: 6 / 7 / 1973

SURFACE ELEVATION (FT.): 655.0 LOGGED (FT.): 125.0 LOG TYPE: Survey Core Study

SOURCE: V-DAY COAL CO B13 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
573.6	SHELBURN	DANVILLE	COAL	4.6	81.4	
535.6	CARBONDALE	HERRIN	COAL	5.1	119.4	



MAPID: 18321933000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 29 QUARTERS/FOOTAGES: 1290' N line, 550' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.638104

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.083341

DATE COLLECTED:

SURFACE ELEVATION (FT.): 655.0 LOGGED (FT.): 124.1

LOG TYPE: Survey Core Study

SOURCE: V-DAY COAL CO B13

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
619.9	MODESTO		GRAY SHALE	53.5	35.1	
566.4	CARBONDALE	DANVILLE	COAL	4.6	88.6	
561.8	CARBONDALE		CLAYSTONE	10.8	93.2	
551.0	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	2.4	104.0	
548.6	CARBONDALE	LAWSON	MOTTLED SHALE	6.9	106.4	
541.7	CARBONDALE	LAWSON	LIMESTONE	0.3	113.3	
541.4	CARBONDALE	LAWSON	MOTTLED SHALE	1.0	113.6	
540.4	CARBONDALE	ANNA	DARK GRAY SHALE	4.4	114.6	
536.0	CARBONDALE	HERRIN	COAL	5.1	119.0	

MAPID: 18322514000C VERSION: 1

PROJECT: NCRDS

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 29 QUARTERS/FOOTAGES: 1600' N, 350' E, SW/c

QUADRANGLE: DANVILLE SW LONGITUDE: -87.638637

GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 40.076738

DATE COLLECTED: 1 / 29 / 1981

SURFACE ELEVATION (FT.): 649.6 LOGGED (FT.): 151.3

LOG TYPE: Drillers Log

SOURCE: DANVILLE SUBSIDENCE PROJECT B-1

WELL TYPE: Stratigraphic Test

COMMENT: V-DAY MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
649.6			GLACIAL DRIFT	41.5	0.0	
608.1	SHELBURN		SILTY SHALE	41.4	41.5	
566.7	SHELBURN	DANVILLE	COAL	4.0	82.9	
562.7	SHELBURN		UNDERCLAY	5.3	86.9	GREEN, LS NODULES
557.4	SHELBURN		SHALE WITH LIMESTONE	3.1	92.2	
554.3	SHELBURN		SILT & SAND	35.4	95.3	
518.9	CARBONDALE	HERRIN	COAL	6.8	130.7	
512.1	CARBONDALE		UNDERCLAY	5.5	137.5	LS NODULES
506.6	CARBONDALE		LIMESTONE	2.0	143.0	
504.6	CARBONDALE		SHALE	4.9	145.0	
499.7	CARBONDALE		SILTY SHALE	1.4	149.9	

MAPID: 18322515000C    VERSION: 1

PROJECT: NCRDS

COUNTY: VERMILION    TWP/RNG: 19N 11W    SECTION: 29    QUARTERS/FOOTAGES: 2070' N, 80' E, SW/c

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.639639    GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N    LATITUDE: 40.078022    DATE COLLECTED: 1 / 29 / 1981

SURFACE ELEVATION (FT.): 645.6    LOGGED (FT.): 159.0    LOG TYPE: Drillers Log

SOURCE: DANVILLE SUBSIDENCE PROJECT B-2    WELL TYPE: Stratigraphic Test

COMMENT: V-DAY MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
645.6			SOIL	1.5	0.0
644.1			CLAY	6.5	1.5
637.6			SILT & SAND	10.0	8.0
627.6			SAND	16.5	18.0
611.1			SAND & GRAVEL	12.5	34.5
598.6	SHELBURN		SILTY SHALE	13.0	47.0
585.6	SHELBURN		GRAY SHALE	17.0	60.0
568.6			BLACK SHALE	3.4	77.0
565.2	SHELBURN	DANVILLE	COAL	5.7	80.4
559.5	SHELBURN		UNDERCLAY	5.7	86.1
553.8	SHELBURN		SHALE & CLAYSTONE	2.7	91.8
551.1	SHELBURN		SILT & SAND	36.0	94.5
515.1	CARBONDALE	ANNA	BLACK SHALE	2.2	130.5
512.9	CARBONDALE	HERRIN	COAL	4.2	132.7
508.7	CARBONDALE		UNDERCLAY	3.6	136.9
505.1	CARBONDALE		LIMESTONE	1.6	140.5
503.5	CARBONDALE		SHALE & CLAYSTONE	12.6	142.1
490.9	CARBONDALE		SILTSTONE	4.3	154.7

MAPID: 18322516000C    VERSION: 1

PROJECT: NCRDS

COUNTY: VERMILION    TWP/RNG: 19N 11W    SECTION: 29    QUARTERS/FOOTAGES: 2400' N, 80' E, SW/c

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.639665    GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N    LATITUDE: 40.078928    DATE COLLECTED: 1 / 29 / 1981

SURFACE ELEVATION (FT.): 650.9    LOGGED (FT.): 145.5    LOG TYPE: Drillers Log

SOURCE: DANVILLE SUBSIDENCE PROJECT B-3    WELL TYPE: Stratigraphic Test

COMMENT: V-DAY MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
650.9			SILTSTONE	29.0	0.0
621.9	SHELBURN		SILTY SHALE	59.4	29.0
562.5	SHELBURN	DANVILLE	COAL	6.3	88.4
556.2	SHELBURN		UNDERCLAY	6.4	94.7
549.8	SHELBURN		LIMESTONE	4.9	101.1
544.9	SHELBURN		SILTSTONE	29.0	106.0
515.9	CARBONDALE	HERRIN	COAL	6.9	135.0
509.0	CARBONDALE		UNDERCLAY	2.4	141.9
506.6	CARBONDALE		LIMESTONE	1.2	144.3

MAPID: 18322522000C    VERSION: 1

PROJECT: NCRDS

COUNTY: VERMILION    TWP/RNG: 19N 11W    SECTION: 29    QUARTERS/FOOTAGES: 2100' N, 80' E, SW/c

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.639641    GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N    LATITUDE: 40.078105    DATE COLLECTED: 1 / 29 / 1981

SURFACE ELEVATION (FT.): 645.9    LOGGED (FT.): 149.4    LOG TYPE: Drillers Log

SOURCE: DANVILLE SUBSIDENCE PROJECT B-4    WELL TYPE: Stratigraphic Test

COMMENT: V-DAY MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
645.9			UNCLASSIFIED	134.9	0.0
511.0			UNDERCLAY	5.1	134.9
505.9			LIMESTONE	2.0	140.0
503.9			SILTY SHALE	7.4	142.0

MAPID: 18322547000C VERSION: 1

PROJECT: NCRDS

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 29 QUARTERS/FOOTAGES: 2100' N, 130' E, SW/c  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.639462 GEOLOGIST: LOUCHIOS  
 CONFIDENTIAL: N LATITUDE: 40.078106 DATE COLLECTED: 1 / 29 / 1981  
 SURFACE ELEVATION (FT.): 646.0 LOGGED (FT.): 155.7 LOG TYPE: Drillers Log  
 SOURCE: DANVILLE SUBSIDENCE PROJECT B-5 WELL TYPE: Stratigraphic Test  
 COMMENT: V-DAY MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
646.0			GLACIAL DRIFT	43.0	0.0
603.0	SHELburn		GRAY SHALE	35.0	43.0
568.0	SHELburn		BLACK SHALE	2.0	78.0
566.0	SHELburn	DANVILLE	COAL	5.0	80.0
561.0	SHELburn		UNDERCLAY	8.0	85.0
553.0	SHELburn		LIMESTONE	2.0	93.0
551.0	SHELburn		SILTSTONE	33.0	95.0
518.0	CARBONDALE	HERRIN	CORE LOSS	7.0	128.0
511.0	CARBONDALE		UNDERCLAY	5.0	135.0
506.0	CARBONDALE		SHALE WITH LIMESTONE	3.0	140.0
503.0	CARBONDALE		SILTY SHALE	10.0	143.0
493.0	CARBONDALE		SHALE WITH LIMESTONE	2.7	153.0

MAPID: 18300207000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 30 QUARTERS/FOOTAGES: SE SW  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.651671 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 40.074169 DATE COLLECTED: 11 / 0 / 1911  
 SURFACE ELEVATION (FT.): 656.0 LOGGED (FT.): 112.0 LOG TYPE: Drillers Log  
 SOURCE: HEGLER BROS. SMELTING WORKS WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
656.0	PLEISTOCENE		SOIL	4.0	0.0
652.0	PLEISTOCENE		SAND	6.0	4.0
646.0	PLEISTOCENE		SAND	8.0	10.0
638.0	MODESTO		DARK GRAY SHALE	42.0	18.0
596.0	MODESTO		DARK GRAY SHALE	34.0	60.0
562.0	MODESTO		DARK SHALE	2.8	94.0
559.2	MODESTO		BLACK SHALE	1.1	96.8
558.2	CARBONDALE	DANVILLE	COAL	3.1	97.8
555.1			LIGHT SHALE	11.1	100.9

MAPID: 18300208000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 30 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.651777 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.0778 DATE COLLECTED: 11 / 13 / 1913

SURFACE ELEVATION (FT.): 656.0 LOGGED (FT.): 161.0 LOG TYPE: Drillers Log

SOURCE: HEGLER BROS. SMELTING WORKS WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
656.0	PLEISTOCENE		SOIL	4.0	0.0
652.0	PLEISTOCENE		CLAY	2.0	4.0
650.0	PLEISTOCENE		SAND	9.0	6.0
641.0	MODESTO		GRAY SHALE	77.0	15.0
564.0	MODESTO		BLACK SHALE	3.0	92.0
561.0	MODESTO		BLUE SHALE	4.0	95.0
557.0	CARBONDALE	DANVILLE	COAL	5.8	99.0
551.2	CARBONDALE	ENERGY	BLUE SHALE	28.2	104.8
523.0	CARBONDALE	ENERGY	GRAY SHALE	18.0	133.0
505.0	CARBONDALE	ENERGY	DARK SHALE	1.0	151.0
504.0	CARBONDALE	HERRIN	COAL	6.0	152.0
498.0	CARBONDALE		LIGHT SHALE	3.0	158.0

MAPID: 18300209000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 30 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.655765 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.077804 DATE COLLECTED: 11 / 22 / 1911

SURFACE ELEVATION (FT.): 656.0 LOGGED (FT.): 155.0 LOG TYPE: Drillers Log

SOURCE: HEGLER BROS. SMELTING WORKS WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
656.0	PLEISTOCENE		SOIL	4.0	0.0
652.0	PLEISTOCENE		CLAY	8.0	4.0
644.0	PLEISTOCENE		SAND	8.0	12.0
636.0	PLEISTOCENE		CLAY	14.0	20.0
622.0	MODESTO		GRAY SHALE	57.0	34.0
565.0	MODESTO		BLACK SHALE	3.0	91.0
562.0	MODESTO		BLUE SHALE	5.0	94.0
557.0	CARBONDALE	DANVILLE	COAL	6.5	99.0
550.5	CARBONDALE	ENERGY	GRAY SHALE	40.5	105.5
510.0	CARBONDALE	HERRIN	COAL	6.0	146.0
504.0	CARBONDALE		SHALE	3.0	152.0

MAPID: 1830021000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 30 QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.655699 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.074176 DATE COLLECTED: 12 / 2 / 1911

SURFACE ELEVATION (FT.): 656.0 LOGGED (FT.): 144.0 LOG TYPE: Drillers Log

SOURCE: HEGLER BROS. SMELTING WORKS WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
656.0	PLEISTOCENE		SOIL	4.0	0.0
652.0	PLEISTOCENE		CLAY	4.0	4.0
648.0	PLEISTOCENE		SAND	7.0	8.0
641.0	MODESTO		GRAY SHALE	64.0	15.0
577.0	MODESTO		BLUE SHALE	10.0	79.0
567.0	MODESTO		DARK SHALE	3.0	89.0
564.0	MODESTO		BLUE SHALE	2.0	92.0
562.0	MODESTO		BLACK SHALE	2.0	94.0
560.0	CARBONDALE	DANVILLE	COAL	6.0	96.0
554.0	CARBONDALE	ENERGY	SHALE	12.0	102.0
542.0	CARBONDALE	ENERGY	SHALE	4.0	114.0
538.0	CARBONDALE	ENERGY	GRAY SHALE	6.0	118.0
532.0	CARBONDALE	ENERGY	DARK SHALE	12.0	124.0
520.0	CARBONDALE	HERRIN	COAL	5.0	136.0
515.0	CARBONDALE		SHALE	3.0	141.0

MAPID: 18300211000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 30 QUARTERS/FOOTAGES: SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.653467 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.075988 DATE COLLECTED: 12 / 12 / 1911

SURFACE ELEVATION (FT.): 656.0 LOGGED (FT.): 146.0 LOG TYPE: Drillers Log

SOURCE: HEGLER BROS SMELTING WORKS WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
656.0	PLEISTOCENE		SOIL	4.0	0.0
652.0	PLEISTOCENE		CLAY	18.0	4.0
634.0	MODESTO		GRAY SHALE	74.0	22.0
560.0	MODESTO		DARK SHALE	4.7	96.0
555.3	CARBONDALE	DANVILLE	COAL	6.2	100.7
549.2	CARBONDALE	ENERGY	LIGHT SHALE	23.2	106.8
526.0	CARBONDALE	ENERGY	BLACK SHALE	7.0	130.0
519.0	CARBONDALE	HERRIN	COAL	5.5	137.0
513.5	CARBONDALE		SHALE	3.5	142.5

MAPID: 18300212000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 30 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.655409 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.080526 DATE COLLECTED: 0 / 0 / 1918

SURFACE ELEVATION (FT.): 645.3 LOGGED (FT.): 161.0 LOG TYPE: Drillers Log

SOURCE: SULLIVAN MACHINERY CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
645.3	PLEISTOCENE		SAND	21.4	0.0	
623.9	PLEISTOCENE		SAND	10.0	21.4	
613.9	MODESTO		BLACK SHALE	6.6	31.4	
607.3	MODESTO		SHALE	22.0	38.0	
585.3	MODESTO		SHALE	46.1	60.0	SMALL BANDS OF SS
539.2	MODESTO		BLACK SHALE	5.8	106.1	
533.5	CARBONDALE	DANVILLE	COAL	5.9	111.8	
527.5	CARBONDALE		BLUE SHALE	3.6	117.8	
524.0	CARBONDALE	ENERGY	CLAYSTONE & SILTSTONE	18.7	121.3	
505.3	CARBONDALE	ENERGY	GRAY SHALE	10.0	140.0	
495.3	CARBONDALE	ENERGY	GRAY SHALE	3.5	150.0	
491.8	CARBONDALE	HERRIN	COAL	6.7	153.5	
485.1	CARBONDALE		GRAY SHALE	0.8	160.2	

MAPID: 18300213000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 30 QUARTERS/FOOTAGES: W2 NW SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.656897 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.077805 DATE COLLECTED: 0 / 0 / 1918

SURFACE ELEVATION (FT.): 649.2 LOGGED (FT.): 149.5 LOG TYPE: Drillers Log

SOURCE: SULLIVAN MACHINERY CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
649.2	PLEISTOCENE		SAND	12.0	0.0	
637.2	PLEISTOCENE		SAND	5.0	12.0	
632.2	MODESTO		BLUE SHALE	20.0	17.0	
612.2	MODESTO		SHALE	50.0	37.0	
562.2	MODESTO		BLUE SHALE	7.0	87.0	
555.2	MODESTO		BLACK SHALE	12.3	94.0	
542.9	CARBONDALE	DANVILLE	COAL	5.0	106.3	
537.9	CARBONDALE		CLAYSTONE & SILTSTONE	15.7	111.3	
522.2	CARBONDALE	ENERGY	BLACK SHALE	16.3	127.0	
505.9	CARBONDALE	HERRIN	COAL	5.1	143.3	
500.8	CARBONDALE		UNDERCLAY	1.1	148.4	

MAPID: 18300214000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 30 QUARTERS/FOOTAGES:

QUADRANGLE: DANVILLE SW LONGITUDE: -87.649016

GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.079612

DATE COLLECTED: 0 / 0 / 1918

SURFACE ELEVATION (FT.): 650.7

LOGGED (FT.): 147.3

LOG TYPE: Drillers Log

SOURCE: SULLIVAN MACHINERY CO

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
650.7	PLEISTOCENE		SAND	15.0	0.0
635.7	PLEISTOCENE		SAND	5.0	15.0
630.7	MODESTO		BLUE SHALE	12.0	20.0
618.7	MODESTO		GRAY SHALE	28.0	32.0
590.7	MODESTO		SHALE	39.3	60.0
551.4	MODESTO		BLACK SHALE	6.0	99.3
545.4	CARBONDALE	DANVILLE	COAL	5.8	105.3
539.7	CARBONDALE		CLAYSTONE & SILTSTONE	16.8	111.0
522.9	CARBONDALE	ENERGY	SANDSTONE	3.3	127.8
519.7	CARBONDALE	ENERGY	DARK SHALE	0.5	131.0
519.2	CARBONDALE	ENERGY	SHALE	0.5	131.5
518.7	CARBONDALE	ENERGY	DARK SHALE	9.3	132.0
509.4	CARBONDALE	HERRIN	COAL	5.7	141.3
503.7	CARBONDALE		UNDERCLAY	0.3	147.0



MAPID: 18300215000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 11W    SECTION: 30    QUARTERS/FOOTAGES: 800' S line, 800' W line of SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.655103    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 40.074567    DATE COLLECTED: 0 / 0 / 1919

SURFACE ELEVATION (FT.): 645.2    LOGGED (FT.): 498.7    LOG TYPE: Drillers Log

SOURCE: HEGELER ZINC CO    WELL TYPE: Stratigraphic Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
645.2	PLEISTOCENE		CLAY	10.0	0.0	
635.2	PLEISTOCENE		GRAVEL	1.5	10.0	
633.7	PLEISTOCENE		BOULDER	2.5	11.5	
631.2	PLEISTOCENE		CLAY	3.0	14.0	
628.2	PLEISTOCENE		CLAY	9.7	17.0	
618.5	MODESTO		GRAY SHALE	7.8	26.7	
610.7	MODESTO		CLAYSTONE & SILTSTONE	3.5	34.5	
607.2	MODESTO		CLAYSTONE & SILTSTONE	45.0	38.0	
562.2	MODESTO		CLAYSTONE & SILTSTONE	12.7	83.0	
549.5	CARBONDALE	DANVILLE	COAL	5.3	95.7	
544.2	CARBONDALE		DARK GRAY SHALE	1.5	101.0	
542.7	CARBONDALE		CLAYSTONE & SILTSTONE	7.3	102.5	
535.4	CARBONDALE		LIMESTONE	0.5	109.8	
534.9	CARBONDALE	ENERGY	BLUE SHALE	6.7	110.3	
528.2	CARBONDALE	ENERGY	BLUE SHALE	15.0	117.0	LS CONCRETIONS NEAR BASE
513.2	CARBONDALE	ENERGY	DARK SHALE	9.2	132.0	
504.0	CARBONDALE	HERRIN	COAL	6.6	141.2	
497.4	CARBONDALE		BROWN SHALE	1.5	147.8	
495.9	CARBONDALE		LIMESTONE	0.5	149.3	
495.4	CARBONDALE		CALCAREOUS SHALE	2.5	149.8	
492.9	CARBONDALE		COAL	0.2	152.3	
492.8	CARBONDALE		CLAYSTONE & SILTSTONE	1.6	152.4	STRUCTURELESS; PINKISH
491.2	CARBONDALE		SHALE	3.0	154.0	
488.2	CARBONDALE		SHALE	31.0	157.0	
457.2	CARBONDALE		SHALE	47.0	188.0	
410.2	CARBONDALE		SHALE	9.0	235.0	
401.2	CARBONDALE		SHALE	10.0	244.0	
391.2	CARBONDALE		SHALE	14.0	254.0	
377.2	CARBONDALE		SHALE	6.0	268.0	
371.2	CARBONDALE		LIMESTONE	3.0	274.0	
368.2	CARBONDALE		GRAY SHALE	5.6	277.0	
362.6	CARBONDALE		SANDSTONE	2.3	282.6	
360.3	CARBONDALE		GRAY SHALE	9.1	284.9	
351.2	CARBONDALE		DARK SHALE	1.1	294.0	
350.1	CARBONDALE	COLCHESTER	COAL	1.8	295.1	
348.4	SPOON		DARK SHALE	2.2	296.8	
346.2	SPOON		GRAY SHALE	2.0	299.0	
344.2	SPOON		DARK SHALE	1.0	301.0	
343.2	SPOON		BLACK SHALE	3.0	302.0	

340.2	SPOON		COAL	0.8	305.0	
339.4	SPOON		SHALE	1.2	305.8	
338.2	SPOON		SANDSTONE	2.2	307.0	
336.0	SPOON		SHALE	9.8	309.2	
326.2	SPOON		DARK SHALE	3.5	319.0	
322.7	SPOON		GRAY SHALE	1.0	322.5	
321.7	SPOON	SEELYVILLE	COAL	4.0	323.5	
317.7	SPOON	SEELYVILLE	COAL	0.2	327.5	
317.5	SPOON	SEELYVILLE	SANDSTONE	2.0	327.7	
315.5	SPOON	SEELYVILLE	GRAY SHALE	0.2	329.7	
315.4	SPOON	SEELYVILLE	BLACK SHALE	1.3	329.8	
314.0	SPOON	SEELYVILLE	COAL	1.0	331.2	
313.0	SPOON	SEELYVILLE	COAL	1.3	332.2	
311.7	SPOON	SEELYVILLE	COAL	0.5	333.5	
311.2	SPOON	SEELYVILLE	CLAYSTONE	0.3	334.0	
310.9	SPOON	SEELYVILLE	COAL	0.4	334.3	
310.5	SPOON	SEELYVILLE	COAL	1.6	334.7	
308.9	SPOON	SEELYVILLE	DARK SHALE	0.5	336.3	
308.4	SPOON	SEELYVILLE	GRAY SHALE	1.6	336.8	
306.9	SPOON	SEELYVILLE	COAL	0.2	338.3	
306.7	SPOON	SEELYVILLE	CLAYSTONE	5.3	338.5	
301.4	SPOON	SEELYVILLE	COAL	0.7	343.8	
300.7	SPOON	SEELYVILLE	CLAYSTONE	0.8	344.5	
299.9	SPOON	SEELYVILLE	COAL	2.5	345.3	
297.4	SPOON	SEELYVILLE	COAL	1.8	347.8	
295.7	SPOON	SEELYVILLE	COAL	0.3	349.5	
295.4	SPOON		ROCK	4.8	349.8	QUARTZITE
290.7	SPOON		SHALE	2.8	354.5	
287.9	SPOON		SANDSTONE	1.8	357.3	
286.2	SPOON		SHALE	1.5	359.0	
284.7	SPOON		SANDSTONE	0.8	360.5	
283.9	SPOON		CONGLOMERATE	0.2	361.3	
283.8	SPOON		BLACK SHALE	1.6	361.4	
282.2	SPOON		DARK SHALE	2.6	363.0	
279.6	SPOON		GRAY SHALE	1.4	365.6	
278.2	SPOON		COAL	1.7	367.0	
276.5	SPOON		BONE COAL	0.2	368.7	
276.4	SPOON		GRAY SHALE	0.5	368.8	
275.9			SHALE	2.6	369.3	
273.3			SANDSTONE	4.9	371.9	
268.4			CLAYSTONE & SILTSTONE	0.8	376.8	
267.5			DARK SHALE	0.4	377.7	
267.1			SANDSTONE	8.2	378.1	
258.9			DARK SHALE	4.1	386.3	
254.9			DARK SHALE	2.4	390.3	
252.4			DARK SANDSTONE	5.0	392.8	
247.4			GRAY SANDSTONE	5.2	397.8	
242.3			DARK SANDSTONE	13.3	402.9	

229.0	DARK SHALE	2.1	416.2
226.9	COAL	0.4	418.3
226.5	COAL	1.3	418.7
225.2	WHITE SANDSTONE	15.0	420.0
210.2	SANDSTONE	1.5	435.0
208.7	SANDSTONE	14.0	436.5
194.7	CONGLOMERATE	0.3	450.5
194.4	SHALE	0.3	450.8
194.1	SANDSTONE	6.9	451.1
187.2	DARK SHALE	0.7	458.0
186.5	WHITE SANDSTONE	40.0	458.7

**MAPID:** 18300216000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 11W    **SECTION:** 30    **QUARTERS/FOOTAGES:** NW SW NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.656978    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.082342    **DATE COLLECTED:** 12 / 0 / 1919  
**SURFACE ELEVATION (FT.):** 644.0    **LOGGED (FT.):** 148.3    **LOG TYPE:** Drillers Log  
**SOURCE:** SULLIVAN MACHINERY CO    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
644.0	PLEISTOCENE		CLAY	11.0	0.0
633.0	PLEISTOCENE		GRAVEL	8.5	11.0
624.5	MODESTO		GRAY SHALE	14.3	19.5
610.2	MODESTO		GRAY SHALE	1.2	33.8
609.1	MODESTO		GRAY SHALE	44.6	34.9
564.5	MODESTO		GRAY SHALE	9.5	79.5
555.0	MODESTO		BLUE SHALE	11.0	89.0
544.0	CARBONDALE	DANVILLE	COAL	5.7	100.0
538.3	CARBONDALE	DANVILLE	BONE COAL	0.3	105.7
538.0	CARBONDALE		CLAYSTONE & SILTSTONE	8.5	106.0
529.5	CARBONDALE		LIMESTONE	8.5	114.5
521.0	CARBONDALE		GRAY SHALE	2.0	123.0
519.0	CARBONDALE		LIMESTONE	4.3	125.0
514.7	CARBONDALE		DARK SHALE	1.7	129.3
513.0	CARBONDALE	ENERGY	GRAY SHALE	9.8	131.0
503.2	CARBONDALE	HERRIN	COAL	5.3	140.8
497.9	CARBONDALE	HERRIN	BONE COAL	0.6	146.1
497.3	CARBONDALE		UNDERCLAY	1.7	146.7

MAPID: 18300513000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 30 QUARTERS/FOOTAGES: 1065' S line, 2140' W line  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.650301 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 40.075293 DATE COLLECTED: 3 / 29 / 1923  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 110.3 LOG TYPE: Drillers Log  
 SOURCE: HEGELER ZINK COAL MINE WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		SOIL	2.0	0.0
-	PLEISTOCENE		CLAY	12.0	2.0
-	PLEISTOCENE		GRAVEL	4.0	14.0
-	PLEISTOCENE		BOULDER	1.0	18.0
-	MODESTO		GRAY SHALE	10.0	19.0
-	MODESTO		GRAY SHALE	20.0	29.0
-	MODESTO		SANDSTONE	32.0	49.0
-	MODESTO		SHALE	10.0	81.0
-	MODESTO		SHALE	7.0	91.0
-	CARBONDALE	DANVILLE	COAL	5.3	98.0
-	CARBONDALE		UNDERCLAY	7.0	103.3

MAPID: 18321934000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 30 QUARTERS/FOOTAGES: 1003' N line, 341' E line  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.641325 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 40.084093 DATE COLLECTED: 6 / 12 / 1973  
 SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 116.5 LOG TYPE: Survey Core Study  
 SOURCE: V-DAY COAL CO B-11 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
578.4	SHELBURN	DANVILLE	COAL	5.5	71.6
544.5	CARBONDALE	HERRIN	COAL	3.9	105.5

MAPID: 18321935000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 30 QUARTERS/FOOTAGES: 1574' N line, 846' E line  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.643092 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 40.082519 DATE COLLECTED: 6 / 13 / 1973  
 SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 116.5 LOG TYPE: Survey Core Study  
 SOURCE: V-DAY COAL CO B12 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
578.4	SHELBURN	DANVILLE	COAL	5.5	71.6
544.4	CARBONDALE	HERRIN	COAL	3.9	105.6

MAPID: 18321935000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 30 QUARTERS/FOOTAGES: 1574' N line, 846' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.643092

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.082519

DATE COLLECTED:

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 110.1

LOG TYPE: Survey Core Study

SOURCE: V-DAY COAL CO B12

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.5	MODESTO		GRAY SHALE	40.1	32.5	
577.4	CARBONDALE	DANVILLE	COAL	6.4	72.6	
571.0	CARBONDALE		CLAYSTONE & SHALE	11.0	79.0	
560.0	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	8.0	90.0	UPPER BENCH
552.0	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	1.9	98.0	SHALE PARTING
550.1	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	2.5	99.9	LOWER BENCH
547.6	CARBONDALE	LAWSON	MOTTLED SHALE	0.9	102.4	
546.8	CARBONDALE	LAWSON	DARK GRAY SHALE	0.7	103.2	
546.1	CARBONDALE	ANNA	DARK GRAY SHALE	3.1	103.9	
543.0	CARBONDALE	HERRIN	COAL	3.1	107.0	

MAPID: 18321947000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 30 QUARTERS/FOOTAGES: 650' N line, 986' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.643667

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.085071

DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 106.0

LOG TYPE: Drillers Log

SOURCE: V-DAY COAL CO C-1

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
584.0	SHELBURN	DANVILLE	COAL	6.0	66.0	
547.9	CARBONDALE	HERRIN	COAL	3.4	102.1	

MAPID: 18300940000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 11W SECTION: 32 QUARTERS/FOOTAGES: 0' N line, 0' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.639762

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.072339

DATE COLLECTED: 0 / 0 / 1948

SURFACE ELEVATION (FT.): 655.0 LOGGED (FT.): 52.3

LOG TYPE: Drillers Log

SOURCE: GRAPE CREEK MNG. CO 4

WELL TYPE: Coal Test

COMMENT: SKELETON LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0	CARBONDALE	DANVILLE	COAL	0.3	52.0	UNCLEAR WHETHER THIS IS ENTIRE THCKNESS

**MAPID:** 18300941000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 11W    **SECTION:** 32    **QUARTERS/FOOTAGES:** 625' N line, 500' W line  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.637936    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.070624    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 655.0    **LOGGED (FT.):** 62.5    **LOG TYPE:** Drillers Log  
**SOURCE:** GRAPE CREEK MNG. CO.    6    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
655.0	PLEISTOCENE		CLAY	17.0	0.0	
638.0	PLEISTOCENE		CLAY	13.0	17.0	
625.0	PLEISTOCENE		GRAVEL	1.0	30.0	
624.0	PLEISTOCENE		CLAY	29.1	31.0	
594.9	CARBONDALE	DANVILLE	COAL	2.4	60.1	TOP OF COAL ERODED

**MAPID:** 18300942000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 11W    **SECTION:** 32    **QUARTERS/FOOTAGES:** 0' N line, 600' W line  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.63761    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.072353    **DATE COLLECTED:** 7 / 0 / 1941  
**SURFACE ELEVATION (FT.):** 655.0    **LOGGED (FT.):** 65.2    **LOG TYPE:** Drillers Log  
**SOURCE:** CRAPE CREEK MNG. CO.    3    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
655.0	PLEISTOCENE		CLAY	17.0	0.0	
638.0	PLEISTOCENE		CLAY	37.0	17.0	
601.0	PLEISTOCENE		CLAY	6.0	54.0	
595.0	CARBONDALE	DANVILLE	COAL	5.2	60.0	TOP OF COAL ERODED

**MAPID:** 18301164000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 11W    **SECTION:** 32    **QUARTERS/FOOTAGES:** E2 E2  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.62289    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.065117    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 635.0    **LOGGED (FT.):** 24.0    **LOG TYPE:** Drillers Log  
**SOURCE:** J T JAMES    **WELL TYPE:** Coal Test  
**COMMENT:** SHAFT SUNK 30 YRS AGO

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
631.0	MODESTO		SHALE	14.0	4.0	
617.0	CARBONDALE	DANVILLE	COAL	6.0	18.0	

MAPID: 18300606000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 1920' S line, 2890' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.669162 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.136114 DATE COLLECTED: 6 / 0 / 1939

SURFACE ELEVATION (FT.): 602.5 LOGGED (FT.): 44.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 10E WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
602.5	PLEISTOCENE		SAND	7.5	0.0
595.0	MODESTO		SHALE	30.5	7.5
564.5	CARBONDALE	DANVILLE	COAL	6.0	38.0

MAPID: 18300607000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 1580' S line, 2990' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.669506 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.135175 DATE COLLECTED: 6 / 0 / 1939

SURFACE ELEVATION (FT.): 611.5 LOGGED (FT.): 54.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 12E WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
611.5	PLEISTOCENE		CLAY	13.0	0.0
598.5	MODESTO		SHALE	35.0	13.0
563.5	CARBONDALE	DANVILLE	COAL	6.0	48.0

MAPID: 18300608000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 1800' S line, 3175' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.670181 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.135784 DATE COLLECTED: 6 / 0 / 1939

SURFACE ELEVATION (FT.): 608.2 LOGGED (FT.): 49.2 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 11E WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
608.2	PLEISTOCENE		CLAY	31.0	0.0
577.2	MODESTO		SHALE	12.0	31.0
565.2	CARBONDALE	DANVILLE	COAL	6.2	43.0

MAPID: 18300609000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 1    QUARTERS/FOOTAGES: 1410' S line, 1390' W line

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.672849    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 40.134713    DATE COLLECTED: 6 / 0 / 1939

SURFACE ELEVATION (FT.): 639.9    LOGGED (FT.): 76.2    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP    69    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
639.9	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0
626.9	PLEISTOCENE		UNCONSOLIDATED	3.0	13.0
623.9	MODESTO		SHALE	14.0	16.0
609.9	MODESTO		RED SHALE	15.0	30.0
594.9	MODESTO		SANDSTONE	1.5	45.0
593.4	MODESTO		RED SHALE	2.0	46.5
591.4	MODESTO		SHALE	12.5	48.5
578.9	MODESTO		BLUE SHALE	8.8	61.0
570.1	CARBONDALE	DANVILLE	COAL	6.4	69.8

MAPID: 18300612000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 1    QUARTERS/FOOTAGES: 2095' S line, 2650' E line

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.668308    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 40.136594    DATE COLLECTED: 0 / 6 / 1939

SURFACE ELEVATION (FT.): 589.6    LOGGED (FT.): 30.5    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP    9E    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
589.6	PLEISTOCENE		SOIL	1.5	0.0
588.1	MODESTO		SHALE	23.0	1.5
565.1	CARBONDALE	DANVILLE	COAL	6.0	24.5



MAPID: 18300613000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 2005' S line, 4545' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.675114 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.136357 DATE COLLECTED: 6 / 0 / 1939

SURFACE ELEVATION (FT.): 638.3 LOGGED (FT.): 65.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 93 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
638.3	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0
627.3	PLEISTOCENE		SAND	5.0	11.0
622.3	MODESTO		SHALE	14.0	16.0
608.3	MODESTO		RED SANDSTONE	18.0	30.0
590.3	MODESTO		SHALE	12.0	48.0
578.3	CARBONDALE	DANVILLE	COAL	5.8	60.0

MAPID: 18300615000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 2675' S line, 2740' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.668657 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.138195 DATE COLLECTED: 6 / 0 / 1939

SURFACE ELEVATION (FT.): 636.9 LOGGED (FT.): 78.2 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 121 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
636.9	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0
622.9	MODESTO		GRAY SHALE	23.0	14.0
599.9	MODESTO		RED SHALE	16.0	37.0
583.9	MODESTO		SHALE	18.0	53.0
565.9	MODESTO		BLUE SHALE	1.0	71.0
564.9	CARBONDALE	DANVILLE	COAL	6.2	72.0

MAPID: 18300616000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 2635' S line, 3800' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.672465 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.138091 DATE COLLECTED: 6 / 0 / 1939

SURFACE ELEVATION (FT.): 639.4 LOGGED (FT.): 75.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 119 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
639.4	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0
621.4	PLEISTOCENE		SAND	4.0	18.0
617.4	MODESTO		BLUE SHALE	17.0	22.0
600.4	MODESTO		RED SHALE	6.0	39.0
594.4	MODESTO		BLUE SHALE	24.0	45.0
570.4	CARBONDALE	DANVILLE	COAL	6.0	69.0

MAPID: 18300617000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 3525' S line, 5150' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.677356 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.140557 DATE COLLECTED: 6 / 0 / 1939

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 59.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP K8 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
638.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
628.0	PLEISTOCENE		SAND	5.0	10.0
623.0	MODESTO		SHALE	17.0	15.0
606.0	MODESTO		RED SHALE	19.0	32.0
587.0	MODESTO		SHALE	3.5	51.0
583.5	CARBONDALE	DANVILLE	COAL	5.3	54.5

MAPID: 18300618000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 3280' S line, 5155' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.677363 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.139881 DATE COLLECTED: 6 / 0 / 1939

SURFACE ELEVATION (FT.): 633.2 LOGGED (FT.): 54.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 142 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
633.2	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0
619.2	PLEISTOCENE		SAND	2.0	14.0
617.2	MODESTO		SHALE	9.0	16.0
608.2	MODESTO		RED SHALE	21.0	25.0
587.2	MODESTO		GRAY SHALE	2.5	46.0
584.7	CARBONDALE	DANVILLE	COAL	6.2	48.5

MAPID: 18300947000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 2670' S line, 60' W line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.677645 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.138196 DATE COLLECTED: 6 / 0 / 1939

SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 13.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 117 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
585.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0
581.0	PLEISTOCENE		SAND	1.0	4.0
580.0	CARBONDALE	DANVILLE	COAL	0.8	5.0 TOP OF COAL ERODED
579.2	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.2	5.8
578.0	CARBONDALE	DANVILLE	COAL	1.0	7.0
577.0	CARBONDALE		UNDERCLAY	5.0	8.0

**MAPID:** 18300948000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 1    **QUARTERS/FOOTAGES:** 2870' S line, 110' W line  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.677468    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.138748    **DATE COLLECTED:** 6 / 0 / 1939  
**SURFACE ELEVATION (FT.):** 590.0    **LOGGED (FT.):** 14.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE COLLIERIES CORP 117A    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
582.0	CARBONDALE	DANVILLE	COAL	0.7	8.0	TOP OF COAL ERODED
581.3	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.0	8.7	
580.3	CARBONDALE	DANVILLE	COAL	1.3	9.7	
579.0	CARBONDALE		UNDERCLAY	3.0	11.0	

**MAPID:** 18300949000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 1    **QUARTERS/FOOTAGES:** 2930' S line, 440' W line  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.676285    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.138912    **DATE COLLECTED:** 6 / 0 / 1939  
**SURFACE ELEVATION (FT.):** 578.0    **LOGGED (FT.):** 15.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE COLLIERIES CORP 117B    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
578.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
573.0	CARBONDALE	DANVILLE	COAL	0.8	5.0	TOP OF COAL ERODED
572.2	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.3	5.8	
570.9	CARBONDALE	DANVILLE	COAL	0.8	7.1	
570.2	CARBONDALE		UNDERCLAY	7.2	7.8	

**MAPID:** 18300950000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 1    **QUARTERS/FOOTAGES:** 3070' S line, 540' W line  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.675926    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.139298    **DATE COLLECTED:** 6 / 0 / 1939  
**SURFACE ELEVATION (FT.):** 590.0    **LOGGED (FT.):** 15.8    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE COLLIERIES CORP 117C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
582.0	CARBONDALE	DANVILLE	COAL	0.8	8.0	TOP OF COAL ERODED
581.2	CARBONDALE		UNDERCLAY	7.0	8.8	

MAPID: 18300951000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 1    QUARTERS/FOOTAGES: 2990' S line, 790' W line

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.675025    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 40.139075    DATE COLLECTED: 6 / 0 / 1939

SURFACE ELEVATION (FT.): 575.0    LOGGED (FT.): 11.8    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP    117D    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
570.0	CARBONDALE	DANVILLE	COAL	0.5	5.0	TOP OF COAL ERODED
569.5	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	2.3	5.5	
567.2	CARBONDALE	DANVILLE	COAL	1.5	7.8	
565.7	CARBONDALE		UNDERCLAY	2.5	9.3	

MAPID: 18300952000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 1    QUARTERS/FOOTAGES: 2770' S line, 260' W line

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.676929    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 40.138472    DATE COLLECTED: 6 / 0 / 1939

SURFACE ELEVATION (FT.): 578.0    LOGGED (FT.): 13.6    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP    117E    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
578.0	PLEISTOCENE		SAND	5.0	0.0	
573.0	CARBONDALE	DANVILLE	COAL	0.6	5.0	TOP OF COAL ERODED
572.4	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	2.0	5.6	
570.4	CARBONDALE	DANVILLE	COAL	1.0	7.6	
569.4	CARBONDALE		UNDERCLAY	5.0	8.6	

MAPID: 18300954000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 1    QUARTERS/FOOTAGES: 3610' S line, 260' W line

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.67694    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 40.140791    DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 635.0    LOGGED (FT.): 81.2    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP    405F    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
635.0	PLEISTOCENE		SANDY CLAY	27.3	0.0
607.7	PLEISTOCENE		SANDY CLAY	19.5	27.3
588.2	PLEISTOCENE		CLAY	1.1	46.8
587.1	CARBONDALE	DANVILLE	COAL	5.2	47.9
581.9	CARBONDALE	DANVILLE	CLAYSTONE	0.1	53.1
581.8	CARBONDALE	DANVILLE	COAL	0.3	53.2
581.5	CARBONDALE	DANVILLE	RASH	0.2	53.5
581.2	CARBONDALE	DANVILLE	COAL	0.6	53.8
580.6	CARBONDALE	DANVILLE	COAL	0.3	54.4
580.3	CARBONDALE		UNDERCLAY	1.0	54.7
579.3	CARBONDALE		UNDERCLAY	1.3	55.7
578.1	CARBONDALE		UNDERCLAY	2.3	56.9
575.8	CARBONDALE		GRAY SHALE	8.2	59.2
567.5	CARBONDALE		GRAY SHALE	4.4	67.5
563.2	CARBONDALE		LIMESTONE	1.5	71.8
561.7	CARBONDALE		GRAY SHALE	0.4	73.3
561.3	CARBONDALE	ANNA	BLACK SHALE	2.6	73.7
558.8	CARBONDALE	ANNA	BLACK SHALE	0.3	76.2
558.5	CARBONDALE	HERRIN	COAL	0.9	76.5
557.6	CARBONDALE	HERRIN	COAL	1.4	77.4
556.2	CARBONDALE		UNDERCLAY	2.3	78.8

MAPID: 18300955000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 2440' S line, 2785' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.668808 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.137546 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 637.0 LOGGED (FT.): 99.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 404F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
637.0	PLEISTOCENE		CLAY	4.8	0.0
632.2	PLEISTOCENE		CLAY	11.6	4.8
620.6	PLEISTOCENE		CLAY	27.9	16.4
592.7			GRAY SHALE	26.3	44.3
566.4	CARBONDALE	DANVILLE	CLOD	0.5	70.6
565.9	CARBONDALE	DANVILLE	COAL	5.0	71.1
561.0	CARBONDALE	DANVILLE	PYRITE	0.1	76.0
560.9	CARBONDALE	DANVILLE	COAL	1.3	76.1
559.6	CARBONDALE	DANVILLE	RASH	0.4	77.4
559.2	CARBONDALE	DANVILLE	COAL	0.8	77.8
558.4	CARBONDALE	DANVILLE	CLAYSTONE	1.0	78.6
557.4	CARBONDALE	DANVILLE	COAL	1.1	79.6
556.4	CARBONDALE		UNDERCLAY	1.2	80.6
555.2			DARK GRAY SHALE	7.0	81.8
548.1			LIMESTONE	3.4	88.9
544.7			DARK GRAY SHALE	3.3	92.3
541.4			LIMESTONE	0.4	95.6
541.0			BLACK SHALE	3.8	96.0

MAPID: 18300957000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 1    QUARTERS/FOOTAGES: 1620' S line, 20' W line

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.677774    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 40.1353    DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 637.0    LOGGED (FT.): 105.2    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP    402F    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
637.0	PLEISTOCENE		CLAY	7.8	0.0
629.2	PLEISTOCENE		CLAY	10.9	7.8
618.3	PLEISTOCENE		SANDY CLAY	9.4	18.7
608.9	PLEISTOCENE		CLAY	14.3	28.1
594.6	MODESTO		GRAY SHALE	29.0	42.4
565.6	CARBONDALE	DANVILLE	COAL	5.9	71.4
559.7	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.2	77.3
559.6	CARBONDALE	DANVILLE	BLACK SHALE	0.8	77.4
558.8	CARBONDALE	DANVILLE	COAL	0.7	78.2
558.1	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.5	78.9
557.6	CARBONDALE	DANVILLE	COAL	1.1	79.4
556.4	CARBONDALE		UNDERCLAY	1.5	80.6
555.0	CARBONDALE		GRAY SHALE	5.6	82.0
549.4	CARBONDALE		LIMESTONE	4.3	87.6
545.1	CARBONDALE		GRAY SHALE	2.0	91.9
543.2	CARBONDALE		LIMESTONE	2.6	93.8
540.5	CARBONDALE		GRAY SHALE	0.1	96.5
540.5	CARBONDALE		BLACK SHALE	4.0	96.5
536.5	CARBONDALE	HERRIN	COAL	0.5	100.5
536.1	CARBONDALE	HERRIN	PYRITE	2.7	100.9
533.3	CARBONDALE	HERRIN	COAL	1.5	103.7



MAPID: 18300958000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 2890' S line, 5' W line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.677848

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.138804

DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 628.0 LOGGED (FT.): 43.3

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 401F

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
628.0	PLEISTOCENE		SANDY CLAY	9.6	0.0
618.4	PLEISTOCENE		CLAY	2.9	9.6
615.5	CARBONDALE	DANVILLE	COAL	1.6	12.5
613.9	CARBONDALE	DANVILLE	CLAYSTONE	1.3	14.1
612.6	CARBONDALE	DANVILLE	COAL	0.7	15.4
611.9	CARBONDALE		UNDERCLAY	2.8	16.1
609.1	CARBONDALE		GRAY SHALE	7.5	18.9
601.6	CARBONDALE		LIMESTONE	0.3	26.4
601.3	CARBONDALE		COAL	1.1	26.7
600.2	CARBONDALE		LIMESTONE	1.5	27.8
598.8	CARBONDALE		SHALE	4.7	29.2
594.1	CARBONDALE	ANNA	BLACK SHALE	3.3	33.9
590.8	CARBONDALE	HERRIN	COAL	1.7	37.2
589.1	CARBONDALE	HERRIN	COAL	0.3	38.9
588.8	CARBONDALE	HERRIN	COAL	2.5	39.2
586.3	CARBONDALE		UNDERCLAY	1.6	41.7

MAPID: 18300970000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 2725' S line, 230' W line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.677037 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.138347 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 31.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 388C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
584.0	PLEISTOCENE		CLAY	5.0	0.0	
579.0	CARBONDALE	DANVILLE	PYRITE	0.1	5.0	TOP OF COAL ERODED
578.9	CARBONDALE	DANVILLE	COAL	1.0	5.1	SOME RASH
577.9	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.3	6.1	
576.7	CARBONDALE	DANVILLE	COAL	0.8	7.3	
575.9	CARBONDALE		UNDERCLAY	2.2	8.1	
573.7	CARBONDALE		GRAY SHALE	9.9	10.3	
563.8	CARBONDALE		LIMESTONE	3.4	20.2	TOP 2.07' SOFT
560.5	CARBONDALE		LIMESTONE	1.3	23.5	
559.2	CARBONDALE		GRAY SHALE	1.3	24.8	BOTTOM 1.10 DARK
557.9	CARBONDALE		BLACK SHALE	1.1	26.1	
556.8	CARBONDALE	HERRIN	COAL	2.3	27.2	CLY
554.5	CARBONDALE		UNDERCLAY	1.3	29.5	
553.1	CARBONDALE		SHALE	1.0	30.9	

MAPID: 18300971000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 3000' S line, 4490' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.67496 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.139104 DATE COLLECTED: 4 / 0 / 1940

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 21.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES 338F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0	PLEISTOCENE		CLAY	4.4	0.0	
575.6	PLEISTOCENE		CLAY	2.2	4.4	
573.4	CARBONDALE	DANVILLE	COAL	1.1	6.6	TOP OF COAL ERODED
572.3	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.6	7.7	
570.7	CARBONDALE	DANVILLE	COAL	0.5	9.3	
570.2	CARBONDALE		UNDERCLAY	0.6	9.8	
569.6	CARBONDALE		GRAY SHALE	1.7	10.4	
567.9	CARBONDALE		BLACK SHALE	1.3	12.1	
566.5	CARBONDALE		GRAY SHALE	2.4	13.5	
564.1	CARBONDALE		DARK GRAY SHALE	1.4	15.9	
562.7	CARBONDALE		BLACK SHALE	0.5	17.3	
562.2	CARBONDALE	HERRIN	COAL	2.1	17.8	
560.1	CARBONDALE		UNDERCLAY	1.9	19.9	

MAPID: 18300987000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 1670' S line, 4675' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.675566 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.135434 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 639.0 LOGGED (FT.): 77.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 388F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
639.0	PLEISTOCENE		CLAY	8.9	0.0	
630.1	PLEISTOCENE		CLAY	10.8	8.9	
619.3	PLEISTOCENE		CLAY	11.6	19.7	
607.7	PLEISTOCENE		CLAY	9.4	31.3	
598.3	MODESTO		GRAY SHALE	26.5	40.7	
571.8	CARBONDALE	DANVILLE	CLOD	0.5	67.2	
571.3	CARBONDALE	DANVILLE	COAL	5.7	67.7	
565.6	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.2	73.4	
565.5	CARBONDALE	DANVILLE	COAL	0.3	73.5	
565.2	CARBONDALE	DANVILLE	PYRITE	0.1	73.8	
565.0	CARBONDALE	DANVILLE	BLACK SHALE	0.5	74.0	
564.6	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.9	74.4	
563.7	CARBONDALE	DANVILLE	BLACK SHALE	0.3	75.3	
563.4	CARBONDALE	DANVILLE	COAL	1.0	75.6	THIN LAYER LENTICULAR CLAY NEAR TOP
562.4	CARBONDALE		UNDERCLAY	0.3	76.6	

MAPID: 18301018000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 2210' S line, 3885' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.672751 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.13692 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 75.4 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 338F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		CLAY	8.6	0.0	
631.4	PLEISTOCENE		CLAY	5.3	8.6	
626.2	PLEISTOCENE		SANDY CLAY	18.3	13.8	
607.9	PLEISTOCENE		CLAY	17.3	32.1	
590.7	PLEISTOCENE		CLAY	2.5	49.3	
588.2	MODESTO		GRAY SHALE	19.3	51.8	
568.9	CARBONDALE	DANVILLE	COAL	4.3	71.1	INCOMPLETE MEASURE OF COAL THICKNESS

MAPID: 18301166000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 1    QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.666015    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 40.143493    DATE COLLECTED:

SURFACE ELEVATION (FT.): 670.0    LOGGED (FT.): 20.0    LOG TYPE: Drillers Log

SOURCE: COLES    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
670.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
666.0	MODESTO		SHALE	10.0	4.0	
656.0	CARBONDALE	DANVILLE	COAL	6.0	14.0	

MAPID: 18390110000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 1    QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.675442    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.132633    DATE COLLECTED: 2 / 26 / 1946

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 110.3    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    43    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
633.0	PLEISTOCENE		CLAY	63.0	7.0	& GRAVEL
570.0	SHELBURN		GRAY SHALE	3.4	70.0	SOFT
566.6	SHELBURN	DANVILLE	COAL	5.8	73.4	
560.7	SHELBURN		UNDERCLAY	12.4	79.3	
548.3	SHELBURN		GRAY SHALE	6.3	91.7	
542.0	SHELBURN		SANDSTONE	1.5	98.0	HARD
540.5	SHELBURN		SHALE	0.7	99.5	
539.8	SHELBURN		BLACK SHALE	4.5	100.2	
535.3	CARBONDALE		SHALE	1.6	104.7	WHITE
533.7	CARBONDALE	HERRIN	COAL	0.3	106.3	
533.4	CARBONDALE		UNDERCLAY	3.8	106.6	

MAPID: 18390130000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 1    QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.670697    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.136248    DATE COLLECTED: 3 / 2 / 1937

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 69.8    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    69    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
627.0	PLEISTOCENE		CLAY	3.0	13.0	
624.0	SHELBURN		SANDY SHALE	14.0	16.0	WHITE
610.0	SHELBURN		SANDY SHALE	15.0	30.0	RED
595.0	SHELBURN		SANDSTONE	1.5	45.0	SOFT
593.5	SHELBURN		SANDY SHALE	2.0	46.5	RED
591.5	SHELBURN		SHALE	12.5	48.5	WHITE
579.0	SHELBURN		SHALE	8.8	61.0	BLUE

MAPID: 18390131000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 1    QUARTERS/FOOTAGES: NW SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.665929    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.136246    DATE COLLECTED: 8 / 14 / 1950

SURFACE ELEVATION (FT.): 639.7    LOGGED (FT.): 79.2    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    71B    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
639.7	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
627.7	PLEISTOCENE		CLAY	38.0	12.0	
589.7	SHELBURN		SHALE	21.0	50.0	
568.7	SHELBURN	DANVILLE	COAL	6.1	71.0	
562.6	SHELBURN	DANVILLE	UNCLASSIFIED	0.3	77.1	
562.4	SHELBURN	DANVILLE	COAL	0.8	77.3	
561.5	SHELBURN		UNDERCLAY	1.0	78.2	

MAPID: 18390132000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: SW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.66597 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139871 DATE COLLECTED: 8 / 15 / 1950

SURFACE ELEVATION (FT.): 640.3 LOGGED (FT.): 74.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 72A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
640.3	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
630.3	PLEISTOCENE		CLAY	42.0	10.0
588.3	SHELBURN		SHALE	14.0	52.0
574.3	SHELBURN	DANVILLE	COAL	6.3	66.0
568.0	SHELBURN	DANVILLE	UNCLASSIFIED	0.3	72.3
567.8	SHELBURN	DANVILLE	COAL	0.5	72.5
567.3	SHELBURN		UNDERCLAY	1.0	73.0

MAPID: 18390133000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES:

QUADRANGLE: DANVILLE NW LONGITUDE: -87.66833 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.138058 DATE COLLECTED: 4 / 2 / 1945

SURFACE ELEVATION (FT.): 641.4 LOGGED (FT.): 74.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 73-1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
641.4	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
629.4	PLEISTOCENE		CLAY	12.0	12.0
617.4	PLEISTOCENE		UNCONSOLIDATED	34.0	24.0
583.4	SHELBURN		SHALE	7.0	58.0
576.4	SHELBURN	DANVILLE	COAL	5.9	65.0 GOOD
570.5	SHELBURN	DANVILLE	CLAYSTONE	2.0	70.9
568.5	SHELBURN	DANVILLE	COAL	0.8	72.9
567.7	SHELBURN		UNDERCLAY	1.0	73.7

MAPID: 18390134000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.66116 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136246 DATE COLLECTED: 3 / 28 / 1945

SURFACE ELEVATION (FT.): 639.0 LOGGED (FT.): 91.5 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 73A-1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
639.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
624.0	PLEISTOCENE		UNCONSOLIDATED	46.0	15.0	
578.0	SHELBURN		SHALE	12.0	61.0	
566.0	SHELBURN		SANDSTONE	3.0	73.0	HARD
563.0	SHELBURN		BLACK SHALE	7.0	76.0	
556.0	SHELBURN		SHALE	7.0	83.0	WHITE
549.0	SHELBURN		ROCK	1.5	90.0	EXTRA HARD

MAPID: 18390135000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.665929 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136246 DATE COLLECTED: 3 / 29 / 1945

SURFACE ELEVATION (FT.): 638.1 LOGGED (FT.): 73.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 73C-1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
638.1	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
623.1	PLEISTOCENE		UNCONSOLIDATED	42.0	15.0	
581.1	SHELBURN		SHALE	6.0	57.0	
575.1	SHELBURN	DANVILLE	COAL	5.8	63.0	
569.3	SHELBURN	DANVILLE	CLAYSTONE	2.3	68.8	
567.0	SHELBURN	DANVILLE	COAL	0.7	71.1	
566.3	SHELBURN		UNDERCLAY	2.0	71.8	



**MAPID:** 18390136000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 1    **QUARTERS/FOOTAGES:** NE SE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.66116    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.136246    **DATE COLLECTED:** 4 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 639.3    **LOGGED (FT.):** 64.5    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    73C-2    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
639.3	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
627.3	PLEISTOCENE		UNCONSOLIDATED	49.5	12.0	
577.8	SHELBURN	DANVILLE	COAL	1.5	61.5	CUT BY AUGER; TOP ERODED
576.3	SHELBURN	DANVILLE	COAL	1.0	63.0	CUT BY DRILL
575.3	SHELBURN		UNKNOWN	0.5	64.0	DRILLER REPORTS GRAVEL

**MAPID:** 18390153000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 1    **QUARTERS/FOOTAGES:** NW SW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.675466    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.136247    **DATE COLLECTED:** 2 / 28 / 1946  
**SURFACE ELEVATION (FT.):** 640.0    **LOGGED (FT.):** 110.9    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    94    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
634.0	SHELBURN		CLAY	65.0	6.0	
569.0	SHELBURN		SHALE	9.3	71.0	
559.7	SHELBURN	DANVILLE	COAL	6.7	80.3	
553.0	SHELBURN	DANVILLE	CLAYSTONE	0.5	87.0	
552.5	SHELBURN	DANVILLE	COAL	0.4	87.5	
552.1	SHELBURN		UNDERCLAY	4.5	87.9	
547.6	SHELBURN		SHALE	7.6	92.4	
540.0	SHELBURN		SANDSTONE	2.0	100.0	
538.0	CARBONDALE	ANNA	BLACK SHALE	3.2	102.0	
534.8	CARBONDALE	HERRIN	COAL	3.3	105.2	VERY SOFT
531.6	CARBONDALE		UNDERCLAY	2.5	108.4	

MAPID: 18390154000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.665929 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136246 DATE COLLECTED: 8 / 15 / 1950

SURFACE ELEVATION (FT.): 637.7 LOGGED (FT.): 76.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 97C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
637.7	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
625.7	PLEISTOCENE		CLAY	45.0	12.0	
580.7	SHELBURN		SHALE	11.5	57.0	
569.2	SHELBURN	DANVILLE	COAL	6.2	68.5	GOOD
563.0	SHELBURN	DANVILLE	CLAYSTONE	0.3	74.7	
562.8	SHELBURN	DANVILLE	COAL	0.6	74.9	
562.2	SHELBURN		UNKNOWN	0.5	75.5	NO REPORT

MAPID: 18390171000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.67549 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.13986 DATE COLLECTED: 3 / 16 / 1937

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 13.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 117 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
626.0	PLEISTOCENE		SAND & GRAVEL	1.0	4.0	
625.0	SHELBURN	DANVILLE	COAL	0.8	5.0	SOFT; TOP ERODED
624.2	SHELBURN	DANVILLE	CLAYSTONE	1.2	5.8	
623.0	SHELBURN	DANVILLE	COAL	1.0	7.0	
622.0	SHELBURN		UNDERCLAY	5.0	8.0	

**MAPID:** 18390172000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 1    **QUARTERS/FOOTAGES:** SW NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.67549    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.13986    **DATE COLLECTED:** 3 / 16 / 1937  
**SURFACE ELEVATION (FT.):** 620.0    **LOGGED (FT.):** 14.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    117A    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
612.0	SHELBURN	DANVILLE	COAL	0.7	8.0	SOFT; TOP ERODED
611.3	SHELBURN	DANVILLE	CLAYSTONE	1.0	8.7	
610.3	SHELBURN	DANVILLE	COAL	1.3	9.7	
609.0	SHELBURN		UNDERCLAY	3.0	11.0	

**MAPID:** 18390173000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 1    **QUARTERS/FOOTAGES:** SW NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.67549    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.13986    **DATE COLLECTED:** 3 / 15 / 1937  
**SURFACE ELEVATION (FT.):** 620.0    **LOGGED (FT.):** 15.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    117B    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
615.0	SHELBURN	DANVILLE	COAL	0.8	5.0	SOFT; TOP ERODED
614.2	SHELBURN	DANVILLE	CLAYSTONE	1.3	5.8	
612.9	SHELBURN	DANVILLE	COAL	0.8	7.1	SOFT
612.2	SHELBURN		UNDERCLAY	7.2	7.8	

**MAPID:** 18390174000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 1    **QUARTERS/FOOTAGES:** SW NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.67549    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.13986    **DATE COLLECTED:** 3 / 15 / 1937  
**SURFACE ELEVATION (FT.):** 620.0    **LOGGED (FT.):** 15.8    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    117C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
612.0	SHELBURN	DANVILLE	COAL	0.8	8.0	SOFT; TOP ERODED
611.2	SHELBURN		UNDERCLAY	7.0	8.8	

MAPID: 18390175000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES:

QUADRANGLE: DANVILLE NW

LONGITUDE: -87.66833

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE: 40.138058

DATE COLLECTED: 3 / 13 / 1937

SURFACE ELEVATION (FT.): 620.0

LOGGED (FT.): 10.8

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 117D

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
615.0	SHELBURN	DANVILLE	COAL	0.5	5.0	SOFT; TOP ERODED
614.5	SHELBURN	DANVILLE	CLAYSTONE	1.3	5.5	
613.2	SHELBURN	DANVILLE	COAL	1.5	6.8	SOFT
611.7	SHELBURN		UNDERCLAY	2.5	8.3	

MAPID: 18390176000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE NW

LONGITUDE: -87.67549

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE: 40.13986

DATE COLLECTED: 3 / 16 / 1937

SURFACE ELEVATION (FT.): 620.0

LOGGED (FT.): 13.6

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 117E

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		SAND & GRAVEL	5.0	0.0	
615.0	SHELBURN	DANVILLE	COAL	0.6	5.0	SOFT; TOP ERODED
614.4	SHELBURN	DANVILLE	CLAYSTONE	2.0	5.6	
612.4	SHELBURN	DANVILLE	COAL	1.0	7.6	
611.4	SHELBURN		UNDERCLAY	5.0	8.6	

MAPID: 18390177000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: DANVILLE NW

LONGITUDE: -87.670728

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE: 40.139864

DATE COLLECTED: 2 / 23 / 1937

SURFACE ELEVATION (FT.): 630.0

LOGGED (FT.): 69.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 119

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
612.0	PLEISTOCENE		SAND & GRAVEL	4.0	18.0	
608.0	SHELBURN		SANDY SHALE	17.0	22.0	BLUE
591.0	SHELBURN		SANDY SHALE	6.0	39.0	RED
585.0	SHELBURN		SHALE	24.0	45.0	BLUE

MAPID: 18390178000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.670728

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139864

DATE COLLECTED: 2 / 26 / 1937

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 78.2

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 121

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
606.0	SHELBURN		SANDY SHALE	23.0	14.0	
583.0	SHELBURN		SANDY SHALE	16.0	37.0	RED
567.0	SHELBURN		SHALE	18.0	53.0	WHITE
549.0	SHELBURN		SHALE	1.0	71.0	BLUE
548.0	SHELBURN	DANVILLE	COAL	6.2	72.0	FAIR

MAPID: 18390204000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.67549

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.13986

DATE COLLECTED: 2 / 14 / 1936

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 38.5

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 143

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
582.0	PLEISTOCENE		SAND & GRAVEL	13.5	8.0	
568.5	PLEISTOCENE		SAND & GRAVEL	3.5	21.5	
565.0	SHELBURN	DANVILLE	CAVITY	6.0	25.0	TOP ERODED
559.0	SHELBURN		UNDERCLAY	7.5	31.0	

MAPID: 18390205000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.670728

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139864

DATE COLLECTED: 1 / 28 / 1946

SURFACE ELEVATION (FT.): 580.0

LOGGED (FT.): 60.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 144C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
570.0	PLEISTOCENE		CLAY	6.0	10.0	
564.0	SHELBURN	DANVILLE	COAL	1.0	16.0	TOP ERODED
563.0	SHELBURN		UNDERCLAY	5.0	17.0	
558.0	SHELBURN		SHALE	12.0	22.0	WHITE
546.0	CARBONDALE	HERRIN	COAL	0.8	34.0	
545.2	CARBONDALE		UNDERCLAY	2.2	34.8	
543.0	CARBONDALE		SANDSTONE	3.0	37.0	
540.0	CARBONDALE		SHALE	20.0	40.0	

MAPID: 18390244000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.661264

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143507

DATE COLLECTED: 8 / 22 / 1950

SURFACE ELEVATION (FT.): 625.6

LOGGED (FT.): 54.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 173D

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
625.6	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
617.6	PLEISTOCENE		SAND & GRAVEL	18.0	8.0	
599.6	PLEISTOCENE		CLAY	18.0	26.0	
581.6	SHELBURN		SHALE	1.7	44.0	
579.9	SHELBURN	DANVILLE	COAL	6.0	45.7	GOOD
573.9	SHELBURN	DANVILLE	UNCLASSIFIED	0.3	51.7	
573.7	SHELBURN	DANVILLE	COAL	0.6	51.9	
573.1	SHELBURN		UNDERCLAY	1.5	52.5	

**MAPID:** 18390245000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 1    **QUARTERS/FOOTAGES:** NE NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.661264    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143507    **DATE COLLECTED:** 8 / 25 / 1950  
**SURFACE ELEVATION (FT.):** 617.9    **LOGGED (FT.):** 37.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    173F    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.9	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
609.9	PLEISTOCENE		SAND & GRAVEL	8.0	8.0	
601.9	PLEISTOCENE		CLAY	9.0	16.0	
592.9			UNKNOWN	12.0	25.0	TOOLS DROPPED; OLD WORKS

**MAPID:** 18390246000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 1    **QUARTERS/FOOTAGES:** NE NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.661264    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143507    **DATE COLLECTED:** 8 / 20 / 1950  
**SURFACE ELEVATION (FT.):** 616.1    **LOGGED (FT.):** 62.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    173G    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
616.1	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
606.1	PLEISTOCENE		UNCONSOLIDATED	25.0	10.0	
581.1			SHALE & SANDSTONE	27.0	35.0	

**MAPID:** 18390247000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 1    **QUARTERS/FOOTAGES:** NE NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.661264    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143507    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 610.3    **LOGGED (FT.):** 45.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    173I    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.3	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
600.3	PLEISTOCENE		UNCONSOLIDATED	35.0	10.0	
565.3			CAVITY	-	45.0	

MAPID: 18390248000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.661264 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143507 DATE COLLECTED: 8 / 23 / 1950

SURFACE ELEVATION (FT.): 606.3 LOGGED (FT.): 28.5 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 173M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
606.3	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
594.3	PLEISTOCENE		SAND & GRAVEL	12.0	12.0
582.3			SHALE	4.5	24.0
577.8			CAVITY	-	28.5

MAPID: 18390249000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.661264 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143507 DATE COLLECTED:

SURFACE ELEVATION (FT.): 609.4 LOGGED (FT.): 51.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 174A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
609.4	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
601.4	PLEISTOCENE		SAND & GRAVEL	15.0	8.0
586.4	PLEISTOCENE		CLAY	16.0	23.0
570.4			SHALE & SANDSTONE	12.0	39.0

MAPID: 18390250000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.661264 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143507 DATE COLLECTED: 8 / 23 / 1950

SURFACE ELEVATION (FT.): 607.1 LOGGED (FT.): 42.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 174J WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
607.1	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0
602.1	PLEISTOCENE		SAND & GRAVEL	20.0	5.0
582.1	SHELBURN		SHALE	9.0	25.0
573.1	SHELBURN	DANVILLE	COAL	6.6	34.0
566.5	SHELBURN		UNDERCLAY	1.4	40.6



MAPID: 18390251000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.661264 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143507 DATE COLLECTED: 8 / 24 / 1950

SURFACE ELEVATION (FT.): 606.2 LOGGED (FT.): 47.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 174K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
606.2	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0
601.2	PLEISTOCENE		SAND & GRAVEL	16.0	5.0
585.2	PLEISTOCENE		CLAY	20.0	21.0
565.2			SHALE & SANDSTONE	6.0	41.0

MAPID: 18390547000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 660' S line, 300' W line of NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: DATE COLLECTED: 8 / 23 / 1950

SURFACE ELEVATION (FT.): 631.4 LOGGED (FT.): 67.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 198B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
631.4	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
611.4	PLEISTOCENE		CLAY	25.0	20.0
586.4			SHALE	10.0	45.0
576.4			SHALE & SANDSTONE	12.0	55.0

MAPID: 18390548000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 615' S line, 165' W line of NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: DATE COLLECTED: 5 / 25 / 1950

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 198N WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
630.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0
624.0	PLEISTOCENE		SAND & GRAVEL	20.0	6.0
604.0	PLEISTOCENE		CLAY	20.0	26.0
584.0	SHELBURN		SHALE	2.7	46.0
581.3	SHELBURN		COAL	6.0	48.7
575.3	SHELBURN		UNDERCLAY	1.3	54.7

MAPID: 18390549000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 660' S line, 495' W line of NE NE

QUADRANGLE: DANVILLE NW

LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE:

DATE COLLECTED:

SURFACE ELEVATION (FT.): 622.2

LOGGED (FT.): 77.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 198P

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
622.2	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
612.2	PLEISTOCENE		SAND & GRAVEL	35.0	10.0
577.2	PLEISTOCENE		CLAY	12.0	45.0
565.2			SHALE & SANDSTONE	20.0	57.0

MAPID: 18390550000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 1 QUARTERS/FOOTAGES: 660' S line, 330' E line of NE NE

QUADRANGLE: DANVILLE NW

LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE:

DATE COLLECTED: 8 / 24 / 1950

SURFACE ELEVATION (FT.): 608.9

LOGGED (FT.): 57.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 199B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
608.9	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0
602.9	PLEISTOCENE		SAND & GRAVEL	20.0	6.0
582.9	PLEISTOCENE		CLAY	14.0	26.0
568.9			SHALE & SANDSTONE	17.0	40.0

MAPID: 18300858000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: 522' S line, 387' E line of SW SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.683929    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 40.132333    DATE COLLECTED: 1 / 22 / 1946

SURFACE ELEVATION (FT.):    LOGGED (FT.): 77.8    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE PATOKA COLLIERIES CRP    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
-	PLEISTOCENE		SAND	18.0	12.0
-	PLEISTOCENE		SAND	19.0	30.0
-	MODESTO		GRAY SHALE	4.0	49.0
-	MODESTO		BLACK SHALE	6.0	53.0
-	MODESTO		BLACK SHALE	8.0	59.0
-	MODESTO		BLACK SHALE	2.3	67.0
-	CARBONDALE	DANVILLE	COAL	6.2	69.3
-	CARBONDALE	DANVILLE	UNCLASSIFIED	0.9	75.5
-	CARBONDALE	DANVILLE	COAL	1.2	76.4
-	CARBONDALE		UNDERCLAY	0.3	77.6

MAPID: 18300861000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 1320' N line, 660' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.680253 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.141626 DATE COLLECTED: 1 / 22 / 1946

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 98.2 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
635.0	PLEISTOCENE		SAND	25.0	15.0	
610.0	PLEISTOCENE		SAND	20.0	40.0	
590.0	PLEISTOCENE		GRAVEL	4.5	60.0	
585.5	CARBONDALE	DANVILLE	COAL	1.0	64.5	TOP OF COAL ERODED
584.5	CARBONDALE	DANVILLE	UNCLASSIFIED	0.3	65.5	
584.2	CARBONDALE	DANVILLE	COAL	3.0	65.8	
581.2	CARBONDALE	DANVILLE	UNCLASSIFIED	1.2	68.8	
580.0	CARBONDALE	DANVILLE	COAL	0.7	70.0	
579.3	CARBONDALE		UNDERCLAY	0.3	70.7	
579.0	CARBONDALE		GRAY SHALE	8.5	71.0	
570.5	CARBONDALE		CALCAREOUS SHALE	2.5	79.5	
568.0	CARBONDALE		GRAY SHALE	8.0	82.0	
560.0	CARBONDALE		DARK SHALE	2.8	90.0	
557.2	CARBONDALE		GRAY SHALE	0.3	92.8	
556.9	CARBONDALE	HERRIN	COAL	5.0	93.1	
552.0	CARBONDALE		UNDERCLAY	0.1	98.0	

MAPID: 18300861000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 1320' N line, 660' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.680253 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.141626 DATE COLLECTED:

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 98.0 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
535.6	CARBONDALE	DANVILLE	COAL WITH SHALE PARTINGS	6.2	64.4	
529.4	CARBONDALE		CLAYSTONE	0.3	70.6	
529.1	CARBONDALE		GRAY SHALE	8.5	70.9	
520.6	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	2.5	79.4	
518.1	CARBONDALE	ENERGY	GRAY SHALE	8.0	81.9	
510.1	CARBONDALE	ENERGY	DARK GRAY SHALE	2.8	89.9	
507.3	CARBONDALE	ENERGY	GRAY SHALE	0.3	92.7	
507.0	CARBONDALE	HERRIN	COAL	5.0	93.0	

MAPID: 18300953000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: 805' S line, 920' E line

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.681144    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 40.133085    DATE COLLECTED:

SURFACE ELEVATION (FT.): 641.0    LOGGED (FT.): 108.4    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP    406F    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
641.0	PLEISTOCENE		CLAY	4.5	0.0	
636.5	PLEISTOCENE		SANDY CLAY	24.9	4.5	
611.6	PLEISTOCENE		CLAY	20.7	29.4	RED
590.9			GRAY SHALE	24.6	50.1	
566.3	CARBONDALE	DANVILLE	CLOD	0.7	74.7	
565.6	CARBONDALE	DANVILLE	COAL	5.9	75.4	
559.7	CARBONDALE	DANVILLE	CLAYSTONE	0.2	81.3	
559.5	CARBONDALE	DANVILLE	COAL	0.8	81.5	
558.7	CARBONDALE	DANVILLE	CLAYSTONE	0.6	82.3	
558.1	CARBONDALE	DANVILLE	COAL	1.6	82.9	
556.5	CARBONDALE		UNDERCLAY	1.3	84.5	
555.2	CARBONDALE		SHALE	14.7	85.8	
540.6	CARBONDALE		BLACK SHALE	3.2	100.4	
537.4	CARBONDALE	HERRIN	COAL	1.3	103.6	
536.1	CARBONDALE	HERRIN	COAL	0.5	104.9	
535.6	CARBONDALE	HERRIN	COAL	2.2	105.4	
533.5	CARBONDALE		UNDERCLAY	0.9	107.5	

MAPID: 18300956000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 2600' S line, 190' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.678545 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.138014 DATE COLLECTED:

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 40.3 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 403F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0	PLEISTOCENE		CLAY	4.1	0.0	
590.9	PLEISTOCENE		CLAY	10.0	4.1	
580.9	PLEISTOCENE		CLAY	0.9	14.1	
579.9	CARBONDALE	DANVILLE	COAL	1.1	15.1	TOP OF COAL ERODED
578.8	CARBONDALE		UNDERCLAY	3.0	16.2	
575.8	CARBONDALE		SHALE	7.2	19.2	
568.6	CARBONDALE		LIMESTONE	1.4	26.4	
567.2	CARBONDALE		SHALE	1.9	27.8	
565.3	CARBONDALE		LIMESTONE	1.7	29.7	
563.6	CARBONDALE		BLACK SHALE	2.6	31.4	
561.0	CARBONDALE	HERRIN	PYRITE	0.1	34.0	
560.8	CARBONDALE	HERRIN	CLAYSTONE & SILTSTONE	0.2	34.2	
560.7	CARBONDALE	HERRIN	COAL	3.2	34.3	
557.5	CARBONDALE		UNDERCLAY	2.9	37.5	

MAPID: 18300959000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: 3810' S line, 345' E line

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.679116    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 40.14136    DATE COLLECTED:

SURFACE ELEVATION (FT.): 645.0    LOGGED (FT.): 98.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP    400F    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
645.0	PLEISTOCENE		CLAY	7.4	0.0	
637.6	PLEISTOCENE		SANDY CLAY	36.4	7.4	
601.2	PLEISTOCENE		CLAY	18.3	43.8	
582.9	CARBONDALE	DANVILLE	CLOD	0.3	62.1	
582.6	CARBONDALE	DANVILLE	COAL	1.9	62.4	TOP OF COAL ERODED
580.7	CARBONDALE	DANVILLE	PYRITE	0.0	64.3	
580.6	CARBONDALE	DANVILLE	COAL	0.2	64.4	
580.4	CARBONDALE	DANVILLE	PYRITE	0.1	64.6	
580.4	CARBONDALE	DANVILLE	COAL	3.8	64.6	
576.6	CARBONDALE	DANVILLE	RASH	0.3	68.4	
576.4	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.4	68.6	
576.0	CARBONDALE	DANVILLE	COAL	0.7	69.0	
575.4	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.4	69.6	
574.0	CARBONDALE	DANVILLE	COAL	0.8	71.0	
573.2	CARBONDALE		UNDERCLAY	1.9	71.8	
571.3	CARBONDALE		GRAY SHALE	7.1	73.7	
564.2	CARBONDALE		LIMESTONE	2.2	80.8	
562.0	CARBONDALE		DARK GRAY SHALE	4.8	83.0	
557.3	CARBONDALE		BLACK SHALE	3.8	87.7	
553.4	CARBONDALE	HERRIN	COAL	1.8	91.6	
551.6	CARBONDALE	HERRIN	COAL	0.2	93.4	
551.4	CARBONDALE	HERRIN	COAL	1.1	93.6	
550.4	CARBONDALE		UNDERCLAY	2.9	94.6	
547.4	CARBONDALE		SHALE	0.4	97.6	

MAPID: 18300960000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 1190' N line, 1275' W line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.692 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.141974 DATE COLLECTED:

SURFACE ELEVATION (FT.): 618.0 LOGGED (FT.): 71.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 399F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
618.0	PLEISTOCENE		SAND	8.6	0.0	
609.4	PLEISTOCENE		CLAY	9.5	8.6	
599.9	PLEISTOCENE		CLAY	16.0	18.1	
583.9	MODESTO		GRAY SHALE	4.6	34.1	
579.3	CARBONDALE	DANVILLE	PYRITE	0.1	38.7	
579.2	CARBONDALE	DANVILLE	COAL	3.5	38.8	TOP OF COAL ERODED
575.8	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.1	42.2	
575.7	CARBONDALE	DANVILLE	COAL	2.8	42.3	
572.9	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.5	45.1	
572.4	CARBONDALE	DANVILLE	COAL	0.5	45.6	
571.9	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.9	46.1	
571.1	CARBONDALE	DANVILLE	COAL	1.4	46.9	
569.7	CARBONDALE	DANVILLE	COAL	0.3	48.3	
569.4	CARBONDALE		UNDERCLAY	1.5	48.6	
567.9	CARBONDALE		GRAY SHALE	8.6	50.1	
559.3	CARBONDALE		LIMESTONE	2.7	58.7	
556.6	CARBONDALE		DARK GRAY SHALE	3.8	61.4	
552.8	CARBONDALE		BLACK SHALE	1.2	65.2	
551.6	CARBONDALE	HERRIN	COAL	1.5	66.4	
550.1	CARBONDALE		UNDERCLAY	1.9	67.9	
548.2	CARBONDALE		SHALE	1.2	69.8	



MAPID: 18300961000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: 2375' S line, 1160' E line

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.682027    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 40.137427    DATE COLLECTED:

SURFACE ELEVATION (FT.): 598.0    LOGGED (FT.): 48.9    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP    398C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
598.0	PLEISTOCENE		CLAY	5.2	0.0	
592.9	MODESTO		GRAY SHALE	4.9	5.1	
588.0	MODESTO		DARK GRAY SHALE	6.0	10.0	
582.0	CARBONDALE	DANVILLE	COAL	1.0	16.0	
581.0	CARBONDALE	DANVILLE	PYRITE	0.1	17.0	
580.9	CARBONDALE	DANVILLE	COAL	4.7	17.1	2 THIN SULP STRKS NEAR BOTTOM
576.2	CARBONDALE	DANVILLE	PYRITE	0.2	21.8	
576.0	CARBONDALE	DANVILLE	COAL	0.1	22.0	
575.9	CARBONDALE	DANVILLE	BLACK SHALE	0.7	22.1	
575.2	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.6	22.8	
573.6	CARBONDALE	DANVILLE	COAL	0.8	24.4	
572.8	CARBONDALE		UNDERCLAY	1.7	25.2	
571.2	CARBONDALE		GRAY SHALE	5.5	26.8	
565.7	CARBONDALE		LIMESTONE	4.1	32.3	2 HRS TO DRILL
561.6	CARBONDALE		GRAY SHALE	4.8	36.4	
556.8	CARBONDALE		BLACK SHALE	0.7	41.2	
556.2	CARBONDALE	HERRIN	PYRITE	0.9	41.8	UPPER .53' FISHTAILED RESTRED LOWER W/CO
555.3	CARBONDALE	HERRIN	COAL	2.2	42.7	
553.1	CARBONDALE	HERRIN	COAL	0.2	44.9	
552.9	CARBONDALE	HERRIN	COAL	2.7	45.1	.01' SULP STRKS
550.2	CARBONDALE		UNDERCLAY	1.0	47.8	

MAPID: 18300962000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: 1470' S line, 530' E line

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.679752    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 40.134908    DATE COLLECTED:

SURFACE ELEVATION (FT.): 639.0    LOGGED (FT.): 118.9    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP    397F    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
639.0	PLEISTOCENE		CLAY	8.9	0.0	
630.1	PLEISTOCENE		CLAY	9.8	8.9	
620.3	PLEISTOCENE		SANDY CLAY	10.6	18.7	
609.7	PLEISTOCENE		CLAY	18.7	29.3	
591.0	MODESTO		SHALE	29.3	48.0	
561.7	CARBONDALE	DANVILLE	COAL	4.2	77.3	
557.4	CARBONDALE	DANVILLE	PYRITE	0.1	81.6	
557.4	CARBONDALE	DANVILLE	COAL	0.7	81.6	
556.6	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.1	82.4	
556.6	CARBONDALE	DANVILLE	COAL	0.7	82.4	
555.8	CARBONDALE		ROCK	0.3	83.2	
555.5	CARBONDALE		BLACK SHALE	1.0	83.5	
554.5	CARBONDALE		CLAYSTONE & SILTSTONE	0.6	84.5	
553.9	CARBONDALE		COAL	1.4	85.1	
552.5	CARBONDALE		UNDERCLAY	2.4	86.5	
550.1	CARBONDALE		SHALE	5.2	88.9	
544.9	CARBONDALE		LIMESTONE	4.9	94.1	4HRS DRILL
540.0	CARBONDALE		GRAY SHALE	2.3	99.0	
537.6	CARBONDALE		BLACK SHALE	7.9	101.4	
529.7	CARBONDALE	HERRIN	PYRITE	0.8	109.3	
528.9	CARBONDALE	HERRIN	COAL	7.4	110.1	
521.5	CARBONDALE		UNDERCLAY	1.4	117.5	

MAPID: 18300964000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 3040' S line, 450' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.679484 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.139237

DATE COLLECTED:

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 98.1

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 395F

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
630.0	PLEISTOCENE		SANDY CLAY	27.0	0.0
603.0	PLEISTOCENE		CLAY	19.4	27.0
583.6	MODESTO		GRAY SHALE	8.5	46.4
575.1	MODESTO		GRAY SHALE	1.6	54.9
573.5	CARBONDALE	DANVILLE	COAL	0.9	56.5
572.6	CARBONDALE	DANVILLE	PYRITE	0.1	57.4
572.5	CARBONDALE	DANVILLE	COAL	2.3	57.5
570.2	CARBONDALE	DANVILLE	COAL	0.8	59.8
569.4	CARBONDALE	DANVILLE	COAL	1.9	60.6
567.5	CARBONDALE	DANVILLE	COAL	0.3	62.5
567.2	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	2.3	62.8
564.9	CARBONDALE	DANVILLE	COAL	1.2	65.1
563.8	CARBONDALE		UNDERCLAY	1.0	66.2
562.8	CARBONDALE		GRAY SHALE	9.5	67.2
553.3	CARBONDALE		LIMESTONE	4.8	76.7
548.5	CARBONDALE		GRAY SHALE	1.2	81.5
547.3	CARBONDALE		BLACK SHALE	2.5	82.7
544.9	CARBONDALE		BLACK SHALE	0.2	85.1
544.6	CARBONDALE		GRAY SHALE	2.6	85.4
542.0	CARBONDALE	HERRIN	COAL	2.5	88.0
539.5	CARBONDALE	HERRIN	CLAYSTONE & SILTSTONE	0.3	90.5
539.3	CARBONDALE	HERRIN	COAL	1.5	90.7
537.7	CARBONDALE	HERRIN	COAL	3.5	92.3
534.3	CARBONDALE		UNDERCLAY	1.4	95.7
532.9	CARBONDALE		GRAY SHALE	1.0	97.1

MAPID: 18300965000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 3740' S line, 1110' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.681868 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.141192 DATE COLLECTED:

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 93.4 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 394F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
640.0	PLEISTOCENE		CLAY	6.6	0.0
633.4	PLEISTOCENE		SANDY CLAY	30.6	6.6
602.8	PLEISTOCENE		CLAY	19.0	37.2
583.8	MODESTO		GRAY SHALE	1.2	56.2
582.6	CARBONDALE	DANVILLE	CLOD	0.4	57.4
582.3	CARBONDALE	DANVILLE	COAL	6.5	57.7
575.7	CARBONDALE	DANVILLE	COAL	0.5	64.3
575.3	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.9	64.7
574.4	CARBONDALE	DANVILLE	COAL	1.1	65.6
573.3	CARBONDALE		UNDERCLAY	1.0	66.7
572.3	CARBONDALE		GRAY SHALE	11.8	67.7
560.6	CARBONDALE		LIMESTONE	1.2	79.4
559.3	CARBONDALE		GRAY SHALE	3.3	80.7
556.0	CARBONDALE		BLACK SHALE	3.8	84.0
552.2	CARBONDALE	HERRIN	COAL	2.8	87.8
549.4	CARBONDALE	HERRIN	PYRITE	0.1	90.6
549.3	CARBONDALE	HERRIN	COAL	1.1	90.7
548.2	CARBONDALE		UNDERCLAY	1.3	91.8
546.9	CARBONDALE		SHALE	0.3	93.1

MAPID: 18300966000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 740' N line, 3650' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.691008 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.143217 DATE COLLECTED:

SURFACE ELEVATION (FT.): 641.0 LOGGED (FT.): 98.6 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 392F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
641.0	PLEISTOCENE		CLAY	4.2	0.0
636.8	PLEISTOCENE		SANDY CLAY	36.9	4.2
599.9	PLEISTOCENE		CLAY	16.7	41.1
583.2	MODESTO		GRAY SHALE	5.2	57.8
578.0	CARBONDALE	DANVILLE	CLOD	0.3	63.0
577.7	CARBONDALE	DANVILLE	COAL	1.1	63.3
576.6	CARBONDALE	DANVILLE	PYRITE	0.1	64.4
576.5	CARBONDALE	DANVILLE	COAL	6.2	64.5
570.3	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.4	70.7
569.9	CARBONDALE	DANVILLE	COAL	0.7	71.1
569.2	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.9	71.8
567.3	CARBONDALE	DANVILLE	COAL	0.7	73.7
566.6	CARBONDALE	DANVILLE	PYRITE	0.0	74.4
566.5	CARBONDALE	DANVILLE	COAL	0.2	74.5
566.4	CARBONDALE		UNDERCLAY	1.4	74.6
565.0	CARBONDALE		GRAY SHALE	10.3	76.0
554.7	CARBONDALE		LIMESTONE	2.2	86.3
552.5	CARBONDALE		GRAY SHALE	2.4	88.5
550.1	CARBONDALE		BLACK SHALE	1.1	90.9
549.0	CARBONDALE	HERRIN	COAL	0.1	92.0
548.9	CARBONDALE	HERRIN	PYRITE	0.3	92.1
548.6	CARBONDALE	HERRIN	COAL	1.4	92.4 .06' RASH
547.2	CARBONDALE	HERRIN	PYRITE	0.1	93.8
547.1	CARBONDALE	HERRIN	COAL	1.8	93.9
545.3	CARBONDALE		UNDERCLAY	1.9	95.7
543.5	CARBONDALE		GRAY SHALE	1.0	97.5

MAPID: 18300967000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 2330' S line, 1620' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.683681 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.13732 DATE COLLECTED:

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 64.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 391F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0	PLEISTOCENE		SANDY CLAY	6.6	0.0
603.4	PLEISTOCENE		CLAY	14.9	6.6
588.5	MODESTO		GRAY SHALE	6.6	21.5
581.9	CARBONDALE	DANVILLE	COAL	5.5	28.1
576.4	CARBONDALE	DANVILLE	PYRITE	0.1	33.6
576.3	CARBONDALE	DANVILLE	COAL	0.9	33.7
575.4	CARBONDALE	DANVILLE	COAL	1.3	34.6
574.1	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.3	35.9
572.7	CARBONDALE	DANVILLE	COAL	1.1	37.3
571.6	CARBONDALE		UNDERCLAY	1.6	38.4
570.0	CARBONDALE		GRAY SHALE	12.3	40.0
557.7	CARBONDALE		LIMESTONE	0.6	52.3
557.1	CARBONDALE		LIMESTONE	2.0	52.9
555.1	CARBONDALE		GRAY SHALE	0.8	54.9
554.3	CARBONDALE		BLACK SHALE	1.6	55.7
552.8	CARBONDALE	HERRIN	PYRITE	0.2	57.2
552.6	CARBONDALE	HERRIN	COAL	1.6	57.4
551.0	CARBONDALE	HERRIN	PYRITE	0.0	59.0
551.0	CARBONDALE	HERRIN	COAL	1.4	59.0
549.6	CARBONDALE		UNDERCLAY	1.9	60.4
547.7	CARBONDALE		SHALE	2.6	62.3

MAPID: 18300968000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 3350' S line, 820' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.680817 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.140105 DATE COLLECTED:

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 89.4 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 390F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	1.4	0.0
618.6	PLEISTOCENE		SANDY CLAY	26.4	1.4
592.2	PLEISTOCENE		SANDY CLAY	14.3	27.8
577.9	MODESTO		GRAY SHALE	7.4	42.1
570.5	CARBONDALE	DANVILLE	COAL	1.1	49.5
569.4	CARBONDALE	DANVILLE	PYRITE	0.0	50.6
569.4	CARBONDALE	DANVILLE	COAL	3.5	50.6
565.9	CARBONDALE	DANVILLE	COAL	0.2	54.1
565.8	CARBONDALE	DANVILLE	COAL	0.6	54.2
565.2	CARBONDALE	DANVILLE	PYRITE	0.1	54.8
565.1	CARBONDALE	DANVILLE	COAL	1.1	54.9
564.0	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.9	56.0
563.0	CARBONDALE	DANVILLE	COAL	1.3	57.0
561.8	CARBONDALE		UNDERCLAY	1.2	58.2
560.6	CARBONDALE		GRAY SHALE	9.7	59.4
550.9	CARBONDALE		LIMESTONE	2.4	69.1
548.5	CARBONDALE		GRAY SHALE	1.4	71.5
547.1	CARBONDALE		DARK GRAY SHALE	2.9	72.9
544.1	CARBONDALE		BLACK SHALE	6.2	75.9
538.0	CARBONDALE	HERRIN	COAL	0.3	82.0
537.6	CARBONDALE	HERRIN	PYRITE	0.1	82.4
537.5	CARBONDALE	HERRIN	COAL	1.0	82.5
536.5	CARBONDALE	HERRIN	PYRITE	0.0	83.5
536.5	CARBONDALE	HERRIN	COAL	0.4	83.5
536.2	CARBONDALE	HERRIN	PYRITE	0.0	83.8
536.1	CARBONDALE	HERRIN	COAL	0.2	83.9
535.9	CARBONDALE	HERRIN	PYRITE	0.0	84.1
535.9	CARBONDALE	HERRIN	COAL	1.7	84.1
534.2	CARBONDALE	HERRIN	RASH	0.0	85.8
534.2	CARBONDALE	HERRIN	COAL	1.3	85.8
532.9	CARBONDALE	HERRIN	PYRITE	0.0	87.1
532.9	CARBONDALE	HERRIN	COAL	1.4	87.1
531.5	CARBONDALE		UNDERCLAY	0.9	88.5

MAPID: 18300973000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: 2370' S line, 500' E line

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.679655    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 40.13739    DATE COLLECTED:

SURFACE ELEVATION (FT.): 596.0    LOGGED (FT.): 64.6    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP    383C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
596.0	PLEISTOCENE		SANDY CLAY	12.2	0.0	
583.8	MODESTO		GRAY SHALE	15.0	12.2	
568.8	MODESTO		BLACK SHALE	0.8	27.2	
568.0	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.4	28.0	
567.7	CARBONDALE	DANVILLE	COAL	5.3	28.3	
562.4	CARBONDALE	DANVILLE	RASH	0.2	33.6	
562.2	CARBONDALE	DANVILLE	SHALE	1.1	33.8	CLY W/.08' COAL AT 34.72
561.1	CARBONDALE	DANVILLE	COAL	0.9	34.9	TOP .31' DIRTY
560.1	CARBONDALE		UNDERCLAY	0.8	35.9	
559.3	CARBONDALE		UNDERCLAY	0.5	36.7	
558.8	CARBONDALE		SHALE	4.0	37.2	
554.8	CARBONDALE		LIMESTONE	0.4	41.2	
554.4	CARBONDALE		LIMESTONE	1.7	41.6	.50' SOFT LS
552.7	CARBONDALE		LIMESTONE	0.9	43.3	
551.8	CARBONDALE		GRAY SHALE	5.0	44.2	.38' LS
546.8	CARBONDALE		GRAY SHALE	1.9	49.2	
544.9	CARBONDALE		BLACK SHALE	5.0	51.1	
539.9	CARBONDALE	HERRIN	COAL	4.3	56.1	
535.5	CARBONDALE	HERRIN	CLAYSTONE & SILTSTONE	0.1	60.5	
535.4	CARBONDALE	HERRIN	COAL	1.7	60.6	
533.7	CARBONDALE	HERRIN	PYRITE	0.1	62.3	
533.6	CARBONDALE	HERRIN	COAL	1.5	62.4	.01 SULPHUR STREAKS
532.2	CARBONDALE		UNDERCLAY	0.8	63.8	



MAPID: 18300976000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: 610' N line, 750' W line

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.693876    GEOLOGIST: C TREWORYG

CONFIDENTIAL: N    LATITUDE: 40.143573    DATE COLLECTED:

SURFACE ELEVATION (FT.): 623.0    LOGGED (FT.): 55.4    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP    380C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
623.0	PLEISTOCENE		CLAY	18.7	0.0
604.3	PLEISTOCENE		CLAY	9.6	18.7
594.7	PLEISTOCENE		BOULDER	3.1	28.3
591.6	PLEISTOCENE		SAND	5.9	31.4
585.7	PLEISTOCENE		CLAY	1.2	37.3
584.5	MODESTO		SHALE	1.7	38.5
582.8	MODESTO		BLACK SHALE	4.9	40.2
577.9	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.2	45.1
577.7	CARBONDALE	DANVILLE	COAL	4.9	45.3
572.7	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.3	50.3
572.5	CARBONDALE	DANVILLE	COAL	1.4	50.5
571.1	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.9	51.9
570.2	CARBONDALE	DANVILLE	COAL	0.9	52.8
569.4	CARBONDALE		UNDERCLAY	1.2	53.6
568.2	CARBONDALE		SHALE	0.6	54.8

MAPID: 1830098000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 1970' S line, 2300' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.686119 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.136352 DATE COLLECTED:

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 376C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		CLAY	8.1	0.0	
631.9	PLEISTOCENE		CLAY	10.2	8.1	
621.7	PLEISTOCENE		CLAY	11.4	18.3	
610.3	PLEISTOCENE		CLAY	7.4	29.7	
602.9	MODESTO		GRAY SHALE	7.3	37.1	
595.6	MODESTO		DARK SHALE	5.7	44.4	
590.0	CARBONDALE	DANVILLE	CLOD	0.5	50.0	LOWER 1/2 VERY DARK
589.5	CARBONDALE	DANVILLE	COAL	5.6	50.5	
583.9	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.3	56.1	
583.6	CARBONDALE	DANVILLE	COAL	0.4	56.4	
583.2	CARBONDALE	DANVILLE	BLACK SHALE	1.0	56.8	
582.2	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.7	57.8	
581.5	CARBONDALE	DANVILLE	COAL	0.9	58.5	.04' CLY BAND
580.6	CARBONDALE		UNDERCLAY	0.6	59.4	.10 REC IN CORE

MAPID: 18300997000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 600' S line, 2180' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.685667 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.132567 DATE COLLECTED:

SURFACE ELEVATION (FT.): 627.0 LOGGED (FT.): 66.3 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 359C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
627.0	PLEISTOCENE		CLAY	2.4	0.0	
624.6	PLEISTOCENE		CLAY	9.1	2.4	
615.5	PLEISTOCENE		CLAY	5.8	11.5	
609.7	PLEISTOCENE		SAND	4.5	17.3	
605.2	PLEISTOCENE		CLAY	14.5	21.8	
590.7	MODESTO		GRAY SHALE	19.6	36.3	
571.1	CARBONDALE	DANVILLE	CLOD	0.6	55.9	
570.4	CARBONDALE	DANVILLE	COAL	6.3	56.6	
564.2	CARBONDALE	DANVILLE	COAL	0.3	62.8	
563.9	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.8	63.1	
562.1	CARBONDALE	DANVILLE	COAL	1.2	64.9	
561.0	CARBONDALE		UNDERCLAY	0.3	66.0	

MAPID: 18301001000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 480' N line, 300' W line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.695492 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.143929 DATE COLLECTED:

SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 68.4 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 355F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
625.0	PLEISTOCENE		SANDY CLAY	21.5	0.0	
603.5	PLEISTOCENE		CLAY	17.6	21.5	
585.9	PLEISTOCENE		CLAY	18.0	39.1	
567.9	CARBONDALE	DANVILLE	CLOD	0.3	57.1	TOP OF COAL ERODED
567.6	CARBONDALE	DANVILLE	PYRITE	0.2	57.4	
567.4	CARBONDALE	DANVILLE	COAL	7.7	57.6	
559.7	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.6	65.3	
559.1	CARBONDALE	DANVILLE	COAL	1.5	65.9	
557.6	CARBONDALE		UNDERCLAY	1.0	67.4	

MAPID: 18301002000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 480' N line, 300' W line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.695492 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.143929 DATE COLLECTED:

SURFACE ELEVATION (FT.): 623.0 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 354F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
623.0	PLEISTOCENE		SANDY CLAY	18.8	0.0	
604.2	PLEISTOCENE		CLAY	21.9	18.8	
582.3	PLEISTOCENE		CLAY	0.8	40.7	
581.5	MODESTO		BLACK SHALE	2.5	41.5	
579.0	CARBONDALE	DANVILLE	COAL	6.2	44.0	
572.8	CARBONDALE	DANVILLE	COAL	1.1	50.2	
571.7	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.9	51.3	
570.8	CARBONDALE	DANVILLE	COAL	1.5	52.2	
569.3	CARBONDALE		UNDERCLAY	0.6	53.7	
568.7	CARBONDALE		GRAY SHALE	1.7	54.3	

MAPID: 18301003000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 960' N line, 340' W line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.695358 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.142605 DATE COLLECTED:

SURFACE ELEVATION (FT.): 645.0 LOGGED (FT.): 83.3 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 353F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
645.0	PLEISTOCENE		CLAY	6.7	0.0
638.3	PLEISTOCENE		CLAY	7.2	6.7
631.1	PLEISTOCENE		SAND	48.4	13.9
582.7	MODESTO		GRAY SHALE	12.4	62.3
570.3	CARBONDALE	DANVILLE	CLOD	0.5	74.7
569.8	CARBONDALE	DANVILLE	COAL	6.8	75.2
563.0	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.2	82.0
562.8	CARBONDALE	DANVILLE	COAL	0.3	82.2
562.5	CARBONDALE	DANVILLE	COAL	0.5	82.5
562.0	CARBONDALE		UNDERCLAY	0.3	83.0

MAPID: 18301004000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 2430' S line, 1180' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.682099 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.13758 DATE COLLECTED:

SURFACE ELEVATION (FT.): 598.0 LOGGED (FT.): 27.5 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 352F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
598.0	PLEISTOCENE		GRAVEL	1.9	0.0
596.1	PLEISTOCENE		CLAY	3.4	1.9
592.7	MODESTO		GRAY SHALE	10.6	5.3
582.1	CARBONDALE	DANVILLE	CLOD	0.6	15.9
581.5	CARBONDALE	DANVILLE	COAL	6.1	16.5
575.4	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.3	22.6
575.1	CARBONDALE	DANVILLE	COAL	0.6	22.9
574.5	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.1	23.5
573.5	CARBONDALE	DANVILLE	COAL	1.3	24.5
572.2	CARBONDALE		UNDERCLAY	1.7	25.8

MAPID: 18301005000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 1890' S line, 330' W line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.69544 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.136227 DATE COLLECTED:

SURFACE ELEVATION (FT.): 644.0 LOGGED (FT.): 91.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 351F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
644.0	PLEISTOCENE		CLAY	8.7	0.0	
635.3	PLEISTOCENE		SANDY CLAY	30.1	8.7	
605.2	PLEISTOCENE		CLAY	23.1	38.8	
582.1	PLEISTOCENE		CLAY	17.4	61.9	
564.7	PLEISTOCENE		CLAY	8.5	79.3	
556.2	CARBONDALE	DANVILLE	COAL	0.9	87.8	TOP OF COAL ERODED
555.3	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.4	88.7	
554.9	CARBONDALE	DANVILLE	COAL	1.1	89.1	
553.8	CARBONDALE		UNDERCLAY	0.9	90.2	
552.9	CARBONDALE		GRAY SHALE	0.7	91.1	

MAPID: 18301006000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 2250' S line, 580' W line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.694534 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.13721 DATE COLLECTED:

SURFACE ELEVATION (FT.): 643.0 LOGGED (FT.): 78.9 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 350F WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
643.0	PLEISTOCENE		CLAY	8.7	0.0	
634.3	PLEISTOCENE		SANDY CLAY	26.8	8.7	
607.5	PLEISTOCENE		CLAY	17.6	35.5	
589.9	PLEISTOCENE		CLAY	25.8	53.1	

MAPID: 18301007000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 2080' S line, 1680' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.683893 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.136633 DATE COLLECTED:

SURFACE ELEVATION (FT.): 637.0 LOGGED (FT.): 67.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 349F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
637.0	PLEISTOCENE		CLAY	6.3	0.0
630.7	PLEISTOCENE		SANDY CLAY	31.8	6.3
598.9	PLEISTOCENE		CLAY	11.6	38.1
587.3	MODESTO		GRAY SHALE	3.7	49.7
583.6	CARBONDALE	DANVILLE	CLOD	0.8	53.4
582.8	CARBONDALE	DANVILLE	COAL	6.4	54.2
576.4	CARBONDALE	DANVILLE	PYRITE	0.2	60.6
576.2	CARBONDALE	DANVILLE	COAL	0.7	60.8
575.5	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.2	61.5
574.3	CARBONDALE	DANVILLE	COAL	1.7	62.7
572.6	CARBONDALE		UNDERCLAY	1.4	64.4
571.2	CARBONDALE		SHALE	1.2	65.8

MAPID: 18301008000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 1470' S line, 2830' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.688017 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.13499 DATE COLLECTED:

SURFACE ELEVATION (FT.): 644.0 LOGGED (FT.): 76.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 348F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
644.0	PLEISTOCENE		CLAY	5.0	0.0
639.0	PLEISTOCENE		SANDY CLAY	32.8	5.0
606.2	PLEISTOCENE		CLAY	19.3	37.8
586.9	MODESTO		GRAY SHALE	7.8	57.1
579.1	CARBONDALE	DANVILLE	CLOD	1.2	64.9
577.9	CARBONDALE	DANVILLE	COAL	5.3	66.1
572.6	CARBONDALE	DANVILLE	PYRITE	0.2	71.4
572.4	CARBONDALE	DANVILLE	COAL	1.2	71.6
571.2	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.8	72.8
570.4	CARBONDALE	DANVILLE	COAL	1.4	73.6
569.0	CARBONDALE		UNDERCLAY	1.8	75.0

MAPID: 18301009000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 3570' S line, 4600' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.69441 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.140851 DATE COLLECTED:

SURFACE ELEVATION (FT.): 644.0 LOGGED (FT.): 78.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 347F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
644.0	PLEISTOCENE		CLAY	6.4	0.0
637.6	PLEISTOCENE		SANDY CLAY	43.0	6.4
594.6	MODESTO		RED SHALE	4.9	49.4
589.7	MODESTO		RED SHALE	12.1	54.3
577.6	MODESTO		GRAY SHALE	2.1	66.4
575.5	CARBONDALE	DANVILLE	COAL	7.4	68.5
568.1	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.8	75.9
567.3	CARBONDALE	DANVILLE	COAL	0.9	76.7
566.4	CARBONDALE		UNDERCLAY	1.1	77.6

MAPID: 18301011000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 3640' S line, 3240' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689523 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.140995 DATE COLLECTED:

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 73.4 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 345F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
640.0	PLEISTOCENE		CLAY	5.9	0.0
634.1	PLEISTOCENE		SANDY CLAY	37.2	5.9
596.9	PLEISTOCENE		CLAY	16.4	43.1
580.5	PLEISTOCENE		CLAY	0.9	59.5
579.6	CARBONDALE	DANVILLE	COAL	7.2	60.4
572.4	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.4	67.6
572.0	CARBONDALE	DANVILLE	COAL	2.2	68.0
569.8	CARBONDALE		UNDERCLAY	1.3	70.2
568.5	CARBONDALE		SHALE	1.9	71.5

MAPID: 18301016000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 35' S line, 1940' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684798 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.130999 DATE COLLECTED:

SURFACE ELEVATION (FT.): 643.0 LOGGED (FT.): 83.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 340F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
643.0	PLEISTOCENE		CLAY	12.1	0.0	
630.9	PLEISTOCENE		CLAY	22.4	12.1	
608.5	PLEISTOCENE		CLAY	18.1	34.5	
590.4	MODESTO		SHALE	17.9	52.6	
572.5	CARBONDALE	DANVILLE	CLOD	0.7	70.5	
571.8	CARBONDALE	DANVILLE	COAL	7.2	71.2	
564.6	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.9	78.4	
563.7	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.5	79.3	
562.2	CARBONDALE	DANVILLE	COAL	2.2	80.8	

MAPID: 18301019000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 160' N line, 2760' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.687816 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.144819 DATE COLLECTED:

SURFACE ELEVATION (FT.): 642.0 LOGGED (FT.): 65.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 337F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
642.0	PLEISTOCENE		CLAY	2.0	0.0	
640.0	PLEISTOCENE		CLAY	10.4	2.0	
629.6	PLEISTOCENE		SANDY CLAY	25.4	12.4	
604.2	PLEISTOCENE		CLAY	20.0	37.8	
584.2	PLEISTOCENE		CLAY	0.5	57.8	
583.7	CARBONDALE	DANVILLE	COAL	0.3	58.3	TOP OF COAL ERODED
583.4	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.6	58.6	
582.8	CARBONDALE	DANVILLE	COAL	0.8	59.2	
582.0	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.2	60.0	
581.8	CARBONDALE	DANVILLE	COAL	2.6	60.2	
579.2	CARBONDALE		CLAYSTONE & SILTSTONE	1.8	62.8	
577.5	CARBONDALE		UNDERCLAY	1.3	64.5	



MAPID: 18301022000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 1590' S line, 1950' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684856 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.13529 DATE COLLECTED:

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 59.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 334F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
640.0	PLEISTOCENE		CLAY	8.2	0.0
631.8	PLEISTOCENE		SANDY CLAY	14.3	8.2
617.5	PLEISTOCENE		CLAY	14.3	22.5
603.2	MODESTO		SHALE	13.6	36.8
589.6	CARBONDALE	DANVILLE	CLOD	0.3	50.4
589.3	CARBONDALE	DANVILLE	COAL	4.8	50.7
584.5	CARBONDALE	DANVILLE	COAL	1.0	55.5
583.5	CARBONDALE	DANVILLE	COAL	0.3	56.5
583.2	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.2	56.8
582.0	CARBONDALE	DANVILLE	COAL	0.9	58.0
581.1	CARBONDALE		UNDERCLAY	0.8	58.9

MAPID: 18301023000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 120' S line, 3620' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.690839 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.131293 DATE COLLECTED:

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 76.5 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 333F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
640.0	PLEISTOCENE		SANDY CLAY	29.7	0.0
610.3	PLEISTOCENE		CLAY	21.7	29.7
588.6	MODESTO		SHALE	11.1	51.4
577.5	CARBONDALE	DANVILLE	CLOD	1.3	62.5
576.2	CARBONDALE	DANVILLE	COAL	5.8	63.8
570.4	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.8	69.6
568.6	CARBONDALE	DANVILLE	COAL	1.8	71.4
566.8	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.7	73.2
566.1	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.1	73.9
565.0	CARBONDALE		COAL	0.7	75.0
564.3	CARBONDALE		SHALE	0.8	75.7

MAPID: 18301025000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 620' S line, 2310' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.686137 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.132626 DATE COLLECTED:

SURFACE ELEVATION (FT.): 627.0 LOGGED (FT.): 68.3 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 331F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
627.0	PLEISTOCENE		CLAY	3.6	0.0
623.4	PLEISTOCENE		CLAY	11.2	3.6
612.2	PLEISTOCENE		CLAY	9.9	14.8
602.3	PLEISTOCENE		CLAY	14.7	24.7
587.6	MODESTO		SHALE	17.5	39.4
570.1	CARBONDALE	DANVILLE	CLOD	0.3	56.9
569.8	CARBONDALE	DANVILLE	COAL	7.2	57.2
562.6	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.6	64.4
562.0	CARBONDALE	DANVILLE	COAL	1.8	65.0
560.2	CARBONDALE		UNDERCLAY	1.5	66.8

MAPID: 18301026000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: 690' S line, 2680' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.687469 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.132832 DATE COLLECTED:

SURFACE ELEVATION (FT.): 633.0 LOGGED (FT.): 71.4 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
633.0	PLEISTOCENE		CLAY	5.8	0.0
627.2	PLEISTOCENE		CLAY	32.0	5.8
595.2	PLEISTOCENE		CLAY	7.3	37.8
587.9	MODESTO		SHALE	14.4	45.1
573.5	CARBONDALE	DANVILLE	CLOD	0.6	59.5
572.9	CARBONDALE	DANVILLE	COAL	6.1	60.1
566.8	CARBONDALE	DANVILLE	PYRITE	0.2	66.2
566.6	CARBONDALE	DANVILLE	COAL	1.1	66.4
565.5	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.7	67.5
564.8	CARBONDALE	DANVILLE	COAL	1.3	68.2
563.5	CARBONDALE		UNDERCLAY	0.7	69.5
562.8	CARBONDALE		SHALE	1.2	70.2

MAPID: 18390090000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SW SE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.69077 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.131858 DATE COLLECTED: 3 / 9 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 66.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 11 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
626.0	PLEISTOCENE		SAND & GRAVEL	4.0	14.0	
622.0	PLEISTOCENE		SAND/CLAY	15.0	18.0	SHALEY
607.0	PLEISTOCENE		SAND & GRAVEL	9.0	33.0	
598.0	SHELBURN		SHALE	11.0	42.0	RED
587.0	SHELBURN		GRAY SHALE	7.5	53.0	
579.5	SHELBURN	DANVILLE	COAL	6.3	60.5	GOOD

MAPID: 18390091000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689593 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.13274 DATE COLLECTED: 3 / 5 / 1946

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 97.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 12 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
633.0	PLEISTOCENE			10.0	7.0	& HARDPAN
623.0	PLEISTOCENE		SAND	41.0	17.0	& HARDPAN
582.0	SHELBURN		GRAY SHALE	9.3	58.0	
572.7	SHELBURN	DANVILLE	COAL	5.3	67.3	
567.4	SHELBURN		UNDERCLAY	3.9	72.6	
563.5	SHELBURN			1.2	76.5	
562.3	SHELBURN		UNDERCLAY	2.3	77.7	
560.0	SHELBURN		GRAY SHALE	6.7	80.0	
553.3	SHELBURN		SANDSTONE	3.2	86.7	HARD
550.2			BLACK SHALE	4.2	89.8	
546.0			UNDERCLAY	2.0	94.0	NO COAL
544.0			LIMESTONE	1.0	96.0	

MAPID: 18390092000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.686064    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.131814    DATE COLLECTED: 2 / 8 / 1936

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 78.3    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    13    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND	5.0	10.0	
625.0	SHELBURN		SANDY SHALE	16.0	15.0	
609.0	SHELBURN		SHALE	5.0	31.0	RED
604.0	SHELBURN		UNKNOWN	4.0	36.0	DRILLER REPORTS SAND & GRAVEL
600.0	SHELBURN		SHALE	6.0	40.0	RED
594.0	SHELBURN		GRAY SHALE	16.5	46.0	
577.5	SHELBURN		SHALE	3.0	62.5	BLUE
574.5	SHELBURN		GRAY SHALE	6.5	65.5	
568.0	SHELBURN	DANVILLE	COAL	6.3	72.0	

MAPID: 18390100000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.694296    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.132781    DATE COLLECTED: 4 / 11 / 1945

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 85.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    34A    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	& CLAY
625.0	PLEISTOCENE		CLAY	35.0	15.0	BOULD & HARDPAN
590.0	PLEISTOCENE		CLAY	26.0	50.0	& GRAVEL
564.0	SHELBURN		SANDSTONE	2.0	76.0	
562.0	SHELBURN		CLAYSTONE	7.0	78.0	WHITE TOP

MAPID: 18390101000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.694296    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.132781    DATE COLLECTED: 4 / 19 / 1945

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 80.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    34A1    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	AND CLAY
625.0	PLEISTOCENE		CLAY	35.0	15.0	AND GRAVEL
590.0	PLEISTOCENE		CLAY	26.0	50.0	
564.0	SHELBURN	DANVILLE	COAL	1.0	76.0	BLOOM; TOP ERODED
563.0	SHELBURN		UNDERCLAY	3.0	77.0	

MAPID: 18390102000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.694296    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.132781    DATE COLLECTED: 7 / 25 / 1963

SURFACE ELEVATION (FT.): 642.5    LOGGED (FT.): 90.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    34JA    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
642.5	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
636.5	PLEISTOCENE		CLAY	11.0	6.0	& SAND
625.5	PLEISTOCENE		SAND & GRAVEL	60.0	17.0	AND HARDPAN
565.5	SHELBURN		DARK SHALE	2.0	77.0	SOFT
563.5	SHELBURN	DANVILLE	COAL	1.0	79.0	
562.5	SHELBURN		MICACEOUS SHALE	10.0	80.0	SOFT

MAPID: 18390103000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.694296 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.132781 DATE COLLECTED: 7 / 25 / 1963

SURFACE ELEVATION (FT.): 643.8 LOGGED (FT.): 96.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 34JB WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
643.8	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
632.8	PLEISTOCENE		CLAY	12.0	11.0	
620.8	PLEISTOCENE		SAND & GRAVEL	55.0	23.0	AND HARDPAN
565.8	SHELBURN		SHALE	4.0	78.0	SOFT
561.8	SHELBURN	DANVILLE	COAL	2.0	82.0	NO GOOD; SOFT
559.8	SHELBURN		UNDERCLAY	2.0	84.0	
557.8	SHELBURN		SHALE	10.0	86.0	WHITE

MAPID: 18390104000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689593 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.13274 DATE COLLECTED: 4 / 23 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 76.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 36A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
627.0	SHELBURN		SANDY SHALE	9.0	13.0	WHITE
618.0	SHELBURN		SANDSTONE	1.0	22.0	
617.0	SHELBURN		SANDY SHALE	10.0	23.0	
607.0	SHELBURN		UNKNOWN	5.0	33.0	DRILLER REPORTS SAND & GRAVEL
602.0	SHELBURN		SANDY SHALE	21.0	38.0	RED
581.0	SHELBURN		SANDY SHALE	12.0	59.0	GRAY
569.0	SHELBURN		SHALE	3.0	71.0	GREEN
566.0	SHELBURN	DANVILLE	SANDSTONE/COAL	1.0	74.0	
565.0	SHELBURN		UNDERCLAY	1.0	75.0	

MAPID: 18390105000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.689593    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.13274    DATE COLLECTED: 2 / 7 / 1936

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 71.3    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    37    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND & GRAVEL	8.0	10.0	
622.0	SHELBURN		SANDY SHALE	15.0	18.0	WHITE
607.0	SHELBURN		SANDY SHALE	6.0	33.0	SOFT
601.0	SHELBURN		UNKNOWN	12.0	39.0	DRILLER REPORTS SAND & GRAVEL
589.0	SHELBURN		SHALE	7.5	51.0	RED
581.5	SHELBURN		GRAY SHALE	6.0	58.5	
575.5	SHELBURN		BLACK SHALE	0.6	64.5	
574.9	SHELBURN	DANVILLE	COAL	6.2	65.1	

MAPID: 18390106000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.689593    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.13274    DATE COLLECTED: 4 / 0 / 1946

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 96.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    37A    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
633.0	PLEISTOCENE		CLAY	53.0	7.0	& GRAVEL
580.0	SHELBURN		SHALE	3.0	60.0	
577.0	SHELBURN		SHALE	0.7	63.0	
576.3	SHELBURN	DANVILLE	COAL	5.7	63.7	
570.7	SHELBURN		UNDERCLAY	2.2	69.3	
568.5	SHELBURN	DANVILLE	COAL	0.8	71.5	
567.7	SHELBURN		UNDERCLAY	8.9	72.3	
558.7	SHELBURN		SANDSTONE	2.1	81.3	
556.7	SHELBURN		SHALE	1.3	83.3	
555.3	SHELBURN		SANDSTONE	1.8	84.7	
553.6	SHELBURN		GRAY SHALE	1.8	86.4	
551.8	CARBONDALE	ANNA	BLACK SHALE	1.6	88.2	
550.2	CARBONDALE	HERRIN	COAL	1.5	89.8	
548.7	CARBONDALE		UNDERCLAY	3.8	91.3	
545.0	CARBONDALE		LIMESTONE	1.0	95.0	

MAPID: 18390107000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SW SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.684887    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.132698    DATE COLLECTED: 10 / 30 / 1935

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 59.4    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    39    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	2.0	0.0	
638.0	PLEISTOCENE		SAND/CLAY	11.0	2.0	SHALEY
627.0	PLEISTOCENE		SAND & GRAVEL	9.0	13.0	
618.0	SHELBURN		SANDY SHALE	10.0	22.0	RED
608.0	SHELBURN		SHALE	21.0	32.0	BLUE
587.0	SHELBURN	DANVILLE	COAL	6.4	53.0	

MAPID: 18390108000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SW SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.684887    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.132698    DATE COLLECTED: 4 / 8 / 1946

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 86.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    39C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
633.0	PLEISTOCENE		CLAY	49.0	7.0	& GRAVEL
584.0	SHELBURN		SHALE	8.3	56.0	
575.7	SHELBURN	DANVILLE	COAL	6.3	64.3	GOOD
569.4	SHELBURN		UNDERCLAY	0.7	70.6	
568.7	SHELBURN	DANVILLE	COAL	0.6	71.3	SOFT
568.2	SHELBURN		UNDERCLAY	1.0	71.8	
567.2	SHELBURN		GRAY SHALE	0.6	72.8	
566.6	SHELBURN		SANDSTONE	0.4	73.4	
566.2	SHELBURN	DANVILLE	COAL	1.6	73.8	
564.6	SHELBURN		UNDERCLAY	10.3	75.4	
554.3	SHELBURN		LIMESTONE	0.3	85.7	



MAPID: 18390109000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.680184 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.132657 DATE COLLECTED: 4 / 5 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 81.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 41 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
626.0	SHELBURN		SANDY SHALE	13.0	14.0	
613.0	SHELBURN		UNKNOWN	2.0	27.0	DRILLER REPORTS SAND & GRAVEL
611.0	SHELBURN		SANDY SHALE	5.0	29.0	
606.0	SHELBURN		UNKNOWN	1.5	34.0	DRILLER REPORTS SAND & GRAVEL
604.5	SHELBURN		SANDY SHALE	4.5	35.5	
600.0	SHELBURN		SANDY SHALE	9.0	40.0	RED
591.0	SHELBURN		SHALE	27.0	49.0	
564.0	SHELBURN	DANVILLE	COAL	5.7	76.0	FAIRLY GOOD

MAPID: 18390115000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.694275 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.136347 DATE COLLECTED: 4 / 17 / 1945

SURFACE ELEVATION (FT.): 644.6 LOGGED (FT.): 80.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 59A WELL TYPE: Coal Test

COMMENT: 30 FEET NORTH OF PROPER LOCATION 59DA?

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
644.6	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
632.6	PLEISTOCENE		CLAY	40.0	12.0	& GRAVEL
592.6	PLEISTOCENE		CLAY	26.0	52.0	& SAND
566.6			CLAYSTONE	2.0	78.0	WHITE TOP OF UNDERCLAY

MAPID: 18390116000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.694275 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.136347 DATE COLLECTED: 4 / 13 / 1945

SURFACE ELEVATION (FT.): 643.8 LOGGED (FT.): 70.2 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 59B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
643.8	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
631.8	PLEISTOCENE		CLAY	53.0	12.0	& GRAVEL
578.8			UNKNOWN	1.0	65.0	
577.8	SHELBURN	DANVILLE	COAL	1.0	66.0	
576.8	SHELBURN	DANVILLE	CLAYSTONE	1.5	67.0	
575.3	SHELBURN	DANVILLE	COAL	0.7	68.5	
574.6	SHELBURN		CLAYSTONE	1.0	69.2	

MAPID: 18390117000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.694275 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.136347 DATE COLLECTED: 4 / 19 / 1945

SURFACE ELEVATION (FT.): 643.0 LOGGED (FT.): 75.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 59B1 WELL TYPE: Coal Test

COMMENT: 165' WEST OF 59B

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
643.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
633.0	PLEISTOCENE		CLAY	35.0	10.0	& BOULDERS
598.0	PLEISTOCENE		CLAY	15.0	45.0	
583.0	SHELBURN		SHALE	4.0	60.0	
579.0	SHELBURN		SHALE	2.0	64.0	
577.0	SHELBURN	DANVILLE	COAL	6.1	66.0	
570.9	SHELBURN	DANVILLE	CLAYSTONE	1.2	72.1	
569.7	SHELBURN	DANVILLE	COAL	0.7	73.3	
569.1	SHELBURN		UNDERCLAY	1.1	73.9	

MAPID: 18390118000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.694255 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.139911 DATE COLLECTED: 7 / 24 / 1963

SURFACE ELEVATION (FT.): 644.8 LOGGED (FT.): 90.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 59DA WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
644.8	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
635.8	PLEISTOCENE		CLAY	12.0	9.0	
623.8	PLEISTOCENE		SAND & GRAVEL	44.0	21.0	HARDPAN
579.8	SHELBURN		SHALE	5.0	65.0	SOFT
574.8	CARBONDALE	HERRIN	COAL	5.8	70.0	
569.0	CARBONDALE	HERRIN	CLAYSTONE	0.3	75.8	
568.8	CARBONDALE	HERRIN	COAL	0.4	76.0	
568.4	SHELBURN		UNDERCLAY	1.6	76.4	
566.8	SHELBURN		SHALE/UNDERCLAY	12.0	78.0	

MAPID: 18390119000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW SE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.690764 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.133644 DATE COLLECTED: 11 / 2 / 1935

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 93.5 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 61 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
627.0	SHELBURN		SANDY SHALE	10.5	13.0	
616.5	SHELBURN		GRAY SHALE	10.0	23.5	
606.5	SHELBURN		UNKNOWN	5.5	33.5	DRILLER REPORTS SAND & GRAVEL
601.0	SHELBURN		SANDY SHALE	18.0	39.0	RED
583.0	SHELBURN		BLUE SHALE	31.5	57.0	SOFT
551.5	SHELBURN	DANVILLE	COAL	5.0	88.5	

MAPID: 1839012000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689583 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.136317 DATE COLLECTED: 4 / 12 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 87.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 61B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
626.0	PLEISTOCENE		SAND	5.0	14.0	
621.0	SHELBURN		SANDY SHALE	17.0	19.0	
604.0	SHELBURN		SANDSTONE	4.0	36.0	
600.0	SHELBURN		SANDY SHALE	19.0	40.0	RED
581.0	SHELBURN		SANDSTONE	1.0	59.0	
580.0	SHELBURN		SANDY SHALE	17.0	60.0	
563.0	SHELBURN	DANVILLE	SANDSTONE/COAL	1.0	77.0	
562.0	SHELBURN		UNDERCLAY	8.0	78.0	
554.0	SHELBURN		SANDSTONE	1.0	86.0	

MAPID: 18390121000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689583 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.136317 DATE COLLECTED: 4 / 17 / 1932

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 72.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 62 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
626.0	PLEISTOCENE			18.0	14.0	
608.0	PLEISTOCENE		SAND & GRAVEL	6.0	32.0	
602.0	SHELBURN		SANDY SHALE	19.0	38.0	
583.0	SHELBURN		SANDSTONE	1.0	57.0	
582.0	SHELBURN		SHALE	8.0	58.0	BLUE
574.0	SHELBURN	DANVILLE	COAL	6.0	66.0	FAIR

MAPID: 18390122000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.689583    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.136317    DATE COLLECTED: 4 / 19 / 1937

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 73.1    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    62A    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND & GRAVEL	7.0	10.0	
623.0	SHELBURN		SANDY SHALE	13.0	17.0	
610.0	SHELBURN		SANDSTONE	6.0	30.0	WHITE
604.0	SHELBURN		SANDY SHALE	16.0	36.0	RED
588.0	SHELBURN		SANDSTONE	1.0	52.0	WHITE
587.0	SHELBURN		SANDY SHALE	6.0	53.0	RED
581.0	SHELBURN		SHALE	8.0	59.0	BLUE
573.0	SHELBURN	DANVILLE	COAL	6.1	67.0	FAIR

MAPID: 18390123000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SW NW SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.686065    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.135399    DATE COLLECTED: 1 / 29 / 1936

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 74.8    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    63    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
633.0	PLEISTOCENE		SAND & GRAVEL	20.0	7.0	
613.0	SHELBURN		SANDY SHALE	20.0	27.0	GRAY
593.0	SHELBURN		SANDY SHALE	13.0	47.0	RED
580.0	SHELBURN		SHALE	8.5	60.0	BLUE
571.5	SHELBURN	DANVILLE	COAL	6.3	68.5	

MAPID: 18390124000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684891 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.136289 DATE COLLECTED: 4 / 19 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 75.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 63A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
632.0	PLEISTOCENE		SAND & GRAVEL	6.0	8.0	
626.0	SHELURN		SANDY SHALE	19.0	14.0	WHITE
607.0	SHELURN		SANDSTONE	6.0	33.0	
601.0	SHELURN		SANDY SHALE	9.0	39.0	RED
592.0	SHELURN		SANDSTONE	1.0	48.0	
591.0	SHELURN		SANDY SHALE	8.0	49.0	RED
583.0	SHELURN		SHALE	12.0	57.0	BLUE
571.0	SHELURN	DANVILLE	COAL	6.0	69.0	

MAPID: 18390125000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684891 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.136289 DATE COLLECTED: 4 / 8 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 72.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 64 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
631.0	PLEISTOCENE		SAND & GRAVEL	6.0	9.0	
625.0	SHELURN		SANDY SHALE	5.0	15.0	
620.0	SHELURN		SANDSTONE	3.0	20.0	
617.0	SHELURN		SANDY SHALE	7.0	23.0	
610.0	SHELURN		UNKNOWN	9.0	30.0	DRILLER REPORTS SAND & GRAVEL
601.0	SHELURN		SANDY SHALE	11.0	39.0	RED
590.0	SHELURN		SHALE	15.5	50.0	WHITE
574.5	SHELURN	DANVILLE	COAL	0.5	65.5	SOFT
574.0	SHELURN		SHALE	3.0	66.0	WHITE
571.0	SHELURN	DANVILLE	COAL	3.0	69.0	

MAPID: 18390126000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NW SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.694275    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.136347    DATE COLLECTED: 4 / 22 / 1937

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 74.8    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    64A    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
629.0	PLEISTOCENE		SAND & GRAVEL	6.0	11.0	
623.0	PLEISTOCENE		SILTY CLAY	14.0	17.0	WHITE
609.0	PLEISTOCENE		SAND & GRAVEL	9.0	31.0	
600.0	SHELBURN		SANDY SHALE	11.0	40.0	
589.0	SHELBURN		SHALE	11.0	51.0	WHITE
578.0	SHELBURN		SHALE	7.0	62.0	BLUE
571.0	SHELBURN	DANVILLE	COAL	5.8	69.0	GOOD

MAPID: 18390127000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SW NE SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.681369    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.135369    DATE COLLECTED: 2 / 19 / 1936

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 50.4    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    65    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
634.0	SHELBURN		SANDY SHALE	4.0	6.0	SOFT
630.0	SHELBURN		SHALE	30.0	10.0	WHITE SOFT
600.0	SHELBURN		SHALE	3.0	40.0	BLUE
597.0	SHELBURN	FARMINGTON	SHALE	1.3	43.0	WHITE
595.7	SHELBURN	DANVILLE	COAL	6.1	44.3	

MAPID: 18390128000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684891 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.136289 DATE COLLECTED: 4 / 8 / 1937

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 94.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 65C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
621.0	PLEISTOCENE		UNCONSOLIDATED	9.0	9.0	
612.0	SHELBURN		SANDY SHALE	16.0	18.0	
596.0	SHELBURN		SANDSTONE	2.0	34.0	SOFT
594.0	SHELBURN		SANDY SHALE	13.0	36.0	RED
581.0	SHELBURN		SANDSTONE	1.0	49.0	SOFT
580.0	SHELBURN		SANDY SHALE	2.0	50.0	RED
578.0	SHELBURN		SHALE	11.0	52.0	WHITE
567.0	SHELBURN		SHALE	4.0	63.0	BLUE
563.0	SHELBURN	DANVILLE	COAL	5.5	67.0	GOOD
557.5	SHELBURN		UNDERCLAY	12.5	72.5	
545.0	SHELBURN		SANDSTONE	3.0	85.0	HARD
542.0	SHELBURN		BLACK SHALE	6.0	88.0	

MAPID: 18390129000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689573 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139894 DATE COLLECTED: 10 / 24 / 1934

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 66.6 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 67 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	2.0	0.0	
638.0	SHELBURN		SANDY SHALE	17.6	2.0	SOFT
620.4	SHELBURN		SANDY SHALE	21.0	19.6	RED
599.4	SHELBURN		SHALE	26.0	40.6	BLUE



MAPID: 18390142000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES:

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.687235

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.138095

DATE COLLECTED: 4 / 18 / 1945

SURFACE ELEVATION (FT.): 644.3    LOGGED (FT.): 77.3

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    84B-1

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
644.3	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
632.3	PLEISTOCENE		UNCONSOLIDATED	30.0	12.0	
602.3	PLEISTOCENE		CLAY	20.0	42.0	
582.3	SHELBURN		SHALE	2.0	62.0	CUT BY AUGER
580.3	SHELBURN		SHALE	4.0	64.0	CUT BY DRILL
576.3	SHELBURN	DANVILLE	COAL	6.3	68.0	GOOD
570.0	SHELBURN	DANVILLE	CLAYSTONE	1.3	74.3	
568.7	SHELBURN	DANVILLE	COAL	0.8	75.6	
568.0	SHELBURN		UNDERCLAY	1.0	76.3	

MAPID: 18390143000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NW SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.694275

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.136347

DATE COLLECTED: 7 / 24 / 1963

SURFACE ELEVATION (FT.): 643.9    LOGGED (FT.): 87.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    84Y

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
643.9	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
638.9	PLEISTOCENE		CLAY	11.0	5.0	
627.9	PLEISTOCENE		UNCONSOLIDATED	39.0	16.0	
588.9	SHELBURN		DARK SHALE	12.0	55.0	
576.9	SHELBURN	DANVILLE	COAL	5.6	67.0	GOOD
571.3	SHELBURN		UNDERCLAY	1.4	72.6	
569.9	SHELBURN		MICACEOUS SHALE	13.0	74.0	

MAPID: 18390144000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689583 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136317 DATE COLLECTED: 3 / 15 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 91.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 86 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
634.0	PLEISTOCENE		SAND & GRAVEL	9.0	6.0	
625.0	PLEISTOCENE		UNKNOWN	16.0	15.0	DRILLER REPORTS WHITE SANDY SHALE
609.0	PLEISTOCENE		SAND	4.0	31.0	
605.0	PLEISTOCENE		CLAY	1.0	35.0	
604.0	PLEISTOCENE		SAND & GRAVEL	8.0	36.0	
596.0	SHELBURN		SANDY SHALE	11.0	44.0	RED
585.0	SHELBURN		SHALE	10.0	55.0	GREEN, SOFT
575.0	SHELBURN		SHALE	5.0	65.0	WHITE, HARD
570.0	SHELBURN		SANDSTONE	3.0	70.0	
567.0	SHELBURN		SHALE	14.0	73.0	SOFT
553.0	SHELBURN	DANVILLE	COAL	4.0	87.0	VERY SOFT

MAPID: 18390145000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689583 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136317 DATE COLLECTED: 4 / 9 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 95.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 86B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND	5.0	10.0	
625.0	PLEISTOCENE		UNKNOWN	6.0	15.0	DRILLER REPORTS GRAY SANDY SHALE
619.0	PLEISTOCENE			18.0	21.0	
601.0	PLEISTOCENE		SAND	13.0	39.0	WHITE
588.0	SHELBURN		SHALE	20.0	52.0	GREEN
568.0	SHELBURN		CLAYSTONE	16.0	72.0	
552.0	SHELBURN		SANDSTONE	1.0	88.0	
551.0	SHELBURN		BLACK SHALE	3.0	89.0	
548.0	SHELBURN	DANVILLE	COAL	1.0	92.0	BLOOM
547.0	SHELBURN		UNDERCLAY	2.0	93.0	

MAPID: 18390146000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689583 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136317 DATE COLLECTED:

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 74.3 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 87 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
628.0	PLEISTOCENE		SAND & GRAVEL	30.0	12.0	
598.0	SHELBURN		SHALE	17.0	42.0	BLUE
581.0	SHELBURN		SHALE	8.0	59.0	GREEN
573.0	SHELBURN		SHALE	1.0	67.0	WHITE
572.0	SHELBURN	DANVILLE	COAL	6.3	68.0	

MAPID: 18390147000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689583 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136317 DATE COLLECTED: 4 / 17 / 1937

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 74.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 87A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
620.0	PLEISTOCENE		SAND & GRAVEL	4.0	10.0	
616.0	SHELBURN		SANDY SHALE	24.0	14.0	
592.0	SHELBURN		SANDY SHALE	17.0	38.0	RED
575.0	SHELBURN		SHALE	19.0	55.0	GREEN
556.0	SHELBURN	DANVILLE	COAL	-	74.0	WASH; DRILL BIT LOST AT ABOUT 76 FT

MAPID: 18390148000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.689583

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.136317

DATE COLLECTED: 4 / 12 / 1937

SURFACE ELEVATION (FT.): 640.0

LOGGED (FT.): 69.3

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    88

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
627.0	PLEISTOCENE		SAND & GRAVEL	2.0	13.0	
625.0	SHELBURN		SANDY SHALE	19.0	15.0	WHITE
606.0	SHELBURN		SANDSTONE	6.0	34.0	SOFT, FINE
600.0	SHELBURN		SANDY SHALE	13.0	40.0	RED
587.0	SHELBURN		SHALE	10.0	53.0	WHITE
577.0	SHELBURN	DANVILLE	COAL	6.3	63.0	SOFT, VERY POOR

MAPID: 18390149000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NW SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.684891

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.136289

DATE COLLECTED: 4 / 17 / 1937

SURFACE ELEVATION (FT.): 630.0

LOGGED (FT.): 61.3

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    88A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
620.0	SHELBURN		SANDY SHALE	5.0	10.0	
615.0	SHELBURN		SANDSTONE	4.0	15.0	SOFT, WITH GRAVEL
611.0	SHELBURN		SANDY SHALE	7.0	19.0	
604.0	SHELBURN		SANDSTONE	5.0	26.0	SOFT, WITH GRAVEL
599.0	SHELBURN		SANDY SHALE	12.0	31.0	RED
587.0	SHELBURN		SANDSTONE	3.0	43.0	SOFT
584.0	SHELBURN		SANDY SHALE	7.0	46.0	RED
577.0	SHELBURN		SHALE	5.0	53.0	BLUE
572.0	SHELBURN	DANVILLE	COAL	2.0	58.0	
570.0	SHELBURN		UNDERCLAY	2.0	60.0	

MAPID: 1839015000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684891 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136289 DATE COLLECTED: 3 / 0 / 1946

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 92.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 88C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
634.0	PLEISTOCENE		UNCONSOLIDATED	54.0	6.0	
580.0	PLEISTOCENE		SAND & GRAVEL	14.0	60.0	
566.0	SHELBURN	DANVILLE	COAL	1.2	74.0	TOP ERODED
564.8			UNDERCLAY	2.8	75.2	
562.0			SANDSTONE	1.8	78.0	HARD
560.2	CARBONDALE	ANNA	BLACK SHALE	3.8	79.8	
556.5	CARBONDALE	HERRIN	COAL	1.0	83.5	FAIRLY GOOD
555.5	CARBONDALE	HERRIN	BLUE BAND	0.2	84.5	
555.3	CARBONDALE	HERRIN	COAL	2.6	84.7	FAIRLY GOOD
552.7	CARBONDALE		UNDERCLAY	4.8	87.3	

MAPID: 18390151000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684891 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136289 DATE COLLECTED: 4 / 9 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 71.2 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 89 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
628.0	PLEISTOCENE		SAND & GRAVEL	5.0	12.0	
623.0	SHELBURN		SANDY SHALE	12.0	17.0	
611.0	SHELBURN		SANDSTONE	4.0	29.0	SOFT, WITH GRAVEL
607.0	SHELBURN		SANDY SHALE	20.0	33.0	RED
587.0	SHELBURN		SHALE	12.0	53.0	BLUE
575.0	SHELBURN	DANVILLE	COAL	6.2	65.0	FAIRLY GOOD

MAPID: 18390152000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684891 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136289 DATE COLLECTED: 3 / 8 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 62.5 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 90 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
626.0	SHELBURN		SANDY SHALE	16.0	14.0	
610.0	SHELBURN		SANDY SHALE	12.0	30.0	RED
598.0	SHELBURN		SHALE	15.0	42.0	BLUE
583.0	SHELBURN	DANVILLE	COAL	5.5	57.0	GOOD

MAPID: 18390160000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.694275 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136347 DATE COLLECTED: 4 / 2 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 71.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 109B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
633.0	PLEISTOCENE		SAND	5.0	7.0	
628.0	PLEISTOCENE		UNKNOWN	16.0	12.0	DRILLER REPORTS SANDY SHALE
612.0	PLEISTOCENE			3.0	28.0	
609.0	SHELBURN		SANDY SHALE	13.0	31.0	
596.0	SHELBURN		SANDY SHALE	14.0	44.0	RED
582.0	SHELBURN		SANDY SHALE	2.0	58.0	WHITE
580.0	SHELBURN		SHALE	2.7	60.0	RED
577.3	SHELBURN		ROCK	0.3	62.7	HARD
577.0	SHELBURN		SHALE	3.0	63.0	WHITE
574.0	SHELBURN	DANVILLE	COAL	5.8	66.0	GOOD

MAPID: 18390162000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.694275 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136347 DATE COLLECTED: 3 / 29 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 107.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 110 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
628.0	PLEISTOCENE		SAND & GRAVEL	5.0	12.0	
623.0	SHELBURN		SANDY SHALE	25.0	17.0	
598.0	SHELBURN		SANDY SHALE	16.0	42.0	RED
582.0	SHELBURN		SHALE	22.0	58.0	SOFT, WHITE
560.0	SHELBURN		SANDSTONE	2.0	80.0	
558.0	SHELBURN		SHALE	4.0	82.0	
554.0	SHELBURN		SANDSTONE	1.0	86.0	
553.0	SHELBURN		BLACK SHALE	3.0	87.0	
550.0	SHELBURN		SHALE & SANDSTONE	17.0	90.0	WHITE

MAPID: 18390163000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.694255 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139911 DATE COLLECTED: 4 / 13 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 71.1 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 110C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND & GRAVEL	15.0	10.0	
615.0	PLEISTOCENE		UNKNOWN	5.0	25.0	DRILLER REPORTS SANDY SHALE
610.0	PLEISTOCENE		SAND & GRAVEL	12.0	30.0	
598.0	SHELBURN		SANDY SHALE	6.0	42.0	RED
592.0	SHELBURN		SANDSTONE	2.0	48.0	SOFT
590.0	SHELBURN		SANDY SHALE	5.0	50.0	RED
585.0	SHELBURN		SHALE	10.0	55.0	BLUE
575.0	SHELBURN	DANVILLE	COAL	6.1	65.0	GOOD

MAPID: 18390164000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689573 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139894 DATE COLLECTED: 1 / 25 / 1935

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 101.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 111 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
634.0	PLEISTOCENE		SAND & GRAVEL	17.0	6.0	
617.0	SHELBURN		SANDY SHALE	15.0	23.0	WHITE
602.0	SHELBURN		SANDSTONE	2.7	38.0	SOFT
599.3	SHELBURN		SHALE	2.0	40.7	RED
597.3	SHELBURN		SANDSTONE	2.0	42.7	SOFT
595.3	SHELBURN		SHALE	17.0	44.7	RED
578.3	SHELBURN		SHALE	5.0	61.7	WHITE
573.3	SHELBURN		DARK SHALE	1.0	66.7	
572.3	SHELBURN		SHALE	16.6	67.7	WHITE
555.7	SHELBURN		SANDSTONE	2.0	84.3	
553.7	SHELBURN		BLACK SHALE	1.8	86.3	
552.0	SHELBURN		SHALE	8.0	88.0	WHITE
544.0	SHELBURN	DANVILLE	COAL	5.7	96.0	

MAPID: 18390165000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.694255 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139911 DATE COLLECTED: 4 / 2 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 86.5 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 111C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND & GRAVEL	6.0	10.0	
624.0	PLEISTOCENE		UNKNOWN	6.0	16.0	DRILLER REPORTS SANDY SHALE
618.0	PLEISTOCENE		SAND & GRAVEL	20.0	22.0	
598.0	SHELBURN		SANDY SHALE	5.0	42.0	RED
593.0	SHELBURN		SANDSTONE	3.0	47.0	SOFT
590.0	SHELBURN		SANDY SHALE	13.0	50.0	RED
577.0	SHELBURN		SANDY SHALE	17.0	63.0	WHITE
560.0	SHELBURN		SANDSTONE	2.0	80.0	SOFT, GREEN
558.0	SHELBURN		CLAYSTONE	4.5	82.0	



MAPID: 18390166000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SE NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.689573    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.139894    DATE COLLECTED: 3 / 30 / 1937

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 82.8    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    112    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
632.0	PLEISTOCENE		SAND & GRAVEL	8.0	8.0	
624.0	SHELBURN		SANDY SHALE	15.0	16.0	WHITE
609.0	SHELBURN		SANDSTONE	4.0	31.0	SOFT, FINE
605.0	SHELBURN		SANDY SHALE	7.0	35.0	RED
598.0	SHELBURN		SANDSTONE	3.0	42.0	SOFT
595.0	SHELBURN		SANDY SHALE	7.0	45.0	RED
588.0	SHELBURN		SANDSTONE	2.0	52.0	SOFT
586.0	SHELBURN		SHALE	8.0	54.0	GREEN, SOFT
578.0	SHELBURN		SHALE	7.0	62.0	WHITE
571.0	SHELBURN		SHALE	6.0	69.0	BLUE
565.0	SHELBURN		BLACK SHALE	4.0	75.0	
561.0	SHELBURN	DANVILLE	COAL	1.8	79.0	
559.2	SHELBURN		UNDERCLAY	2.0	80.8	

MAPID: 18390167000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684891 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139881 DATE COLLECTED: 4 / 6 / 1937

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 80.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 113 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
623.0	PLEISTOCENE		SAND & GRAVEL	3.0	7.0	
620.0	PLEISTOCENE		CLAY	22.0	10.0	
598.0	PLEISTOCENE		SAND	5.0	32.0	
593.0	SHELBURN		SANDY SHALE	7.0	37.0	RED
586.0	SHELBURN		SANDSTONE	1.0	44.0	SOFT
585.0	SHELBURN		SANDY SHALE	2.0	45.0	RED
583.0	SHELBURN		SANDSTONE	1.0	47.0	SOFT
582.0	SHELBURN		SANDY SHALE	9.0	48.0	RED
573.0	SHELBURN		SHALE	19.8	57.0	GREEN
553.2	SHELBURN		BLACK SHALE	0.3	76.8	
553.0	SHELBURN	DANVILLE	COAL	1.7	77.0	EXTRA SOFT
551.3	SHELBURN		UNDERCLAY	2.0	78.7	

MAPID: 18390168000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684891 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136289 DATE COLLECTED:

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 58.2 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 114 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
621.0	PLEISTOCENE		SAND & GRAVEL	6.0	9.0	
615.0	SHELBURN		SANDY SHALE	17.0	15.0	WHITE
598.0	SHELBURN		SANDSTONE	1.5	32.0	SOFT, WITH GRAVEL
596.5	SHELBURN		SHALE	12.5	33.5	RED
584.0	SHELBURN		SANDSTONE	1.0	46.0	SOFT
583.0	SHELBURN		SHALE	5.5	47.0	RED
577.5	SHELBURN	DANVILLE	COAL	5.7	52.5	

MAPID: 18390169000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.684891    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.139881    DATE COLLECTED: 3 / 25 / 1937

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 75.9    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    114A    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
636.0	SHELBURN		SANDY SHALE	14.0	4.0	
622.0	SHELBURN		SANDY SHALE	11.0	18.0	RED
611.0	SHELBURN		UNKNOWN	2.0	29.0	DRILLER REPORTS SAND AND GRAVEL
609.0	SHELBURN		SANDY SHALE	12.0	31.0	RED
597.0	SHELBURN		UNKNOWN	8.0	43.0	DRILLER REPORTS SAND AND GRAVEL
589.0	SHELBURN		SHALE	7.0	51.0	GREEN
582.0	SHELBURN		SHALE	8.0	58.0	WHITE, SOFT
574.0	SHELBURN		SANDSTONE	3.0	66.0	
571.0	SHELBURN		BLACK SHALE	5.0	69.0	
566.0	SHELBURN	DANVILLE	COAL	1.9	74.0	

MAPID: 18390170000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SE NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.680209    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.139864    DATE COLLECTED: 4 / 22 / 1937

SURFACE ELEVATION (FT.): 630.0    LOGGED (FT.): 32.2    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    115    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
626.0	SHELBURN		SANDY SHALE	8.0	4.0	RED
618.0	SHELBURN		SHALE	14.0	12.0	BLUE
604.0	SHELBURN	DANVILLE	COAL	6.2	26.0	GOOD

MAPID: 18390184000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.694255    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.139911    DATE COLLECTED: 4 / 27 / 1937

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 83.2    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    134    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
628.0	SHELburn		SANDY SHALE	14.0	12.0	WHITE
614.0	SHELburn		SANDSTONE	4.0	26.0	SOFT
610.0	SHELburn		SANDY SHALE	9.0	30.0	WHITE
601.0	SHELburn		SANDY SHALE	4.0	39.0	RED
597.0	SHELburn		SANDSTONE	1.0	43.0	SOFT
596.0	SHELburn		SANDY SHALE	6.0	44.0	RED
590.0	SHELburn		SANDSTONE	2.0	50.0	SOFT
588.0	SHELburn		SANDY SHALE	8.0	52.0	RED
580.0	SHELburn		SHALE	11.0	60.0	WHITE
569.0	SHELburn		SHALE	6.0	71.0	BLUE
563.0	SHELburn	DANVILLE	COAL	6.2	77.0	GOOD

MAPID: 18390185000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.694255    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.139911    DATE COLLECTED: 1 / 21 / 1935

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 76.8    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    135    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
634.0	PLEISTOCENE		SAND & GRAVEL	15.0	6.0	
619.0	SHELburn		SHALE	17.0	21.0	WHITE
602.0	SHELburn		UNKNOWN	5.0	38.0	DRILLER REPORTS SAND AND GRAVEL
597.0	SHELburn		SHALE	20.0	43.0	RED
577.0	SHELburn		SHALE	7.5	63.0	WHITE, SOFT
569.5	SHELburn	DANVILLE	COAL	6.3	70.5	

MAPID: 18390186000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.694255 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139911 DATE COLLECTED: 4 / 26 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 71.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 135A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND & GRAVEL	9.0	10.0	
621.0	SHELBURN		SANDY SHALE	15.0	19.0	WHITE
606.0	SHELBURN		SANDSTONE	3.0	34.0	SOFT
603.0	SHELBURN		SANDY SHALE	4.0	37.0	WHITE
599.0	SHELBURN		SANDSTONE	2.0	41.0	SOFT
597.0	SHELBURN		SANDY SHALE	20.0	43.0	RED
577.0	SHELBURN		SHALE	3.0	63.0	WHITE
574.0	SHELBURN	DANVILLE	COAL	5.7	66.0	FAIRLY GOOD

MAPID: 18390187000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.694255 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139911 DATE COLLECTED: 4 / 15 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 80.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 136 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
633.0	PLEISTOCENE		SAND	5.0	7.0	
628.0	PLEISTOCENE		UNKNOWN	6.0	12.0	DRILLER REPORTS SANDY SHALE
622.0	PLEISTOCENE		SAND & GRAVEL	24.0	18.0	
598.0	SHELBURN		SANDY SHALE	17.0	42.0	RED
581.0	SHELBURN		SANDSTONE	3.0	59.0	SOFT
578.0	SHELBURN		GRAY SHALE	6.0	62.0	
572.0	SHELBURN		SHALE	9.0	68.0	GREEN
563.0	SHELBURN		SANDSTONE	2.0	77.0	SOFT GREEN
561.0	SHELBURN		CLAYSTONE	1.0	79.0	

MAPID: 18390188000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689573

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139894

DATE COLLECTED: 4 / 26 / 1937

SURFACE ELEVATION (FT.): 630.0

LOGGED (FT.): 65.8

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 136A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
624.0	PLEISTOCENE		SAND & GRAVEL	14.0	6.0	MIXED WITH SHALE
610.0	SHELBURN		SANDY SHALE	20.0	20.0	SOME GRAVEL
590.0	SHELBURN		SANDY SHALE	18.0	40.0	RED
572.0	SHELBURN		SHALE	2.0	58.0	BLUE
570.0	SHELBURN	DANVILLE	COAL	5.8	60.0	SOFT

MAPID: 18390189000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689573

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139894

DATE COLLECTED: 2 / 7 / 1936

SURFACE ELEVATION (FT.): 640.0

LOGGED (FT.): 67.3

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 137

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
631.0	PLEISTOCENE		SAND & GRAVEL	11.0	9.0	
620.0	CARBONDALE		SHALE	11.0	20.0	WHITE
609.0	CARBONDALE		SANDSTONE	9.8	31.0	SOFT
599.2	CARBONDALE		SHALE	20.3	40.8	RED
579.0	CARBONDALE	DANVILLE	COAL	6.3	61.0	

MAPID: 1839019000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689573 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139894 DATE COLLECTED: 4 / 20 / 1937

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 58.6 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 137A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
622.0	PLEISTOCENE		SAND & GRAVEL	6.0	8.0	
616.0	SHELBURN		SANDY SHALE	22.0	14.0	WITH GRAVEL
594.0	SHELBURN		SANDY SHALE	20.0	36.0	RED
574.0	SHELBURN	DANVILLE	COAL	2.6	56.0	SOFT

MAPID: 18390191000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689573 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139894 DATE COLLECTED: 3 / 30 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 98.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 137B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND & GRAVEL	32.0	10.0	
598.0	SHELBURN		SANDY SHALE	12.0	42.0	RED
586.0	SHELBURN		SANDSTONE	3.0	54.0	SOFT
583.0	SHELBURN		SHALE	19.0	57.0	BLUE
564.0	SHELBURN		BLACK SHALE	4.0	76.0	
560.0	SHELBURN		CLAYSTONE	3.0	80.0	
557.0	SHELBURN		ROCK	1.0	83.0	HARD
556.0	SHELBURN		CLAYSTONE	14.0	84.0	

MAPID: 18390192000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684891 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139881 DATE COLLECTED: 3 / 23 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 78.5 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 138 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND & GRAVEL	14.0	10.0	
616.0	SHELBURN		SANDY SHALE	8.0	24.0	WHITE
608.0	SHELBURN		SANDY SHALE	7.0	32.0	RED
601.0	SHELBURN		SANDSTONE	4.0	39.0	SOFT
597.0	SHELBURN		SANDY SHALE	6.0	43.0	RED
591.0	SHELBURN		SHALE	26.0	49.0	BLUE
565.0	SHELBURN		SANDSTONE	2.0	75.0	
563.0	SHELBURN	DANVILLE	COAL	1.5	77.0	EXTRA SOFT

MAPID: 18390193000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684891 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139881 DATE COLLECTED: 3 / 31 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 84.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 138B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
624.0	PLEISTOCENE		SAND & GRAVEL	19.0	16.0	
605.0	SHELBURN		SANDY SHALE	3.0	35.0	
602.0	SHELBURN		SANDY SHALE	19.0	38.0	RED
583.0	SHELBURN		SHALE	16.0	57.0	GREEN
567.0	SHELBURN		SANDSTONE	1.0	73.0	
566.0	SHELBURN		CLAYSTONE	10.0	74.0	



MAPID: 18390194000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689573 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139894 DATE COLLECTED: 4 / 7 / 1937

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 85.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 138C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
616.0	PLEISTOCENE		SAND	6.0	14.0	
610.0	SHELburn		SANDY SHALE	18.0	20.0	
592.0	SHELburn		SANDY SHALE	15.0	38.0	RED
577.0	SHELburn		SANDSTONE	1.0	53.0	SOFT
576.0	SHELburn		SANDY SHALE	5.0	54.0	RED
571.0	SHELburn		UNKNOWN	1.0	59.0	DRILLER REPORTS SAND AND GRAVEL
570.0	SHELburn		SHALE	14.0	60.0	GREEN
556.0	SHELburn		SHALE	2.8	74.0	BLUE
553.2	SHELburn		BLACK SHALE	0.3	76.8	
553.0	SHELburn		SANDSTONE	1.0	77.0	
552.0	SHELburn		CLAYSTONE	7.0	78.0	

MAPID: 18390195000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684891 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139881 DATE COLLECTED: 2 / 14 / 1936

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 61.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 139 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
631.0	SHELburn		SHALE	8.0	9.0	WHITE
623.0	SHELburn		SANDSTONE	2.5	17.0	SOFT, WITH GRAVEL
620.5	SHELburn		SHALE	1.5	19.5	RED
619.0	SHELburn		SANDSTONE	2.0	21.0	SOFT, WITH GRAVEL
617.0	SHELburn		SHALE	5.0	23.0	RED
612.0	SHELburn		SANDSTONE	1.0	28.0	SOFT, WITH GRAVEL
611.0	SHELburn		SHALE	29.5	29.0	COLORED STREAKS
581.5	SHELburn	DANVILLE	COAL	3.3	58.5	

MAPID: 18390196000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.684891    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.139881    DATE COLLECTED: 3 / 31 / 1937

SURFACE ELEVATION (FT.): 630.0    LOGGED (FT.): 66.5    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    139A    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	1.0	0.0	
629.0	PLEISTOCENE		SAND & GRAVEL	7.0	1.0	
622.0	SHELBURN		SANDY SHALE	15.0	8.0	RED
607.0	SHELBURN		SANDY SHALE	10.0	23.0	WHITE
597.0	SHELBURN		SHALE	7.0	33.0	GREEN
590.0	SHELBURN		SANDSTONE	2.0	40.0	
588.0	SHELBURN		SHALE	4.0	42.0	BLUE
584.0	SHELBURN		BLACK SHALE	13.0	46.0	
571.0	SHELBURN	DANVILLE	COAL	7.5	59.0	FAIR

MAPID: 18390197000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.684891    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.139881    DATE COLLECTED: 3 / 22 / 1937

SURFACE ELEVATION (FT.): 630.0    LOGGED (FT.): 57.3    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    139C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		SAND & GRAVEL	14.0	0.0	
616.0	PLEISTOCENE		UNKNOWN	12.0	14.0	DRILLER REPORTS RED SANDY SHALE
604.0	PLEISTOCENE		CLAY	17.0	26.0	WHITE
587.0	SHELBURN		SHALE	7.0	43.0	GREEN
580.0	SHELBURN		BLACK SHALE	4.0	50.0	
576.0	SHELBURN	DANVILLE	COAL	3.3	54.0	FAIR

MAPID: 18390198000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.684891    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.139881    DATE COLLECTED: 2 / 1 / 1967

SURFACE ELEVATION (FT.): 612.4    LOGGED (FT.): 66.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    139DC    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.4	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
605.4	PLEISTOCENE		UNCONSOLIDATED	18.0	7.0	
587.4	SHELBURN		GRAY SHALE	31.0	25.0	
556.4	SHELBURN		BLACK SHALE	2.0	56.0	SOFT
554.4	SHELBURN	DANVILLE	COAL	2.5	58.0	HARD
551.9	SHELBURN	DANVILLE	CLAYSTONE	0.5	60.5	SOFT
551.4	SHELBURN	DANVILLE	COAL	3.3	61.0	HARD
548.1	SHELBURN		UNDERCLAY	1.8	64.3	

MAPID: 18390199000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: SW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.684891    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.139881    DATE COLLECTED: 3 / 22 / 1937

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 66.8    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    140    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
636.0	PLEISTOCENE		SAND & GRAVEL	2.0	4.0	
634.0	SHELBURN		SANDY SHALE	13.0	6.0	RED
621.0	SHELBURN		SANDY SHALE	21.0	19.0	WHITE
600.0	SHELBURN		SANDSTONE	1.0	40.0	SOFT, WITH GRAVEL
599.0	SHELBURN		CLAYSTONE	1.5	41.0	
597.5	SHELBURN		SANDSTONE	2.5	42.5	
595.0	SHELBURN		SHALE	14.0	45.0	BLUE
581.0	SHELBURN	DANVILLE	COAL	7.8	59.0	GOOD

MAPID: 1839020000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.680209 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139864 DATE COLLECTED: 2 / 15 / 1936

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 50.6 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 141 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	4.5	0.0	
625.5	PLEISTOCENE		SAND & GRAVEL	5.5	4.5	
620.0	SHELBURN		SANDY SHALE	10.0	10.0	WHITE
610.0	SHELBURN		SHALE	18.0	20.0	RED
592.0	SHELBURN		SHALE	0.8	38.0	BLUE
591.2	SHELBURN		UNKNOWN	0.2	38.8	DRILLER REPORTS GRAVEL
591.0	SHELBURN		SHALE	5.0	39.0	WHITE
586.0	SHELBURN	DANVILLE	COAL	6.6	44.0	

MAPID: 18390201000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.680209 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139864 DATE COLLECTED: 3 / 24 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 65.9 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 141A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
624.0	PLEISTOCENE		SAND & GRAVEL	5.0	16.0	
619.0	SHELBURN		SANDY SHALE	5.0	21.0	WHITE
614.0	SHELBURN		SANDSTONE	3.0	26.0	
611.0	SHELBURN		SANDY SHALE	6.0	29.0	
605.0	SHELBURN		SANDSTONE	2.0	35.0	
603.0	SHELBURN		SANDY SHALE	16.0	37.0	RED
587.0	SHELBURN		GRAY SHALE	7.0	53.0	
580.0	SHELBURN	DANVILLE	COAL	5.9	60.0	FAIRLY SOFT

MAPID: 18390202000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.680209 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139864 DATE COLLECTED: 3 / 22 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 141C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
635.0	PLEISTOCENE		SAND & GRAVEL	13.0	5.0	
622.0	SHELBURN		SANDY SHALE	10.0	18.0	WHITE
612.0	SHELBURN		SANDY SHALE	3.0	28.0	RED
609.0	SHELBURN		UNKNOWN	19.0	31.0	NO RECORD
590.0	SHELBURN	DANVILLE	COAL	6.0	50.0	FAIR

MAPID: 18390203000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.694255 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139911 DATE COLLECTED: 3 / 11 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 54.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 142 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
626.0	PLEISTOCENE		SAND & GRAVEL	2.0	14.0	
624.0	SHELBURN		SANDY SHALE	9.0	16.0	
615.0	SHELBURN		SANDY SHALE	21.0	25.0	RED
594.0	SHELBURN		GRAY SHALE	2.5	46.0	
591.5	SHELBURN	DANVILLE	COAL	6.2	48.5	FAIR

MAPID: 18390213000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NW NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.694235    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143474    DATE COLLECTED: 1 / 29 / 1936

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 87.4    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    159    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND & GRAVEL	7.0	10.0	
623.0	SHELBURN		SANDY SHALE	15.0	17.0	
608.0	SHELBURN		SANDSTONE	2.0	32.0	SOFT
606.0	SHELBURN		SHALE	7.0	34.0	WHITE
599.0	SHELBURN		SANDSTONE	3.0	41.0	SOFT
596.0	SHELBURN		SANDY SHALE	6.0	44.0	
590.0	SHELBURN		SANDSTONE	1.0	50.0	SOFT, WITH GRAVEL
589.0	SHELBURN		SANDY SHALE	15.0	51.0	RED
574.0	SHELBURN		SHALE	15.0	66.0	BLUE
559.0	SHELBURN	DANVILLE	COAL	6.4	81.0	

MAPID: 18390214000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NW NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.694235    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143474    DATE COLLECTED: 4 / 13 / 1937

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 73.1    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    160    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
632.0	PLEISTOCENE		SAND & GRAVEL	16.0	8.0	
616.0	SHELBURN		SANDY SHALE	17.0	24.0	
599.0	SHELBURN		SANDSTONE	6.0	41.0	SOFT
593.0	SHELBURN		SANDY SHALE	20.0	47.0	RED
573.0	SHELBURN		SHALE	1.0	67.0	BLUE
572.0	SHELBURN	DANVILLE	COAL	5.1	68.0	SOFT, VERY POOR

MAPID: 18390215000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NW NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.694235    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143474    DATE COLLECTED: 2 / 19 / 1937

SURFACE ELEVATION (FT.): 630.0    LOGGED (FT.): 44.7    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    161    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		SAND & GRAVEL	16.0	0.0	
614.0	SHELBURN		SANDY SHALE	18.0	16.0	RED
596.0	SHELBURN		SHALE	5.0	34.0	WHITE
591.0	SHELBURN	DANVILLE	COAL	5.7	39.0	GOOD

MAPID: 18390216000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.689563    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143474    DATE COLLECTED: 4 / 21 / 1937

SURFACE ELEVATION (FT.): 630.0    LOGGED (FT.): 44.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    162A    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		SAND & GRAVEL	10.0	0.0	
620.0	SHELBURN		SANDY SHALE	4.0	10.0	WHITE
616.0	SHELBURN		SANDSTONE	12.0	14.0	SOFT, WITH GRAVEL
604.0	SHELBURN		SHALE	1.0	26.0	
603.0	SHELBURN		ROCK	1.5	27.0	
601.5	SHELBURN		SHALE	9.0	28.5	WHITE
592.5	SHELBURN		BLACK SHALE	3.0	37.5	
589.5	SHELBURN	DANVILLE	COAL	3.5	40.5	FAIRLY GOOD

**MAPID:** 18390217000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689563    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143474    **DATE COLLECTED:** 1 / 9 / 1967  
**SURFACE ELEVATION (FT.):** 629.8    **LOGGED (FT.):** 46.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    162A    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
629.8	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0	
589.8	SHELBURN	DANVILLE	COAL	1.0	40.0	SOFT, NO GOOD; TOP ERODED
588.8	SHELBURN	DANVILLE	COAL	4.0	41.0	FAIR
584.8	SHELBURN		UNDERCLAY	1.0	45.0	

**MAPID:** 18390218000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689563    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143474    **DATE COLLECTED:** 1 / 9 / 1967  
**SURFACE ELEVATION (FT.):** 627.3    **LOGGED (FT.):** 42.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    162DC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
627.3	PLEISTOCENE		UNCONSOLIDATED	39.0	0.0	
588.3	SHELBURN	DANVILLE	COAL	2.0	39.0	SOFT, NO GOOD; TOP ERODED
586.3	SHELBURN		UNDERCLAY	1.0	41.0	

**MAPID:** 18390219000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689563    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143474    **DATE COLLECTED:** 1 / 16 / 1967  
**SURFACE ELEVATION (FT.):** 618.1    **LOGGED (FT.):** 66.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    162GC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
618.1	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
598.1	PLEISTOCENE		CLAY	18.0	20.0	
580.1	SHELBURN		MICACEOUS SHALE	18.0	38.0	
562.1	CARBONDALE	ANNA	BLACK SHALE	2.0	56.0	
560.1	CARBONDALE	HERRIN	COAL	6.7	58.0	
553.4	CARBONDALE		UNDERCLAY	1.3	64.7	



MAPID: 18390220000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689563

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143474

DATE COLLECTED: 1 / 18 / 1967

SURFACE ELEVATION (FT.): 622.0

LOGGED (FT.): 67.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 162IC

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
622.0	PLEISTOCENE		UNCONSOLIDATED	50.0	0.0	
572.0	SHELBURN		GRAY SHALE	7.0	50.0	
565.0	CARBONDALE	ANNA	DARK SHALE	3.0	57.0	
562.0	CARBONDALE	HERRIN	COAL	1.0	60.0	BONE, HARD
561.0	CARBONDALE	HERRIN	COAL	4.5	61.0	MED. HARD
556.5	CARBONDALE		UNDERCLAY	1.5	65.5	

MAPID: 18390221000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684891

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139881

DATE COLLECTED: 12 / 26 / 1935

SURFACE ELEVATION (FT.): 630.0

LOGGED (FT.): 39.9

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 163A2

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		SAND & GRAVEL	7.0	0.0	
623.0	SHELBURN		SHALE	8.0	7.0	WHITE
615.0	SHELBURN		UNKNOWN	3.0	15.0	DRILLER REPORTS GRAVEL
612.0	SHELBURN		SHALE	7.0	18.0	RED
605.0	SHELBURN		SHALE	7.0	25.0	WHITE
598.0	SHELBURN		CONGLOMERATE	1.3	32.0	
596.7	SHELBURN		SHALE	2.0	33.3	
594.7	SHELBURN		BLACK SHALE	1.5	35.3	
593.2	SHELBURN	DANVILLE	COAL	3.0	36.8	

MAPID: 18390222000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472

DATE COLLECTED: 3 / 24 / 1937

SURFACE ELEVATION (FT.): 620.0

LOGGED (FT.): 46.7

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 163B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
613.0	SHELBURN		SANDY SHALE	16.0	7.0	RED
597.0	SHELBURN		SANDY SHALE	12.0	23.0	WHITE
585.0	SHELBURN		SHALE	5.0	35.0	WHITE, SOFT
580.0	SHELBURN		BLACK SHALE	5.0	40.0	
575.0	SHELBURN	DANVILLE	COAL	1.7	45.0	SOFT

MAPID: 18390223000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472

DATE COLLECTED: 2 / 1 / 1967

SURFACE ELEVATION (FT.): 624.8

LOGGED (FT.): 88.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 163AC

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
624.8	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
607.8	PLEISTOCENE		UNCONSOLIDATED	25.0	17.0	
582.8	SHELBURN		GRAY SHALE	9.0	42.0	
573.8	CARBONDALE	ANNA	BLACK SHALE	3.0	51.0	
570.8	CARBONDALE	HERRIN	COAL	2.8	54.0	HARD
568.0	CARBONDALE		UNDERCLAY	1.2	56.8	
566.8	CARBONDALE			30.0	58.0	

MAPID: 18390224000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472

DATE COLLECTED: 1 / 17 / 1967

SURFACE ELEVATION (FT.): 629.3

LOGGED (FT.): 75.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 163EC

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
629.3	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
610.3	PLEISTOCENE		UNCONSOLIDATED	29.0	19.0	
581.3	SHELBURN		MICACEOUS SHALE	8.0	48.0	SOFT
573.3	SHELBURN		MICACEOUS SHALE	8.0	56.0	HARD
565.3	CARBONDALE	ANNA	DARK SHALE	4.0	64.0	
561.3	CARBONDALE	HERRIN	COAL	5.5	68.0	HARD
555.8	CARBONDALE		UNDERCLAY	1.5	73.5	

MAPID: 18390225000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472

DATE COLLECTED: 1 / 31 / 1967

SURFACE ELEVATION (FT.): 641.5

LOGGED (FT.): 98.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 163GC

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
641.5	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
625.5	PLEISTOCENE		UNCONSOLIDATED	56.0	16.0	
569.5	SHELBURN		GRAY SHALE	15.0	72.0	HARD
554.5	CARBONDALE	ANNA	BLACK SHALE	3.0	87.0	
551.5	CARBONDALE	HERRIN	COAL	0.8	90.0	AND BONE, HARD
550.7	CARBONDALE	HERRIN	COAL	6.0	90.8	HARD
544.7	CARBONDALE		UNDERCLAY	1.2	96.8	

MAPID: 18390226000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472

DATE COLLECTED: 1 / 17 / 1967

SURFACE ELEVATION (FT.): 621.3

LOGGED (FT.): 62.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 163HC

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
621.3	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
607.3	PLEISTOCENE		CLAY	27.0	14.0	
580.3	SHELBURN	DANVILLE	COAL	2.0	41.0	WITH SLATE; TOP ERODED
578.3	SHELBURN		MICACEOUS SHALE	10.0	43.0	
568.3	CARBONDALE	ANNA	BLACK SHALE	3.0	53.0	
565.3	CARBONDALE	HERRIN	COAL	4.5	56.0	MED. HARD
560.8	CARBONDALE		UNDERCLAY	1.5	60.5	

MAPID: 18390227000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472

DATE COLLECTED: 1 / 17 / 1967

SURFACE ELEVATION (FT.): 630.3

LOGGED (FT.): 86.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 163IA

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.3	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
610.3	PLEISTOCENE		CLAY	37.0	20.0	
573.3	SHELBURN	DANVILLE	COAL	1.0	57.0	WITH SLATE; TOP ERODED
572.3	SHELBURN		UNDERCLAY	2.0	58.0	
570.3	SHELBURN		MICACEOUS SHALE	14.0	60.0	
556.3	CARBONDALE	ANNA	DARK SHALE	3.7	74.0	
552.6	CARBONDALE	HERRIN	COAL	0.7	77.7	BONY, HARD
552.0	CARBONDALE	HERRIN	COAL	6.3	78.3	HARD
545.6	CARBONDALE		UNDERCLAY	1.3	84.7	

MAPID: 18390228000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472 DATE COLLECTED: 2 / 2 / 1967

SURFACE ELEVATION (FT.): 612.5 LOGGED (FT.): 88.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 163LC WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.5	PLEISTOCENE		UNCONSOLIDATED	50.0	0.0	
562.5	CARBONDALE	ANNA	DARK SHALE	6.0	50.0	
556.5	CARBONDALE	HERRIN	COAL	2.0	56.0	MED. HARD
554.5	CARBONDALE		UNDERCLAY	3.0	58.0	
551.5	CARBONDALE		MICACEOUS SHALE	27.0	61.0	

MAPID: 18390229000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472 DATE COLLECTED: 2 / 1 / 1967

SURFACE ELEVATION (FT.): 618.8 LOGGED (FT.): 73.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 163MA WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
618.8	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
611.8	PLEISTOCENE		UNCONSOLIDATED	18.0	7.0	
593.8	SHELBURN		GRAY SHALE	20.0	25.0	
573.8	SHELBURN	DANVILLE	COAL	1.6	45.0	SOFT
572.2	SHELBURN		GRAY SHALE	10.4	46.6	
561.8	SHELBURN		LIMESTONE	2.0	57.0	
559.8	SHELBURN		GRAY SHALE	2.5	59.0	
557.3	CARBONDALE	ANNA	BLACK SHALE	3.0	61.5	
554.3	CARBONDALE	HERRIN	COAL	2.5	64.5	HARD
551.8	CARBONDALE		CLAYSTONE	0.5	67.0	SOFT
551.3	CARBONDALE	HERRIN	COAL	3.8	67.5	HARD
547.5	CARBONDALE		UNDERCLAY	1.8	71.3	

MAPID: 18390230000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472 DATE COLLECTED: 2 / 1 / 1967

SURFACE ELEVATION (FT.): 612.9 LOGGED (FT.): 68.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 163PA WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.9	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
601.9	PLEISTOCENE		UNCONSOLIDATED	37.0	11.0	
564.9	SHELBURN		GRAY SHALE	9.0	48.0	
555.9	CARBONDALE	ANNA	BLACK SHALE	3.0	57.0	
552.9	CARBONDALE	HERRIN	COAL	6.5	60.0	HARD
546.4	CARBONDALE		UNDERCLAY	1.5	66.5	

MAPID: 18390231000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472 DATE COLLECTED: 2 / 2 / 1967

SURFACE ELEVATION (FT.): 616.3 LOGGED (FT.): 63.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 163PC WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
616.3	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
609.3	PLEISTOCENE		UNCONSOLIDATED	18.0	7.0	
591.3	SHELBURN		GRAY SHALE	27.0	25.0	
564.3	CARBONDALE	ANNA	BLACK SHALE	5.0	52.0	
559.3	CARBONDALE	HERRIN	COAL	4.8	57.0	SOFT
554.5	CARBONDALE		UNDERCLAY	1.3	61.8	

MAPID: 18390232000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472 DATE COLLECTED: 3 / 19 / 1937

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 65.1 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 164 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		SAND & GRAVEL	17.0	0.0	
603.0	PLEISTOCENE		SAND	13.0	17.0	MIXED WITH RED SHALE
590.0	PLEISTOCENE		CLAY	5.0	30.0	
585.0	SHELBURN		SHALE	4.0	35.0	GREEN
581.0	SHELBURN	DANVILLE	COAL	1.0	39.0	SOFT, WITH COAL BLOOM
580.0	SHELBURN		UNDERCLAY	5.0	40.0	
575.0	SHELBURN		SANDSTONE	1.5	45.0	
573.5	SHELBURN		SHALE	12.0	46.5	BLUE
561.5	CARBONDALE	HERRIN	COAL	6.6	58.5	FAIR

MAPID: 18390233000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472 DATE COLLECTED: 3 / 24 / 1937

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 71.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 164B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
615.0	PLEISTOCENE		SAND & GRAVEL	14.0	5.0	
601.0	SHELBURN		SANDY SHALE	11.0	19.0	RED
590.0	SHELBURN		SHALE	12.0	30.0	WHITE
578.0	SHELBURN		CLAYSTONE	5.0	42.0	
573.0	SHELBURN		SANDSTONE	1.0	47.0	
572.0	SHELBURN		SHALE	1.0	48.0	WHITE
571.0	SHELBURN		SANDSTONE	1.0	49.0	
570.0	SHELBURN		SHALE	4.5	50.0	BLUE
565.5	CARBONDALE	ANNA	BLACK SHALE	9.5	54.5	
556.0	CARBONDALE	HERRIN	COAL	7.7	64.0	FAIRLY GOOD

MAPID: 18390234000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472

DATE COLLECTED: 2 / 3 / 1967

SURFACE ELEVATION (FT.): 649.3

LOGGED (FT.): 96.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 164AA

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
649.3	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
637.3	PLEISTOCENE		UNCONSOLIDATED	77.0	12.0	
560.3	SHELURN		GRAY SHALE	1.0	89.0	
559.3	CARBONDALE	ANNA	BLACK SHALE	2.0	90.0	
557.3	CARBONDALE	HERRIN	COAL	2.5	92.0	HARD
554.8	CARBONDALE		UNDERCLAY	1.5	94.5	

MAPID: 18390235000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472

DATE COLLECTED: 1 / 20 / 1967

SURFACE ELEVATION (FT.): 649.0

LOGGED (FT.): 98.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 164EA

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
649.0	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
633.0	PLEISTOCENE		UNCONSOLIDATED	74.0	16.0	
559.0	CARBONDALE	ANNA	BLACK SHALE	1.0	90.0	
558.0	CARBONDALE	HERRIN	COAL	5.8	91.0	HARD
552.2	CARBONDALE		UNDERCLAY	1.2	96.8	



MAPID: 18390236000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472 DATE COLLECTED: 2 / 3 / 1967

SURFACE ELEVATION (FT.): 650.8 LOGGED (FT.): 99.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 164FA WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.8	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
636.8	PLEISTOCENE		UNCONSOLIDATED	75.0	14.0	
561.8	SHELBURN		GRAY SHALE	1.0	89.0	
560.8	CARBONDALE	ANNA	BLACK SHALE	1.0	90.0	
559.8	CARBONDALE	HERRIN	COAL	6.1	91.0	MED. HARD
553.7	CARBONDALE		UNDERCLAY	1.9	97.1	

MAPID: 18390237000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472 DATE COLLECTED: 1 / 20 / 1967

SURFACE ELEVATION (FT.): 644.6 LOGGED (FT.): 88.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 164HA WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
644.6	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
629.6	PLEISTOCENE		UNCONSOLIDATED	30.0	15.0	
599.6	SHELBURN		MICACEOUS SHALE	37.0	45.0	
562.6	CARBONDALE	ANNA	DARK SHALE	1.0	82.0	
561.6	CARBONDALE	HERRIN	COAL	3.6	83.0	MED. HARD
558.0	CARBONDALE		UNDERCLAY	1.4	86.6	

MAPID: 18390238000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472 DATE COLLECTED: 2 / 1 / 1967

SURFACE ELEVATION (FT.): 643.7 LOGGED (FT.): 87.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 164JA WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
643.7	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
636.7	PLEISTOCENE		UNCONSOLIDATED	47.0	7.0	
589.7	SHELBURN		SHALE	23.0	54.0	
566.7	CARBONDALE	ANNA	BLACK SHALE	1.0	77.0	
565.7	CARBONDALE	HERRIN	COAL	7.3	78.0	HARD
558.4	CARBONDALE		UNDERCLAY	1.8	85.3	

MAPID: 18390239000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472 DATE COLLECTED: 2 / 2 / 1967

SURFACE ELEVATION (FT.): 646.0 LOGGED (FT.): 97.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 164KA WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
646.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
632.0	PLEISTOCENE		UNCONSOLIDATED	70.0	14.0	
562.0	SHELBURN		GRAY SHALE	3.0	84.0	
559.0	CARBONDALE	ANNA	BLACK SHALE	2.0	87.0	
557.0	CARBONDALE	HERRIN	COAL	6.8	89.0	HARD
550.2	CARBONDALE		UNDERCLAY	1.2	95.8	

MAPID: 1839024000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472 DATE COLLECTED: 2 / 3 / 1967

SURFACE ELEVATION (FT.): 647.7 LOGGED (FT.): 98.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 164LA WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
647.7	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
631.7	PLEISTOCENE		UNCONSOLIDATED	68.0	16.0	
563.7	SHELBURN		GRAY SHALE	1.0	84.0	
562.7	CARBONDALE	ANNA	BLACK SHALE	1.0	85.0	
561.7	CARBONDALE	HERRIN	COAL	3.8	86.0	HARD
557.9	CARBONDALE		SHALE/UNDERCLAY	8.2	89.8	

MAPID: 18390241000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684894 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472 DATE COLLECTED: 3 / 17 / 1937

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 97.3 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 165 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
644.0	SHELBURN		SANDY SHALE	16.0	6.0	
628.0	SHELBURN		SANDY SHALE	13.0	22.0	
615.0	SHELBURN		SANDSTONE	3.0	35.0	SOFT, WITH GRAVEL
612.0	SHELBURN		SANDY SHALE	5.0	38.0	WHITE
607.0	SHELBURN		SANDY SHALE	21.0	43.0	RED
586.0	SHELBURN		SANDSTONE	1.0	64.0	SOFT, WITH GRAVEL
585.0	SHELBURN		SHALE	25.0	65.0	WHITE
560.0	CARBONDALE	HERRIN	COAL	0.3	90.0	BLOOM
559.7	CARBONDALE		UNDERCLAY	7.0	90.3	

MAPID: 18390242000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.680222    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143469    DATE COLLECTED: 4 / 20 / 1937

SURFACE ELEVATION (FT.): 650.0    LOGGED (FT.): 63.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    165B    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
636.0	PLEISTOCENE		SAND & GRAVEL	6.0	14.0	
630.0	SHELBURN		SANDY SHALE	16.0	20.0	
614.0	SHELBURN		SANDSTONE	4.0	36.0	SOFT
610.0	SHELBURN		SANDY SHALE	15.0	40.0	RED
595.0	SHELBURN		SHALE	2.0	55.0	BLUE
593.0	SHELBURN	DANVILLE	COAL	6.0	57.0	FAIRLY GOOD

MAPID: 18390243000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.680222    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143469    DATE COLLECTED: 2 / 12 / 1936

SURFACE ELEVATION (FT.): 650.0    LOGGED (FT.): 68.8    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    166    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
632.0	PLEISTOCENE			5.0	18.0	
627.0	SHELBURN		SANDY SHALE	10.5	23.0	WHITE
616.5	SHELBURN		SHALE	3.7	33.5	OLD
612.8	SHELBURN		UNKNOWN	2.0	37.2	DRILLER REPORTS GRAVEL
610.8	SHELBURN		SANDY SHALE	10.0	39.2	
600.8	SHELBURN		SANDY SHALE	13.5	49.2	RED
587.3	SHELBURN	DANVILLE	COAL	6.2	62.7	

MAPID: 1839026000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NW NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.694235

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143474

DATE COLLECTED: 4 / 17 / 1937

SURFACE ELEVATION (FT.): 640.0

LOGGED (FT.): 97.3

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    184

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
632.0	PLEISTOCENE		SAND & GRAVEL	10.0	8.0	
622.0	SHELBURN		SANDY SHALE	32.0	18.0	
590.0	SHELBURN		SANDY SHALE	15.0	50.0	RED
575.0	SHELBURN		SHALE	24.0	65.0	BLUE
551.0	SHELBURN		BLACK SHALE	2.0	89.0	
549.0	SHELBURN	DANVILLE	COAL	6.3	91.0	GOOD

MAPID: 18390261000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NW NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.694235

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143474

DATE COLLECTED: 2 / 23 / 1936

SURFACE ELEVATION (FT.): 630.0

LOGGED (FT.): 57.2

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    185

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
624.0	PLEISTOCENE		SAND & GRAVEL	3.0	6.0	BROWN
621.0	PLEISTOCENE		SAND & GRAVEL	17.5	9.0	
603.5	SHELBURN		SHALE	5.0	26.5	RED
598.5	SHELBURN		SANDSTONE	14.0	31.5	SOFT
584.5	SHELBURN		DARK SHALE	5.5	45.5	BLUE
579.0	SHELBURN	DANVILLE	COAL	6.2	51.0	

MAPID: 18390262000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.694235 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143474 DATE COLLECTED: 4 / 27 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 69.3 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 185A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
633.0	PLEISTOCENE		SAND & GRAVEL	12.0	7.0	
621.0	SHELBURN		SANDY SHALE	19.0	19.0	
602.0	SHELBURN		SANDSTONE	3.0	38.0	SOFT
599.0	SHELBURN		SANDY SHALE	13.0	41.0	RED
586.0	SHELBURN		SANDSTONE	5.5	54.0	SOFT
580.5	SHELBURN		ROCK	0.5	59.5	
580.0	SHELBURN		BLACK SHALE	4.0	60.0	
576.0	SHELBURN	DANVILLE	COAL	5.3	64.0	FAIRLY GOOD

MAPID: 18390263000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689563 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143474 DATE COLLECTED: 4 / 16 / 1937

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 76.3 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 186 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
622.0	PLEISTOCENE		SAND & GRAVEL	9.0	8.0	
613.0	SHELBURN		SANDY SHALE	23.0	17.0	WHITE
590.0	SHELBURN		SANDSTONE	2.0	40.0	SOFT
588.0	SHELBURN		SANDY SHALE	5.0	42.0	RED
583.0	SHELBURN		SANDSTONE	1.0	47.0	SOFT
582.0	SHELBURN		SANDY SHALE	6.0	48.0	RED
576.0	SHELBURN		SHALE	16.0	54.0	WHITE
560.0	SHELBURN	DANVILLE	COAL	6.3	70.0	FAIR

**MAPID:** 18390264000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689563    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143474    **DATE COLLECTED:** 1 / 23 / 1967  
**SURFACE ELEVATION (FT.):** 610.6    **LOGGED (FT.):** 42.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    186A    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.6	PLEISTOCENE		CLAY	33.0	0.0	
577.6	SHELBURN		DARK SHALE	1.0	33.0	
576.6	SHELBURN	DANVILLE	COAL	6.0	34.0	HARD
570.6	SHELBURN		UNDERCLAY	2.0	40.0	

**MAPID:** 18390265000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NW NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.684894    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143472    **DATE COLLECTED:** 1 / 23 / 1967  
**SURFACE ELEVATION (FT.):** 605.5    **LOGGED (FT.):** 38.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    186AA    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.5	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0	
575.5	SHELBURN	DANVILLE	COAL	6.2	30.0	MED. HARD; TOP ERODED
569.3	SHELBURN		UNDERCLAY	1.8	36.2	

**MAPID:** 18390266000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689563    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143474    **DATE COLLECTED:** 1 / 9 / 1967  
**SURFACE ELEVATION (FT.):** 629.8    **LOGGED (FT.):** 45.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    186AX    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
629.8	PLEISTOCENE		UNCONSOLIDATED	41.0	0.0	
588.8	SHELBURN	DANVILLE	COAL	2.0	41.0	SOFT, NO GOOD; TOP ERODED
586.8	SHELBURN	DANVILLE	COAL	1.0	43.0	FAIR
585.8	SHELBURN		UNDERCLAY	1.0	44.0	

**MAPID:** 18390267000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689563    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143474    **DATE COLLECTED:** 1 / 23 / 1967  
**SURFACE ELEVATION (FT.):** 614.2    **LOGGED (FT.):** 42.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    186ABB    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
614.2	PLEISTOCENE		UNCONSOLIDATED	35.0	0.0	
579.2	SHELBURN	DANVILLE	COAL	5.8	35.0	SOFT, WILL LOAD; TOP ERODED
573.4	SHELBURN		UNDERCLAY	1.2	40.8	

**MAPID:** 18390268000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689563    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143474    **DATE COLLECTED:** 1 / 23 / 1967  
**SURFACE ELEVATION (FT.):** 609.3    **LOGGED (FT.):** 67.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    186H    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
609.3	PLEISTOCENE		UNCONSOLIDATED	33.0	0.0	
576.3	SHELBURN		SHALE	1.0	33.0	SOFT
575.3	SHELBURN	DANVILLE	COAL	6.2	34.0	HARD
569.1	SHELBURN		UNDERCLAY	1.8	40.2	
567.3	SHELBURN		MICACEOUS SHALE	18.0	42.0	
549.3	CARBONDALE	ANNA	BLACK SHALE	2.0	60.0	
547.3	CARBONDALE	HERRIN	COAL	3.9	62.0	HARD
543.4	CARBONDALE		UNDERCLAY	1.2	65.9	

**MAPID:** 18390269000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689563    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143474    **DATE COLLECTED:** 1 / 23 / 1967  
**SURFACE ELEVATION (FT.):** 609.5    **LOGGED (FT.):** 42.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    186HAB    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
609.5	PLEISTOCENE		CLAY	34.0	0.0	
575.5	SHELBURN		DARK SHALE	1.0	34.0	
574.5	SHELBURN	DANVILLE	COAL	5.5	35.0	MED. HARD
569.0	SHELBURN		UNDERCLAY	1.5	40.5	



**MAPID:** 18390270000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689563    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143474    **DATE COLLECTED:** 1 / 23 / 1967  
**SURFACE ELEVATION (FT.):** 613.3    **LOGGED (FT.):** 39.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    186I    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
613.3	PLEISTOCENE		UNCONSOLIDATED	36.0	0.0	
577.3	SHELBURN	DANVILLE	COAL	1.5	36.0	SOFT; TOP ERODED
575.8	SHELBURN		UNDERCLAY	1.5	37.5	

**MAPID:** 18390271000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689563    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143474    **DATE COLLECTED:** 1 / 23 / 1967  
**SURFACE ELEVATION (FT.):** 609.0    **LOGGED (FT.):** 44.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    186KAC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
609.0	PLEISTOCENE		UNCONSOLIDATED	36.0	0.0	
573.0	SHELBURN	DANVILLE	COAL	6.3	36.0	HARD; TOP ERODED
566.7	SHELBURN		UNDERCLAY	1.7	42.3	

**MAPID:** 18390272000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689563    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143474    **DATE COLLECTED:** 1 / 9 / 1967  
**SURFACE ELEVATION (FT.):** 632.3    **LOGGED (FT.):** 45.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    186PA    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
632.3	PLEISTOCENE		UNCONSOLIDATED	42.0	0.0	
590.3	SHELBURN	DANVILLE	COAL	1.0	42.0	SOFT, NO GOOD; TOP ERODED
589.3	SHELBURN		UNDERCLAY	2.0	43.0	

MAPID: 18390273000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689563

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143474

DATE COLLECTED: 1 / 9 / 1967

SURFACE ELEVATION (FT.): 632.5

LOGGED (FT.): 46.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 186PB

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
632.5	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0	
592.5	SHELBURN	DANVILLE	COAL	5.0	40.0	HARD; TOP ERODED
587.5	SHELBURN		UNDERCLAY	1.0	45.0	

MAPID: 18390513000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.683711

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.13179

DATE COLLECTED: 1 / 0 / 1946

SURFACE ELEVATION (FT.): 640.0

LOGGED (FT.): 77.8

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
628.0	PLEISTOCENE		SAND & GRAVEL	18.0	12.0	
610.0	PLEISTOCENE		SAND	19.0	30.0	MIXED WITH RED SHALE
591.0	SHELBURN		GRAY SHALE	4.0	49.0	
587.0	SHELBURN		BLACK SHALE	6.0	53.0	SOFT, GRAY
581.0	SHELBURN		BLACK SHALE	8.0	59.0	GRAY
573.0	SHELBURN		BLACK SHALE	2.3	67.0	DARK
570.7	SHELBURN	DANVILLE	COAL	6.2	69.3	
564.5	SHELBURN		UNCLASSIFIED	0.9	75.5	DIRTY
563.6	SHELBURN	DANVILLE	COAL	1.2	76.4	
562.4	SHELBURN		UNDERCLAY	0.3	77.6	

MAPID: 18390514000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NW SE NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.681382    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.140768    DATE COLLECTED: 1 / 0 / 1946

SURFACE ELEVATION (FT.): 650.0    LOGGED (FT.): 98.2    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
635.0	PLEISTOCENE		SAND	25.0	15.0	
610.0	PLEISTOCENE		SAND	20.0	40.0	MIXED WITH RED SHALE
590.0	PLEISTOCENE			4.5	60.0	
585.5	SHELBURN	DANVILLE	COAL	1.0	64.5	FISH-TAILED; TOP ERODED
584.5	SHELBURN	DANVILLE	CLAY	0.3	65.5	BOULD
584.2	SHELBURN	DANVILLE	COAL	3.0	65.8	
581.2	SHELBURN	DANVILLE	UNCLASSIFIED	1.2	68.8	DIRTY
580.0	SHELBURN	DANVILLE	COAL	0.7	70.0	
579.3	SHELBURN		UNDERCLAY	0.3	70.7	
579.0	SHELBURN		GRAY SHALE	8.5	71.0	
570.5	SHELBURN		SHALE WITH LIMESTONE	2.5	79.5	
568.0	SHELBURN		GRAY SHALE	8.0	82.0	
560.0	SHELBURN		DARK SHALE	2.8	90.0	
557.2	SHELBURN		GRAY SHALE	0.3	92.8	
556.9	CARBONDALE	HERRIN	COAL	5.0	93.1	FISH-TAILED
552.0	CARBONDALE		UNDERCLAY	0.1	98.0	

MAPID: 18390517000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.689564    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143472    DATE COLLECTED: 1 / 9 / 1967

SURFACE ELEVATION (FT.): 632.3    LOGGED (FT.): 45.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    187    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
632.3	PLEISTOCENE		UNCONSOLIDATED	42.0	0.0	
590.3	SHELBURN	DANVILLE	COAL	2.0	42.0	SOFT, NO GOOD; TOP ERODED
588.3	SHELBURN		UNDERCLAY	1.0	44.0	

MAPID: 18390518000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW

LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE:

DATE COLLECTED: 2 / 10 / 1936

SURFACE ELEVATION (FT.): 640.0

LOGGED (FT.): 41.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 187

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
636.0	PLEISTOCENE		SAND & GRAVEL	11.0	4.0	
625.0			SHALE	2.0	15.0	RED
623.0			SANDSTONE	7.0	17.0	SOFT, WITH GAVEL
616.0			SHALE	4.0	24.0	RED
612.0			SANDSTONE	1.5	28.0	SOFT
610.5			SHALE	11.5	29.5	RED

MAPID: 18390519000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW

LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE:

DATE COLLECTED: 3 / 15 / 1937

SURFACE ELEVATION (FT.): 630.0

LOGGED (FT.): 57.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 187B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	
627.0	PLEISTOCENE		SAND & GRAVEL	15.0	3.0	
612.0			SANDY SHALE	5.0	18.0	RED
607.0			SANDSTONE	2.0	23.0	SOFT
605.0			SANDY SHALE	4.0	25.0	RED
601.0			BLACK SHALE	28.0	29.0	

**MAPID:** 1839052000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689564    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143472    **DATE COLLECTED:** 1 / 16 / 1967  
**SURFACE ELEVATION (FT.):** 622.4    **LOGGED (FT.):** 63.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    187BC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
622.4	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
610.4	PLEISTOCENE		UNCONSOLIDATED	30.0	12.0	
580.4	SHELburn		MICACEOUS SHALE	10.0	42.0	
570.4	CARBONDALE	ANNA	DARK SHALE	6.0	52.0	
564.4	CARBONDALE	HERRIN	COAL	3.2	58.0	MED. HARD
561.2	CARBONDALE		UNDERCLAY	1.8	61.2	

**MAPID:** 18390521000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689564    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143472    **DATE COLLECTED:** 1 / 23 / 1967  
**SURFACE ELEVATION (FT.):** 611.0    **LOGGED (FT.):** 46.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    187C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
611.0	PLEISTOCENE		CLAY	41.0	0.0	
570.0	SHELburn		BLACK SHALE	2.0	41.0	
568.0	SHELburn	DANVILLE	COAL	1.1	43.0	SOFT
566.9	SHELburn		UNDERCLAY	1.9	44.1	

**MAPID:** 18390522000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689564    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143472    **DATE COLLECTED:** 1 / 10 / 1967  
**SURFACE ELEVATION (FT.):** 624.7    **LOGGED (FT.):** 63.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    187CB    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
624.7	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
611.7	PLEISTOCENE		UNCONSOLIDATED	44.0	13.0	
567.7	SHELburn	DANVILLE	COAL	4.3	57.0	SOFT, NO GOOD; TOP ERODED
563.4	SHELburn		UNDERCLAY	1.8	61.3	

MAPID: 18390523000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.689564    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143472    DATE COLLECTED: 1 / 10 / 1967

SURFACE ELEVATION (FT.): 624.5    LOGGED (FT.): 62.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    187CC    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
624.5	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
614.5	PLEISTOCENE		UNCONSOLIDATED	46.0	10.0	
568.5	SHELburn	DANVILLE	COAL	4.3	56.0	MED. HARD; TOP ERODED
564.2	SHELburn		UNDERCLAY	1.8	60.3	

MAPID: 18390524000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.689564    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143472    DATE COLLECTED: 1 / 19 / 1967

SURFACE ELEVATION (FT.): 624.4    LOGGED (FT.): 74.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    187HC    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
624.4	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
617.4	PLEISTOCENE		UNCONSOLIDATED	37.0	7.0	
580.4	SHELburn		GRAY SHALE	3.0	44.0	
577.4	SHELburn	DANVILLE	COAL	1.0	47.0	SOFT
576.4	SHELburn		MICACEOUS SHALE	15.0	48.0	
561.4	CARBONDALE	ANNA	DARK SHALE	5.0	63.0	
556.4	CARBONDALE	HERRIN	COAL	4.6	68.0	SOFT
551.8	CARBONDALE		UNDERCLAY	1.4	72.6	

**MAPID:** 18390525000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689564    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143472    **DATE COLLECTED:** 1 / 9 / 1967  
**SURFACE ELEVATION (FT.):** 625.2    **LOGGED (FT.):** 59.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    187JB    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
625.2	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
612.2	PLEISTOCENE		UNCONSOLIDATED	40.0	13.0	
572.2	SHELBURN	DANVILLE	COAL	4.8	53.0	FAIR; TOP ERODED
567.4	SHELBURN		UNDERCLAY	1.3	57.8	

**MAPID:** 18390526000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689564    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143472    **DATE COLLECTED:** 1 / 10 / 1967  
**SURFACE ELEVATION (FT.):** 623.6    **LOGGED (FT.):** 61.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    187JBB    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
623.6	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
613.6	PLEISTOCENE		UNCONSOLIDATED	45.0	10.0	
568.6	SHELBURN	DANVILLE	COAL	1.0	55.0	SOFT, NO GOOD; TOP ERODED
567.6	SHELBURN	DANVILLE	COAL	3.0	56.0	MED. HARD
564.6	SHELBURN		UNDERCLAY	2.0	59.0	

MAPID: 18390527000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.689564    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143472    DATE COLLECTED: 1 / 23 / 1967

SURFACE ELEVATION (FT.): 639.8    LOGGED (FT.): 67.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    187JC    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
639.8	PLEISTOCENE		UNCONSOLIDATED	39.0	0.0	
600.8	SHELBURN		SHALE	1.0	39.0	
599.8	SHELBURN	DANVILLE	COAL	1.5	40.0	SOFT
598.3	SHELBURN		MICACEOUS SHALE	19.5	41.5	
578.8	SHELBURN	BRERETON	LIMESTONE	1.0	61.0	
577.8	CARBONDALE	ANNA	DARK SHALE	1.0	62.0	
576.8	CARBONDALE	HERRIN	COAL	1.7	63.0	
575.1	CARBONDALE		UNDERCLAY	2.3	64.7	

MAPID: 18390528000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.689564    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143472    DATE COLLECTED: 1 / 19 / 1967

SURFACE ELEVATION (FT.): 621.4    LOGGED (FT.): 71.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    187KC    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
621.4	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
611.4	PLEISTOCENE		UNCONSOLIDATED	30.0	10.0	
581.4	SHELBURN	DANVILLE	COAL	4.0	40.0	SOFT; TOP ERODED
577.4	SHELBURN		UNDERCLAY	2.0	44.0	
575.4	SHELBURN		MICACEOUS SHALE	17.0	46.0	
558.4	CARBONDALE	ANNA	DARK SHALE	3.0	63.0	
555.4	CARBONDALE	HERRIN	COAL	1.0	66.0	HARD, BONE
554.4	CARBONDALE	HERRIN	COAL	3.0	67.0	HARD
551.4	CARBONDALE		UNDERCLAY	1.0	70.0	



MAPID: 18390529000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.689564    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143472    DATE COLLECTED:

SURFACE ELEVATION (FT.): 620.1    LOGGED (FT.): 77.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    187LC    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.1	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
606.1	PLEISTOCENE		UNCONSOLIDATED	35.0	14.0	
571.1	SHELBURN	DANVILLE	COAL	2.0	49.0	WITH SLATE; TOP ERODED
569.1	SHELBURN		MICACEOUS SHALE	9.0	51.0	
560.1	SHELBURN		SHALE WITH LIMESTONE	4.0	60.0	
556.1	SHELBURN		DARK SHALE	6.0	64.0	
550.1	CARBONDALE	ANNA	BLACK SHALE	1.0	70.0	
549.1	CARBONDALE	HERRIN	COAL	3.0	71.0	HARD
546.1	CARBONDALE		UNDERCLAY	3.0	74.0	

MAPID: 18390530000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.689564    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143472    DATE COLLECTED: 1 / 16 / 1967

SURFACE ELEVATION (FT.): 636.4    LOGGED (FT.): 88.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    187MC    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
636.4	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
614.4	PLEISTOCENE		UNCONSOLIDATED	36.0	22.0	
578.4	SHELBURN	DANVILLE	COAL	1.0	58.0	SOFT; TOP ERODED
577.4	SHELBURN		MICACEOUS SHALE	9.0	59.0	
568.4	CARBONDALE	ANNA	DARK SHALE	12.0	68.0	
556.4	CARBONDALE	HERRIN	COAL	6.8	80.0	HARD
549.6	CARBONDALE		UNDERCLAY	1.2	86.8	

**MAPID:** 18390531000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689564    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143472    **DATE COLLECTED:** 1 / 19 / 1967  
**SURFACE ELEVATION (FT.):** 622.3    **LOGGED (FT.):** 65.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    187NC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
622.3	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
616.3	PLEISTOCENE		UNCONSOLIDATED	46.0	6.0	
570.3	SHELBURN		GRAY SHALE	5.0	52.0	
565.3	CARBONDALE	ANNA	DARK SHALE	4.0	57.0	
561.3	CARBONDALE	HERRIN	COAL	2.5	61.0	HARD
558.8	CARBONDALE		UNDERCLAY	1.5	63.5	

**MAPID:** 18390532000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689564    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143472    **DATE COLLECTED:** 1 / 9 / 1967  
**SURFACE ELEVATION (FT.):** 627.3    **LOGGED (FT.):** 46.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    187PA    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
627.3	PLEISTOCENE		UNCONSOLIDATED	39.0	0.0	
588.3	SHELBURN	DANVILLE	COAL	5.5	39.0	FAIR, MED. HARD; TOP ERODED
582.8	SHELBURN		UNDERCLAY	1.5	44.5	

**MAPID:** 18390533000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689564    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143472    **DATE COLLECTED:** 1 / 16 / 1967  
**SURFACE ELEVATION (FT.):** 624.0    **LOGGED (FT.):** 73.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    187PC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
624.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
612.0	PLEISTOCENE		UNCONSOLIDATED	35.0	12.0	
577.0	SHELBURN		MICACEOUS SHALE	11.0	47.0	
566.0	CARBONDALE	ANNA	DARK SHALE	7.0	58.0	
559.0	CARBONDALE	HERRIN	COAL	6.1	65.0	MED. HARD
552.9	CARBONDALE		UNDERCLAY	1.9	71.1	

**MAPID:** 18390534000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689564    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143472    **DATE COLLECTED:** 1 / 9 / 1967  
**SURFACE ELEVATION (FT.):** 631.4    **LOGGED (FT.):** 47.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    187X    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
631.4	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0	
591.4	SHELBURN	DANVILLE	COAL	5.5	40.0	SOFT; TOP ERODED
585.9	SHELBURN		UNDERCLAY	1.5	45.5	

**MAPID:** 18390535000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.689564    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.143472    **DATE COLLECTED:** 1 / 9 / 1967  
**SURFACE ELEVATION (FT.):** 631.4    **LOGGED (FT.):** 46.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    187Y    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
631.4	PLEISTOCENE		UNCONSOLIDATED	39.0	0.0	
592.4	SHELBURN	DANVILLE	COAL	5.3	39.0	HARD; TOP ERODED
587.1	SHELBURN		UNDERCLAY	1.7	44.3	

MAPID: 18390536000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689564 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472 DATE COLLECTED: 3 / 6 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 63.5 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 188 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
633.0	PLEISTOCENE		SAND & GRAVEL	13.0	7.0	
620.0	SHELBURN		SANDY SHALE	14.0	20.0	RED
606.0	SHELBURN	DANVILLE	COAL	1.0	34.0	BLOOM
605.0	SHELBURN		SANDY SHALE	4.0	35.0	RED
601.0	SHELBURN		SHALE	10.0	39.0	WHITE
591.0	SHELBURN		SANDSTONE	3.0	49.0	
588.0	SHELBURN		SANDSTONE	3.0	52.0	HARD
585.0	SHELBURN		BLACK SHALE	4.0	55.0	
581.0	SHELBURN		ROCK	0.3	59.0	HARD
580.7	CARBONDALE	ANNA	BLACK SHALE	0.3	59.3	
580.5	CARBONDALE	HERRIN	COAL	2.0	59.5	
578.5	CARBONDALE		UNDERCLAY	2.0	61.5	

MAPID: 18390537000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684893 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.14347 DATE COLLECTED: 3 / 20 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 74.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 188B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
633.0	PLEISTOCENE		SAND	8.0	7.0	
625.0	SHELBURN		SANDY SHALE	14.0	15.0	
611.0	SHELBURN		SANDY SHALE	18.0	29.0	RED
593.0	SHELBURN		SHALE	7.0	47.0	GREEN
586.0	SHELBURN	DANVILLE	COAL	2.6	54.0	SOFT, WITH BLOOM
583.4	SHELBURN		UNDERCLAY	8.0	56.6	
575.4	SHELBURN		SANDSTONE	1.7	64.6	
573.7	CARBONDALE	ANNA	BLACK SHALE	3.0	66.3	
570.7	CARBONDALE	ANNA	BLACK SHALE	0.3	69.3	
570.5	CARBONDALE	HERRIN	COAL	5.3	69.5	LITTLE SOFT

MAPID: 18390538000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689564 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472 DATE COLLECTED: 3 / 19 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 89.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 188C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
629.0	PLEISTOCENE		SAND & GRAVEL	17.0	11.0	
612.0	SHELBURN		SANDY SHALE	12.0	28.0	
600.0	SHELBURN		SANDY SHALE	15.0	40.0	RED
585.0	SHELBURN		SHALE	12.0	55.0	WHITE
573.0	SHELBURN		SANDSTONE	4.0	67.0	
569.0	SHELBURN		SHALE	11.0	71.0	BLUE
558.0	SHELBURN	DANVILLE	COAL	7.0	82.0	FAIR

MAPID: 18390539000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689564 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472 DATE COLLECTED: 1 / 16 / 1967

SURFACE ELEVATION (FT.): 641.3 LOGGED (FT.): 94.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 188JC WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
641.3	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0	
618.3	PLEISTOCENE		CLAY	38.0	23.0	
580.3	SHELBURN		DARK SHALE	1.0	61.0	
579.3	SHELBURN		MICACEOUS SHALE	11.0	62.0	SOFT
568.3	SHELBURN		MICACEOUS SHALE	5.0	73.0	HARD
563.3	SHELBURN		DARK SHALE	6.0	78.0	
557.3	SHELBURN	BRERETON	LIMESTONE	0.3	84.0	
557.0	CARBONDALE	ANNA	BLACK SHALE	1.7	84.3	
555.3	CARBONDALE	HERRIN	COAL	1.0	86.0	BONE, HARD
554.3	CARBONDALE	HERRIN	COAL	6.3	87.0	MED HARD
548.0	CARBONDALE		UNDERCLAY	0.8	93.3	

MAPID: 1839054000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684893

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.14347

DATE COLLECTED: 1 / 17 / 1967

SURFACE ELEVATION (FT.): 639.8 LOGGED (FT.): 92.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 188KC

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
639.8	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
625.8	PLEISTOCENE		UNCONSOLIDATED	43.0	14.0	
582.8	SHELburn	DANVILLE	COAL	1.0	57.0	SOFT; TOP ERODED
581.8	SHELburn		MICACEOUS SHALE	9.0	58.0	SOFT
572.8	SHELburn		MICACEOUS SHALE	5.0	67.0	HARD
567.8	CARBONDALE	ANNA	DARK SHALE	11.0	72.0	
556.8	CARBONDALE	HERRIN	COAL	1.0	83.0	BONY, HARD
555.8	CARBONDALE	HERRIN	COAL	6.2	84.0	
549.6	CARBONDALE		UNDERCLAY	1.8	90.2	

MAPID: 18390541000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684893

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.14347

DATE COLLECTED: 1 / 19 / 1967

SURFACE ELEVATION (FT.): 644.6 LOGGED (FT.): 97.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 188MCB

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
644.6	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
627.6	PLEISTOCENE		UNCONSOLIDATED	50.0	17.0	
577.6	SHELburn		GRAY SHALE	18.0	67.0	MED. HARD
559.6	CARBONDALE	ANNA	BLACK SHALE	5.0	85.0	
554.6	CARBONDALE	HERRIN	COAL	5.6	90.0	HARD
549.0	CARBONDALE		UNDERCLAY	1.4	95.6	

MAPID: 18390542000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684893 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.14347 DATE COLLECTED: 1 / 16 / 1967

SURFACE ELEVATION (FT.): 635.4 LOGGED (FT.): 89.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 188NC WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.4	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
621.4	PLEISTOCENE		CLAY	37.0	14.0	
584.4	SHELBURN		DARK SHALE	1.0	51.0	
583.4	SHELBURN	DANVILLE	COAL	1.0	52.0	WITH SLATE
582.4	SHELBURN		MICACEOUS SHALE	18.0	53.0	
564.4	CARBONDALE	ANNA	DARK SHALE	9.0	71.0	
555.4	CARBONDALE	HERRIN	COAL	0.7	80.0	BONY, HARD
554.7	CARBONDALE	HERRIN	COAL	6.6	80.7	
548.1	CARBONDALE		UNDERCLAY	1.8	87.3	

MAPID: 18390543000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684893 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.14347 DATE COLLECTED: 1 / 19 / 1967

SURFACE ELEVATION (FT.): 642.2 LOGGED (FT.): 94.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 188PCB WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
642.2	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
628.2	PLEISTOCENE		CLAY	60.0	14.0	
568.2	SHELBURN		MICACEOUS SHALE	10.0	74.0	
558.2	CARBONDALE	ANNA	BLACK SHALE	3.0	84.0	
555.2	CARBONDALE	HERRIN	COAL	0.8	87.0	BONE; HARD
554.4	CARBONDALE	HERRIN	COAL	5.0	87.8	MED. HARD
549.4	CARBONDALE		UNDERCLAY	1.2	92.8	

MAPID: 18390544000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684893

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.14347

DATE COLLECTED: 1 / 17 / 1967

SURFACE ELEVATION (FT.): 630.2 LOGGED (FT.): 79.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 188Z

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.2	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
618.2	PLEISTOCENE		UNCONSOLIDATED	36.0	12.0	
582.2	SHELBURN		MICACEOUS SHALE	17.0	48.0	
565.2	CARBONDALE	ANNA	DARK SHALE	9.0	65.0	
556.2	CARBONDALE	HERRIN	COAL	3.1	74.0	MED. SOFT
553.1	CARBONDALE		UNDERCLAY	1.9	77.1	

MAPID: 18390545000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684893

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.14347

DATE COLLECTED: 8 / 0 / 1934

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 92.9

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 189

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
620.0	PLEISTOCENE		SAND	0.7	20.0	
619.3	SHELBURN		SANDY SHALE	45.0	20.7	RED
574.3	SHELBURN		SANDY SHALE	18.0	65.7	
556.3	CARBONDALE	ANNA	BLACK SHALE	2.0	83.7	
554.3	CARBONDALE	HERRIN	COAL	7.3	85.7	



MAPID: 18390546000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.684893 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.14347 DATE COLLECTED: 2 / 25 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 82.3 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 189A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
632.0	PLEISTOCENE		SAND & GRAVEL	7.5	8.0	
624.5	SHELBURN		SANDY SHALE	14.0	15.5	
610.5	SHELBURN		SANDY SHALE	6.5	29.5	WHITE
604.0	SHELBURN		SANDSTONE	3.0	36.0	SOFT, WITH GRAVEL
601.0	SHELBURN		SANDY SHALE	14.0	39.0	RED
587.0	SHELBURN		SHALE	19.0	53.0	WHITE
568.0	CARBONDALE		UNKNOWN	4.0	72.0	DRILLER REPORTS SOFT BLACK MUCK
564.0	CARBONDALE	HERRIN	COAL	6.3	76.0	GOOD

MAPID: 18390563000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.689564 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143472 DATE COLLECTED: 2 / 23 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 66.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 211 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
629.0	SHELBURN		SANDY SHALE	29.0	11.0	
600.0	SHELBURN		SANDSTONE	2.0	40.0	SOFT, WITH GRAVEL
598.0	SHELBURN		ROCK	0.7	42.0	
597.3	SHELBURN		SANDY SHALE	18.3	42.7	RED
579.0	SHELBURN	DANVILLE	COAL	5.0	61.0	SOFT, GOOD

MAPID: 18390564000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.689564

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143472

DATE COLLECTED: 3 / 15 / 1937

SURFACE ELEVATION (FT.): 650.0

LOGGED (FT.): 98.1

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    213

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0	PLEISTOCENE			18.0	0.0	
632.0	SHELBURN		SANDY SHALE	22.0	18.0	
610.0	SHELBURN		SANDY SHALE	21.0	40.0	RED
589.0	SHELBURN	DANVILLE	COAL	1.5	61.0	BLOOM
587.5	SHELBURN		SHALE	14.0	62.5	WHITE
573.5	SHELBURN		SANDSTONE	5.0	76.5	
568.5	SHELBURN		SHALE	10.0	81.5	BLUE
558.5	CARBONDALE	HERRIN	COAL	6.6	91.5	FAIR

MAPID: 18390565000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 2    QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.684893

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.14347

DATE COLLECTED: 3 / 16 / 1937

SURFACE ELEVATION (FT.): 640.0

LOGGED (FT.): 86.9

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    214

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
626.0	SHELBURN		SANDY SHALE	6.0	14.0	WHITE
620.0	SHELBURN		SANDSTONE	20.0	20.0	SOFT, WITH GRAVEL
600.0	SHELBURN		SANDY SHALE	31.0	40.0	RED
569.0	SHELBURN		SANDY SHALE	14.0	71.0	WHITE
555.0	SHELBURN	DANVILLE	COAL	1.9	85.0	SOFT, WITH BLOOM

MAPID: 18390782000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES:

QUADRANGLE: DANVILLE NW LONGITUDE: -87.687234

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.138095

DATE COLLECTED:

SURFACE ELEVATION (FT.): 640.0

LOGGED (FT.): 77.8

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
628.0	PLEISTOCENE		SAND & GRAVEL	18.0	12.0	
610.0	SHELBURN		SANDY SHALE	19.0	30.0	RED
591.0	SHELBURN		GRAY SHALE	4.0	49.0	
587.0	SHELBURN		BLACK SHALE	6.0	53.0	SOFT, GRAY
581.0	SHELBURN		BLACK SHALE	8.0	59.0	GRAY
573.0	SHELBURN		BLACK SHALE	2.3	67.0	DARK
570.7	SHELBURN	DANVILLE	COAL	6.2	69.3	
564.5	SHELBURN		UNCLASSIFIED	0.9	75.5	DIRTY
563.6	SHELBURN		COAL	1.2	76.4	
562.4	SHELBURN		UNKNOWN	0.3	77.6	LITH. NOT RECORDED

MAPID: 18390784000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE:

DATE COLLECTED: 12 / 30 / 1935

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 38.5

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE A3

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE			2.0	0.0	
638.0			SHALE	9.0	2.0	WHITE
629.0			SANDSTONE	2.0	11.0	SOFT, WITH GRAVEL
627.0			SHALE	9.0	13.0	RED
618.0			SANDSTONE	2.0	22.0	SOFT
616.0			SHALE	10.0	24.0	RED
606.0				4.5	34.0	

**MAPID:** 18390785000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** SE NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.680209    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.139864    **DATE COLLECTED:** 1 / 0 / 1936  
**SURFACE ELEVATION (FT.):** 610.0    **LOGGED (FT.):** 61.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    A4    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
604.0	PLEISTOCENE		SAND	5.0	6.0	
599.0	PLEISTOCENE		CLAY	8.0	11.0	BLUE
591.0	PLEISTOCENE		SAND & GRAVEL	11.0	19.0	
580.0	SHELBURN		SANDY SHALE	13.0	30.0	RED
567.0	SHELBURN		SHALE	10.0	43.0	WHITE
557.0	SHELBURN		BLACK SHALE	1.0	53.0	BLACK
556.0	SHELBURN	DANVILLE	COAL	7.0	54.0	

**MAPID:** 18390786000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 2    **QUARTERS/FOOTAGES:** SW NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.684891    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.13988    **DATE COLLECTED:** 1 / 8 / 1935  
**SURFACE ELEVATION (FT.):** 640.0    **LOGGED (FT.):** 79.3    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    A5    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
629.0	PLEISTOCENE		SAND & GRAVEL	7.0	11.0	
622.0	SHELBURN		SANDY SHALE	17.0	18.0	WHITE
605.0	SHELBURN		SHALE	18.0	35.0	RED
587.0	SHELBURN		SHALE	9.0	53.0	WHITE
578.0	SHELBURN		CLAY	1.3	62.0	BOUL
576.7	SHELBURN		SHALE	12.0	63.3	WHITE, BLACK STREAKS
564.7	SHELBURN	DANVILLE	COAL	4.0	75.3	

MAPID: 18390787000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.694276 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136346 DATE COLLECTED: 1 / 20 / 1935

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 103.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE A6 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
628.0	PLEISTOCENE		SAND	2.5	12.0	
625.5	SHELBURN		SANDY SHALE	17.0	14.5	WHITE
608.5	SHELBURN		SANDSTONE	3.0	31.5	SOFT
605.5	SHELBURN		SANDY SHALE	10.0	34.5	
595.5	SHELBURN		SANDY SHALE	13.0	44.5	RED
582.5	SHELBURN		SANDSTONE	4.0	57.5	SOFT, WITH GRAVEL
578.5	SHELBURN		SANDY SHALE	5.0	61.5	RED
573.5	SHELBURN		SHALE	9.8	66.5	SOFT, WHITE
563.7	SHELBURN		SHALE	2.6	76.3	BLACK AND WHITE
561.1	SHELBURN		SHALE	4.3	78.9	SOFT, WHITE
556.8	SHELBURN		SANDY SHALE	8.4	83.2	
548.4	CARBONDALE	ANNA	BLACK SHALE	6.0	91.6	SOFT, BLACK
542.4	CARBONDALE	HERRIN	COAL	6.2	97.6	

MAPID: 18390789000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 2 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.680196 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136261 DATE COLLECTED:

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 29.6 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 1E WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		SOIL	2.0	0.0	
608.0	PLEISTOCENE		SAND & GRAVEL	5.0	2.0	
603.0	SHELBURN		SHALE	16.5	7.0	
586.5	SHELBURN	DANVILLE	COAL	6.1	23.5	

MAPID: 18300972000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: 1350' S line, 1910' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.703501 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.13476 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 645.0 LOGGED (FT.): 81.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 384C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
645.0	PLEISTOCENE		CLAY	8.4	0.0	
636.6	PLEISTOCENE		CLAY	11.3	8.4	
625.3	PLEISTOCENE		SAND	32.4	19.7	
592.9	PLEISTOCENE		CLAY	10.8	52.1	
582.1	MODESTO		SHALE	9.8	62.9	
572.3	CARBONDALE	DANVILLE	COAL	1.7	72.7	
570.6	CARBONDALE	DANVILLE	PYRITE	0.2	74.4	
570.4	CARBONDALE	DANVILLE	COAL	3.5	74.6	
567.0	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.3	78.0	NOT IN CORE
566.7	CARBONDALE	DANVILLE	COAL	0.3	78.3	
566.4	CARBONDALE	DANVILLE	BLACK SHALE	0.4	78.6	
566.0	CARBONDALE	DANVILLE	GRAY SHALE	1.1	79.0	
564.9	CARBONDALE	DANVILLE	RASH	0.4	80.1	
564.5	CARBONDALE	DANVILLE	COAL	0.5	80.5	

MAPID: 18300982000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: 2660' S line, 4620' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.713218 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.13839 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 639.0 LOGGED (FT.): 91.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 374F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
639.0	PLEISTOCENE		SANDY CLAY	2.9	0.0	
636.1	PLEISTOCENE		SANDY CLAY	49.3	2.9	
586.8	PLEISTOCENE		SANDY CLAY	3.5	52.2	
583.3	MODESTO		GRAY SHALE	26.6	55.7	
556.7	CARBONDALE	DANVILLE	CLOD	0.3	82.3	
556.4	CARBONDALE	DANVILLE	COAL	6.5	82.6	
549.9	CARBONDALE	DANVILLE	CLAYSTONE	0.8	89.1	
549.1	CARBONDALE	DANVILLE	COAL	1.1	89.9	
548.0	CARBONDALE		UNDERCLAY	0.7	91.0	

MAPID: 18300983000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: 1975' S line, 35' W line  
 QUADRANGLE: DANVILLE NW LONGITUDE: -87.715827 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 40.136503 DATE COLLECTED: 4 / 19 / 1940  
 SURFACE ELEVATION (FT.): 637.0 LOGGED (FT.): 101.4 LOG TYPE: Drillers Log  
 SOURCE: AYRSHIRE COLLIERIES CORP 373F WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
637.0	PLEISTOCENE		CLAY	4.4	0.0
632.6	PLEISTOCENE		SANDY CLAY	27.3	4.4
605.3	PLEISTOCENE		CLAY	15.5	31.7
589.8	MODESTO		GRAY SHALE	42.9	47.2
546.9	CARBONDALE	DANVILLE	CLOD	0.3	90.1
546.6	CARBONDALE	DANVILLE	COAL	1.6	90.4
545.0	CARBONDALE	DANVILLE	PYRITE	0.1	92.0
544.9	CARBONDALE	DANVILLE	COAL	4.8	92.1
540.1	CARBONDALE		UNDERCLAY	4.3	96.9
535.8	CARBONDALE		LIGHT SHALE	0.2	101.2

MAPID: 18300984000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: 1975' S line, 670' W line  
 QUADRANGLE: DANVILLE NW LONGITUDE: -87.713544 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 40.136499 DATE COLLECTED: 4 / 19 / 1940  
 SURFACE ELEVATION (FT.): 636.0 LOGGED (FT.): 83.8 LOG TYPE: Drillers Log  
 SOURCE: AYRSHIRE COLLIERIES CORP 372F WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
636.0	PLEISTOCENE		CLAY	9.2	0.0
626.8	PLEISTOCENE		SANDY CLAY	25.5	9.2
601.3	PLEISTOCENE		CLAY	16.5	34.7
584.8	PLEISTOCENE		CLAY	19.0	51.2
565.8	MODESTO		GRAY SHALE	3.2	70.2
562.6	MODESTO		BLACK SHALE	1.4	73.4
561.2	CARBONDALE	DANVILLE	COAL	6.1	74.8
555.1	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.8	80.9
553.3	CARBONDALE	DANVILLE	COAL	0.7	82.7
552.6	CARBONDALE		UNDERCLAY	0.4	83.4

PROBABLE SF GY SHALE  
M.B.

MAPID: 18300985000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: 1970' S line, 3965' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.710879 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.136481 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 81.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 371F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
635.0	PLEISTOCENE		CLAY	9.8	0.0
625.2	PLEISTOCENE		SANDY CLAY	41.2	9.8
584.0	MODESTO		GRAY SHALE	19.3	51.0
564.7	CARBONDALE	DANVILLE	CLOD	0.2	70.3
564.5	CARBONDALE	DANVILLE	COAL	3.1	70.5
561.4	CARBONDALE	DANVILLE	PYRITE	0.1	73.6
561.3	CARBONDALE	DANVILLE	COAL	3.2	73.7
558.1	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	2.0	76.9
556.1	CARBONDALE	DANVILLE	COAL	1.3	78.9
554.8	CARBONDALE		UNDERCLAY	1.5	80.2

MAPID: 18300988000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: 1960' N line, 2610' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.705984 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.139851 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 648.0 LOGGED (FT.): 98.4 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 368F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
648.0	PLEISTOCENE		CLAY	8.6	0.0
639.4	PLEISTOCENE		SANDY CLAY	40.7	8.6
598.7	MODESTO		RED SHALE	13.0	49.3
585.7	MODESTO		GRAY SHALE	22.0	62.3
563.7	MODESTO		DARK GRAY SHALE	3.9	84.3
559.8	CARBONDALE	DANVILLE	CLOD	0.4	88.2
559.4	CARBONDALE	DANVILLE	COAL	6.7	88.6
552.7	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.2	95.3
551.5	CARBONDALE	DANVILLE	COAL	1.6	96.5
549.9	CARBONDALE		UNDERCLAY	0.3	98.1



MAPID: 18300989000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: 2610' S line, 1990' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.703764 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.138236 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 642.0 LOGGED (FT.): 91.6 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 367F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
642.0	PLEISTOCENE		CLAY	3.8	0.0
638.2	PLEISTOCENE		SANDY CLAY	53.7	3.8
584.5	MODESTO		GRAY SHALE	25.4	57.5
559.1	CARBONDALE	DANVILLE	CLOD	0.3	82.9
558.8	CARBONDALE	DANVILLE	COAL	3.7	83.2
555.1	CARBONDALE	DANVILLE	PYRITE	0.1	86.9
555.0	CARBONDALE	DANVILLE	COAL	2.6	87.0
552.4	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.5	89.6
551.9	CARBONDALE	DANVILLE	COAL	0.9	90.1
551.0	CARBONDALE		UNDERCLAY	0.6	91.0

MAPID: 18300990000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: 1950' S line, 2600' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.705972 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.136418 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 637.0 LOGGED (FT.): 83.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 366F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
637.0	PLEISTOCENE		CLAY	4.0	0.0
633.0	PLEISTOCENE		SANDY CLAY	48.5	4.0
584.5	MODESTO		GRAY SHALE	20.5	52.5
564.0	CARBONDALE	DANVILLE	CLOD	0.2	73.0
563.8	CARBONDALE	DANVILLE	COAL	5.7	73.2
558.1	CARBONDALE	DANVILLE	COAL	1.1	78.9
557.0	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.2	80.0
555.8	CARBONDALE	DANVILLE	COAL	1.2	81.2
554.6	CARBONDALE		UNDERCLAY	1.3	82.4

MAPID: 18300991000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: 2610' S line, 3270' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.708367 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.138242 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 89.6 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 365F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
638.0	PLEISTOCENE		CLAY	9.3	0.0
628.7	PLEISTOCENE		CLAY	47.2	9.3
581.5	MODESTO		GRAY SHALE	21.2	56.5
560.3	CARBONDALE	DANVILLE	CLOD	1.8	77.7
558.5	CARBONDALE	DANVILLE	COAL	0.5	79.5
558.0	CARBONDALE	DANVILLE	PYRITE	0.1	80.0
557.9	CARBONDALE	DANVILLE	COAL	5.2	80.1
552.7	CARBONDALE	DANVILLE	PYRITE	0.1	85.3
552.6	CARBONDALE	DANVILLE	COAL	1.0	85.4
551.6	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.2	86.4
550.4	CARBONDALE	DANVILLE	COAL	1.2	87.6
549.2	CARBONDALE		UNDERCLAY	0.8	88.8

MAPID: 18300992000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: 1330' S line, 3270' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.708393 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.134712 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 636.0 LOGGED (FT.): 82.4 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 364F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
636.0	PLEISTOCENE		CLAY	9.8	0.0
626.2	PLEISTOCENE		CLAY	41.6	9.8
584.6	MODESTO		GRAY SHALE	19.0	51.4
565.6	CARBONDALE	DANVILLE	CLOD	0.7	70.4
564.9	CARBONDALE	DANVILLE	PYRITE	0.2	71.1
564.7	CARBONDALE	DANVILLE	COAL	7.3	71.3
557.4	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.9	78.6
556.5	CARBONDALE	DANVILLE	COAL	1.5	79.5
555.0	CARBONDALE		UNDERCLAY	1.4	81.0

MAPID: 18300994000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: 1330' S line, 660' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.699007 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.134697 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 645.0 LOGGED (FT.): 89.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 362F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
645.0	PLEISTOCENE		CLAY	8.4	0.0
636.6	PLEISTOCENE		CLAY	34.1	8.4
602.5	PLEISTOCENE		CLAY	18.4	42.5
584.1	MODESTO		GRAY SHALE	15.8	60.9
568.3	CARBONDALE	DANVILLE	CLOD	0.8	76.7
567.5	CARBONDALE	DANVILLE	PYRITE	0.5	77.5
567.0	CARBONDALE	DANVILLE	COAL	5.9	78.0
561.1	CARBONDALE	DANVILLE	PYRITE	0.1	83.9
561.0	CARBONDALE	DANVILLE	COAL	1.1	84.0
559.9	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.2	85.1
558.7	CARBONDALE	DANVILLE	COAL	1.4	86.3
557.3	CARBONDALE		UNDERCLAY	1.3	87.7

MAPID: 18300995000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: 655' S line, 1300' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.701325 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.132839 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 646.0 LOGGED (FT.): 86.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 361F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
646.0	PLEISTOCENE		CLAY	8.8	0.0
637.2	PLEISTOCENE		SANDY CLAY	36.0	8.8
601.2	PLEISTOCENE		CLAY	18.4	44.8
582.8	MODESTO		GRAY SHALE	13.0	63.2
569.8	CARBONDALE	DANVILLE	CLOD	0.3	76.2
569.5	CARBONDALE	DANVILLE	COAL	7.4	76.5
562.1	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.7	83.9
561.4	CARBONDALE	DANVILLE	COAL	1.1	84.6
560.3	CARBONDALE		UNDERCLAY	1.0	85.7

MAPID: 18300996000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: 1905' S line, 1340' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.701441 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.136288 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 641.0 LOGGED (FT.): 86.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 360F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
641.0	PLEISTOCENE		CLAY	6.7	0.0
634.3	PLEISTOCENE		SANDY CLAY	32.8	6.7
601.5	PLEISTOCENE		CLAY	19.6	39.5
581.9	MODESTO		GRAY SHALE	16.4	59.1
565.5	CARBONDALE	DANVILLE	CLOD	0.3	75.5
565.2	CARBONDALE	DANVILLE	PYRITE	0.2	75.8
565.0	CARBONDALE	DANVILLE	COAL	5.4	76.0
559.6	CARBONDALE	DANVILLE	PYRITE	0.1	81.4
559.5	CARBONDALE	DANVILLE	COAL	2.3	81.5
557.2	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.6	83.8
556.6	CARBONDALE	DANVILLE	COAL	1.0	84.4
555.6	CARBONDALE		UNDERCLAY	0.9	85.4
554.7	CARBONDALE		GRAY SHALE	0.5	86.3

MAPID: 18300998000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: 2670' S line, 660' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.698984 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.138393 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 645.0 LOGGED (FT.): 88.9 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 358F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
645.0	PLEISTOCENE		CLAY	6.3	0.0
638.7	PLEISTOCENE		SANDY CLAY	44.0	6.3
594.7	MODESTO		GRAY SHALE	26.5	50.3
568.2	MODESTO		BLACK SHALE	1.7	76.8
566.5	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.2	78.5
566.3	CARBONDALE	DANVILLE	COAL	6.0	78.7
560.3	CARBONDALE	DANVILLE	PYRITE	0.2	84.7
560.1	CARBONDALE	DANVILLE	COAL	1.3	84.9
558.8	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.1	86.2
557.7	CARBONDALE	DANVILLE	COAL	1.1	87.3
556.6	CARBONDALE		UNDERCLAY	0.5	88.4

MAPID: 1830100000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: 3920' S line, 690' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.699067 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.141841 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 644.0 LOGGED (FT.): 97.2 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 356F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
644.0	PLEISTOCENE		CLAY	10.4	0.0
633.6	PLEISTOCENE		SANDY CLAY	32.9	10.4
600.7	PLEISTOCENE		CLAY	18.0	43.3
582.7	MODESTO		GRAY SHALE	23.5	61.3
559.2	CARBONDALE	DANVILLE	CLOD	0.5	84.8
558.7	CARBONDALE	DANVILLE	COAL	5.5	85.3
553.2	CARBONDALE	DANVILLE	PYRITE	0.1	90.8
553.1	CARBONDALE	DANVILLE	COAL	3.6	90.9
549.5	CARBONDALE		UNDERCLAY	0.6	94.5
548.9	CARBONDALE		GRAY SHALE	2.1	95.1

MAPID: 18301017000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: 1360' S line, 35' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.696761 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.134776 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 646.0 LOGGED (FT.): 85.1 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 339F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
646.0	PLEISTOCENE		SAND	8.3	0.0
637.7	PLEISTOCENE		SANDY CLAY	29.3	8.3
608.4	PLEISTOCENE		CLAY	27.3	37.6
581.2	MODESTO		GRAY SHALE	6.4	64.8
574.7	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.9	71.3
572.8	CARBONDALE	DANVILLE	COAL	0.6	73.2
572.2	CARBONDALE	DANVILLE	COAL	6.7	73.8
565.6	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.0	80.4
564.6	CARBONDALE	DANVILLE	COAL	1.4	81.4
563.2	CARBONDALE		UNDERCLAY	2.3	82.8

MAPID: 18390084000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.714721

GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.131943

DATE COLLECTED: 2 / 12 / 1936

SURFACE ELEVATION (FT.): 640.0

LOGGED (FT.): 94.0

LOG TYPE: Drillers Log

SOURCE: AMAX 1

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
628.0	PLEISTOCENE		SAND & GRAVEL	4.0	12.0	
624.0	SHELBURN		SANDY SHALE	52.0	16.0	
572.0	SHELBURN		SHALE	1.0	68.0	SOFT
571.0	SHELBURN		SHALE	19.0	69.0	WHITE
552.0	SHELBURN	DANVILLE	COAL	6.0	88.0	

MAPID: 18390085000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.7087

GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.132821

DATE COLLECTED: 2 / 16 / 1937

SURFACE ELEVATION (FT.): 640.0

LOGGED (FT.): 81.9

LOG TYPE: Drillers Log

SOURCE: AMAX 3

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
628.0	PLEISTOCENE		SAND	9.0	12.0	
619.0	PLEISTOCENE		CLAY, SAND & GRAVEL	14.0	21.0	
605.0	SHELBURN		SANDY SHALE	12.0	35.0	
593.0	SHELBURN		SHALE	18.0	47.0	WHITE & SOFT
575.0	SHELBURN		SHALE	11.0	65.0	WHITE & HARD
564.0	SHELBURN	DANVILLE	COAL	5.9	76.0	FAIR

MAPID: 18390086000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.705084 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.131927 DATE COLLECTED:

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 81.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 5 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
628.0	PLEISTOCENE		SAND & GRAVEL	4.0	12.0	
624.0	PLEISTOCENE		SILTY CLAY	22.0	16.0	SANDY
602.0	PLEISTOCENE		SAND & GRAVEL	2.0	38.0	
600.0	SHELBURN		RED SHALE	10.0	40.0	
590.0	SHELBURN		UNKNOWN	3.0	50.0	DRILLER REPORTS SAND & GRAVEL
587.0	SHELBURN		SHALE	2.0	53.0	RED
585.0	SHELBURN	FARMINGTON	SHALE	20.0	55.0	WHITE
565.0	SHELBURN	DANVILLE	COAL	6.0	75.0	

MAPID: 18390087000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.702675 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.131924 DATE COLLECTED: 2 / 16 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 81.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 7 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND & GRAVEL	26.0	10.0	
604.0	SHELBURN		SANDY SHALE	19.0	36.0	RED
585.0	SHELBURN		SHALE	20.0	55.0	WHITE & SOFT
565.0	SHELBURN	DANVILLE	COAL	6.0	75.0	
559.0	SHELBURN	DANVILLE	UNCLASSIFIED	0.1	81.0	
558.9	SHELBURN	DANVILLE	COAL	0.6	81.1	

MAPID: 18390088000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: SE SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.69906    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.132807    DATE COLLECTED: 3 / 8 / 1937

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 81.5    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    9    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
632.0	PLEISTOCENE		SAND & GRAVEL	7.0	8.0	
625.0	PLEISTOCENE		CLAY	18.0	15.0	
607.0	PLEISTOCENE		SAND & GRAVEL	3.0	33.0	
604.0	SHELBURN		SANDY SHALE	21.0	36.0	RED
583.0	SHELBURN		SANDY SHALE	11.0	57.0	
572.0	SHELBURN		SHALE	7.0	68.0	GREEN
565.0	SHELBURN	DANVILLE	COAL	5.0	75.0	
560.0	SHELBURN		UNDERCLAY	1.5	80.0	

MAPID: 18390089000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: SE SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.69906    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.132807    DATE COLLECTED: 2 / 23 / 1946

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 118.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    9C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
634.0	PLEISTOCENE		CLAY	43.0	6.0	& BOULDERS
591.0	PLEISTOCENE		CLAY	26.0	49.0	
565.0	SHELBURN		SHALE	14.0	75.0	WHITE
551.0	SHELBURN		SANDSTONE	2.0	89.0	
549.0	SHELBURN		BLACK SHALE	4.0	91.0	
545.0	SHELBURN		LIMESTONE	1.0	95.0	
544.0	SHELBURN		GRAY SHALE	22.0	96.0	



MAPID: 18390095000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.713519 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.132827 DATE COLLECTED: 5 / 4 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 91.1 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 27 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	SHELBURN		SANDY SHALE	25.0	10.0	WHITE
605.0	SHELBURN		SANDY SHALE	1.0	35.0	RED
604.0	SHELBURN		SANDSTONE	16.0	36.0	WHITE
588.0	SHELBURN		GRAY SHALE	10.0	52.0	SOFT
578.0	SHELBURN		UNKNOWN	3.0	62.0	DRILLER
575.0	SHELBURN		SHALE	20.0	65.0	BLUE
555.0	SHELBURN	DANVILLE	COAL	6.1	85.0	GOOD

MAPID: 18390096000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.7087 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.132821 DATE COLLECTED: 5 / 4 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 76.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 29 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
631.0	PLEISTOCENE		SAND & GRAVEL	4.0	9.0	
627.0	PLEISTOCENE		CLAY, SAND & GRAVEL	23.0	13.0	SHALY
604.0	SHELBURN		SANDY SHALE	18.0	36.0	
586.0	SHELBURN		GRAY SHALE	13.0	54.0	
573.0	SHELBURN		SHALE	3.0	67.0	BLUE
570.0	SHELBURN	DANVILLE	COAL	6.0	70.0	GOOD

MAPID: 18390097000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.7087    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.132821    DATE COLLECTED: 3 / 8 / 1946

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 112.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    30    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
633.0	PLEISTOCENE			56.0	7.0	& HARDPAN
577.0			SHALE	10.0	63.0	
567.0	SHELBURN		SHALE	3.0	73.0	
564.0	SHELBURN	DANVILLE	COAL	5.8	76.0	
558.2	SHELBURN		UNDERCLAY	3.5	81.8	
554.7	SHELBURN		SHALE	7.2	85.3	
547.5	SHELBURN		SANDSTONE	3.5	92.5	HARD
544.0			BLACK SHALE	3.5	96.0	
540.5			BLACK SHALE	0.5	99.5	HARD
540.0			SHALE	12.0	100.0	

MAPID: 18390098000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: SW SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.703878    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.132814    DATE COLLECTED: 5 / 3 / 1937

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 83.8    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    31    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
631.0	PLEISTOCENE		SAND & GRAVEL	10.0	9.0	
621.0	SHELBURN		SHALE & SANDSTONE	23.0	19.0	GRAY
598.0	SHELBURN		SHALE & SANDSTONE	21.0	42.0	RED
577.0	SHELBURN		SHALE	15.0	63.0	DARK BLUE
562.0	SHELBURN	DANVILLE	COAL	5.8	78.0	

MAPID: 18390099000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.69906 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.132807 DATE COLLECTED: 4 / 29 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 86.2 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 33 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
631.0	PLEISTOCENE		SAND & GRAVEL	4.0	9.0	
627.0	SHELBURN		SANDY SHALE	26.0	13.0	GRAY
601.0	SHELBURN		SANDY SHALE	22.0	39.0	RED
579.0	SHELBURN		SHALE	19.0	61.0	WHITE
560.0	SHELBURN	DANVILLE	COAL	6.2	80.0	GOOD

MAPID: 18390111000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.713519 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.132827 DATE COLLECTED: 2 / 13 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 96.3 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 51 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
622.0	SHELBURN		SHALE & SANDSTONE	17.0	18.0	
605.0	SHELBURN		SANDY SHALE	10.0	35.0	RED
595.0	SHELBURN		SHALE	29.0	45.0	WHITE
566.0	SHELBURN		SHALE	4.0	74.0	WHITE HARD
562.0	SHELBURN		SHALE	13.0	78.0	WHITE
549.0	SHELBURN	DANVILLE	COAL	5.3	91.0	GOOD & HARD

MAPID: 18390112000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.7087 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.132821 DATE COLLECTED: 2 / 19 / 1936

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 80.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 53 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND & GRAVEL	5.0	10.0	
625.0	PLEISTOCENE		SILTY CLAY	5.0	15.0	WHITE
620.0	PLEISTOCENE		SAND & GRAVEL	50.0	20.0	
570.0	SHELBURN	FARMINGTON	SHALE	4.0	70.0	WHITE
566.0	SHELBURN	DANVILLE	COAL	6.0	74.0	

MAPID: 18390113000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: SW NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.705079 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.135482 DATE COLLECTED: 2 / 20 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 77.5 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 55 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
634.0	PLEISTOCENE		SAND & GRAVEL	8.0	6.0	
626.0	PLEISTOCENE		SAND/CLAY	26.0	14.0	
600.0	PLEISTOCENE		SAND	2.0	40.0	
598.0	SHELBURN		SANDY SHALE	12.0	42.0	
586.0	SHELBURN		SHALE	17.0	54.0	SOFT
569.0	SHELBURN	DANVILLE	COAL	1.3	71.0	WITH SULPHER
567.7	SHELBURN	DANVILLE	COAL	5.3	72.3	FAIRLY GOOD

MAPID: 18390114000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: SW NE SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.70025    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.135475    DATE COLLECTED: 2 / 19 / 1936

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 79.3    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    57    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND & GRAVEL	12.0	10.0	
618.0	SHELBURN		SANDY SHALE	18.0	22.0	WHITE
600.0	SHELBURN		UNKNOWN	2.0	40.0	DRILLER REPORTS SAND & GRAVEL
598.0	SHELBURN		SHALE	21.0	42.0	RED
577.0	SHELBURN	FARMINGTON	SHALE	10.5	63.0	WHITE
566.5	SHELBURN	DANVILLE	COAL	5.8	73.5	

MAPID: 18390137000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.708703    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.136376    DATE COLLECTED: 5 / 3 / 1937

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 55.6    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    79    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND & GRAVEL	34.0	10.0	
596.0	SHELBURN		SHALE	5.8	44.0	WHITE
590.2	SHELBURN	DANVILLE	COAL	5.8	49.8	GOOD

MAPID: 18390138000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.70387 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136369 DATE COLLECTED: 4 / 30 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 77.5 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 81 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
629.0	SHELBURN		SANDY SHALE	29.0	11.0	WHITE
600.0	SHELBURN		SANDY SHALE	9.0	40.0	RED
591.0	SHELBURN		SANDSTONE	1.0	49.0	SOFT
590.0	SHELBURN		SANDY SHALE	8.0	50.0	RED
582.0	SHELBURN		SHALE	5.0	58.0	WHITE
577.0	SHELBURN		SHALE	9.0	63.0	BLUE
568.0	SHELBURN	DANVILLE	COAL	5.5	72.0	SOFT

MAPID: 18390139000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.69904 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136362 DATE COLLECTED: 1 / 30 / 1946

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 120.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 82-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
634.0	PLEISTOCENE		CLAY	44.0	6.0	
590.0	PLEISTOCENE		CLAY	15.0	50.0	
575.0	SHELBURN		SHALE	12.0	65.0	
563.0	SHELBURN	DANVILLE	COAL	4.2	77.0	
558.8	SHELBURN	DANVILLE	CLAYSTONE	0.4	81.2	
558.4	SHELBURN	DANVILLE	COAL	1.3	81.6	
557.1	SHELBURN		UNDERCLAY	2.1	82.9	
555.0	SHELBURN		SHALE	9.0	85.0	
546.0	SHELBURN		SANDSTONE	2.0	94.0	
544.0	SHELBURN		SHALE	18.0	96.0	
526.0	SHELBURN		SANDSTONE	2.5	114.0	
523.5	SHELBURN		SHALE	3.5	116.5	

MAPID: 1839014000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.69904 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136362 DATE COLLECTED: 4 / 29 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 83.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 83 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
621.0	PLEISTOCENE		SAND & GRAVEL	4.0	19.0	
617.0	SHELBURN		SANDY SHALE	21.0	23.0	WHITE
596.0	SHELBURN		SANDY SHALE	21.0	44.0	RED
575.0	SHELBURN		SHALE	12.0	65.0	BLUE
563.0	SHELBURN	DANVILLE	COAL	6.0	77.0	GOOD

MAPID: 18390141000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.69904 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136362 DATE COLLECTED: 4 / 5 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 74.1 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 84 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND & GRAVEL	8.0	10.0	
622.0	SHELBURN		SANDY SHALE	20.0	18.0	
602.0	SHELBURN		SANDY SHALE	14.0	38.0	RED
588.0	SHELBURN		SHALE	16.0	52.0	BLUE
572.0	SHELBURN	DANVILLE	COAL	6.1	68.0	GOOD

MAPID: 18390155000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.713549 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139933 DATE COLLECTED: 3 / 9 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 96.6 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 101 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
632.0	PLEISTOCENE		SAND & GRAVEL	12.0	8.0	
620.0	PLEISTOCENE		UNKNOWN	12.0	20.0	DRILLER REPORTS WHITE SANDY SHALE
608.0	PLEISTOCENE		SAND & GRAVEL	15.0	32.0	
593.0	SHELBURN		SANDY SHALE	4.0	47.0	RED
589.0	SHELBURN		SHALE	30.0	51.0	WHITE
559.0	SHELBURN		SHALE	10.0	81.0	BLUE
549.0	SHELBURN	DANVILLE	COAL	5.6	91.0	GOOD

MAPID: 18390156000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.708705 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.139929 DATE COLLECTED: 5 / 5 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 83.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 103 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		CLAY	5.0	10.0	
625.0	PLEISTOCENE		UNKNOWN	14.0	15.0	DRILLER REPORTS SANDY SHALE
611.0	PLEISTOCENE		SAND	4.0	29.0	
607.0	PLEISTOCENE		UNKNOWN	11.0	33.0	DRILLER REPORTS SANDY SHALE
596.0	PLEISTOCENE		CLAY	11.0	44.0	
585.0	SHELBURN		SHALE	20.0	55.0	WHITE
565.0	SHELBURN		SHALE	3.0	75.0	BLUE
562.0	SHELBURN	DANVILLE	COAL	5.0	78.0	



MAPID: 18390157000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: SW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.703861

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.139924

DATE COLLECTED: 2 / 12 / 1936

SURFACE ELEVATION (FT.): 640.0

LOGGED (FT.): 87.8

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    105

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
622.0	PLEISTOCENE		SAND	3.0	18.0	
619.0	PLEISTOCENE		UNKNOWN	18.0	21.0	DRILLER REPORTS SANDY SHALE
601.0	PLEISTOCENE		SAND & GRAVEL	16.0	39.0	
585.0	SHELBURN		SHALE	24.0	55.0	WHITE
561.0	SHELBURN		BLACK SHALE	2.5	79.0	
558.5	SHELBURN	DANVILLE	COAL	6.3	81.5	

MAPID: 18390158000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: SE NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.69902

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.13992

DATE COLLECTED: 2 / 16 / 1937

SURFACE ELEVATION (FT.): 640.0

LOGGED (FT.): 86.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    107

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
624.0	PLEISTOCENE		SAND & GRAVEL	4.0	16.0	
620.0	SHELBURN		SANDY SHALE	10.0	20.0	
610.0	SHELBURN		SANDY SHALE	14.0	30.0	WHITE
596.0	SHELBURN		SANDY SHALE	20.0	44.0	RED
576.0	SHELBURN		SHALE	15.0	64.0	WHITE
561.0	SHELBURN	DANVILLE	COAL	7.0	79.0	

MAPID: 18390159000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.69904 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.136362 DATE COLLECTED: 11 / 15 / 1935

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 84.4 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 109 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
628.0	PLEISTOCENE		SAND & GRAVEL	6.0	12.0	
622.0	PLEISTOCENE		UNKNOWN	20.0	18.0	DRILLER REPORTS WHITE SAND SHALE
602.0	PLEISTOCENE		SAND & GRAVEL	5.0	38.0	
597.0	SHELBURN		SHALE	22.0	43.0	RED
575.0	SHELBURN		SHALE	3.0	65.0	WHITE
572.0	SHELBURN		SHALE	10.0	68.0	BLUE
562.0	SHELBURN	DANVILLE	COAL	6.4	78.0	

MAPID: 18390161000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.69902 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.13992 DATE COLLECTED: 2 / 23 / 1946

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 115.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 109C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
634.0	PLEISTOCENE		UNCONSOLIDATED	59.0	6.0	
575.0	SHELBURN			10.4	65.0	
564.6	SHELBURN	DANVILLE	COAL	5.6	75.4	
559.0	SHELBURN	DANVILLE	CLAYSTONE	1.2	81.0	
557.8	SHELBURN	DANVILLE	COAL	1.3	82.2	
556.6	SHELBURN		UNDERCLAY	9.8	83.4	
546.8	SHELBURN		SANDSTONE	1.1	93.2	
545.7	SHELBURN			3.1	94.3	
542.7	SHELBURN		GRAY SHALE	14.2	97.3	
528.5	CARBONDALE	HERRIN	COAL	1.3	111.5	SOFT AND SMUTTY
527.2	CARBONDALE		UNDERCLAY	3.0	112.8	

MAPID: 18390179000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.713549    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.139933    DATE COLLECTED: 2 / 13 / 1946

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 138.5    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    126    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		CLAY	50.0	10.0	
580.0	SHELBURN		SHALE	33.0	60.0	
547.0	SHELBURN	DANVILLE	COAL	6.0	93.0	
541.0	SHELBURN		UNDERCLAY	4.0	99.0	
537.0	SHELBURN		SHALE	6.0	103.0	
531.0	SHELBURN		SANDSTONE	3.0	109.0	
528.0	SHELBURN		SHALE	5.5	112.0	
522.5	CARBONDALE	HERRIN	COAL	1.5	117.5	SOFT
521.0	CARBONDALE		SHALE/UNDERCLAY	8.0	119.0	
513.0	CARBONDALE		LIMESTONE	1.5	127.0	
511.5	CARBONDALE			10.0	128.5	

MAPID: 18390180000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: SE NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.708705    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.139929    DATE COLLECTED: 2 / 22 / 1946

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 122.4    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    128    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		UNCONSOLIDATED	40.0	10.0	
590.0	PLEISTOCENE		CLAY	36.0	50.0	
554.0	SHELBURN			7.0	86.0	
547.0	SHELBURN	DANVILLE	COAL	6.0	93.0	
541.0	SHELBURN		UNDERCLAY	1.5	99.0	
539.5	SHELBURN			10.5	100.5	
529.0	SHELBURN		SANDSTONE	4.3	111.0	
524.7	CARBONDALE	ANNA	BLACK SHALE	3.2	115.3	
521.6	CARBONDALE	HERRIN	COAL	1.2	118.4	SOFT
520.4	CARBONDALE		UNDERCLAY	2.8	119.6	

MAPID: 18390181000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: SW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.703861

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.139924

DATE COLLECTED: 4 / 30 / 1937

SURFACE ELEVATION (FT.): 640.0

LOGGED (FT.): 92.3

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    131

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
626.0	PLEISTOCENE		SAND & GRAVEL	6.0	14.0	
620.0	SHELBURN		SANDY SHALE	26.0	20.0	WHITE
594.0	SHELBURN		SANDSTONE	24.0	46.0	SOFT
570.0	SHELBURN		SHALE	15.0	70.0	WHITE
555.0	SHELBURN		SHALE	2.0	85.0	BLUE
553.0	SHELBURN	DANVILLE	COAL	5.3	87.0	FAIRLY GOOD

MAPID: 18390182000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: SE NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.69902

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.13992

DATE COLLECTED: 2 / 1 / 1946

SURFACE ELEVATION (FT.): 640.0

LOGGED (FT.): 120.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    132

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
634.0	PLEISTOCENE		CLAY	21.0	6.0	
613.0	PLEISTOCENE		CLAY	34.0	27.0	
579.0	SHELBURN		SHALE	25.3	61.0	
553.7	SHELBURN	DANVILLE	COAL	6.0	86.3	
547.7	SHELBURN		UNDERCLAY	2.7	92.3	
545.0	SHELBURN		SHALE	8.5	95.0	
536.5	SHELBURN		SANDSTONE	2.5	103.5	
534.0	SHELBURN		SHALE	14.0	106.0	

MAPID: 18390183000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: SE NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.69902    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.13992    DATE COLLECTED: 4 / 28 / 1937

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 85.7    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    133    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND & GRAVEL	12.0	10.0	
618.0	PLEISTOCENE		SAND	20.0	22.0	WITH GRAY SANDY SHALE
598.0	PLEISTOCENE		SAND	12.0	42.0	WITH RED SANDY SHALE
586.0	PLEISTOCENE		SAND & GRAVEL	1.0	54.0	
585.0	SHELBURN		SANDY SHALE	8.0	55.0	RED
577.0	SHELBURN		SHALE	17.0	63.0	BLUE
560.0	SHELBURN	DANVILLE	COAL	5.7	80.0	

MAPID: 18390207000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.699    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143477    DATE COLLECTED: 1 / 8 / 1950

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 88.8    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    151C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
631.0	PLEISTOCENE		SAND & GRAVEL	14.0	9.0	
617.0	PLEISTOCENE		SAND	9.0	23.0	MIXED WITH SOFT SHALE
608.0	PLEISTOCENE		SAND	19.0	32.0	
589.0	SHELBURN		GRAY SHALE	21.8	51.0	SOFT
567.2	SHELBURN		BLACK SHALE	1.5	72.8	
565.7	SHELBURN	DANVILLE	COAL	5.0	74.3	
560.7	SHELBURN	DANVILLE	UNCLASSIFIED	1.7	79.3	DIRTY
559.0	SHELBURN	DANVILLE	COAL	7.0	81.0	
552.0	SHELBURN		UNDERCLAY	0.8	88.0	

MAPID: 18390208000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: NW NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.713562    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143485    DATE COLLECTED: 8 / 3 / 1950

SURFACE ELEVATION (FT.): 648.7    LOGGED (FT.): 100.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    152    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
648.7	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
638.7	PLEISTOCENE		UNCONSOLIDATED	50.0	10.0	
588.7	SHELBURN		SHALE	31.8	60.0	
556.9	SHELBURN	DANVILLE	COAL	6.3	91.8	GOOD
550.7	SHELBURN		UNDERCLAY	2.0	98.0	

MAPID: 18390209000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.708707    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143484    DATE COLLECTED: 5 / 5 / 1937

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 100.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    153    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND & GRAVEL	11.0	10.0	
619.0	SHELBURN		SANDY SHALE	32.0	21.0	WHITE
587.0	SHELBURN		SANDY SHALE	9.0	53.0	RED
578.0	SHELBURN		SHALE	32.0	62.0	WHITE
546.0	SHELBURN	DANVILLE	COAL	6.0	94.0	GOOD

MAPID: 1839021000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.703852 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143482 DATE COLLECTED: 2 / 9 / 1946

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 155 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
632.0	PLEISTOCENE		CLAY	4.0	8.0	
628.0	PLEISTOCENE		CLAY	35.0	12.0	
593.0	PLEISTOCENE		SAND	18.0	47.0	QUICK
575.0	SHELBURN		SHALE	20.0	65.0	SOFT
555.0	SHELBURN	DANVILLE	COAL	3.0	85.0	
552.0	SHELBURN	DANVILLE	CLAYSTONE	2.5	88.0	
549.5	SHELBURN	DANVILLE	COAL	0.5	90.5	
549.0	SHELBURN		UNDERCLAY	2.0	91.0	
547.0	SHELBURN		SHALE	8.0	93.0	
539.0	SHELBURN		SANDSTONE	3.0	101.0	
536.0	SHELBURN		SHALE	10.3	104.0	
525.7	SHELBURN		LIMESTONE	1.7	114.3	
524.0	SHELBURN		SHALE	6.0	116.0	
518.0	SHELBURN		BLACK SHALE	18.0	122.0	GRAY

MAPID: 18390211000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.703852 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143482 DATE COLLECTED: 3 / 15 / 1962

SURFACE ELEVATION (FT.): 647.0 LOGGED (FT.): 89.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 155A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
647.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
642.0	PLEISTOCENE		SAND	5.0	5.0	
637.0	PLEISTOCENE		CLAY	3.0	10.0	
634.0	PLEISTOCENE		SAND & GRAVEL	5.0	13.0	
629.0	PLEISTOCENE		CLAY	12.0	18.0	
617.0	PLEISTOCENE		SAND	33.0	30.0	
584.0	SHELBURN		GRAY SHALE	19.0	63.0	
565.0	SHELBURN	DANVILLE	COAL	6.1	82.0	
558.9	SHELBURN		UNDERCLAY	0.9	88.1	

MAPID: 18390212000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.699    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143477    DATE COLLECTED: 2 / 24 / 1936

SURFACE ELEVATION (FT.): 650.0    LOGGED (FT.): 93.8    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    157    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
640.0	SHELBURN		SANDY SHALE	12.0	10.0	
628.0	SHELBURN		SANDSTONE	6.0	22.0	SOFT, WITH GRAVEL
622.0	SHELBURN		SHALE	18.0	28.0	WHITE
604.0	SHELBURN		SANDSTONE	2.5	46.0	SOFT, WITH GRAVEL
601.5	SHELBURN		SHALE	14.5	48.5	RED
587.0	SHELBURN		SHALE	25.0	63.0	WHITE
562.0	SHELBURN	DANVILLE	COAL	5.8	88.0	

MAPID: 18390253000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: NW NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.713562    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143485    DATE COLLECTED: 8 / 2 / 1950

SURFACE ELEVATION (FT.): 647.2    LOGGED (FT.): 108.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    177    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
647.2	PLEISTOCENE		UNKNOWN	15.0	0.0	DRILLER REPORTS SHALE
632.2	PLEISTOCENE		UNCONSOLIDATED	58.0	15.0	
574.2	SHELBURN		SHALE	27.0	73.0	
547.2	SHELBURN	DANVILLE	COAL	6.3	100.0	GOOD
540.9	SHELBURN		UNDERCLAY	1.8	106.3	



MAPID: 18390254000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.713562 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143485 DATE COLLECTED: 8 / 2 / 1950

SURFACE ELEVATION (FT.): 651.7 LOGGED (FT.): 107.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 178 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
651.7	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
636.7	PLEISTOCENE		UNCONSOLIDATED	62.0	15.0	
574.7	SHELBURN		SHALE	22.5	77.0	
552.2	CARBONDALE	SPRINGFIELD	COAL	6.5	99.5	GOOD
545.7	SHELBURN		UNDERCLAY	1.0	106.0	

MAPID: 18390255000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.708707 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143484 DATE COLLECTED: 10 / 5 / 1951

SURFACE ELEVATION (FT.): 648.2 LOGGED (FT.): 92.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 179 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
648.2	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
643.2	PLEISTOCENE		SAND & GRAVEL	35.0	5.0	
608.2	PLEISTOCENE		CLAY	20.0	40.0	
588.2	SHELBURN		SHALE	22.7	60.0	
565.5	SHELBURN	DANVILLE	COAL	6.0	82.7	GOOD
559.5	SHELBURN	DANVILLE	CLAYSTONE	0.7	88.7	
558.9	SHELBURN	DANVILLE	COAL	0.7	89.3	SUMP VEIN
558.2	SHELBURN		UNDERCLAY	2.0	90.0	

MAPID: 18390256000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.703852 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143482 DATE COLLECTED: 3 / 15 / 1962

SURFACE ELEVATION (FT.): 649.5 LOGGED (FT.): 96.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 180BB WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
649.5	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
639.5	PLEISTOCENE		SANDY CLAY	58.0	10.0	
581.5	PLEISTOCENE			4.0	68.0	
577.5	PLEISTOCENE		SANDY CLAY	7.0	72.0	
570.5	SHELBURN		SHALE	9.6	79.0	
560.9	SHELBURN	DANVILLE	COAL	6.2	88.6	
554.7	SHELBURN		UNDERCLAY	1.3	94.8	

MAPID: 18390257000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.703852 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143482 DATE COLLECTED: 3 / 14 / 1962

SURFACE ELEVATION (FT.): 653.9 LOGGED (FT.): 104.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 180LC WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
653.9	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
641.9	PLEISTOCENE		SAND	6.0	12.0	
635.9	PLEISTOCENE		CLAY	5.0	18.0	
630.9	PLEISTOCENE			2.0	23.0	
628.9	PLEISTOCENE		CLAY	20.0	25.0	
608.9	PLEISTOCENE			9.0	45.0	
599.9	PLEISTOCENE		CLAY	19.0	54.0	
580.9	PLEISTOCENE		SAND	22.0	73.0	
558.9	PLEISTOCENE		CLAY	2.5	95.0	
556.4	SHELBURN	DANVILLE	COAL	6.1	97.5	TOP ERODED
550.3	SHELBURN		UNDERCLAY	0.4	103.6	

MAPID: 18390258000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.703852    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143482    DATE COLLECTED: 3 / 14 / 1962

SURFACE ELEVATION (FT.): 650.6    LOGGED (FT.): 97.8    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    180NB    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.6	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
642.6	PLEISTOCENE		SAND	2.0	8.0	
640.6	PLEISTOCENE		SANDY CLAY	4.0	10.0	
636.6	PLEISTOCENE		CLAY	2.0	14.0	
634.6	PLEISTOCENE			2.0	16.0	
632.6	PLEISTOCENE		CLAY	7.0	18.0	
625.6	PLEISTOCENE			5.0	25.0	
620.6	PLEISTOCENE		CLAY	40.0	30.0	
580.6	SHELBURN		GRAY SHALE	21.0	70.0	
559.6	SHELBURN	DANVILLE	COAL	5.8	91.0	
553.8	SHELBURN		UNDERCLAY	1.0	96.8	

MAPID: 18390259000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.699    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143477    DATE COLLECTED: 4 / 23 / 1937

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 93.5    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    183    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND & GRAVEL	10.0	10.0	
620.0	SHELBURN		SANDY SHALE	27.0	20.0	
593.0	SHELBURN		SANDSTONE	4.0	47.0	SOFT, WITH GRAVEL
589.0	SHELBURN		SANDY SHALE	25.0	51.0	RED
564.0	SHELBURN		SHALE	5.0	76.0	BLUE
559.0	SHELBURN		BLACK SHALE	7.0	81.0	
552.0	SHELBURN	DANVILLE	COAL	5.5	88.0	GOOD

MAPID: 18390516000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.697791    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.142587    DATE COLLECTED: 1 / 0 / 1946

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 82.3    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    D    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
631.0	PLEISTOCENE		SAND & GRAVEL	14.0	9.0	
617.0	PLEISTOCENE		SAND	9.0	23.0	MIXED WITH SOFT SHALE
608.0	PLEISTOCENE		SAND	19.0	32.0	
589.0	SHELBURN		GRAY SHALE	21.8	51.0	
567.2	SHELBURN		BLACK SHALE	1.5	72.8	
565.7	SHELBURN	DANVILLE	COAL	5.0	74.3	
560.7	SHELBURN	DANVILLE	UNCLASSIFIED	1.7	79.3	DIRTY
559.0	SHELBURN	DANVILLE	COAL	0.6	81.0	
558.4	SHELBURN		UNDERCLAY	0.8	81.6	

MAPID: 18390551000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 3    QUARTERS/FOOTAGES: NW NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.713563    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.143486    DATE COLLECTED: 3 / 3 / 1937

SURFACE ELEVATION (FT.): 660.0    LOGGED (FT.): 109.7    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    201    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
660.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
642.0	PLEISTOCENE		SAND & GRAVEL	8.0	18.0	
634.0	SHELBURN		SANDY SHALE	10.0	26.0	
624.0	SHELBURN		SANDY SHALE	18.0	36.0	WHITE
606.0	SHELBURN		SANDSTONE	5.0	54.0	SOFT, WITH GRAVEL
601.0	SHELBURN		SANDY SHALE	9.5	59.0	RED
591.5	SHELBURN		SANDSTONE	0.5	68.5	SOFT, WITH GRAVEL
591.0	SHELBURN		SHALE	11.0	69.0	WHITE
580.0	SHELBURN		SHALE	23.8	80.0	BLUE
556.2	SHELBURN	DANVILLE	COAL	5.9	103.8	GOOD

MAPID: 18390552000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.7135 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.145263 DATE COLLECTED: 8 / 2 / 1950

SURFACE ELEVATION (FT.): 656.7 LOGGED (FT.): 114.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 202 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
656.7	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
644.7	PLEISTOCENE		SAND & GRAVEL	65.0	12.0	
579.7	PLEISTOCENE		CLAY	15.0	77.0	
564.7	SHELBURN		SHALE	14.0	92.0	
550.7	SHELBURN	DANVILLE	COAL	6.4	106.0	GOOD
544.3	SHELBURN		UNDERCLAY	1.6	112.4	

MAPID: 18390553000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: NW NE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.709923 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.144372 DATE COLLECTED: 8 / 2 / 1950

SURFACE ELEVATION (FT.): 654.3 LOGGED (FT.): 106.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 203 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
654.3	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
642.3	PLEISTOCENE		UNCONSOLIDATED	60.0	12.0	
582.3	SHELBURN		SHALE	26.0	72.0	
556.3	SHELBURN		UNKNOWN	0.1	98.0	NO RECORD
556.2	SHELBURN	DANVILLE	COAL	6.2	98.1	GOOD
550.0	SHELBURN		UNDERCLAY	1.8	104.3	

MAPID: 18390558000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: NE NE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.707495 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.144371 DATE COLLECTED: 10 / 2 / 1951

SURFACE ELEVATION (FT.): 656.6 LOGGED (FT.): 107.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 205 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
656.6	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
648.6	PLEISTOCENE		CLAY	17.0	8.0	
631.6	PLEISTOCENE		SAND & GRAVEL	4.0	25.0	
627.6	PLEISTOCENE		CLAY	38.0	29.0	
589.6	PLEISTOCENE		SAND & GRAVEL	29.5	67.0	
560.1	SHELBURN		SHALE	0.5	96.5	
559.6	SHELBURN	DANVILLE	COAL	2.3	97.0	GOOD
557.3	SHELBURN	DANVILLE	CLAYSTONE	0.3	99.3	
556.9	SHELBURN	DANVILLE	COAL	1.3	99.7	GOOD
555.6	SHELBURN		UNDERCLAY	6.0	101.0	

MAPID: 18390561000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.703794 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.141702 DATE COLLECTED: 10 / 3 / 1951

SURFACE ELEVATION (FT.): 654.6 LOGGED (FT.): 106.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 206 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
654.6	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
648.6	PLEISTOCENE		SAND & GRAVEL	7.0	6.0	
641.6	PLEISTOCENE		CLAY	70.0	13.0	
571.6	SHELBURN		SHALE	13.5	83.0	
558.1	SHELBURN	DANVILLE	COAL	6.0	96.5	GOOD
552.1	SHELBURN	DANVILLE	CLAYSTONE	1.3	102.5	
550.8	SHELBURN	DANVILLE	COAL	1.3	103.8	SUMP VEIN
549.4	SHELBURN		UNDERCLAY	1.5	105.2	

MAPID: 18390562000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.698999 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143477 DATE COLLECTED: 2 / 24 / 1937

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 112.2 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 207 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
626.0	PLEISTOCENE		SANDY SHALE	10.0	14.0	
616.0	PLEISTOCENE		SAND & GRAVEL	16.0	24.0	
600.0	SHELBURN		SANDY SHALE	21.0	40.0	WHITE
579.0	SHELBURN		SANDSTONE	5.0	61.0	SOFT, WITH GRAVEL
574.0	SHELBURN		SANDY SHALE	7.0	66.0	RED
567.0	SHELBURN		SANDSTONE	1.5	73.0	SOFT, WITH GRAVEL
565.5	SHELBURN		SANDY SHALE	5.5	74.5	RED
560.0	SHELBURN		SHALE	18.0	80.0	WHITE
542.0	SHELBURN		SHALE	8.0	98.0	BLUE
534.0	SHELBURN	DANVILLE	COAL	6.2	106.0	GOOD

MAPID: 18390783000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.698999 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143477 DATE COLLECTED: 12 / 23 / 1935

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 74.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE A1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		SAND & GRAVEL	2.0	0.0	
638.0	SHELBURN		SANDY SHALE	30.0	2.0	WHITE
608.0	SHELBURN		SANDY SHALE	2.0	32.0	RED
606.0	SHELBURN		SANDSTONE	2.0	34.0	SOFT, WITH GRAVEL
604.0	SHELBURN		SANDY SHALE	6.0	36.0	RED
598.0	SHELBURN		SHALE	21.5	42.0	HARD
576.5	SHELBURN		BLACK SHALE	4.5	63.5	BLACK
572.0	SHELBURN	DANVILLE	COAL	6.7	68.0	GOOD, HARD

MAPID: 18390788000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 3 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.699058 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.132806 DATE COLLECTED: 1 / 21 / 1935

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 78.6 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE A7 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	14.3	0.0	
625.7	PLEISTOCENE		SAND & GRAVEL	6.0	14.3	
619.7	SHELBURN		SHALE	9.0	20.3	SOFT
610.7	SHELBURN		SANDSTONE	2.0	29.3	SOFT
608.7	SHELBURN		SHALE	10.0	31.3	SOFT
598.7	SHELBURN		SHALE	26.7	41.3	RED
572.0	SHELBURN		SHALE	4.5	68.0	WHITE
567.5	SHELBURN	DANVILLE	COAL	6.1	72.5	

MAPID: 18300221000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 4 QUARTERS/FOOTAGES: 1750' N line, 260' E line of SE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.716889 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.136886 DATE COLLECTED: 10 / 0 / 1910

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 124.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 R R WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		SAND	35.0	0.0	
585.0	MODESTO		BLUE SHALE	37.0	35.0	
548.0	CARBONDALE	DANVILLE	COAL	5.4	72.0	
542.6	CARBONDALE	DANVILLE	BLUE SHALE	0.3	77.4	
542.2	CARBONDALE	DANVILLE	COAL	0.4	77.8	
541.8	CARBONDALE	ENERGY	BLUE SHALE	16.8	78.2	
525.0	CARBONDALE	HERRIN	COAL	1.4	95.0	
523.6	CARBONDALE		LIGHT SHALE	27.6	96.4	



MAPID: 18300222000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 4 QUARTERS/FOOTAGES: 1980' N line, 990' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.719529 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.139821 DATE COLLECTED: 11 / 0 / 1910

SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 96.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 R R WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
588.0	PLEISTOCENE		SAND	15.0	0.0
573.0	MODESTO		BLUE SHALE	27.0	15.0
546.0	CARBONDALE	DANVILLE	COAL	5.6	42.0
540.4	CARBONDALE	ENERGY	BLUE SHALE	20.0	47.6
520.4	CARBONDALE	ENERGY	BLACK SHALE	0.8	67.6
519.7	CARBONDALE	HERRIN	COAL	2.3	68.3
517.4			BLUE SHALE	10.0	70.6
507.4			LIMESTONE	3.4	80.6
504.0			GRAY SANDSTONE	12.0	84.0

MAPID: 18300222000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 4 QUARTERS/FOOTAGES: 1980' N line, 990' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.719529 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.139821 DATE COLLECTED:

SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 70.3 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
573.3	MODESTO		GRAY SHALE	27.0	14.7
546.3	CARBONDALE	DANVILLE	COAL	5.6	41.7
540.7	CARBONDALE	ENERGY	GRAY SHALE	20.0	47.3
520.7	CARBONDALE	ENERGY	BLACK SHALE	0.8	67.3
520.0	CARBONDALE	HERRIN	COAL	2.3	68.0

MAPID: 18300775000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 4 QUARTERS/FOOTAGES: 35' S line, 1190' E line  
 QUADRANGLE: DANVILLE NW LONGITUDE: -87.7202 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 40.13117 DATE COLLECTED: 6 / 0 / 1939  
 SURFACE ELEVATION (FT.): 633.8 LOGGED (FT.): 95.1 LOG TYPE: Drillers Log  
 SOURCE: AYRSHIRE COLLIERIES CORP W3 WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
633.8	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
621.8	PLEISTOCENE		SAND	4.0	12.0
617.8	PLEISTOCENE		SAND	57.0	16.0
560.8	PLEISTOCENE		SAND	2.0	73.0
558.8	MODESTO		GRAY SHALE	4.0	75.0
554.8	MODESTO		BLUE SHALE	11.0	79.0
543.8	CARBONDALE	DANVILLE	COAL	5.1	90.0

MAPID: 18300969000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 4 QUARTERS/FOOTAGES: 695' S line, 1510' E line  
 QUADRANGLE: DANVILLE NW LONGITUDE: -87.721361 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 40.132995 DATE COLLECTED: 4 / 19 / 1940  
 SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 102.3 LOG TYPE: Drillers Log  
 SOURCE: AYRSHIRE COLLIERIES CORP 389C WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
635.0	PLEISTOCENE		SANDY CLAY	13.4	0.0
621.6	PLEISTOCENE		CLAY	14.5	13.4
607.1	PLEISTOCENE		GRAVEL	23.4	27.9
583.7	PLEISTOCENE		CLAY	11.6	51.3
572.1	PLEISTOCENE		SANDY CLAY	12.1	62.9
560.0	MODESTO		SHALE	18.3	75.0
541.7	CARBONDALE	DANVILLE	COAL	5.1	93.3
536.6	CARBONDALE	DANVILLE	PYRITE	0.3	98.4
536.4	CARBONDALE		UNDERCLAY	3.7	98.6

MAPID: 18300977000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 4 QUARTERS/FOOTAGES: 2950' S line, 100' W line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.734303 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.139272 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 627.0 LOGGED (FT.): 114.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 379F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
627.0	PLEISTOCENE		CLAY	5.1	0.0
621.9	PLEISTOCENE		SANDY CLAY	22.8	5.1
599.1	MODESTO		GRAY SHALE	71.7	27.9
527.4	MODESTO		BLACK SHALE	3.6	99.6
523.8	CARBONDALE	DANVILLE	PYRITE	0.1	103.2
523.7	CARBONDALE	DANVILLE	COAL	6.3	103.3
517.4	CARBONDALE	DANVILLE	COAL	0.8	109.6
516.6	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.1	110.4
515.5	CARBONDALE	DANVILLE	COAL	0.1	111.5
515.4	CARBONDALE	DANVILLE	PYRITE	0.1	111.6
515.3	CARBONDALE	DANVILLE	COAL	0.6	111.7
514.7	CARBONDALE		UNDERCLAY	1.7	112.3

MAPID: 18300978000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 4 QUARTERS/FOOTAGES: 2740' S line, 3400' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.728186 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.138668 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 117.5 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 378F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
640.0	PLEISTOCENE		CLAY	4.5	0.0
635.5	PLEISTOCENE		SANDY CLAY	12.2	4.5
623.3	PLEISTOCENE		CLAY	14.8	16.7
608.5	MODESTO		RED SHALE	7.8	31.5
600.7	MODESTO		RED SHALE	8.8	39.3
591.9	MODESTO		GRAY SHALE	59.1	48.1
532.8	CARBONDALE	DANVILLE	CLOD	0.4	107.2
532.4	CARBONDALE	DANVILLE	COAL	2.5	107.6
529.9	CARBONDALE	DANVILLE	PYRITE	0.1	110.1
529.8	CARBONDALE	DANVILLE	COAL	3.4	110.2
526.4	CARBONDALE	DANVILLE	COAL	0.4	113.6
526.0	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.1	114.0
524.9	CARBONDALE	DANVILLE	COAL	1.5	115.1
523.4	CARBONDALE		UNDERCLAY	0.9	116.6

MAPID: 18300981000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 4 QUARTERS/FOOTAGES: 2020' S line, 575' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.718021 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.136638 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 102.1 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 375F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
638.0	PLEISTOCENE		CLAY	5.0	0.0	
633.0	PLEISTOCENE		SANDY CLAY	54.6	5.0	
578.4	MODESTO		GRAY SHALE	31.2	59.6	
547.2	CARBONDALE	DANVILLE	CLOD	0.3	90.8	
546.9	CARBONDALE	DANVILLE	COAL	2.1	91.1	
544.8	CARBONDALE	DANVILLE	PYRITE	0.1	93.2	
544.7	CARBONDALE	DANVILLE	COAL	3.9	93.3	
540.8	CARBONDALE		CLAYSTONE	3.1	97.2	
537.7	CARBONDALE		GRAY SHALE	1.8	100.3	

MAPID: 18301588000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 4 QUARTERS/FOOTAGES: 1390' S line, 340' W line of SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.73343 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.134964 DATE COLLECTED: 12 / 19 / 1969

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 152.0 LOG TYPE: Drillers Log

SOURCE: E C BAKER & SONS INC. WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		SOIL	1.0	0.0	CLY
609.0	PLEISTOCENE		CLAY	4.0	1.0	
605.0	PLEISTOCENE		CLAY	13.0	5.0	
592.0	MODESTO		GRAY SHALE	64.0	18.0	
528.0	CARBONDALE	DANVILLE	COAL	6.0	82.0	
522.0			SHALE	14.0	88.0	
508.0			CALCAREOUS SHALE	3.0	102.0	
505.0			LIMESTONE	3.0	105.0	
502.0			SHALE	23.0	108.0	
479.0			LIMESTONE	3.0	131.0	
476.0			SHALE	18.0	134.0	

MAPID: 18390093000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 4    QUARTERS/FOOTAGES: SE SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.718269    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.132844    DATE COLLECTED: 10 / 1 / 1951

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 101.5    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    26    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
634.0	PLEISTOCENE		SAND & GRAVEL	6.0	6.0	
628.0	PLEISTOCENE		CLAY	23.0	12.0	
605.0	SHELBURN		SHALE	53.0	35.0	
552.0	SHELBURN	DANVILLE	COAL	6.0	88.0	
546.0	SHELBURN		UNDERCLAY	1.0	94.0	
545.0	SHELBURN		SHALE	2.0	95.0	
543.0	SHELBURN	DANVILLE	COAL	0.5	97.0	
542.5	SHELBURN		UNDERCLAY	4.0	97.5	

MAPID: 18390094000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 4    QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.71829    GEOLOGIST: STRAAYER

CONFIDENTIAL: N    LATITUDE: 40.136397    DATE COLLECTED: 7 / 21 / 1958

SURFACE ELEVATION (FT.): 585.2    LOGGED (FT.): 58.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    26D    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.2	PLEISTOCENE		CLAY	15.0	0.0	
570.2	SHELBURN		SHALE	39.0	15.0	SOFT
531.2	SHELBURN	DANVILLE	COAL	4.0	54.0	

MAPID: 18390252000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 4 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.718328 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.143502 DATE COLLECTED: 8 / 1 / 1950

SURFACE ELEVATION (FT.): 646.0 LOGGED (FT.): 100.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 176 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
646.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
634.0	PLEISTOCENE		CLAY	40.0	12.0
594.0	SHELBURN		SHALE	40.0	52.0
554.0	SHELBURN	DANVILLE	COAL	6.3	92.0
547.7	SHELBURN		UNDERCLAY	1.7	98.3

MAPID: 18300223000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 5 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.737056 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.143611 DATE COLLECTED: 10 / 0 / 1910

SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 118.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 R R WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
575.0	PLEISTOCENE		CLAY	14.7	0.0
560.3	PLEISTOCENE		CLAY	6.5	14.7
553.8	MODESTO		BLUE SHALE	25.0	21.2
528.8	MODESTO		BLACK SHALE	1.7	46.2
527.1	CARBONDALE	DANVILLE	COAL	5.2	47.9
521.9	CARBONDALE		BLUE SHALE	13.7	53.1
508.2	CARBONDALE		BLACK SHALE	2.0	66.8
506.2	CARBONDALE	HERRIN	COAL	0.1	68.8
506.1			GRAY SHALE	8.0	68.9
498.2			GRAY SHALE	22.2	76.8
476.0			SANDSTONE	5.6	99.0
470.4			GRAY SHALE	13.4	104.6

MAPID: 18300224000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 5 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.746572 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.140065 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): LOGGED (FT.): 200.0 LOG TYPE: Drillers Log

SOURCE: AL STICE WELL TYPE: Coal Test

COMMENT: NO LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		CLAY	15.0	0.0
-	PLEISTOCENE		CLAY	5.0	15.0
-	PLEISTOCENE		CLAY	5.0	20.0
-	MODESTO		DARK SHALE	5.0	25.0
-	MODESTO		DARK SHALE	10.0	30.0
-	MODESTO		SHALE	20.0	40.0
-	MODESTO		DARK SHALE	6.0	60.0
-	CARBONDALE	DANVILLE	COAL	6.0	66.0
-	CARBONDALE		UNDERCLAY	2.0	72.0
-	CARBONDALE		SHALE	1.0	74.0
-	CARBONDALE		LIGHT SHALE	10.0	75.0
-	CARBONDALE		GRAY SHALE	5.0	85.0
-	CARBONDALE		DARK SHALE	5.0	90.0
-	CARBONDALE		GRAY SHALE	10.0	95.0
-	CARBONDALE		LIGHT SHALE	10.0	105.0
-	CARBONDALE		GRAY SHALE	5.0	115.0
-	CARBONDALE		LIGHT SHALE	5.0	120.0
-	CARBONDALE		GRAY SHALE	10.0	125.0
-	CARBONDALE		LIGHT SHALE	10.0	135.0
-	CARBONDALE		DARK SHALE	5.0	145.0
-	CARBONDALE		LIGHT SHALE	25.0	150.0
-	CARBONDALE		DARK SHALE	5.0	175.0
-	CARBONDALE	HERRIN	COAL	5.0	180.0
-	CARBONDALE		UNCLASSIFIED	15.0	185.0

MAPID: 18300225000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 6    QUARTERS/FOOTAGES: NW NW

QUADRANGLE: COLLISON    LONGITUDE: -87.76705    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 40.143678    DATE COLLECTED: 0 / 0 / 1912

SURFACE ELEVATION (FT.): 584.0    LOGGED (FT.): 1000.3    LOG TYPE: Drillers Log

SOURCE: BIG FOUR R R    51    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
584.0	PLEISTOCENE		SAND	8.0	0.0	
576.0	PLEISTOCENE		CLAY	10.0	8.0	
566.0	PLEISTOCENE		CLAY	22.0	18.0	
544.0	PLEISTOCENE		SAND	2.0	40.0	
542.0	PLEISTOCENE		CLAY	12.0	42.0	
530.0	PLEISTOCENE		CLAY	4.0	54.0	
526.0	PLEISTOCENE		SAND	4.0	58.0	
522.0	PLEISTOCENE		CLAY	56.0	62.0	
466.0	CARBONDALE	DANVILLE	COAL	4.7	118.0	
461.3	CARBONDALE		GRAY SHALE	15.0	122.7	
446.3	CARBONDALE		SANDSTONE	4.0	137.7	
442.3	CARBONDALE		BLACK SHALE	1.3	141.7	
441.0	CARBONDALE	HERRIN	COAL	2.0	143.0	
439.0	CARBONDALE		GRAY SHALE	8.0	145.0	
431.0	CARBONDALE		LIMESTONE	6.0	153.0	
425.0	CARBONDALE		BLUE SHALE	2.0	159.0	
423.0	CARBONDALE		SANDSTONE	10.0	161.0	
413.0	CARBONDALE		BLUE SHALE	50.0	171.0	
363.0	CARBONDALE		BLACK SHALE	3.5	221.0	CARBONACEOUS; BK
359.5	CARBONDALE		LIGHT SHALE	51.5	224.5	
308.0	CARBONDALE		BLACK SHALE	1.0	276.0	
307.0	CARBONDALE		BLUE SHALE	2.0	277.0	
305.0	CARBONDALE		BLACK SHALE	1.0	279.0	
304.0	CARBONDALE		BROWN SHALE	6.0	280.0	
298.0	CARBONDALE		LIMESTONE	6.0	286.0	
292.0	CARBONDALE		BLUE SHALE	16.0	292.0	
276.0	CARBONDALE		BLACK SHALE	0.5	308.0	
275.5	CARBONDALE		BLUE SHALE	8.5	308.5	
267.0	CARBONDALE		BLACK SHALE	0.3	317.0	
266.7	CARBONDALE	COLCHESTER	COAL	0.5	317.3	
266.2	SPOON		GRAY SHALE	6.0	317.8	
260.2	SPOON		COAL	0.5	323.8	
259.7	SPOON		BLUE SHALE	12.0	324.3	
247.7	SPOON		BLACK SHALE	3.0	336.3	
244.7	SPOON	SEELYVILLE	COAL	2.7	339.3	
242.0	SPOON		BLUE SHALE	2.5	342.0	
239.5	SPOON		LIMESTONE	1.0	344.5	
238.5	SPOON		GRAY SHALE	2.0	345.5	
236.5	SPOON		COAL	2.1	347.5	



234.4	SPOON	BLUE SHALE	20.4	349.6	
214.0	SPOON	SANDSTONE	4.0	370.0	
210.0	SPOON	BLUE SHALE	21.0	374.0	
189.0	SPOON	BLUE SHALE	17.0	395.0	
172.0	SPOON	COAL	0.3	412.0	
171.7	SPOON	SHALE	5.0	412.3	
166.7	SPOON	LIGHT & DARK SHALE	11.0	417.3	ALTERNATING
155.7	SPOON	SHALE	8.0	428.3	
147.7	SPOON	BLUE LIMESTONE	6.0	436.3	
141.7	SPOON	WHITE SANDSTONE	4.0	442.3	
137.7	SPOON	BLACK SHALE	0.7	446.3	
137.0	SPOON	COAL	1.0	447.0	
136.0	SPOON	GREEN SHALE	0.3	448.0	
135.7	SPOON	SANDSTONE	19.0	448.3	
116.7	MISSISSIPPIAN	LIMESTONE	20.0	467.3	
96.7	MISSISSIPPIAN	CHERT	0.8	487.3	
95.9	MISSISSIPPIAN	LIMESTONE	8.0	488.1	
87.9	MISSISSIPPIAN	BLUE SHALE	24.0	496.1	
63.9	MISSISSIPPIAN	BLUE SHALE	21.0	520.1	
42.9	MISSISSIPPIAN	BLUE SHALE	11.0	541.1	
31.9	MISSISSIPPIAN	BLUE LIMESTONE	4.0	552.1	
27.9	MISSISSIPPIAN	SANDSTONE	48.0	556.1	
-20.1	MISSISSIPPIAN	SANDSTONE	46.0	604.1	CALCAREOUS
-66.1	MISSISSIPPIAN	SANDSTONE	54.0	650.1	
-120.1	MISSISSIPPIAN	BLUE SHALE	64.0	704.1	
-184.1	MISSISSIPPIAN	LIMESTONE	16.0	768.1	
-200.1	MISSISSIPPIAN	BLUE SHALE	2.0	784.1	
-202.1	MISSISSIPPIAN	LIMESTONE	6.0	786.1	
-208.1	MISSISSIPPIAN	UNCLASSIFIED	0.2	792.1	
-208.3	MISSISSIPPIAN	BLUE SHALE	95.0	792.3	MOTTLED
-303.3	MISSISSIPPIAN	WHITE LIMESTONE	4.0	887.3	
-307.3	MISSISSIPPIAN	BLUE SHALE	84.0	891.3	MOTTLED
-391.3	MISSISSIPPIAN	BLUE SHALE	25.0	975.3	

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MAPID: 18300226000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 6 QUARTERS/FOOTAGES: 660' N line, 1980' E line

QUADRANGLE: COLLISON LONGITUDE: -87.760825 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.143634 DATE COLLECTED: 5 / 0 / 1911

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 144.5 LOG TYPE: Drillers Log

SOURCE: BIG FOUR R R WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
580.0	PLEISTOCENE		SAND	18.0	0.0
562.0	PLEISTOCENE		CLAY	21.0	18.0
541.0	PLEISTOCENE		SAND	12.0	39.0
529.0	MODESTO		BLUE SHALE	51.0	51.0
478.0	CARBONDALE	DANVILLE	COAL	6.2	102.0
471.8	CARBONDALE		UNDERCLAY	3.8	108.2
468.0	CARBONDALE		GRAY SHALE	4.0	112.0
464.0	CARBONDALE		GRAY SHALE	16.0	116.0
448.0	CARBONDALE	ANNA	BLACK SHALE	0.7	132.0
447.3	CARBONDALE	HERRIN	COAL	1.8	132.7
445.5	CARBONDALE		GRAY SHALE	10.0	134.5

MAPID: 18300226000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 6 QUARTERS/FOOTAGES: 660' N line, 1980' E line

QUADRANGLE: COLLISON LONGITUDE: -87.760825 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.143634 DATE COLLECTED:

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 134.8 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
528.7	MODESTO		GRAY SHALE	51.0	51.3
477.7	CARBONDALE	DANVILLE	COAL	6.2	102.3
471.5	CARBONDALE		CLAYSTONE	3.8	108.5
467.7	CARBONDALE	ENERGY	SILTY SHALE	4.0	112.3
463.7	CARBONDALE	ENERGY	GRAY SHALE	16.0	116.3
447.7	CARBONDALE	ENERGY	BLACK SHALE	0.7	132.3
447.0	CARBONDALE	HERRIN	COAL	1.8	133.0

MAPID: 18300780000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 6 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: COLLISON LONGITUDE: -87.76705 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.143678 DATE COLLECTED: 0 / 0 / 1911

SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 418.4 LOG TYPE: Drillers Log

SOURCE: BIG FOUR R R WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
584.0	PLEISTOCENE		SAND	8.0	0.0
576.0	PLEISTOCENE		CLAY	10.0	8.0
566.0	PLEISTOCENE		CLAY	22.0	18.0
544.0	PLEISTOCENE		SAND	2.0	40.0
542.0	PLEISTOCENE		CLAY	12.0	42.0
530.0	PLEISTOCENE		CLAY	4.0	54.0
526.0	PLEISTOCENE		SAND	4.0	58.0
522.0	MODESTO		BLUE SHALE	56.0	62.0
466.0	CARBONDALE	DANVILLE	COAL	5.7	118.0
460.3	CARBONDALE		GRAY SHALE	15.0	123.7
445.3	CARBONDALE		SANDSTONE	4.0	138.7
441.3	CARBONDALE		BLACK SHALE	1.3	142.7
440.0	CARBONDALE	HERRIN	COAL	2.0	144.0
438.0	CARBONDALE		GRAY SHALE	8.0	146.0
430.0	CARBONDALE		BLUE LIMESTONE	6.0	154.0
424.0	CARBONDALE		BLUE SHALE	2.0	160.0
422.0	CARBONDALE		SANDSTONE	10.0	162.0
412.0	CARBONDALE		BLUE SHALE	50.0	172.0
362.0	CARBONDALE		BLACK SHALE	3.5	222.0
358.5	CARBONDALE		LIGHT SHALE	51.5	225.5
307.0	CARBONDALE		BLACK SHALE	1.0	277.0
306.0	CARBONDALE		BLUE SHALE	2.0	278.0
304.0	CARBONDALE		BLACK SHALE	1.0	280.0
303.0	CARBONDALE		BROWN SHALE	6.0	281.0
297.0	CARBONDALE		LIMESTONE	6.0	287.0
291.0	CARBONDALE		BLUE SHALE	16.0	293.0
275.0	CARBONDALE		BLACK SHALE	0.5	309.0
274.5	CARBONDALE		BLUE SHALE	8.5	309.5
266.0	CARBONDALE		BLACK SHALE	0.3	318.0
265.7	CARBONDALE	COLCHESTER	COAL	0.5	318.3
265.2	SPOON		GRAY SHALE	6.0	318.8
259.2	SPOON		COAL	0.5	324.8
258.7	SPOON		BLUE SHALE	12.0	325.3
246.7	SPOON		BLACK SHALE	3.0	337.3
243.7	SPOON	SEELYVILLE	COAL	3.0	340.3
240.7			SHALE	2.5	343.3
238.2			LIMESTONE	1.0	345.8
237.2			GRAY SHALE	2.0	346.8
235.2			COAL	2.1	348.8

233.1	GRAY SHALE	9.7	350.9	
223.3	GRAY SHALE	10.4	360.7	DIAMOND DRILL
212.9	SANDSTONE	21.0	371.1	
191.9	SANDSTONE	4.0	392.1	
187.9	BLUE SHALE	17.0	396.1	
170.9	COAL	0.3	413.1	
170.6	SHALE	5.0	413.4	

**MAPID:** 18300781000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 9    **QUARTERS/FOOTAGES:** 2695' S line, 1215' E line  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.720209    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.123477    **DATE COLLECTED:** 6 / 0 / 1939  
**SURFACE ELEVATION (FT.):** 598.5    **LOGGED (FT.):** 66.7    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE COLLIERIES CORP    WR103    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
598.5	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0
595.5	MODESTO		SHALE	4.0	3.0
591.5	MODESTO		GRAY SHALE	54.0	7.0
537.5	CARBONDALE	DANVILLE	COAL	5.7	61.0

**MAPID:** 18300784000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 9    **QUARTERS/FOOTAGES:** 3945' S line, 1325' E line  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.720642    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.126931    **DATE COLLECTED:** 6 / 0 / 1939  
**SURFACE ELEVATION (FT.):** 627.0    **LOGGED (FT.):** 89.6    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
627.0	PLEISTOCENE		UNCONSOLIDATED	2.0	0.0
625.0	PLEISTOCENE		SAND	9.0	2.0
616.0	PLEISTOCENE		HARD PAN	11.0	11.0
605.0	PLEISTOCENE		SAND	3.0	22.0
602.0	MODESTO		SHALE	10.0	25.0
592.0	MODESTO		GREEN SHALE	4.0	35.0
588.0	MODESTO		SHALE	45.0	39.0
543.0	CARBONDALE	DANVILLE	COAL	5.6	84.0

MAPID: 18300785000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 9    QUARTERS/FOOTAGES: 3940' S line, 2505' E line

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.724881    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 40.126953    DATE COLLECTED: 6 / 0 / 1939

SURFACE ELEVATION (FT.): 634.1    LOGGED (FT.): 101.9    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
634.1	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0
621.1	PLEISTOCENE		SAND	28.0	13.0
593.1	PLEISTOCENE		SAND	4.0	41.0
589.1	MODESTO		SHALE	51.0	45.0
538.1	CARBONDALE	DANVILLE	COAL	5.9	96.0

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MAPID: 18300227000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 10    QUARTERS/FOOTAGES: 2310' N line, 1650' W line

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.709927    GEOLOGIST: C TREWORYG

CONFIDENTIAL: N    LATITUDE: 40.124672    DATE COLLECTED: 3 / 0 / 1909

SURFACE ELEVATION (FT.): 654.0    LOGGED (FT.): 422.5    LOG TYPE: Drillers Log

SOURCE: ELECTRIC COAL COMPANY    WELL TYPE: Mine Shaft

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
654.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
646.0	PLEISTOCENE		HARD PAN	30.0	8.0
616.0	PLEISTOCENE		SAND	51.5	38.0
564.5	CARBONDALE	DANVILLE	COAL	5.6	89.5
558.9	CARBONDALE		UNDERCLAY	4.9	95.1
554.0	CARBONDALE		SHALE	7.0	100.0
547.0	CARBONDALE		ROCK	4.0	107.0
543.0	CARBONDALE		BLACK SHALE	2.0	111.0
541.0	CARBONDALE		SHALE	4.0	113.0
537.0	CARBONDALE		ROCK	2.0	117.0
535.0	CARBONDALE		BLUE SHALE	46.0	119.0
489.0	CARBONDALE		BLACK SHALE	11.3	165.0
477.7	CARBONDALE		COAL	0.7	176.3
477.0	CARBONDALE		SHALE	13.0	177.0
464.0	CARBONDALE		BLUE SHALE	30.0	190.0
434.0	CARBONDALE		BLACK SHALE	10.0	220.0
424.0	CARBONDALE		CLAYSTONE & SILTSTONE	2.0	230.0
422.0	CARBONDALE		BLUE SHALE	10.0	232.0
412.0	CARBONDALE		BLACK SHALE	2.0	242.0
410.0	CARBONDALE		BLACK SHALE	3.0	244.0
407.0	CARBONDALE		CLAYSTONE & SILTSTONE	2.0	247.0
405.0	CARBONDALE		LIGHT SHALE	1.0	249.0
404.0	CARBONDALE		LIMESTONE	2.0	250.0
402.0	CARBONDALE		SHALE	9.0	252.0
393.0	CARBONDALE		BLACK SHALE	3.0	261.0
390.0	CARBONDALE		BLUE SHALE	10.0	264.0
380.0	CARBONDALE		BLACK SHALE	2.0	274.0
378.0	CARBONDALE		COAL	1.3	276.0
376.7	CARBONDALE		UNDERCLAY	3.8	277.3
373.0	CARBONDALE		LIGHT SHALE	6.0	281.0
367.0	CARBONDALE		BLUE SHALE	3.5	287.0
363.5	CARBONDALE		UNDERCLAY	5.0	290.5
358.5	CARBONDALE	COLCHESTER	COAL	3.0	295.5
355.5	SPOON		UNDERCLAY	1.0	298.5
354.5	SPOON		BLACK SHALE	2.0	299.5
352.5	SPOON		COAL	2.3	301.5
350.2	SPOON		CLAYSTONE & SILTSTONE	14.2	303.8
336.0	SPOON		SANDSTONE	4.0	318.0
332.0	SPOON		BLUE SHALE	14.0	322.0

318.0	SPOON	LIGHT SHALE	13.0	336.0
305.0	SPOON	BLACK SHALE	11.0	349.0
294.0	SPOON	LIGHT SHALE	7.0	360.0
287.0	SPOON	COAL	1.5	367.0
285.5	SPOON	BLUE SHALE	6.5	368.5
279.0	SPOON	SANDSTONE	6.0	375.0
273.0	SPOON	BLACK SHALE	10.0	381.0
263.0	SPOON	COAL	2.0	391.0
261.0	SPOON	BROWN SHALE	2.3	393.0
258.7	SPOON	COAL	0.5	395.3
258.2	SPOON	UNDERCLAY	4.0	395.8
254.2	SPOON	BLUE SHALE	7.2	399.8
247.0	SPOON	SANDSTONE	15.5	407.0

**MAPID:** 18300227000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 10    **QUARTERS/FOOTAGES:** 2310' N line, 1650' W line  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.709927    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 40.124672    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 654.0    **LOGGED (FT.):** 113.0    **LOG TYPE:** Drillers Log  
**SOURCE:**    **WELL TYPE:** Coal Test  
**COMMENT:** POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
624.0	MODESTO		ROCK	59.5	30.0
564.5	CARBONDALE	DANVILLE	COAL	5.6	89.5
558.9	CARBONDALE		CLAYSTONE	4.9	95.1
554.0	CARBONDALE		SILTY SHALE	7.0	100.0
547.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	107.0
543.0	CARBONDALE	HERRIN	BLACK SHALE	2.0	111.0

MAPID: 18300787000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 10 QUARTERS/FOOTAGES: 3945' S line, 3825' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.7104 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.126989 DATE COLLECTED: 6 / 0 / 1936

SURFACE ELEVATION (FT.): 631.5 LOGGED (FT.): 87.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP R53 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
631.5	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0
620.5	PLEISTOCENE		SAND	10.0	11.0
610.5	PLEISTOCENE		SAND	7.0	21.0
603.5	PLEISTOCENE		SAND	1.0	28.0
602.5	PLEISTOCENE		SAND	6.0	29.0
596.5	PLEISTOCENE		SAND	5.0	35.0
591.5	PLEISTOCENE		SAND	7.0	40.0
584.5	PLEISTOCENE		SAND	3.0	47.0
581.5	MODESTO		SHALE	8.0	50.0
573.5	MODESTO		SHALE	20.0	58.0
553.5	MODESTO		BLUE SHALE	4.0	78.0
549.5	CARBONDALE	DANVILLE	COAL	5.8	82.0

MAPID: 18300788000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 10 QUARTERS/FOOTAGES: 3950' S line, 5140' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.715127 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.126909 DATE COLLECTED: 6 / 0 / 1939

SURFACE ELEVATION (FT.): 622.0 LOGGED (FT.): 79.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP R51 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
622.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
612.0	PLEISTOCENE		SAND	10.0	10.0
602.0	MODESTO		SANDSTONE/SHALE	11.0	20.0
591.0	MODESTO		SHALE	40.0	31.0
551.0	MODESTO		BLUE SHALE	3.0	71.0
548.0	CARBONDALE	DANVILLE	COAL	5.8	74.0



MAPID: 18300963000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 10    QUARTERS/FOOTAGES: 4310' S line, 365' W line

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.714576    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 40.127914    DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 609.0    LOGGED (FT.): 71.5    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP    396C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
609.0	PLEISTOCENE		CLAY	8.9	0.0
600.1	PLEISTOCENE		CLAY	14.4	8.9
585.7	MODESTO		SHALE	39.9	23.3
545.8	CARBONDALE	DANVILLE	COAL	5.2	63.2
540.6	CARBONDALE	DANVILLE	SHALE	0.1	68.4
540.6	CARBONDALE	DANVILLE	COAL	0.8	68.4
539.8	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.2	69.2
539.6	CARBONDALE	DANVILLE	COAL	0.2	69.4
539.4	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.7	69.6
537.8	CARBONDALE	DANVILLE	COAL	0.3	71.2

MAPID: 18300974000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 10 QUARTERS/FOOTAGES: 35' N line, 680' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.699105 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.130931 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 641.0 LOGGED (FT.): 82.3 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 382C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
641.0	PLEISTOCENE		CLAY	7.8	0.0	
633.2	PLEISTOCENE		SANDY CLAY	10.3	7.8	
622.9	PLEISTOCENE		SAND	12.2	18.1	
610.7	PLEISTOCENE		CLAY	27.6	30.3	
583.1	MODESTO		SHALE	14.3	57.9	
568.8	CARBONDALE	DANVILLE	CLOD	0.8	72.2	
568.0	CARBONDALE	DANVILLE	COAL	2.2	73.0	.26 FISHTAILED SO LOST
565.8	CARBONDALE	DANVILLE	COAL	3.7	75.2	NO VISIBLE BANDS
562.1	CARBONDALE	DANVILLE	PYRITE	0.2	78.9	
561.9	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.1	79.1	
561.8	CARBONDALE	DANVILLE	COAL	0.3	79.2	
561.5	CARBONDALE	DANVILLE	GRAY SHALE	0.6	79.5	
560.9	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.8	80.1	
560.2	CARBONDALE	DANVILLE	BLACK SHALE	0.2	80.8	
560.0	CARBONDALE	DANVILLE	GRAY SHALE	0.4	81.0	
559.6	CARBONDALE	DANVILLE	COAL	0.7	81.4	
558.9	CARBONDALE		UNDERCLAY	0.2	82.1	

MAPID: 18300993000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 10 QUARTERS/FOOTAGES: 4960' S line, 3900' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.710677 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.129784 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 627.0 LOGGED (FT.): 81.3 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 363F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
627.0	PLEISTOCENE		CLAY	3.2	0.0
623.8	PLEISTOCENE		CLAY	13.6	3.2
610.2	PLEISTOCENE		SAND	4.3	16.8
605.9	PLEISTOCENE		SAND	37.8	21.1
568.2	MODESTO		SHALE	13.7	58.8
554.5	CARBONDALE	DANVILLE	CLOD	0.3	72.5
554.2	CARBONDALE	DANVILLE	COAL	4.1	72.8
550.1	CARBONDALE	DANVILLE	PYRITE	0.3	76.9
549.9	CARBONDALE	DANVILLE	COAL	2.6	77.1
547.4	CARBONDALE		UNDERCLAY	1.5	79.6
545.9	CARBONDALE		SHALE	0.2	81.1

MAPID: 18300999000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 10 QUARTERS/FOOTAGES: 4810' S line, 1280' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.701262 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.129559 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 642.0 LOGGED (FT.): 91.3 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 357F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
642.0	PLEISTOCENE		CLAY	7.8	0.0
634.2	PLEISTOCENE		CLAY	36.9	7.8
597.3	PLEISTOCENE		CLAY	15.2	44.7
582.1	PLEISTOCENE		GRAVEL	2.2	59.9
579.9	PLEISTOCENE		CLAY	1.1	62.1
578.8	MODESTO		SHALE	17.3	63.2
561.5	CARBONDALE	DANVILLE	CLOD	0.3	80.5
561.3	CARBONDALE	DANVILLE	COAL	6.0	80.7
555.4	CARBONDALE	DANVILLE	PYRITE	0.2	86.6
555.1	CARBONDALE	DANVILLE	COAL	0.3	86.9
554.8	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.5	87.2
553.4	CARBONDALE	DANVILLE	COAL	1.2	88.6
552.2	CARBONDALE		UNDERCLAY	1.2	89.8
551.0	CARBONDALE		UNDERCLAY	0.3	91.0

MAPID: 18301010000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 10 QUARTERS/FOOTAGES: 5000' S line, 3190' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.708127 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.129944 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 82.6 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 346F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
635.0	PLEISTOCENE		CLAY	6.6	0.0
628.4	PLEISTOCENE		SANDY CLAY	28.3	6.6
600.1	PLEISTOCENE		CLAY	26.4	34.9
573.7	MODESTO		GRAY SHALE	6.8	61.3
566.9	CARBONDALE	DANVILLE	CLOD	0.9	68.1
566.0	CARBONDALE	DANVILLE	COAL	4.6	69.0
561.4	CARBONDALE	DANVILLE	PYRITE	0.2	73.6
561.2	CARBONDALE	DANVILLE	COAL	1.6	73.8
559.7	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	3.3	75.3
556.4	CARBONDALE	DANVILLE	COAL	0.6	78.6
555.8	CARBONDALE		UNDERCLAY	3.4	79.2

MAPID: 18301506000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 10 QUARTERS/FOOTAGES: 2400' S line, 2500' W line of SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.706854 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.122801 DATE COLLECTED: 9 / 7 / 1966

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

SOURCE: CHARLES M HAYES 4-66 WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	63.0	0.0
-			SHALE	38.8	63.0
-	CARBONDALE	HERRIN	COAL	7.2	101.8
-			SHALE	1.0	109.0

MAPID: 18390515000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 10    QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.703873    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.129187    DATE COLLECTED: 1 / 0 / 1946

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 88.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
632.0	PLEISTOCENE		SAND	42.0	8.0	
590.0	PLEISTOCENE		SAND	12.0	50.0	COARSE
578.0	SHELBURN		GRAY SHALE	8.0	62.0	
570.0	SHELBURN		DARK SHALE	9.3	70.0	
560.7	SHELBURN	DANVILLE	COAL	3.6	79.3	
557.2	SHELBURN	DANVILLE	UNCLASSIFIED	0.2	82.8	DIRTY
557.0	SHELBURN	DANVILLE	COAL	0.4	83.0	
556.6	SHELBURN	DANVILLE	UNCLASSIFIED	2.3	83.4	DIRTY
554.3	SHELBURN	DANVILLE	COAL	1.2	85.7	
553.1	SHELBURN	DANVILLE	UNCLASSIFIED	0.3	86.9	DIRTY
552.8	SHELBURN	DANVILLE	COAL	0.2	87.2	
552.7	SHELBURN		UNDERCLAY	0.7	87.3	

MAPID: 18300986000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 11 QUARTERS/FOOTAGES: 320' N line, 2700' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.687534 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.130048 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 639.0 LOGGED (FT.): 82.3 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 370C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
639.0	PLEISTOCENE		CLAY	7.7	0.0	
631.3	PLEISTOCENE		SANDY CLAY	28.2	7.7	
603.1	PLEISTOCENE		SAND	3.2	35.9	
599.9	PLEISTOCENE		BOULDER	3.6	39.1	
596.3	PLEISTOCENE		CLAY	4.4	42.7	
591.9	MODESTO		SHALE	25.5	47.1	
566.5	CARBONDALE	DANVILLE	CLOD	0.3	72.5	
566.2	CARBONDALE	DANVILLE	COAL	5.6	72.8	
560.6	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.3	78.4	
560.4	CARBONDALE	DANVILLE	COAL	0.4	78.6	
560.0	CARBONDALE	DANVILLE	BLACK SHALE	0.7	79.0	THIN STRKS OF CO & SULPHUR
559.3	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.0	79.7	
558.3	CARBONDALE	DANVILLE	BLACK SHALE	0.4	80.7	
557.9	CARBONDALE	DANVILLE	COAL	0.9	81.1	
557.0	CARBONDALE		UNDERCLAY	0.3	82.0	

MAPID: 18301020000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 11 QUARTERS/FOOTAGES: 750' N line, 3340' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.689841 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.128882 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 644.0 LOGGED (FT.): 84.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 336F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
644.0	PLEISTOCENE		CLAY	8.1	0.0	
635.9	PLEISTOCENE		SANDY CLAY	39.3	8.1	
596.7	PLEISTOCENE		CLAY	4.8	47.3	
591.9	MODESTO		GRAY SHALE	21.0	52.1	
570.9	CARBONDALE	DANVILLE	CLOD	0.5	73.1	
570.4	CARBONDALE	DANVILLE	COAL	6.8	73.6	
563.6	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.6	80.4	
563.0	CARBONDALE	DANVILLE	COAL	1.2	81.0	
561.8	CARBONDALE		UNDERCLAY	2.7	82.2	

MAPID: 18301021000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 11 QUARTERS/FOOTAGES: 890' N line, 1375' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.682776 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.128423 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 643.0 LOGGED (FT.): 114.2 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 335F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
643.0	PLEISTOCENE		CLAY	12.3	0.0
630.7	PLEISTOCENE		CLAY	25.3	12.3
605.4	PLEISTOCENE		CLAY	12.3	37.6
593.2	MODESTO		GRAY SHALE	28.2	49.8
565.0	CARBONDALE	DANVILLE	CLOD	0.3	78.0
564.7	CARBONDALE	DANVILLE	COAL	4.6	78.3
560.1	CARBONDALE	DANVILLE	PYRITE	0.1	82.9
560.0	CARBONDALE	DANVILLE	COAL	1.1	83.0
558.9	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.0	84.1
557.9	CARBONDALE	DANVILLE	COAL	0.9	85.1
556.9	CARBONDALE		UNDERCLAY	1.1	86.1
555.9	CARBONDALE		GRAY SHALE	14.0	87.1
541.9	CARBONDALE		LIMESTONE	3.3	101.1
538.5	CARBONDALE		CLAYSTONE & SILTSTONE	0.3	104.5
538.2	CARBONDALE	ANNA	BLACK SHALE	2.7	104.8
535.5	CARBONDALE	HERRIN	CLAYSTONE	0.6	107.5
534.9	CARBONDALE	HERRIN	COAL	2.0	108.1
532.9	CARBONDALE	HERRIN	CLAYSTONE	3.5	110.1
529.4	CARBONDALE		GRAY SHALE	0.7	113.6

MAPID: 18301024000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 11 QUARTERS/FOOTAGES: 230' N line, 3300' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.689688 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.130315 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 642.0 LOGGED (FT.): 81.3 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 332F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
642.0	PLEISTOCENE		SANDY CLAY	40.5	0.0
601.5	PLEISTOCENE		CLAY	12.6	40.5
588.9	MODESTO		SHALE	16.0	53.1
572.9	CARBONDALE	DANVILLE	CLOD	0.4	69.1
572.5	CARBONDALE	DANVILLE	COAL	4.3	69.5
568.2	CARBONDALE	DANVILLE	PYRITE	0.2	73.8
568.0	CARBONDALE	DANVILLE	COAL	1.7	74.0
566.3	CARBONDALE	DANVILLE	PYRITE	0.1	75.7
566.2	CARBONDALE	DANVILLE	COAL	0.9	75.8
565.3	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	1.1	76.7
564.2	CARBONDALE	DANVILLE	COAL	1.2	77.8
563.0	CARBONDALE		UNDERCLAY	2.3	79.0

MAPID: 18301045000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 11 QUARTERS/FOOTAGES: 680' N line, 3850' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.691673 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.129095 DATE COLLECTED: 4 / 19 / 1940

SURFACE ELEVATION (FT.): 645.0 LOGGED (FT.): 55.2 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP 310F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
645.0	PLEISTOCENE		SAND	7.5	0.0
637.5	PLEISTOCENE		CLAY	23.3	7.5
614.2	PLEISTOCENE		CLAY	14.7	30.8
599.5	CARBONDALE	DANVILLE	CLOD	0.6	45.5
598.9	CARBONDALE	DANVILLE	COAL	1.4	46.1
597.5	CARBONDALE	DANVILLE	PYRITE	0.2	47.5
597.3	CARBONDALE	DANVILLE	COAL	3.5	47.7
593.8	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	0.3	51.2
593.5	CARBONDALE	DANVILLE	COAL	0.8	51.5
592.7	CARBONDALE	DANVILLE	CLAYSTONE	1.1	52.3
591.6	CARBONDALE	DANVILLE	COAL	0.8	53.4
590.8	CARBONDALE		UNDERCLAY	1.0	54.2



**MAPID:** 18322492000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 470' S line, 340' E line of SE SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.679102    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.117492    **DATE COLLECTED:** 0 / 0 / 1980  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 0.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** LEE C.C.    14    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	COAL	3.0	146.4	

**MAPID:** 18322493000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 470' S line, 170' E line of SE SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.678491    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.117485    **DATE COLLECTED:** 0 / 0 / 1980  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 0.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** LEE C.C.    15    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	COAL	3.3	131.3	

**MAPID:** 18322495000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 470' S line, 15' E line of SE SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.677934    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.117476    **DATE COLLECTED:** 0 / 0 / 1980  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 0.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** LEE C.C.    17    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	COAL	3.2	46.4	

**MAPID:** 18322496000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 405' S line, 520' E line of SE SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.67975    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.117319    **DATE COLLECTED:** 0 / 0 / 1980  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 0.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** LEE C.C.    18    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-		NO COAL PICKS

MAPID: 18300230000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 12 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.670656 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.121632 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 150.7 LOG TYPE: Drillers Log

SOURCE: WESTERN BRICK WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0
-	MODESTO		SHALE	32.5	5.0
-	CARBONDALE	DANVILLE	COAL	6.5	37.5
-	CARBONDALE	DANVILLE	CLAYSTONE	1.2	44.0
-	CARBONDALE	DANVILLE	COAL	0.5	45.2
-	CARBONDALE		UNDERCLAY	2.0	45.7
-	CARBONDALE		SHALE	15.5	47.7
-	CARBONDALE	HERRIN	COAL	1.5	63.2
-	CARBONDALE		UNDERCLAY	6.0	64.7
-			SHALE	80.0	70.7

MAPID: 18300231000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 12 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.670656 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.121632 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 46.0 LOG TYPE: Drillers Log

SOURCE: WESTERN BRICK WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
-	MODESTO		SHALE	22.0	15.0
-	CARBONDALE	DANVILLE	COAL	6.2	37.0
-	CARBONDALE		UNDERCLAY	2.8	43.2

MAPID: 18300232000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 12 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.670656 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.121632 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 44.5 LOG TYPE: Drillers Log

SOURCE: WESTERN BRICK WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0
-	MODESTO		SHALE	21.5	16.0
-	CARBONDALE	DANVILLE	COAL	6.5	37.5
-	CARBONDALE		UNDERCLAY	0.5	44.0

MAPID: 18300233000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 12 QUARTERS/FOOTAGES:

QUADRANGLE: DANVILLE SW LONGITUDE: -87.668253 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.123455 DATE COLLECTED:

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 130.6 LOG TYPE: Drillers Log

SOURCE: WESTERN BRICK WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
650.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0
644.0	PLEISTOCENE		HARD PAN	37.0	6.0
607.0	MODESTO		SHALE	51.5	43.0
555.5	CARBONDALE	DANVILLE	COAL	6.5	94.5
549.0	CARBONDALE		UNDERCLAY	2.2	101.0
546.8	CARBONDALE		COAL	1.5	103.2
545.3	CARBONDALE		SHALE	10.3	104.7
535.0	CARBONDALE		CLAYSTONE	4.0	115.0
531.0	CARBONDALE	ANNA	BLACK SHALE	4.7	119.0
526.3	CARBONDALE	HERRIN	COAL	4.4	123.7
521.9	CARBONDALE		UNDERCLAY	2.5	128.1

MAPID: 18300234000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 12 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.670656 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.121632 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 45.0 LOG TYPE: Drillers Log

SOURCE: WESTERN BRICK WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
-	MODESTO		SHALE	22.5	16.0	
-	CARBONDALE	DANVILLE	COAL	6.5	38.5	

MAPID: 18300235000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 12 QUARTERS/FOOTAGES:

QUADRANGLE: DANVILLE SW LONGITUDE: -87.668253 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.123455 DATE COLLECTED:

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log

SOURCE: WESTERN BRICK WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
644.0	PLEISTOCENE		GRAVEL	19.0	6.0	
625.0	PLEISTOCENE		SAND	10.0	25.0	
615.0	MODESTO		SHALE	51.5	35.0	
563.5	CARBONDALE	DANVILLE	COAL	6.3	86.5	
557.2	CARBONDALE		UNDERCLAY	2.0	92.8	
555.2	CARBONDALE		SHALE	9.3	94.8	
546.0	CARBONDALE		LIMESTONE	4.5	104.0	
541.5	CARBONDALE		SHALE	8.5	108.5	
533.0	CARBONDALE	ANNA	BLACK SHALE	5.3	117.0	
527.7	CARBONDALE	HERRIN	COAL	7.7	122.3	

MAPID: 18300236000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 12 QUARTERS/FOOTAGES: NE SW  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.670656 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 40.121632 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 45.0 LOG TYPE: Drillers Log  
 SOURCE: WESTERN BRICK WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0
-	MODESTO		SHALE	21.5	16.9
-	CARBONDALE	DANVILLE	COAL	6.5	38.5

MAPID: 18300237000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 12 QUARTERS/FOOTAGES: NE SW  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.670656 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 40.121632 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 47.5 LOG TYPE: Drillers Log  
 SOURCE: WESTERN BRICK WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	17.5	0.0
-	MODESTO		SHALE	24.0	17.5
-	CARBONDALE	DANVILLE	COAL	6.0	41.5

MAPID: 18300238000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 12 QUARTERS/FOOTAGES: SW NW  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.67545 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 40.125327 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 123.4 LOG TYPE: Drillers Log  
 SOURCE: WESTERN BRICK WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
650.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0
644.0	MODESTO		CONGLOMERATE	35.8	6.0
608.2	MODESTO		SHALE	48.0	41.8
560.2	CARBONDALE	DANVILLE	COAL	6.0	89.8
554.2	CARBONDALE		UNDERCLAY	2.2	95.8
552.0	CARBONDALE		SHALE	14.7	98.0
537.3	CARBONDALE	ANNA	BLACK SHALE	5.8	112.7
531.6	CARBONDALE	HERRIN	COAL	5.0	118.4

MAPID: 1830024000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 12 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.675459 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.121659 DATE COLLECTED:

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 97.0 LOG TYPE: Drillers Log

SOURCE: WESTERN BRICK WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
650.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0
641.0	MODESTO		SHALE	45.0	9.0
596.0	CARBONDALE	DANVILLE	COAL	6.0	54.0
590.0	CARBONDALE		SHALE	27.0	60.0
563.0	CARBONDALE		ROCK	4.5	87.0
558.5	CARBONDALE	ANNA	BLACK SHALE	1.2	91.5
557.3	CARBONDALE	HERRIN	COAL	2.8	92.7
554.6	CARBONDALE		UNDERCLAY	1.6	95.4

MAPID: 18300241000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 12 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.670656 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.117958 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 64.7 LOG TYPE: Drillers Log

SOURCE: WESTERN BRICK WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0
-	MODESTO		SHALE	21.0	3.0
-	CARBONDALE	DANVILLE	COAL	6.7	24.0
-	CARBONDALE	DANVILLE	CLAYSTONE	6.5	30.7
-	CARBONDALE	DANVILLE	COAL	3.0	37.2
-	CARBONDALE		SHALE	10.0	40.2
-	CARBONDALE		LIMESTONE	4.5	50.2
-	CARBONDALE	ANNA	BLACK SHALE	2.5	54.7
-	CARBONDALE	HERRIN	COAL	4.0	57.2
-	CARBONDALE		UNDERCLAY	3.5	61.2

MAPID: 18300242000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 12 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.665843 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.117919 DATE COLLECTED:

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

SOURCE: WESTERN BRICK WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0
-	CARBONDALE	DANVILLE	COAL	0.5	3.0
-	CARBONDALE		UNDERCLAY	3.0	3.5
-	CARBONDALE		LIGHT SHALE	17.0	6.5
-	CARBONDALE	ANNA	BLACK SHALE	4.0	23.5
-	CARBONDALE	HERRIN	COAL	1.8	27.5
-	CARBONDALE		UNDERCLAY	5.0	29.3

MAPID: 18300243000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 12 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.66585 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.121601 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 51.3 LOG TYPE: Drillers Log

SOURCE: WESTERN BRICK WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0
-			BLUE SHALE	11.0	5.0
-	CARBONDALE	DANVILLE	COAL	5.8	16.0
-	CARBONDALE	DANVILLE	CLAYSTONE	0.5	21.8
-	CARBONDALE	DANVILLE	COAL	1.0	22.3
-	CARBONDALE		UNDERCLAY	3.0	23.3
-	CARBONDALE		SHALE	9.0	26.3
-	CARBONDALE		LIMESTONE	2.0	35.3
-	CARBONDALE		SANDSTONE	3.0	37.3
-	CARBONDALE	ANNA	BLACK SHALE	6.0	40.3
-	CARBONDALE	HERRIN	COAL	5.0	46.3

**MAPID:** 18322098000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 13    **QUARTERS/FOOTAGES:** NW NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.675438    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.114346    **DATE COLLECTED:** 2 / 0 / 1977  
**SURFACE ELEVATION (FT.):** 650.0    **LOGGED (FT.):** 350.0    **LOG TYPE:** Electric Log  
**SOURCE:** LEE C.C.    1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
347.0	CARBONDALE	SEELYVILLE	COAL	-	303.0	DEPTH ESTIMATED/NO THICKNESS GIVEN

**MAPID:** 18301168000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 14    **QUARTERS/FOOTAGES:** NE SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.680021    **GEOLOGIST:** C TREWORYG  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107105    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 575.0    **LOGGED (FT.):** 26.0    **LOG TYPE:** Drillers Log  
**SOURCE:** TILTON COAL CO    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.0			SHALE	20.0	0.0	
555.0	CARBONDALE	DANVILLE	COAL	6.0	20.0	

**MAPID:** 18301169000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 14    **QUARTERS/FOOTAGES:** SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.691694    **GEOLOGIST:** C TREWORYG  
**CONFIDENTIAL:** N    **LATITUDE:** 40.105266    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 28.0    **LOG TYPE:** Drillers Log  
**SOURCE:** BEN SPANGLER    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		SOIL	18.0	0.0	
-	MODESTO		SHALE	4.0	18.0	
-	CARBONDALE	DANVILLE	COAL	6.0	22.0	



MAPID: 18301772000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 14 QUARTERS/FOOTAGES: 1320' N line, 1320' W line of SE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.686871 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.101632 DATE COLLECTED: 5 / 18 / 1972

SURFACE ELEVATION (FT.): 652.0 LOGGED (FT.): 166.0 LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 20 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
525.0	SHELburn	DANVILLE	COAL	6.3	127.0
492.0	CARBONDALE	HERRIN	COAL	4.8	160.0

MAPID: 18301773000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 14 QUARTERS/FOOTAGES: 1320' S line, 2640' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.687118 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.105243 DATE COLLECTED: 5 / 19 / 1972

SURFACE ELEVATION (FT.): 652.0 LOGGED (FT.): 167.0 LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 27 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
537.0	SHELburn	DANVILLE	COAL	6.4	115.0
508.0	CARBONDALE	HERRIN	COAL	2.0	144.0

MAPID: 18301773000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 14 QUARTERS/FOOTAGES: 1320' S line, 2640' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.687118 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.105243 DATE COLLECTED:

SURFACE ELEVATION (FT.): 652.0 LOGGED (FT.): 146.0 LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 27 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
628.0	MODESTO		GRAY SHALE	91.0	24.0
537.0	CARBONDALE	DANVILLE	COAL	6.4	115.0
530.6	CARBONDALE		CLAYSTONE	1.6	121.4
529.0	CARBONDALE		GRAY SHALE	10.0	123.0
519.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	133.0
515.0	CARBONDALE	LAWSON	DARK GRAY SHALE	7.0	137.0
508.0	CARBONDALE	HERRIN	COAL	2.0	144.0

MAPID: 18301774000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 14 QUARTERS/FOOTAGES: 1320' S line, 1320' W line of NE SW  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.687037 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 40.108916 DATE COLLECTED: 5 / 22 / 1972  
 SURFACE ELEVATION (FT.): 647.0 LOGGED (FT.): 157.0 LOG TYPE: Drillers Log  
 SOURCE: AMAX C.C. 28 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
529.0	SHELburn	DANVILLE	COAL	6.4	118.0	
499.0	CARBONDALE	HERRIN	COAL	2.0	148.0	

MAPID: 18322087000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 14 QUARTERS/FOOTAGES: NW NE  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.684873 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 40.114428 DATE COLLECTED: 8 / 30 / 1976  
 SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 0.0 LOG TYPE: Survey Core Study  
 SOURCE: LEE C.C. B-1 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
525.0	SHELburn	DANVILLE	COAL	6.0	5.0	4 OTHER BORINGS AT SITE
506.5	CARBONDALE	HERRIN	COAL	2.1	23.5	4 OTHER BORINGS AT SITE

MAPID: 18322099000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 14 QUARTERS/FOOTAGES: NW NE  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.684873 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 40.114428 DATE COLLECTED: 2 / 0 / 1977  
 SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 292.0 LOG TYPE: Survey Core Study  
 SOURCE: LEE C.C. 2 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.7	SHELburn	DANVILLE	COAL	5.5	64.3	THICKNESS ESTIMATED/UPPER SPLIT
561.5	SHELburn	DANVILLE	COAL	1.0	73.5	THICKNESS ESTIMATED/LOWER SPLIT
543.4	CARBONDALE	HERRIN	COAL	1.0	91.6	
395.5	CARBONDALE	SURVANT	COAL	0.6	239.5	
378.7	CARBONDALE	COLCHESTER	COAL	0.9	256.3	
357.4	CARBONDALE	DEKOVEN	COAL	2.3	277.6	
352.7	CARBONDALE	DAVIS	COAL	2.2	282.3	

**MAPID:** 1832249000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 625' N line, 340' E line of NE NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.67907    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.114469    **DATE COLLECTED:** 0 / 0 / 1980  
**SURFACE ELEVATION (FT.):** 640.0    **LOGGED (FT.):** 139.5    **LOG TYPE:** Survey Core Study  
**SOURCE:** LEE C.C.    13    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
505.7	CARBONDALE	HERRIN	COAL	4.6	134.3	

**MAPID:** 18322491000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 1140' N line, 110' E line of NE NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.678209    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.113037    **DATE COLLECTED:** 0 / 0 / 1980  
**SURFACE ELEVATION (FT.):** 640.0    **LOGGED (FT.):** 140.5    **LOG TYPE:** Survey Core Study  
**SOURCE:** LEE C.C.    16    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
505.8	CARBONDALE	HERRIN	COAL	5.1	134.2	

**MAPID:** 18360353000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.722676    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.10342    **DATE COLLECTED:** 8 / 15 / 1967  
**SURFACE ELEVATION (FT.):** 566.1    **LOGGED (FT.):** 40.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B446C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
566.1	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0	
541.1	SHELBURN		GRAY SHALE	10.0	25.0	
531.1	SHELBURN	DANVILLE	COAL	3.0	35.0	SOFT
528.1	SHELBURN		UNDERCLAY	2.0	38.0	

MAPID: 18390301000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.732089    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103616    DATE COLLECTED: 5 / 31 / 1972

SURFACE ELEVATION (FT.): 649.0    LOGGED (FT.): 138.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B417Z    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
649.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0
645.0	PLEISTOCENE		UNCONSOLIDATED	25.0	4.0
620.0	SHELBURN		GRAY SHALE	57.0	29.0
563.0	SHELBURN		DARK SHALE	2.0	86.0
561.0	SHELBURN	DANVILLE	COAL	5.4	88.0
555.6	SHELBURN		UNDERCLAY	1.6	93.4
554.0	SHELBURN		SANDY SHALE	11.0	95.0
543.0	SHELBURN		LIMESTONE	3.5	106.0
539.5	SHELBURN		CALCAREOUS SHALE	4.5	109.5
535.0	SHELBURN		DARK SHALE	2.0	114.0
533.0	SHELBURN		SANDY SHALE	22.0	116.0

MAPID: 18390303000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.732089    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103616    DATE COLLECTED: 3 / 17 / 1966

SURFACE ELEVATION (FT.): 652.5    LOGGED (FT.): 77.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B418BA    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
652.5	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
640.5	PLEISTOCENE		CLAY	10.0	12.0
630.5	SHELBURN		GRAY SHALE	55.0	22.0
575.5	SHELBURN	DANVILLE	CAVITY	-	77.0

**MAPID:** 18390304000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732089    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103616    **DATE COLLECTED:** 3 / 17 / 1966  
**SURFACE ELEVATION (FT.):** 658.6    **LOGGED (FT.):** 91.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B418BB    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
658.6	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
642.6	PLEISTOCENE		CLAY	8.0	16.0	
634.6	SHELBURN		GRAY SHALE	59.0	24.0	
575.6	SHELBURN	DANVILLE	COAL	5.9	83.0	HARD
569.7	SHELBURN		UNDERCLAY	2.1	88.9	

**MAPID:** 18390305000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732089    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103616    **DATE COLLECTED:** 3 / 10 / 1966  
**SURFACE ELEVATION (FT.):** 635.2    **LOGGED (FT.):** 87.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B418CA    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.2	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
623.2	PLEISTOCENE		CLAY	10.0	12.0	
613.2	SHELBURN		GRAY SHALE	50.0	22.0	
563.2	SHELBURN	DANVILLE	COAL	6.3	72.0	HARD
556.9	SHELBURN		UNDERCLAY	1.8	78.3	
555.2	SHELBURN		GRAY SHALE	1.0	80.0	
554.2	SHELBURN	DANVILLE	COAL	1.5	81.0	HARD
552.7	SHELBURN		MICACEOUS SHALE	4.5	82.5	

MAPID: 18390306000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.732089    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103616    DATE COLLECTED: 3 / 9 / 1966

SURFACE ELEVATION (FT.): 636.3    LOGGED (FT.): 77.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B418J    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
636.3	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
626.3	PLEISTOCENE		CLAY	9.0	10.0	
617.3	SHELBURN		GRAY SHALE	46.0	19.0	
571.3	SHELBURN	DANVILLE	COAL	6.2	65.0	HARD
565.1	SHELBURN	DANVILLE	MICACEOUS SHALE	2.8	71.2	
562.3	SHELBURN	DANVILLE	COAL	1.5	74.0	HARD
560.8	SHELBURN		UNDERCLAY	1.5	75.5	

MAPID: 18390307000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.732089    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103616    DATE COLLECTED: 3 / 17 / 1966

SURFACE ELEVATION (FT.): 650.9    LOGGED (FT.): 77.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B418BA    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.9	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
638.9	PLEISTOCENE		CLAY	4.0	12.0	
634.9	SHELBURN		GRAY SHALE	61.0	16.0	
573.9	SHELBURN	DANVILLE	CAVITY	-	77.0	

MAPID: 18390308000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.732089    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103616    DATE COLLECTED: 3 / 17 / 1966

SURFACE ELEVATION (FT.): 656.1    LOGGED (FT.): 92.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B418PA    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
656.1	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
647.1	PLEISTOCENE		CLAY	16.0	9.0	
631.1	SHELBURN		GRAY SHALE	59.0	25.0	
572.1	SHELBURN	DANVILLE	COAL	6.1	84.0	HARD
566.0	SHELBURN		UNDERCLAY	1.9	90.1	

MAPID: 18390310000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.727382    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103518    DATE COLLECTED: 12 / 19 / 1966

SURFACE ELEVATION (FT.): 651.9    LOGGED (FT.): 147.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B419A    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
651.9	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
638.9	PLEISTOCENE		UNCONSOLIDATED	10.0	13.0	
628.9	SHELBURN		GRAY SHALE	65.0	23.0	
563.9	SHELBURN	DANVILLE	COAL	6.3	88.0	HARD
557.6	SHELBURN		UNDERCLAY	2.8	94.3	
554.9	SHELBURN		GRAY SHALE	50.0	97.0	

MAPID: 18390311000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.727382    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103518    DATE COLLECTED: 12 / 8 / 1966

SURFACE ELEVATION (FT.): 659.6    LOGGED (FT.): 104.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B419B    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
659.6	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
647.6	PLEISTOCENE		CLAY	13.0	12.0	
634.6	SHELBURN		GRAY SHALE	71.0	25.0	
563.6	SHELBURN	DANVILLE	COAL	6.1	96.0	HARD
557.5	SHELBURN		UNDERCLAY	1.9	102.1	

MAPID: 18390312000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.732089    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103616    DATE COLLECTED: 3 / 16 / 1966

SURFACE ELEVATION (FT.): 655.8    LOGGED (FT.): 96.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B419C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
655.8	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0	
632.8	SHELBURN		GRAY SHALE	65.0	23.0	
567.8	SHELBURN	DANVILLE	COAL	5.5	88.0	HARD
562.3	SHELBURN	DANVILLE	CLAYSTONE	0.3	93.5	SOFT
562.0	SHELBURN	DANVILLE	COAL	0.3	93.8	
561.6	SHELBURN		UNDERCLAY	1.8	94.2	



MAPID: 18390313000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727382 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.103518 DATE COLLECTED: 3 / 16 / 1966

SURFACE ELEVATION (FT.): 657.4 LOGGED (FT.): 99.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B419H WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
657.4	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
641.4	SHELBURN		GRAY SHALE	75.0	16.0	
566.4	SHELBURN	DANVILLE	COAL	5.8	91.0	HARD
560.6	SHELBURN	DANVILLE	CLAYSTONE	0.3	96.8	SOFT
560.4	SHELBURN	DANVILLE	COAL	0.3	97.0	
560.1	SHELBURN		UNDERCLAY	1.8	97.3	

MAPID: 18390314000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.732089 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.103616 DATE COLLECTED: 3 / 16 / 1966

SURFACE ELEVATION (FT.): 654.9 LOGGED (FT.): 94.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B419J WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
654.9	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
645.9	PLEISTOCENE		CLAY	8.0	9.0	
637.9	SHELBURN		GRAY SHALE	69.0	17.0	
568.9	SHELBURN	DANVILLE	COAL	6.2	86.0	HARD
562.7	SHELBURN		UNDERCLAY	1.8	92.2	

MAPID: 18390315000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.727382    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103518    DATE COLLECTED: 3 / 16 / 1966

SURFACE ELEVATION (FT.): 658.3    LOGGED (FT.): 107.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B420    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
658.3	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
647.3	PLEISTOCENE		CLAY	18.0	11.0	
629.3	SHELBURN		GRAY SHALE	67.0	29.0	
562.3	SHELBURN	DANVILLE	COAL	5.9	96.0	HARD
556.4	SHELBURN	DANVILLE	CLAYSTONE	0.3	101.9	SOFT
556.1	SHELBURN	DANVILLE	COAL	0.3	102.2	
555.9	SHELBURN	DANVILLE	CLAYSTONE	2.6	102.4	
553.3	SHELBURN	DANVILLE	COAL	0.7	105.0	
552.6	SHELBURN		UNDERCLAY	1.3	105.7	

MAPID: 18390316000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.727382    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103518    DATE COLLECTED: 12 / 9 / 1966

SURFACE ELEVATION (FT.): 657.0    LOGGED (FT.): 107.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B420A    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
657.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
645.0	PLEISTOCENE		UNCONSOLIDATED	14.0	12.0	
631.0	SHELBURN		GRAY SHALE	73.0	26.0	
558.0	SHELBURN	DANVILLE	COAL	6.3	99.0	HARD
551.7	SHELBURN		UNDERCLAY	1.8	105.3	

**MAPID:** 18390317000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727382    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103518    **DATE COLLECTED:** 12 / 7 / 1966  
**SURFACE ELEVATION (FT.):** 657.5    **LOGGED (FT.):** 103.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B420C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
657.5	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
644.5	PLEISTOCENE		UNCONSOLIDATED	13.0	13.0	
631.5	SHELBURN		GRAY SHALE	70.0	26.0	
561.5	SHELBURN	DANVILLE	COAL	5.9	96.0	MED. HARD
555.6	SHELBURN		UNDERCLAY	1.1	101.9	

**MAPID:** 18390318000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727382    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103518    **DATE COLLECTED:** 12 / 9 / 1966  
**SURFACE ELEVATION (FT.):** 654.5    **LOGGED (FT.):** 106.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B420D    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
654.5	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
639.5	PLEISTOCENE		CLAY	10.0	15.0	
629.5	SHELBURN		GRAY SHALE	73.0	25.0	
556.5	SHELBURN	DANVILLE	COAL	6.0	98.0	HARD
550.5	SHELBURN		UNDERCLAY	2.0	104.0	

**MAPID:** 18390319000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727382    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103518    **DATE COLLECTED:** 12 / 8 / 1966  
**SURFACE ELEVATION (FT.):** 656.2    **LOGGED (FT.):** 104.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B420E    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
656.2	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
645.2	PLEISTOCENE		UNCONSOLIDATED	11.0	11.0	
634.2	SHELBURN		GRAY SHALE	74.0	22.0	
560.2	SHELBURN	DANVILLE	COAL	6.1	96.0	MED. HARD
554.1	SHELBURN		UNDERCLAY	1.9	102.1	

MAPID: 1839032000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727382 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.103518 DATE COLLECTED: 12 / 8 / 1966

SURFACE ELEVATION (FT.): 655.1 LOGGED (FT.): 106.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B420F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
655.1	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
643.1	PLEISTOCENE		UNCONSOLIDATED	8.0	12.0	
635.1	SHELBURN		GRAY SHALE	77.0	20.0	
558.1	SHELBURN	DANVILLE	COAL	6.2	97.0	HARD
551.9	SHELBURN		UNDERCLAY	2.8	103.2	

MAPID: 18390321000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727382 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.103518 DATE COLLECTED: 10 / 30 / 1968

SURFACE ELEVATION (FT.): 659.0 LOGGED (FT.): 107.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B420H WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
659.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
653.0	PLEISTOCENE		CLAY	5.0	6.0	
648.0	PLEISTOCENE		CLAY	15.0	11.0	
633.0	CARBONDALE		GRAY SHALE	74.0	26.0	
559.0	CARBONDALE	DANVILLE	COAL	6.1	100.0	
552.9	CARBONDALE		UNDERCLAY	0.9	106.1	

MAPID: 18390322000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.727382    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103518    DATE COLLECTED: 4 / 19 / 1970

SURFACE ELEVATION (FT.): 648.0    LOGGED (FT.): 115.0    LOG TYPE: Drillers Log

SOURCE: AMAX    B420H    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
648.0	PLEISTOCENE		SILT	3.0	0.0	
645.0	PLEISTOCENE		CLAY	10.0	3.0	
635.0	PLEISTOCENE		SAND & GRAVEL	4.0	13.0	
631.0	PLEISTOCENE		UNCONSOLIDATED	8.0	17.0	
623.0	SHELBURN		GRAY SHALE	73.5	25.0	
549.5	SHELBURN	DANVILLE	COAL	5.8	98.5	
543.7	SHELBURN		GRAY SHALE	0.3	104.3	
543.4	SHELBURN	DANVILLE	COAL	0.4	104.6	
543.0	SHELBURN		CLAYSTONE	2.0	105.0	
541.0	SHELBURN	DANVILLE	COAL	0.7	107.0	SUMP
540.3	SHELBURN		UNDERCLAY	1.3	107.7	
539.0	SHELBURN		GRAY SHALE	6.0	109.0	

MAPID: 18390323000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SE SE SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.726191    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.102592    DATE COLLECTED: 3 / 16 / 1966

SURFACE ELEVATION (FT.): 653.8    LOGGED (FT.): 104.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B421    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
653.8	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
640.8	PLEISTOCENE		CLAY	15.0	13.0	
625.8	SHELBURN		GRAY SHALE	63.0	28.0	
562.8	SHELBURN	DANVILLE	COAL	6.3	91.0	HARD
556.5	SHELBURN	DANVILLE	CLAYSTONE	3.8	97.3	
552.8	SHELBURN	DANVILLE	COAL	1.0	101.0	BONE, SUMP VEIN
551.8	SHELBURN		UNDERCLAY	2.0	102.0	

**MAPID:** 18390325000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727382    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103518    **DATE COLLECTED:** 12 / 16 / 1966  
**SURFACE ELEVATION (FT.):** 655.9    **LOGGED (FT.):** 108.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B421C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
655.9	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
643.9	PLEISTOCENE		UNCONSOLIDATED	18.0	12.0	
625.9	SHELBURN		SHALE	71.0	30.0	
554.9	SHELBURN	DANVILLE	COAL	5.7	101.0	HARD
549.2	SHELBURN		UNDERCLAY	1.3	106.7	

**MAPID:** 18390326000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.722676    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.10342    **DATE COLLECTED:** 8 / 11 / 1967  
**SURFACE ELEVATION (FT.):** 548.1    **LOGGED (FT.):** 21.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B422C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
548.1	PLEISTOCENE		SAND & GRAVEL	14.0	0.0	
534.1	SHELBURN	DANVILLE	COAL	4.0	14.0	SOFT; TOP ERODED
530.1	SHELBURN		UNDERCLAY	3.0	18.0	

**MAPID:** 18390327000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.722676    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.10342    **DATE COLLECTED:** 8 / 15 / 1967  
**SURFACE ELEVATION (FT.):** 548.2    **LOGGED (FT.):** 28.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B422EA    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
548.2	PLEISTOCENE		SAND & GRAVEL	17.0	0.0	
531.2			MICACEOUS SHALE	11.0	17.0	

**MAPID:** 18390328000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.722676    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.10342    **DATE COLLECTED:** 8 / 15 / 1967  
**SURFACE ELEVATION (FT.):** 657.4    **LOGGED (FT.):** 20.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B422EY    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
657.4	PLEISTOCENE		SAND & GRAVEL	17.0	0.0	
640.4	SHELBURN		SHALE	1.0	17.0	
639.4	SHELBURN	DANVILLE	COAL	1.0	18.0	SOFT
638.4	SHELBURN		UNDERCLAY	1.0	19.0	

**MAPID:** 18390329000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.722676    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.10342    **DATE COLLECTED:** 8 / 14 / 1967  
**SURFACE ELEVATION (FT.):** 545.3    **LOGGED (FT.):** 20.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B422HB    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
545.3	PLEISTOCENE		SAND & GRAVEL	12.0	0.0	
533.3	SHELBURN	DANVILLE	COAL	6.0	12.0	MED. HARD; TOP ERODED
527.3	SHELBURN		UNDERCLAY	2.0	18.0	

**MAPID:** 18390330000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.722676    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.10342    **DATE COLLECTED:** 8 / 15 / 1967  
**SURFACE ELEVATION (FT.):** 548.3    **LOGGED (FT.):** 28.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B422IC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
548.3	PLEISTOCENE		SAND & GRAVEL	19.0	0.0	
529.3	SHELBURN	DANVILLE	COAL	1.5	19.0	SOFT; TOP ERODED
527.8	SHELBURN		MICACEOUS SHALE	7.5	20.5	

**MAPID:** 18390331000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.722676    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.10342    **DATE COLLECTED:** 8 / 14 / 1967  
**SURFACE ELEVATION (FT.):** 545.4    **LOGGED (FT.):** 21.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B422NB    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
545.4	PLEISTOCENE		SAND & GRAVEL	12.0	0.0	
533.4	SHELBURN		SHALE	2.0	12.0	
531.4	SHELBURN	DANVILLE	COAL	5.0	14.0	MED HARD
526.4	SHELBURN		UNDERCLAY	2.0	19.0	

**MAPID:** 18390332000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.717966    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103318    **DATE COLLECTED:** 8 / 11 / 1967  
**SURFACE ELEVATION (FT.):** 548.4    **LOGGED (FT.):** 24.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B423EB    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
548.4	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
537.4	SHELBURN		SHALE	7.0	11.0	
530.4	SHELBURN	DANVILLE	COAL	4.8	18.0	SOFT
525.6	SHELBURN		UNDERCLAY	1.2	22.8	

**MAPID:** 18390333000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.717966    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103318    **DATE COLLECTED:** 8 / 16 / 1967  
**SURFACE ELEVATION (FT.):** 540.0    **LOGGED (FT.):** 28.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B424EB    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
536.0	SHELBURN		SHALE	16.0	4.0	
520.0	SHELBURN	DANVILLE	COAL	6.0	20.0	HARD
514.0	SHELBURN		UNDERCLAY	2.0	26.0	



**MAPID:** 18390334000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.717966    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103318    **DATE COLLECTED:** 8 / 16 / 1967  
**SURFACE ELEVATION (FT.):** 543.0    **LOGGED (FT.):** 18.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B424M    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
543.0	PLEISTOCENE		SAND & GRAVEL	9.0	0.0	
534.0	SHELBURN		GRAY SHALE	4.0	9.0	
530.0	SHELBURN	DANVILLE	COAL	2.5	13.0	SOFT
527.5	SHELBURN		UNDERCLAY	2.5	15.5	

**MAPID:** 18390335000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SE SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.716779    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.102384    **DATE COLLECTED:** 8 / 16 / 1967  
**SURFACE ELEVATION (FT.):** 545.2    **LOGGED (FT.):** 17.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B425    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
545.2	PLEISTOCENE		SAND & GRAVEL	11.0	0.0	
534.2	SHELBURN		GRAY SHALE	1.0	11.0	
533.2	SHELBURN	DANVILLE	COAL	3.0	12.0	MED. HARD
530.2	SHELBURN		UNDERCLAY	2.0	15.0	

**MAPID:** 18390338000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727382    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103518    **DATE COLLECTED:** 3 / 10 / 1966  
**SURFACE ELEVATION (FT.):** 635.2    **LOGGED (FT.):** 107.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B444CA    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.2	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
619.2	PLEISTOCENE		CLAY	10.0	16.0	
609.2	SHELBURN		GRAY SHALE	69.0	26.0	
540.2	SHELBURN	DANVILLE	COAL	6.1	95.0	HARD
534.1	SHELBURN	DANVILLE	CLAYSTONE	2.9	101.1	
531.2	SHELBURN	DANVILLE	COAL	1.6	104.0	BONE, HARD
529.6	SHELBURN		UNDERCLAY	1.4	105.6	

MAPID: 18390339000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.727382    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103518    DATE COLLECTED: 3 / 11 / 1966

SURFACE ELEVATION (FT.): 635.9    LOGGED (FT.): 87.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B444CB    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.9	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
615.9	PLEISTOCENE		CLAY	8.0	20.0	
607.9	SHELBURN		GRAY SHALE	59.0	28.0	
548.9	SHELBURN	DANVILLE		-	87.0	

MAPID: 18390340000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.727382    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103518    DATE COLLECTED: 3 / 10 / 1966

SURFACE ELEVATION (FT.): 641.2    LOGGED (FT.): 106.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B444CC    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
641.2	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
627.2	PLEISTOCENE		CLAY	10.0	14.0	
617.2	SHELBURN		GRAY SHALE	71.0	24.0	
546.2	SHELBURN	DANVILLE	COAL	5.3	95.0	HARD
540.9	SHELBURN		CLAYSTONE	1.7	100.3	
539.2	SHELBURN		GRAY SHALE	1.0	102.0	
538.2	SHELBURN	DANVILLE	COAL	1.3	103.0	SUMP VEIN
536.9	SHELBURN		UNDERCLAY	1.8	104.3	

MAPID: 18390341000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727382 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.103518 DATE COLLECTED: 3 / 11 / 1966

SURFACE ELEVATION (FT.): 636.8 LOGGED (FT.): 103.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B444E WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
636.8	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
619.8	SHELBURN		GRAY SHALE	74.0	17.0	
545.8	SHELBURN	DANVILLE	COAL	5.8	91.0	HARD
540.0	SHELBURN	DANVILLE	CLAYSTONE	3.3	96.8	
536.8	SHELBURN	DANVILLE	COAL	1.2	100.0	BONE
535.6	SHELBURN		UNDERCLAY	1.8	101.2	

MAPID: 18390342000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727382 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.103518 DATE COLLECTED: 3 / 15 / 1966

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 95.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B444HCB WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
623.0	PLEISTOCENE		CLAY	13.0	12.0	
610.0	SHELBURN		GRAY SHALE	57.0	25.0	
553.0	SHELBURN	DANVILLE	COAL	6.5	82.0	HARD
546.5	SHELBURN	DANVILLE	CLAYSTONE	3.5	88.5	
543.0	SHELBURN	DANVILLE	COAL	1.6	92.0	BONE, HARD
541.4	SHELBURN		UNDERCLAY	1.4	93.6	

MAPID: 18390343000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727382 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.103518 DATE COLLECTED: 3 / 16 / 1966

SURFACE ELEVATION (FT.): 643.0 LOGGED (FT.): 88.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B444N WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
643.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
628.0	SHELBURN		GRAY SHALE	65.0	15.0	
563.0	SHELBURN	DANVILLE	COAL	5.8	80.0	HARD
557.2	SHELBURN	DANVILLE	CLAYSTONE	0.3	85.8	
557.0	SHELBURN	DANVILLE	COAL	0.3	86.0	
556.7	SHELBURN		UNDERCLAY	1.8	86.3	

MAPID: 18390344000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727382 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.103518 DATE COLLECTED: 12 / 16 / 1966

SURFACE ELEVATION (FT.): 649.6 LOGGED (FT.): 101.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B444P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
649.6	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
638.6	PLEISTOCENE		UNCONSOLIDATED	11.0	11.0	
627.6	SHELBURN		SHALE	71.0	22.0	
556.6	SHELBURN	DANVILLE	COAL	6.1	93.0	HARD
550.5	SHELBURN		UNDERCLAY	1.9	99.1	

**MAPID:** 18390346000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727382    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103518    **DATE COLLECTED:** 12 / 19 / 1966  
**SURFACE ELEVATION (FT.):** 654.8    **LOGGED (FT.):** 108.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B445B    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
654.8	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
642.8	PLEISTOCENE		UNCONSOLIDATED	19.0	12.0	
623.8	SHELBURN		SHALE	70.0	31.0	
553.8	SHELBURN	DANVILLE	COAL	5.8	101.0	HARD
548.0	SHELBURN		UNDERCLAY	1.3	106.8	

**MAPID:** 18390347000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727382    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103518    **DATE COLLECTED:** 12 / 12 / 1966  
**SURFACE ELEVATION (FT.):** 646.0    **LOGGED (FT.):** 100.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B445H    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
646.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
636.0	PLEISTOCENE		UNCONSOLIDATED	9.0	10.0	
627.0	SHELBURN		GRAY SHALE	74.0	19.0	
553.0	SHELBURN	DANVILLE	COAL	5.8	93.0	HARD
547.2	SHELBURN		UNDERCLAY	1.3	98.8	

**MAPID:** 18390348000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727382    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103518    **DATE COLLECTED:** 12 / 12 / 1966  
**SURFACE ELEVATION (FT.):** 654.9    **LOGGED (FT.):** 108.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B445J    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
654.9	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
638.9	PLEISTOCENE		CLAY	9.0	16.0	
629.9	SHELBURN		GRAY SHALE	76.0	25.0	
553.9	SHELBURN	DANVILLE	COAL	6.0	101.0	HARD
547.9	SHELBURN		UNDERCLAY	1.0	107.0	

**MAPID:** 18390349000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727382    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103518    **DATE COLLECTED:** 12 / 16 / 1966  
**SURFACE ELEVATION (FT.):** 646.5    **LOGGED (FT.):** 100.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B445JC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
646.5	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
633.5	PLEISTOCENE		UNCONSOLIDATED	8.0	13.0	
625.5	SHELBURN		SHALE	72.0	21.0	
553.5	SHELBURN	DANVILLE	COAL	5.8	93.0	HARD
547.7	SHELBURN		UNDERCLAY	1.2	98.8	

**MAPID:** 18390350000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727382    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103518    **DATE COLLECTED:** 12 / 12 / 1966  
**SURFACE ELEVATION (FT.):** 655.8    **LOGGED (FT.):** 109.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B445K    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
655.8	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
640.8	PLEISTOCENE		CLAY	10.0	15.0	
630.8	SHELBURN		SHALE	76.0	25.0	
554.8	SHELBURN	DANVILLE	COAL	6.0	101.0	HARD
548.8	SHELBURN		UNDERCLAY	2.0	107.0	

**MAPID:** 18390351000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727382    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103518    **DATE COLLECTED:** 12 / 12 / 1966  
**SURFACE ELEVATION (FT.):** 659.1    **LOGGED (FT.):** 113.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B445L    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
659.1	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
647.1	PLEISTOCENE		UNCONSOLIDATED	14.0	12.0	
633.1	SHELBURN		GRAY SHALE	80.0	26.0	
553.1	SHELBURN	DANVILLE	COAL	6.0	106.0	HARD
547.1	SHELBURN		UNDERCLAY	1.0	112.0	

**MAPID:** 18390352000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727382    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103518    **DATE COLLECTED:** 12 / 12 / 1966  
**SURFACE ELEVATION (FT.):** 656.7    **LOGGED (FT.):** 108.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B445N    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
656.7	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
640.7	PLEISTOCENE		UNCONSOLIDATED	8.0	16.0	
632.7	SHELBURN		SHALE	76.0	24.0	
556.7	SHELBURN	DANVILLE	COAL	6.2	100.0	HARD
550.5	SHELBURN		UNDERCLAY	1.8	106.2	

**MAPID:** 18390354000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.722676    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.10342    **DATE COLLECTED:** 8 / 15 / 1967  
**SURFACE ELEVATION (FT.):** 566.4    **LOGGED (FT.):** 27.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B446MC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
566.4	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
546.4			MICACEOUS SHALE	7.0	20.0	

**MAPID:** 18390355000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.722676    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.10342    **DATE COLLECTED:** 8 / 15 / 1967  
**SURFACE ELEVATION (FT.):** 544.7    **LOGGED (FT.):** 37.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B446PC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
544.7	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
524.7			MICACEOUS SHALE	17.0	20.0	

MAPID: 18390356000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SW SE

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.722676    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.10342    DATE COLLECTED: 8 / 15 / 1967

SURFACE ELEVATION (FT.): 544.7    LOGGED (FT.): 38.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B447J    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
544.7	PLEISTOCENE		SAND & GRAVEL	15.0	0.0
529.7			MICACEOUS SHALE	23.0	15.0

MAPID: 18390367000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: NW SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.732145    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.107197    DATE COLLECTED: 11 / 18 / 1968

SURFACE ELEVATION (FT.): 638.7    LOGGED (FT.): 104.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B467D    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
638.7	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0
625.7	PLEISTOCENE		CLAY	8.0	13.0
617.7	SHELBURN		GRAY SHALE	71.0	21.0
546.7	SHELBURN		BLACK SHALE	5.0	92.0
541.7	SHELBURN	DANVILLE	COAL	5.8	97.0
535.9	SHELBURN		UNDERCLAY	1.2	102.8

MAPID: 18390368000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: NW SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.732145    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.107197    DATE COLLECTED: 3 / 3 / 1966

SURFACE ELEVATION (FT.): 644.8    LOGGED (FT.): 104.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B468    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
644.8	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0
630.8	PLEISTOCENE		UNCONSOLIDATED	15.0	14.0
615.8	SHELBURN		GRAY SHALE	68.0	29.0
547.8	SHELBURN	DANVILLE	COAL	5.2	97.0    MED. HARD
542.6	SHELBURN		UNDERCLAY	1.8	102.2



**MAPID:** 18390369000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** NW SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732145    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107197    **DATE COLLECTED:** 3 / 8 / 1966  
**SURFACE ELEVATION (FT.):** 624.0    **LOGGED (FT.):** 98.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B468DC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
624.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
609.0	SHELBURN		GRAY SHALE	71.0	15.0	
538.0	SHELBURN	DANVILLE	COAL	6.3	86.0	HARD
531.7	SHELBURN	DANVILLE	GRAY SHALE	2.8	92.3	
529.0	SHELBURN	DANVILLE	COAL	1.8	95.0	HARD
527.2	SHELBURN		UNDERCLAY	1.3	96.8	

**MAPID:** 18390370000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732089    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103616    **DATE COLLECTED:** 5 / 31 / 1972  
**SURFACE ELEVATION (FT.):** 646.0    **LOGGED (FT.):** 127.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B468P    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
646.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
635.0	PLEISTOCENE		UNCONSOLIDATED	15.0	11.0	
620.0	SHELBURN		GRAY SHALE	65.0	26.0	
555.0	SHELBURN	DANVILLE	COAL	6.3	91.0	
548.7	SHELBURN	DANVILLE	CLAYSTONE	0.3	97.3	
548.5	SHELBURN	DANVILLE	COAL	0.3	97.5	
548.2	SHELBURN		UNDERCLAY	2.2	97.8	
546.0	SHELBURN		MICACEOUS SHALE	10.0	100.0	
536.0	SHELBURN		CALCAREOUS SHALE	5.0	110.0	
531.0	SHELBURN		GRAY SHALE	3.0	115.0	
528.0	SHELBURN		DARK SHALE	2.0	118.0	
526.0	SHELBURN		MICACEOUS SHALE	7.0	120.0	

MAPID: 18390371000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SE NW SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.730954    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.106279    DATE COLLECTED: 3 / 8 / 1966

SURFACE ELEVATION (FT.): 634.9    LOGGED (FT.): 147.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B469    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
634.9	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
621.9	PLEISTOCENE		CLAY	6.0	13.0	
615.9	SHELBURN		GRAY SHALE	69.0	19.0	
546.9	SHELBURN	DANVILLE	COAL	6.1	88.0	HARD
540.8	SHELBURN	DANVILLE	MICACEOUS SHALE	2.9	94.1	
537.9	SHELBURN	DANVILLE	COAL	2.8	97.0	HARD
535.1	SHELBURN		BLACK SHALE	2.2	99.8	
532.9	SHELBURN		MICACEOUS SHALE	45.0	102.0	

MAPID: 18390372000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.727435    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.107115    DATE COLLECTED: 3 / 14 / 1966

SURFACE ELEVATION (FT.): 632.2    LOGGED (FT.): 93.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B469A    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
632.2	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
615.2	SHELBURN		GRAY SHALE	65.0	17.0	
550.2	SHELBURN	DANVILLE	COAL	5.8	82.0	HARD
544.4	SHELBURN	DANVILLE	CLAYSTONE	2.2	87.8	
542.2	SHELBURN	DANVILLE	COAL	1.3	90.0	BONE
540.9	SHELBURN		UNDERCLAY	1.7	91.3	

MAPID: 18390374000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.732089    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103616    DATE COLLECTED: 3 / 2 / 1966

SURFACE ELEVATION (FT.): 647.7    LOGGED (FT.): 93.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B442    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
647.7	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
635.7	PLEISTOCENE		SAND & GRAVEL	7.0	12.0	
628.7	PLEISTOCENE		CLAY	12.0	19.0	
616.7	SHELBURN		GRAY SHALE	55.0	31.0	
561.7	SHELBURN	DANVILLE	COAL	5.9	86.0	HARD
555.8	SHELBURN		UNDERCLAY	1.1	91.9	

MAPID: 18390375000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.732089    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103616    DATE COLLECTED: 5 / 9 / 1974

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 136.7    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B442C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		SOIL	1.0	0.0	
639.0	PLEISTOCENE		CLAY	4.5	1.0	
634.5	PLEISTOCENE		SANDY CLAY	4.5	5.5	BROWN
630.0	PLEISTOCENE		SANDY CLAY	14.0	10.0	GRAY
616.0	SHELBURN		DARK SHALE	32.7	24.0	MICACEOUS, SANDSTONE LAMINA
583.3	SHELBURN		BLACK SHALE	23.8	56.7	PLANT FRAGMENTS
559.5	SHELBURN	DANVILLE	COAL	6.0	80.5	
553.5	SHELBURN	DANVILLE	SHALE	3.2	86.5	
550.3	SHELBURN	DANVILLE	COAL	1.5	89.7	
548.8	SHELBURN		GRAY SHALE	8.0	91.2	GREENISH, CALCAREOUS
540.8	SHELBURN		LIMESTONE	6.0	99.2	ABUNDANT PYRITE
534.8	CARBONDALE	ANNA	BLACK SHALE	3.0	105.2	HIGHLY PYRITIFEROUS
531.8	CARBONDALE	HERRIN	COAL	0.6	108.2	
531.2	CARBONDALE		GRAY SHALE	7.9	108.8	HIGHLY CARBONACEOUS
523.3	CARBONDALE		SANDY SHALE	20.0	116.7	GREENISH

MAPID: 18390376000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.732089    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103616    DATE COLLECTED: 3 / 10 / 1966

SURFACE ELEVATION (FT.): 645.1    LOGGED (FT.): 104.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B442KB    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
645.1	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
633.1	PLEISTOCENE		CLAY	13.0	12.0	
620.1	SHELBURN		GRAY SHALE	67.0	25.0	
553.1	SHELBURN	DANVILLE	COAL	5.8	92.0	HARD
547.3	SHELBURN	DANVILLE	CLAYSTONE	3.3	97.8	
544.0	SHELBURN	DANVILLE	COAL	1.6	101.1	BONE
542.4	SHELBURN		UNDERCLAY	1.3	102.7	

MAPID: 18390377000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.732089    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103616    DATE COLLECTED: 3 / 3 / 1966

SURFACE ELEVATION (FT.): 643.0    LOGGED (FT.): 89.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B443    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
643.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
630.0	PLEISTOCENE		CLAY	12.0	13.0	
618.0	SHELBURN		GRAY SHALE	56.0	25.0	
562.0	SHELBURN	DANVILLE	COAL	5.8	81.0	HARD
556.2	SHELBURN	DANVILLE	CLAYSTONE	0.3	86.8	
555.9	SHELBURN	DANVILLE	COAL	0.3	87.1	
555.7	SHELBURN		UNDERCLAY	1.7	87.3	

MAPID: 18390378000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.732089    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103616    DATE COLLECTED: 3 / 9 / 1966

SURFACE ELEVATION (FT.): 644.0    LOGGED (FT.): 106.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B443A    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
644.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
634.0	PLEISTOCENE		CLAY	18.0	10.0	
616.0	SHELBURN		GRAY SHALE	66.0	28.0	
550.0	SHELBURN	DANVILLE	COAL	5.5	94.0	HARD
544.5	SHELBURN	DANVILLE	CLAYSTONE	0.3	99.5	SOFT
544.2	SHELBURN	DANVILLE	COAL	0.2	99.8	
544.1	SHELBURN	DANVILLE	SHALE	3.1	99.9	SOFT
541.0	SHELBURN	DANVILLE	COAL	1.3	103.0	
539.7	SHELBURN		UNDERCLAY	1.7	104.3	

MAPID: 18390379000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.732089    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103616    DATE COLLECTED: 3 / 9 / 1966

SURFACE ELEVATION (FT.): 644.7    LOGGED (FT.): 77.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B443BC    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
644.7	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
629.7	PLEISTOCENE		CLAY	10.0	15.0	
619.7	SHELBURN		GRAY SHALE	49.0	25.0	
570.7	SHELBURN	DANVILLE	CAVITY	3.0	74.0	TOOLS DROPPED

MAPID: 1839038000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.732089 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.103616 DATE COLLECTED: 10 / 29 / 1968

SURFACE ELEVATION (FT.): 645.3 LOGGED (FT.): 97.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B443C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
645.3	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
639.3	PLEISTOCENE		CLAY	7.0	6.0	
632.3	PLEISTOCENE		CLAY	15.0	13.0	
617.3	SHELBURN		GRAY SHALE	62.0	28.0	
555.3	SHELBURN	DANVILLE	COAL	5.8	90.0	
549.5	SHELBURN		UNDERCLAY	1.2	95.8	

MAPID: 18390381000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.732089 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.103616 DATE COLLECTED: 4 / 16 / 1976

SURFACE ELEVATION (FT.): 647.1 LOGGED (FT.): 106.0 LOG TYPE: Drillers Log

SOURCE: AMAX B443C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
647.1	PLEISTOCENE		CLAY	7.0	0.0	
640.1	PLEISTOCENE		UNCONSOLIDATED	21.0	7.0	
619.1	SHELBURN		GRAY SHALE	62.0	28.0	
557.1	SHELBURN	DANVILLE	COAL	5.6	90.0	GOOD
551.5	SHELBURN	DANVILLE	CLAYSTONE	3.2	95.6	
548.3	SHELBURN	DANVILLE	COAL	1.7	98.8	SUMP
546.6	SHELBURN		UNDERCLAY	1.5	100.5	
545.1	SHELBURN		GRAY SHALE	4.0	102.0	

**MAPID:** 18390382000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732089    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103616    **DATE COLLECTED:** 3 / 9 / 1966  
**SURFACE ELEVATION (FT.):** 639.6    **LOGGED (FT.):** 97.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B443FC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
639.6	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
626.6	PLEISTOCENE		CLAY	6.0	13.0	
620.6	SHELBURN		GRAY SHALE	64.0	19.0	
556.6	SHELBURN	DANVILLE	COAL	6.3	83.0	HARD
550.3	SHELBURN	DANVILLE	CLAYSTONE	1.7	89.3	
548.6	SHELBURN	DANVILLE	GRAY SHALE	1.0	91.0	
547.6	SHELBURN	DANVILLE	COAL	1.4	92.0	HARD
546.2	SHELBURN		GRAY SHALE	3.6	93.4	

**MAPID:** 18390383000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732089    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103616    **DATE COLLECTED:** 3 / 10 / 1966  
**SURFACE ELEVATION (FT.):** 644.0    **LOGGED (FT.):** 101.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B443NC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
644.0	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
628.0	PLEISTOCENE		CLAY	20.0	16.0	
608.0	SHELBURN		GRAY SHALE	51.0	36.0	
557.0	SHELBURN	DANVILLE	COAL	6.3	87.0	HARD
550.7	SHELBURN	DANVILLE	GRAY SHALE	3.8	93.3	SOFT
547.0	SHELBURN	DANVILLE	COAL	2.4	97.0	HARD
544.6	SHELBURN		UNDERCLAY	1.6	99.4	

MAPID: 18390384000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.732089    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.103616    DATE COLLECTED: 3 / 7 / 1966

SURFACE ELEVATION (FT.): 636.6    LOGGED (FT.): 103.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B444    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
636.6	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
621.6	PLEISTOCENE		CLAY	9.0	15.0	
612.6	SHELBURN		GRAY SHALE	63.0	24.0	
549.6	SHELBURN	DANVILLE	COAL	5.7	87.0	HARD
543.9	SHELBURN	DANVILLE	CLAYSTONE	0.3	92.7	SOFT
543.7	SHELBURN	DANVILLE	COAL	0.2	92.9	
543.5	SHELBURN	DANVILLE	CLAYSTONE	2.9	93.1	
540.6	SHELBURN	DANVILLE	COAL	1.5	96.0	
539.1	SHELBURN		SHALE/UNDERCLAY	5.5	97.5	

MAPID: 18390385000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.727435    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.107115    DATE COLLECTED: 3 / 15 / 1966

SURFACE ELEVATION (FT.): 622.0    LOGGED (FT.): 80.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B469AB    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
622.0	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
605.0	SHELBURN		SHALE	63.0	17.0	
542.0	SHELBURN	DANVILLE	CAVITY	-	80.0	TOOLS DROPPED



MAPID: 18390386000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727435 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107115 DATE COLLECTED: 3 / 15 / 1966

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 82.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B469AC WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
608.0	PLEISTOCENE		SAND & GRAVEL	6.0	12.0	
602.0	SHELBURN		GRAY SHALE	64.0	18.0	
538.0	SHELBURN	DANVILLE	CAVITY	-	82.0	TOOLS DROPPED

MAPID: 18390387000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727435 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107115 DATE COLLECTED: 3 / 14 / 1966

SURFACE ELEVATION (FT.): 618.6 LOGGED (FT.): 94.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B469F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
618.6	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
602.6	PLEISTOCENE		CLAY	4.0	16.0	
598.6	SHELBURN		GRAY SHALE	61.0	20.0	
537.6	SHELBURN	DANVILLE	COAL	6.3	81.0	HARD
531.3	SHELBURN	DANVILLE	CLAYSTONE	3.8	87.3	
527.6	SHELBURN	DANVILLE	COAL	1.6	91.0	BONE
526.0	SHELBURN		UNDERCLAY	1.4	92.6	

MAPID: 18390388000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727435 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107115 DATE COLLECTED: 3 / 15 / 1966

SURFACE ELEVATION (FT.): 621.5 LOGGED (FT.): 93.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B469H WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
621.5	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
603.5	SHELBURN		GRAY SHALE	63.0	18.0	
540.5	SHELBURN	DANVILLE	COAL	5.8	81.0	HARD
534.7	SHELBURN	DANVILLE	CLAYSTONE	3.2	86.8	
531.5	SHELBURN	DANVILLE	COAL	1.3	90.0	BONE
530.2	SHELBURN		UNDERCLAY	1.8	91.3	

MAPID: 18390389000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727435 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107115 DATE COLLECTED: 3 / 14 / 1966

SURFACE ELEVATION (FT.): 622.7 LOGGED (FT.): 93.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B469HB WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
622.7	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
606.7	SHELBURN		GRAY SHALE	65.0	16.0	
541.7	SHELBURN	DANVILLE	COAL	6.2	81.0	HARD
535.5	SHELBURN	DANVILLE	CLAYSTONE	2.8	87.2	
532.7	SHELBURN	DANVILLE	COAL	1.4	90.0	BONE
531.3	SHELBURN		UNDERCLAY	1.6	91.4	

**MAPID:** 18390390000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** NE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727435    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107115    **DATE COLLECTED:** 3 / 17 / 1966  
**SURFACE ELEVATION (FT.):** 630.1    **LOGGED (FT.):** 93.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B469KB    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.1	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
615.1	SHELBURN		GRAY SHALE	70.0	15.0	
545.1	SHELBURN	DANVILLE	COAL	5.8	85.0	HARD
539.3	SHELBURN		UNDERCLAY	2.2	90.8	

**MAPID:** 18390391000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** NE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727435    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107115    **DATE COLLECTED:** 3 / 16 / 1966  
**SURFACE ELEVATION (FT.):** 629.3    **LOGGED (FT.):** 93.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B469L    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
629.3	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
610.3	SHELBURN		GRAY SHALE	67.0	19.0	
543.3	SHELBURN	DANVILLE	COAL	5.8	86.0	HARD
537.5	SHELBURN		UNDERCLAY	1.2	91.8	

**MAPID:** 18390392000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** NE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727435    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107115    **DATE COLLECTED:** 3 / 15 / 1966  
**SURFACE ELEVATION (FT.):** 623.8    **LOGGED (FT.):** 79.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B469LA    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
623.8	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
603.8	SHELBURN		SHALE	59.0	20.0	
544.8	SHELBURN	DANVILLE	CAVITY	-	79.0	TOOLS DROPPED

**MAPID:** 18390393000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** NE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727435    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107115    **DATE COLLECTED:** 3 / 15 / 1966  
**SURFACE ELEVATION (FT.):** 625.2    **LOGGED (FT.):** 80.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B469LC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
625.2	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
607.2	SHELBURN		SHALE	62.0	18.0	
545.2	SHELBURN	DANVILLE	CAVITY	-	80.0	TOOLS DROPPED

**MAPID:** 18390394000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727536    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.114307    **DATE COLLECTED:** 12 / 21 / 1966  
**SURFACE ELEVATION (FT.):** 549.7    **LOGGED (FT.):** 27.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B470A    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
549.7	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0	
526.7	SHELBURN	DANVILLE	COAL	1.5	23.0	HARD; TOP ERODED
525.2	SHELBURN		UNDERCLAY	2.5	24.5	

**MAPID:** 18390395000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** NE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727435    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107115    **DATE COLLECTED:** 12 / 21 / 1966  
**SURFACE ELEVATION (FT.):** 556.5    **LOGGED (FT.):** 34.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B470H    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
556.5	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
546.5	PLEISTOCENE		UNCONSOLIDATED	15.0	10.0	
531.5	SHELBURN		SHALE	2.0	25.0	
529.5	SHELBURN	DANVILLE	COAL	1.5	27.0	HARD
528.0	SHELBURN	DANVILLE	CLAYSTONE	2.5	28.5	
525.5	SHELBURN	DANVILLE	COAL	2.0	31.0	HARD
523.5	SHELBURN		UNDERCLAY	1.0	33.0	

**MAPID:** 18390396000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** NE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727435    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107115    **DATE COLLECTED:** 3 / 7 / 1966  
**SURFACE ELEVATION (FT.):** 623.0    **LOGGED (FT.):** 97.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B470JC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
623.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
612.0	PLEISTOCENE		CLAY	8.0	11.0	
604.0	SHELBURN		GRAY SHALE	65.0	19.0	
539.0	SHELBURN	DANVILLE	COAL	6.3	84.0	HARD
532.7	SHELBURN	DANVILLE	GRAY SHALE	2.4	90.3	SOFT
530.3	SHELBURN	DANVILLE	COAL	1.8	92.7	HARD
528.5	SHELBURN		UNDERCLAY	2.5	94.5	

**MAPID:** 18390397000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** NE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727435    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107115    **DATE COLLECTED:** 12 / 21 / 1966  
**SURFACE ELEVATION (FT.):** 554.6    **LOGGED (FT.):** 25.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B470NB    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
554.6	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
536.6	SHELBURN		SHALE	4.0	18.0	
532.6	SHELBURN	DANVILLE	COAL	1.5	22.0	HARD
531.1	SHELBURN		UNDERCLAY	1.5	23.5	

**MAPID:** 18390398000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** NE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727435    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107115    **DATE COLLECTED:** 12 / 21 / 1966  
**SURFACE ELEVATION (FT.):** 550.8    **LOGGED (FT.):** 28.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B470P    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.8	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
543.8	PLEISTOCENE		UNCONSOLIDATED	11.0	7.0	
532.8			MICACEOUS SHALE	10.0	18.0	

MAPID: 18390399000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.723864    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.104346    DATE COLLECTED: 8 / 15 / 1967

SURFACE ELEVATION (FT.): 547.1    LOGGED (FT.): 20.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B471    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
547.1	PLEISTOCENE		CLAY	16.0	0.0	
531.1	SHELBURN	DANVILLE	COAL	2.0	16.0	SOFT; TOP ERODED
529.1	SHELBURN		UNDERCLAY	2.0	18.0	

MAPID: 18390404000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 16    QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.727435    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.107115    DATE COLLECTED: 3 / 7 / 1966

SURFACE ELEVATION (FT.): 619.7    LOGGED (FT.): 92.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B494    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
619.7	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
602.7	PLEISTOCENE		CLAY	9.0	17.0	
593.7	SHELBURN		GRAY SHALE	59.0	26.0	
534.7	SHELBURN	DANVILLE	COAL	6.0	85.0	HARD
528.7	SHELBURN		UNDERCLAY	1.0	91.0	

**MAPID:** 18390405000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** NE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727435    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107115    **DATE COLLECTED:** 3 / 8 / 1966  
**SURFACE ELEVATION (FT.):** 616.6    **LOGGED (FT.):** 97.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B494C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
616.6	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
604.6	PLEISTOCENE		UNCONSOLIDATED	11.0	12.0	
593.6	SHELBURN		GRAY SHALE	63.0	23.0	
530.6	SHELBURN	DANVILLE	COAL	5.5	86.0	MED. HARD
525.1	SHELBURN		CLAYSTONE	1.5	91.5	
523.6	SHELBURN		SHALE	2.0	93.0	
521.6	SHELBURN	DANVILLE	COAL	1.0	95.0	SLATE
520.6	SHELBURN		UNDERCLAY	1.0	96.0	

**MAPID:** 18390406000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** NE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727435    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107115    **DATE COLLECTED:** 3 / 14 / 1966  
**SURFACE ELEVATION (FT.):** 616.2    **LOGGED (FT.):** 94.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B494KB    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
616.2	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
604.2	PLEISTOCENE		UNCONSOLIDATED	14.0	12.0	
590.2	SHELBURN		GRAY SHALE	54.0	26.0	
536.2	SHELBURN	DANVILLE	COAL	5.9	80.0	HARD
530.3	SHELBURN	DANVILLE	CLAYSTONE	4.1	85.9	
526.2	SHELBURN	DANVILLE	COAL	1.5	90.0	BONE, HARD
524.7	SHELBURN		UNDERCLAY	2.5	91.5	

MAPID: 18390407000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727435 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107115 DATE COLLECTED: 3 / 14 / 1966

SURFACE ELEVATION (FT.): 615.3 LOGGED (FT.): 90.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B494L WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.3	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
599.3	PLEISTOCENE		CLAY	12.0	16.0	
587.3	SHELBURN		GRAY SHALE	51.0	28.0	
536.3	SHELBURN	DANVILLE	COAL	6.3	79.0	HARD
530.0	SHELBURN	DANVILLE	CLAYSTONE	1.8	85.3	
528.3	SHELBURN	DANVILLE	COAL	1.6	87.0	BONE, HARD
526.7	SHELBURN		UNDERCLAY	1.4	88.6	

MAPID: 18390408000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727435 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107115 DATE COLLECTED: 3 / 7 / 1966

SURFACE ELEVATION (FT.): 615.8 LOGGED (FT.): 89.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B494LA WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.8	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
602.8	PLEISTOCENE		UNCONSOLIDATED	20.0	13.0	
582.8	SHELBURN		GRAY SHALE	46.0	33.0	
536.8	SHELBURN	DANVILLE	COAL	6.3	79.0	HARD
530.5	SHELBURN		UNDERCLAY	3.8	85.3	



MAPID: 18390409000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727435

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107115

DATE COLLECTED: 3 / 14 / 1966

SURFACE ELEVATION (FT.): 613.9

LOGGED (FT.): 87.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B494LB

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
613.9	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
597.9	PLEISTOCENE		CLAY	12.0	16.0	
585.9	SHELBURN		GRAY SHALE	47.0	28.0	
538.9	SHELBURN	DANVILLE	COAL	6.2	75.0	HARD
532.7	SHELBURN	DANVILLE	CLAYSTONE	3.8	81.2	
528.9	SHELBURN	DANVILLE	COAL	1.4	85.0	
527.5	SHELBURN		UNDERCLAY	0.6	86.4	

MAPID: 18390410000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727435

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107115

DATE COLLECTED: 3 / 14 / 1966

SURFACE ELEVATION (FT.): 617.3

LOGGED (FT.): 95.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B494NA

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.3	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
606.3	PLEISTOCENE		UNCONSOLIDATED	14.0	11.0	
592.3	SHELBURN		GRAY SHALE	56.0	25.0	
536.3	SHELBURN	DANVILLE	COAL	5.8	81.0	HARD
530.5	SHELBURN	DANVILLE	CLAYSTONE	4.2	86.8	
526.3	SHELBURN	DANVILLE	COAL	1.4	91.0	BONE
524.9	SHELBURN		UNDERCLAY	2.6	92.4	

MAPID: 18390411000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727435 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107115 DATE COLLECTED: 12 / 21 / 1966

SURFACE ELEVATION (FT.): 546.6 LOGGED (FT.): 37.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B495BB WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
546.6	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
537.6	PLEISTOCENE		SAND & GRAVEL	9.0	9.0	
528.6	PLEISTOCENE		CLAY	3.0	18.0	
525.6	SHELBURN	DANVILLE	COAL	1.5	21.0	HARD; TOP ERODED
524.1	SHELBURN		UNDERCLAY	2.5	22.5	
521.6	SHELBURN		MICACEOUS SHALE	12.0	25.0	

MAPID: 18390412000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727435 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107115 DATE COLLECTED: 12 / 21 / 1966

SURFACE ELEVATION (FT.): 545.0 LOGGED (FT.): 27.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B495C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
545.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
536.0	PLEISTOCENE		SAND & GRAVEL	10.0	9.0	
526.0	SHELBURN	DANVILLE	COAL	1.0	19.0	HARD; TOP ERODED
525.0	SHELBURN	DANVILLE	CLAYSTONE	3.0	20.0	SOFT
522.0	SHELBURN	DANVILLE	COAL	1.5	23.0	HARD
520.5	SHELBURN		UNDERCLAY	2.5	24.5	

MAPID: 18390413000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727435 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107115 DATE COLLECTED: 12 / 21 / 1966

SURFACE ELEVATION (FT.): 553.8 LOGGED (FT.): 37.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B495N WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
553.8	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
544.8	PLEISTOCENE		SAND & GRAVEL	14.0	9.0	
530.8	PLEISTOCENE		CLAY	3.0	23.0	
527.8	SHELBURN	DANVILLE	COAL	1.5	26.0	HARD; TOP ERODED
526.3	SHELBURN		UNDERCLAY	2.5	27.5	
523.8	SHELBURN		MICACEOUS SHALE	7.0	30.0	

MAPID: 18390416000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.732198 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.110775 DATE COLLECTED: 12 / 22 / 1966

SURFACE ELEVATION (FT.): 617.9 LOGGED (FT.): 98.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B517BA WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.9	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
611.9	PLEISTOCENE		SAND & GRAVEL	10.0	6.0	
601.9	PLEISTOCENE		CLAY	4.0	16.0	
597.9	SHELBURN		SHALE	70.0	20.0	
527.9	SHELBURN	DANVILLE	COAL	6.1	90.0	HARD
521.8	SHELBURN		UNDERCLAY	1.9	96.1	

**MAPID:** 18390417000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732198    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.110775    **DATE COLLECTED:** 12 / 23 / 1966  
**SURFACE ELEVATION (FT.):** 617.9    **LOGGED (FT.):** 98.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B517BAB    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.9	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
609.9	PLEISTOCENE		SAND & GRAVEL	10.0	8.0	
599.9	SHELBURN		SHALE	73.0	18.0	
526.9	SHELBURN	DANVILLE	COAL	5.7	91.0	HARD
521.2	SHELBURN		UNDERCLAY	1.3	96.7	

**MAPID:** 18390418000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732198    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.110775    **DATE COLLECTED:** 12 / 22 / 1966  
**SURFACE ELEVATION (FT.):** 618.0    **LOGGED (FT.):** 98.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B517BC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
618.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
608.0	PLEISTOCENE		UNCONSOLIDATED	11.0	10.0	
597.0	SHELBURN		SHALE	69.0	21.0	
528.0	SHELBURN	DANVILLE	COAL	6.1	90.0	HARD
521.9	SHELBURN		UNDERCLAY	1.9	96.1	

**MAPID:** 18390419000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732198    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.110775    **DATE COLLECTED:** 12 / 23 / 1966  
**SURFACE ELEVATION (FT.):** 618.1    **LOGGED (FT.):** 97.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B517BCB    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
618.1	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
609.1	PLEISTOCENE		UNCONSOLIDATED	12.0	9.0	
597.1	SHELBURN		SHALE	69.0	21.0	
528.1	SHELBURN	DANVILLE	COAL	6.0	90.0	HARD
522.1	SHELBURN		UNDERCLAY	1.0	96.0	

MAPID: 1839042000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.732198 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.110775 DATE COLLECTED: 12 / 22 / 1966

SURFACE ELEVATION (FT.): 617.5 LOGGED (FT.): 97.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B517BC1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.5	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
607.5	PLEISTOCENE		UNCONSOLIDATED	12.0	10.0	
595.5	SHELBURN		SHALE	67.0	22.0	
528.5	SHELBURN	DANVILLE	COAL	6.2	89.0	HARD
522.3	SHELBURN		UNDERCLAY	1.8	95.2	

MAPID: 18390421000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.732198 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.110775 DATE COLLECTED: 12 / 22 / 1966

SURFACE ELEVATION (FT.): 614.4 LOGGED (FT.): 91.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B517KB WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
614.4	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
605.4	PLEISTOCENE		UNCONSOLIDATED	15.0	9.0	
590.4	SHELBURN		SHALE	60.0	24.0	
530.4	SHELBURN	DANVILLE	COAL	5.9	84.0	HARD
524.5	SHELBURN		UNDERCLAY	1.1	89.9	

**MAPID:** 18390422000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732198    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.110775    **DATE COLLECTED:** 12 / 21 / 1966  
**SURFACE ELEVATION (FT.):** 614.2    **LOGGED (FT.):** 92.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B517L    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
614.2	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
604.2	PLEISTOCENE		SAND & GRAVEL	8.0	10.0	
596.2	PLEISTOCENE		CLAY	2.0	18.0	
594.2	SHELBURN		SHALE	65.0	20.0	
529.2	SHELBURN	DANVILLE	COAL	5.8	85.0	HARD
523.4	SHELBURN		UNDERCLAY	1.2	90.8	

**MAPID:** 18390423000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732198    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.110775    **DATE COLLECTED:** 12 / 22 / 1966  
**SURFACE ELEVATION (FT.):** 614.3    **LOGGED (FT.):** 87.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B517LB    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
614.3	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
605.3	PLEISTOCENE		UNCONSOLIDATED	6.0	9.0	
599.3	SHELBURN		SHALE	67.0	15.0	
532.3	SHELBURN	DANVILLE	CAVITY	5.0	82.0	TOOLS FELL

**MAPID:** 18390424000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732198    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.110775    **DATE COLLECTED:** 12 / 22 / 1966  
**SURFACE ELEVATION (FT.):** 614.1    **LOGGED (FT.):** 94.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B517M    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
614.1	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
601.1	SHELBURN		SHALE	74.0	13.0	
527.1	SHELBURN	DANVILLE	COAL	5.5	87.0	HARD
521.6	SHELBURN		UNDERCLAY	1.5	92.5	

**MAPID:** 18390425000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732198    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.110775    **DATE COLLECTED:** 12 / 22 / 1966  
**SURFACE ELEVATION (FT.):** 617.7    **LOGGED (FT.):** 98.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B517PC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.7	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
609.7	PLEISTOCENE		SAND & GRAVEL	10.0	8.0	
599.7	SHELBURN		SHALE	73.0	18.0	
526.7	SHELBURN	DANVILLE	COAL	5.5	91.0	HARD
521.2	SHELBURN		UNDERCLAY	1.5	96.5	

**MAPID:** 18390426000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732198    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.110775    **DATE COLLECTED:** 12 / 22 / 1966  
**SURFACE ELEVATION (FT.):** 616.5    **LOGGED (FT.):** 97.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B517PCC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
616.5	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
600.5	PLEISTOCENE		CLAY	4.0	16.0	
596.5	SHELBURN		SHALE	69.0	20.0	
527.5	SHELBURN	DANVILLE	COAL	5.8	89.0	HARD
521.7	SHELBURN		UNDERCLAY	2.2	94.8	

**MAPID:** 18390427000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732198    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.110775    **DATE COLLECTED:** 12 / 20 / 1966  
**SURFACE ELEVATION (FT.):** 617.9    **LOGGED (FT.):** 97.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B518    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.9	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
608.9	PLEISTOCENE		UNCONSOLIDATED	12.0	9.0	
596.9	SHELBURN		GRAY SHALE	69.0	21.0	
527.9	SHELBURN	DANVILLE	COAL	5.6	90.0	HARD
522.3	SHELBURN		UNDERCLAY	1.4	95.6	

MAPID: 18390428000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.732198

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.110775

DATE COLLECTED: 12 / 27 / 1966

SURFACE ELEVATION (FT.): 542.5

LOGGED (FT.): 27.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B518A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
542.5	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
536.5	PLEISTOCENE		SAND & GRAVEL	6.0	6.0	
530.5	SHELBURN	DANVILLE	COAL	2.5	12.0	HARD; TOP ERODED
528.0	SHELBURN	DANVILLE	CLAYSTONE	3.0	14.5	SOFT
525.0	SHELBURN	DANVILLE	COAL	1.5	17.5	HARD
523.5	SHELBURN		MICACEOUS SHALE	8.0	19.0	

MAPID: 18390429000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.732198

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.110775

DATE COLLECTED: 10 / 29 / 1968

SURFACE ELEVATION (FT.): 624.2

LOGGED (FT.): 89.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B518B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
624.2	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
613.2	PLEISTOCENE		CLAY	5.0	11.0	
608.2	SHELBURN		GRAY SHALE	51.0	16.0	
557.2	SHELBURN		GRAY SHALE	15.0	67.0	
542.2	SHELBURN	DANVILLE	COAL	5.7	82.0	
536.5	SHELBURN		UNDERCLAY	1.3	87.7	



**MAPID:** 1839043000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732198    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.110775    **DATE COLLECTED:** 12 / 27 / 1966  
**SURFACE ELEVATION (FT.):** 545.2    **LOGGED (FT.):** 25.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B518C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
545.2	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
530.2	SHELBURN		GRAY SHALE	3.0	15.0	
527.2	SHELBURN	DANVILLE	COAL	5.8	18.0	HARD
521.4	SHELBURN		UNDERCLAY	1.3	23.8	

**MAPID:** 18390431000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732198    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.110775    **DATE COLLECTED:** 3 / 9 / 1966  
**SURFACE ELEVATION (FT.):** 542.9    **LOGGED (FT.):** 28.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B518DC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
542.9	PLEISTOCENE		SAND & GRAVEL	16.0	0.0	
526.9	SHELBURN		COAL	4.5	16.0	MED. HARD; TOP ERODED
522.4	SHELBURN		SHALE	4.5	20.5	SOFT
517.9	SHELBURN		COAL	1.5	25.0	BONY, HARD
516.4	SHELBURN		UNDERCLAY	1.5	26.5	

**MAPID:** 18390432000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SW NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.731006    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.109863    **DATE COLLECTED:** 12 / 21 / 1966  
**SURFACE ELEVATION (FT.):** 609.1    **LOGGED (FT.):** 83.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B519    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
609.1	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
597.1	SHELBURN		SHALE	63.0	12.0	
534.1	SHELBURN	DANVILLE	COAL	6.2	75.0	HARD
527.9	SHELBURN		UNDERCLAY	1.8	81.2	

MAPID: 18390433000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.732198

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.110775

DATE COLLECTED: 12 / 27 / 1966

SURFACE ELEVATION (FT.): 544.6

LOGGED (FT.): 27.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B519C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
544.6	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
528.6	SHELBURN	DANVILLE	COAL	1.0	16.0	HARD; TOP ERODED
527.6	SHELBURN	DANVILLE	CLAYSTONE	0.3	17.0	SOFT
527.3	SHELBURN	DANVILLE	COAL	0.7	17.3	HARD
526.7	SHELBURN		UNDERCLAY	2.1	17.9	
524.6	SHELBURN		MICACEOUS SHALE	7.0	20.0	

MAPID: 18390434000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 16 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.727484

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.11071

DATE COLLECTED: 12 / 27 / 1966

SURFACE ELEVATION (FT.): 540.9

LOGGED (FT.): 17.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B519L

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.9	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
533.9	SHELBURN	DANVILLE	COAL	3.8	7.0	HARD; TOP ERODED
530.1	SHELBURN	DANVILLE	CLAYSTONE	3.2	10.8	SOFT
526.9	SHELBURN	DANVILLE	COAL	1.0	14.0	HARD
525.9	SHELBURN		MICACEOUS SHALE	2.0	15.0	

**MAPID:** 18390435000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727484    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.11071    **DATE COLLECTED:** 3 / 9 / 1966  
**SURFACE ELEVATION (FT.):** 550.0    **LOGGED (FT.):** 31.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B520    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	
529.0	SHELBURN	DANVILLE	COAL	4.5	21.0	MED. HARD; TOP ERODED
524.5	SHELBURN		CLAYSTONE	1.5	25.5	
523.0	SHELBURN		SHALE	1.0	27.0	
522.0	SHELBURN	DANVILLE	COAL	1.5	28.0	HARD
520.5	SHELBURN		UNDERCLAY	1.5	29.5	

**MAPID:** 18390436000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727484    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.11071    **DATE COLLECTED:** 12 / 21 / 1966  
**SURFACE ELEVATION (FT.):** 546.4    **LOGGED (FT.):** 22.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B520NY    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
546.4	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
537.4	PLEISTOCENE		SAND & GRAVEL	9.0	9.0	
528.4	SHELBURN	DANVILLE	COAL	2.5	18.0	HARD; TOP ERODED
525.9	SHELBURN		UNDERCLAY	1.5	20.5	

**MAPID:** 18390437000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.727484    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.11071    **DATE COLLECTED:** 3 / 9 / 1966  
**SURFACE ELEVATION (FT.):** 541.6    **LOGGED (FT.):** 21.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B544    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
541.6	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
526.6	SHELBURN	DANVILLE	COAL	1.5	15.0	HARD. SUMP VEIN; TOP ERODED
525.1	SHELBURN		UNDERCLAY	0.5	16.5	
524.6	SHELBURN		GRAY SHALE	4.0	17.0	

MAPID: 18390296000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.736835 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.103684 DATE COLLECTED: 3 / 2 / 1966

SURFACE ELEVATION (FT.): 649.5 LOGGED (FT.): 101.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B416 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
649.5	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
632.5	PLEISTOCENE		CLAY	18.0	17.0	
614.5	SHELBURN		GRAY SHALE	58.0	35.0	
556.5	SHELBURN	DANVILLE	COAL	5.9	93.0	HARD
550.6	SHELBURN	DANVILLE	CLAYSTONE	0.3	98.9	SOFT
550.3	SHELBURN	DANVILLE	COAL	0.3	99.2	
550.1	SHELBURN		UNDERCLAY	1.6	99.4	

MAPID: 18390336000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.741619 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.103722 DATE COLLECTED: 3 / 17 / 1966

SURFACE ELEVATION (FT.): 647.4 LOGGED (FT.): 37.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B440 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
647.4	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
638.4	PLEISTOCENE		CLAY	5.0	9.0	
633.4			GRAY SHALE	10.0	14.0	
623.4			MICACEOUS SHALE	12.0	24.0	
611.4			LIMESTONE	1.0	36.0	

MAPID: 18390337000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.736835 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.103684 DATE COLLECTED: 3 / 8 / 1966

SURFACE ELEVATION (FT.): 647.7 LOGGED (FT.): 117.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B441 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
647.7	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
633.7	PLEISTOCENE		CLAY	20.0	14.0	
613.7	SHELBURN		GRAY SHALE	69.0	34.0	
544.7	SHELBURN	DANVILLE	COAL	5.8	103.0	HARD
538.9	SHELBURN		UNDERCLAY	1.2	108.8	
537.7	SHELBURN		SHALE	7.0	110.0	

MAPID: 18390357000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.736889 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107265 DATE COLLECTED: 12 / 20 / 1966

SURFACE ELEVATION (FT.): 645.3 LOGGED (FT.): 120.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B465A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
645.3	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
632.3	PLEISTOCENE		UNCONSOLIDATED	15.0	13.0	
617.3	SHELBURN		SHALE	85.0	28.0	
532.3	SHELBURN	DANVILLE	COAL	5.5	113.0	MED. HARD
526.8	SHELBURN		UNDERCLAY	1.5	118.5	

MAPID: 18390358000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.736835 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.103684 DATE COLLECTED: 12 / 20 / 1966

SURFACE ELEVATION (FT.): 649.7 LOGGED (FT.): 123.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B465B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
649.7	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
635.7	PLEISTOCENE		UNCONSOLIDATED	17.0	14.0	
618.7	SHELBURN		GRAY SHALE	85.0	31.0	
533.7	SHELBURN	DANVILLE	COAL	1.5	116.0	HARD
532.2	SHELBURN	DANVILLE	COAL	1.5	117.5	SOFT
530.7	SHELBURN	DANVILLE	COAL	2.5	119.0	MED. HARD
528.2	SHELBURN		UNDERCLAY	1.5	121.5	

MAPID: 18390359000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.736889 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107265 DATE COLLECTED: 12 / 21 / 1966

SURFACE ELEVATION (FT.): 642.5 LOGGED (FT.): 115.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B465EB WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
642.5	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
632.5	PLEISTOCENE		UNCONSOLIDATED	22.0	10.0	
610.5	SHELBURN		GRAY SHALE	76.0	32.0	
534.5	SHELBURN	DANVILLE	COAL	5.5	108.0	HARD
529.0	SHELBURN		UNDERCLAY	1.5	113.5	

MAPID: 1839036000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.736889 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107265 DATE COLLECTED: 12 / 20 / 1966

SURFACE ELEVATION (FT.): 648.9 LOGGED (FT.): 122.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B465L WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
648.9	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
635.9	PLEISTOCENE		UNCONSOLIDATED	11.0	13.0	
624.9	SHELBURN		GRAY SHALE	90.0	24.0	
534.9	SHELBURN	DANVILLE	COAL	6.3	114.0	HARD
528.6	SHELBURN		UNDERCLAY	1.8	120.3	

MAPID: 18390361000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.736889 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107265 DATE COLLECTED: 3 / 8 / 1966

SURFACE ELEVATION (FT.): 650.4 LOGGED (FT.): 127.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B466 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.4	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0	
627.4	PLEISTOCENE		UNCONSOLIDATED	12.0	23.0	
615.4	SHELBURN		GRAY SHALE	80.0	35.0	
535.4	SHELBURN	DANVILLE	COAL	6.3	115.0	HARD
529.1	SHELBURN	DANVILLE	GRAY SHALE	2.8	121.3	SOFT
526.4	SHELBURN	DANVILLE	COAL	1.5	124.0	SLATE; HARD
524.9	SHELBURN		UNDERCLAY	1.5	125.5	

MAPID: 18390362000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 17    QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.736889    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.107265    DATE COLLECTED: 12 / 19 / 1966

SURFACE ELEVATION (FT.): 644.5    LOGGED (FT.): 158.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B466A    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
644.5	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
631.5	PLEISTOCENE		UNCONSOLIDATED	11.0	13.0	
620.5	SHELBURN		GRAY SHALE	82.0	24.0	
538.5	SHELBURN	DANVILLE	COAL	6.0	106.0	HARD
532.5	SHELBURN		UNDERCLAY	3.0	112.0	
529.5	SHELBURN		GRAY SHALE	1.0	115.0	
528.5	SHELBURN	DANVILLE	COAL	1.0	116.0	HARD
527.5	SHELBURN		MICACEOUS SHALE	41.0	117.0	

MAPID: 18390363000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 17    QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.736889    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.107265    DATE COLLECTED: 12 / 20 / 1966

SURFACE ELEVATION (FT.): 650.0    LOGGED (FT.): 115.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B466B    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
637.0	PLEISTOCENE		UNCONSOLIDATED	18.0	13.0	
619.0	SHELBURN			76.0	31.0	
543.0	SHELBURN	DANVILLE	COAL	6.1	107.0	MED. HARD
536.9	SHELBURN		UNDERCLAY	1.9	113.1	



**MAPID:** 18390364000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 17    **QUARTERS/FOOTAGES:** NE SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.736889    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107265    **DATE COLLECTED:** 12 / 20 / 1966  
**SURFACE ELEVATION (FT.):** 648.6    **LOGGED (FT.):** 124.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B466C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
648.6	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
634.6	PLEISTOCENE		UNCONSOLIDATED	11.0	14.0	
623.6	SHELBURN		SHALE	92.0	25.0	
531.6	SHELBURN	DANVILLE	COAL	5.7	117.0	HARD
525.9	SHELBURN		UNDERCLAY	1.3	122.7	

**MAPID:** 18390365000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 17    **QUARTERS/FOOTAGES:** NE SE SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.735652    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.104569    **DATE COLLECTED:** 3 / 3 / 1966  
**SURFACE ELEVATION (FT.):** 641.1    **LOGGED (FT.):** 96.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B467    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
641.1	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
625.1	PLEISTOCENE		CLAY	13.0	16.0	
612.1	SHELBURN		GRAY SHALE	59.0	29.0	
553.1	SHELBURN	DANVILLE	COAL	6.3	88.0	HARD
546.8	SHELBURN		UNDERCLAY	1.8	94.3	

**MAPID:** 18390366000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 17    **QUARTERS/FOOTAGES:** NE SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.736889    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107265    **DATE COLLECTED:** 12 / 20 / 1966  
**SURFACE ELEVATION (FT.):** 644.3    **LOGGED (FT.):** 105.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B467C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
644.3	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
634.3	PLEISTOCENE		UNCONSOLIDATED	24.0	10.0	
610.3	SHELBURN		SHALE	64.0	34.0	
546.3	SHELBURN	DANVILLE	COAL	5.7	98.0	HARD
540.6	SHELBURN		UNDERCLAY	1.3	103.7	

MAPID: 18390373000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.736835 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.103684 DATE COLLECTED: 11 / 15 / 1968

SURFACE ELEVATION (FT.): 644.9 LOGGED (FT.): 100.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B441B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
644.9	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0
631.9	PLEISTOCENE		UNCONSOLIDATED	20.0	13.0
611.9	SHELBURN		GRAY SHALE	53.0	33.0
558.9	SHELBURN		BLACK SHALE	7.0	86.0
551.9	SHELBURN	DANVILLE	COAL	5.5	93.0
546.4	SHELBURN		UNDERCLAY	1.5	98.5

MAPID: 18390400000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.736889 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107265 DATE COLLECTED: 12 / 20 / 1966

SURFACE ELEVATION (FT.): 639.4 LOGGED (FT.): 117.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B490BB WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
639.4	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0
626.4	PLEISTOCENE		SAND & GRAVEL	11.0	13.0
615.4	SHELBURN		GRAY SHALE	85.0	24.0
530.4	SHELBURN	DANVILLE	COAL	6.1	109.0 HARD
524.3	SHELBURN		UNDERCLAY	1.9	115.1

MAPID: 18390401000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.736889 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107265 DATE COLLECTED: 3 / 21 / 1966

SURFACE ELEVATION (FT.): 641.8 LOGGED (FT.): 119.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B491 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
641.8	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
630.8	PLEISTOCENE		CLAY	13.0	11.0	
617.8	SHELBURN		GRAY SHALE	88.0	24.0	
529.8	SHELBURN	DANVILLE	COAL	5.9	112.0	HARD
523.9	SHELBURN		UNDERCLAY	1.1	117.9	

MAPID: 18390402000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.736889 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107265 DATE COLLECTED: 12 / 23 / 1966

SURFACE ELEVATION (FT.): 635.8 LOGGED (FT.): 111.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B491B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.8	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
627.8	PLEISTOCENE		UNCONSOLIDATED	7.0	8.0	
620.8	SHELBURN		GRAY SHALE	88.0	15.0	
532.8	SHELBURN	DANVILLE	COAL	6.0	103.0	HARD
526.8	SHELBURN		UNDERCLAY	2.0	109.0	

MAPID: 18390403000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.736889 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107265 DATE COLLECTED: 3 / 3 / 1966

SURFACE ELEVATION (FT.): 633.3 LOGGED (FT.): 104.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B492 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
633.3	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
618.3	PLEISTOCENE		CLAY	5.0	15.0	
613.3	SHELBURN		GRAY SHALE	76.0	20.0	
537.3	SHELBURN	DANVILLE	COAL	5.5	96.0	HARD
531.8	SHELBURN	DANVILLE	CLAYSTONE	0.5	101.5	
531.3	SHELBURN	DANVILLE	COAL	0.2	102.0	
531.1	SHELBURN		UNDERCLAY	1.8	102.2	

MAPID: 18390414000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.736889 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107265 DATE COLLECTED: 3 / 21 / 1966

SURFACE ELEVATION (FT.): 619.9 LOGGED (FT.): 98.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B516X WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
619.9	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
608.9	PLEISTOCENE		CLAY	10.0	11.0	
598.9	SHELBURN		SHALE	70.0	21.0	
528.9	SHELBURN	DANVILLE	COAL	5.7	91.0	HARD
523.2	SHELBURN		UNDERCLAY	1.3	96.7	

**MAPID:** 18390415000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 17    **QUARTERS/FOOTAGES:** NE SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.736889    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107265    **DATE COLLECTED:** 3 / 21 / 1966  
**SURFACE ELEVATION (FT.):** 620.4    **LOGGED (FT.):** 98.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B517    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.4	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
603.4	SHELBURN		GRAY SHALE	74.0	17.0	
529.4	SHELBURN	DANVILLE	COAL	5.7	91.0	HARD
523.7	SHELBURN		UNDERCLAY	1.3	96.7	

**MAPID:** 18390496000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 17    **QUARTERS/FOOTAGES:** NW SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.741663    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107318    **DATE COLLECTED:** 2 / 10 / 1953  
**SURFACE ELEVATION (FT.):** 640.0    **LOGGED (FT.):** 20.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    1    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND & GRAVEL	3.0	10.0	
627.0	SHELBURN	DANVILLE	COAL	4.2	13.0	GOOD; TOP ERODED
622.8	SHELBURN		UNDERCLAY	2.8	17.2	

**MAPID:** 18390497000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 17    **QUARTERS/FOOTAGES:** NW SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.741663    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107318    **DATE COLLECTED:** 2 / 10 / 1953  
**SURFACE ELEVATION (FT.):** 550.0    **LOGGED (FT.):** 16.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    2    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
545.0	PLEISTOCENE		SAND & GRAVEL	7.0	5.0	
538.0	SHELBURN	DANVILLE	COAL	1.3	12.0	SUMP VEIN, NO GOOD; TOP ERODED
536.7	SHELBURN		UNDERCLAY	2.8	13.3	

**MAPID:** 18390498000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 17    **QUARTERS/FOOTAGES:** NW SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.741663    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107318    **DATE COLLECTED:** 2 / 10 / 1953  
**SURFACE ELEVATION (FT.):** 550.0    **LOGGED (FT.):** 19.6    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    2C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
544.0	PLEISTOCENE		SAND & GRAVEL	4.0	6.0	
540.0	SHELBURN		SHALE	5.0	10.0	
535.0	SHELBURN	DANVILLE	COAL	1.6	15.0	SUMP, NO GOOD
533.4	SHELBURN		UNDERCLAY	3.0	16.6	

**MAPID:** 18390499000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 17    **QUARTERS/FOOTAGES:** NE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.746439    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107373    **DATE COLLECTED:** 2 / 10 / 1953  
**SURFACE ELEVATION (FT.):** 550.0    **LOGGED (FT.):** 16.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    2D    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
544.0	PLEISTOCENE		SAND & GRAVEL	5.0	6.0	
539.0	SHELBURN	DANVILLE	COAL	2.0	11.0	SHELLY; TOP ERODED
537.0	SHELBURN	DANVILLE	COAL	2.1	13.0	FAIR, WILL LOAD
534.9	SHELBURN		UNDERCLAY	0.9	15.1	

**MAPID:** 18390500000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 17    **QUARTERS/FOOTAGES:** SE NE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.745235    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.106457    **DATE COLLECTED:** 2 / 10 / 1953  
**SURFACE ELEVATION (FT.):** 550.0    **LOGGED (FT.):** 24.3    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    3    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
540.0	PLEISTOCENE		SAND & GRAVEL	4.0	10.0	
536.0	SHELBURN		SHALE	2.0	14.0	
534.0	SHELBURN	DANVILLE	COAL	1.3	16.0	SUMP VEIN, NO GOOD
532.7	SHELBURN		UNDERCLAY	7.0	17.3	

**MAPID:** 18390501000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 17    **QUARTERS/FOOTAGES:** NE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.746439    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107373    **DATE COLLECTED:** 2 / 10 / 1953  
**SURFACE ELEVATION (FT.):** 550.0    **LOGGED (FT.):** 25.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    4    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
540.0	PLEISTOCENE		CLAY	9.0	10.0	
531.0	SHELburn	DANVILLE	COAL	1.3	19.0	SUMP VEIN, NO GOOD; TOP ERODED
529.7	SHELburn		UNDERCLAY	4.7	20.3	

**MAPID:** 18390502000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 17    **QUARTERS/FOOTAGES:** NE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.746439    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107373    **DATE COLLECTED:** 2 / 9 / 1953  
**SURFACE ELEVATION (FT.):** 550.0    **LOGGED (FT.):** 23.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    4I    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
539.0	PLEISTOCENE		SAND & GRAVEL	4.0	11.0	
535.0	SHELburn		GRAY SHALE	3.0	15.0	
532.0	SHELburn	DANVILLE	COAL	1.4	18.0	SUMP, NO GOOD
530.6	SHELburn		UNDERCLAY	3.6	19.4	

**MAPID:** 18390503000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 17    **QUARTERS/FOOTAGES:** NE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.746439    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107373    **DATE COLLECTED:** 2 / 10 / 1953  
**SURFACE ELEVATION (FT.):** 570.0    **LOGGED (FT.):** 20.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    5    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
558.0	PLEISTOCENE		CLAY	3.0	12.0	
555.0	SHELburn	DANVILLE	COAL	1.0	15.0	SHELLY; TOP ERODED
554.0	SHELburn	DANVILLE	COAL	2.1	16.0	GOOD
551.9	SHELburn		UNDERCLAY	1.9	18.1	

MAPID: 18390504000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.746439 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107373 DATE COLLECTED: 2 / 10 / 1953

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 22.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 5A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
542.0	PLEISTOCENE		SAND & GRAVEL	6.0	8.0	
536.0	SHELBURN	DANVILLE	COAL	1.3	14.0	SHELLY; TOP ERODED
534.7	SHELBURN	DANVILLE	CLAYSTONE	3.8	15.3	
531.0	SHELBURN	DANVILLE	COAL	1.3	19.0	SUMP VEIN; NO GOOD
529.7	SHELBURN		UNDERCLAY	1.8	20.3	

MAPID: 18390505000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.746439 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107373 DATE COLLECTED: 2 / 10 / 1953

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 20.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 5B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
539.0	PLEISTOCENE		SAND & GRAVEL	3.5	11.0	
535.5	SHELBURN	DANVILLE	COAL	1.3	14.5	SUMP, NO GOOD; TOP ERODED
534.2	SHELBURN		UNDERCLAY	4.3	15.8	

MAPID: 18390506000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.746439 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107373 DATE COLLECTED: 2 / 9 / 1953

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 26.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 5C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
542.0	PLEISTOCENE		SAND & GRAVEL	9.0	8.0	
533.0	SHELBURN	DANVILLE	COAL	5.5	17.0	FAIR, WILL LOAD; TOP ERODED
527.5	SHELBURN		UNDERCLAY	3.5	22.5	



MAPID: 18390507000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.746439 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107373 DATE COLLECTED: 2 / 10 / 1953

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 21.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 5F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
542.0	PLEISTOCENE		SAND & GRAVEL	6.0	8.0	
536.0	SHELburn	DANVILLE	COAL	5.5	14.0	FAIR, WILL LOAD; TOP ERODED
530.5	SHELburn		UNDERCLAY	1.5	19.5	

MAPID: 18390508000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.746439 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107373 DATE COLLECTED: 2 / 10 / 1953

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 24.1 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 5H WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
544.0	PLEISTOCENE		SAND & GRAVEL	6.0	6.0	
538.0	SHELburn	DANVILLE	COAL	1.0	12.0	SOFT; TOP ERODED
537.0	SHELburn	DANVILLE	COAL	3.0	13.0	FAIR, WILL LOAD
534.0	SHELburn	DANVILLE	CLAYSTONE	4.1	16.0	
529.9	SHELburn	DANVILLE	COAL	1.3	20.1	SUMP, NO GOOD
528.6	SHELburn		UNDERCLAY	2.7	21.4	

**MAPID:** 18390509000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 17    **QUARTERS/FOOTAGES:** NE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.746439    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107373    **DATE COLLECTED:** 2 / 10 / 1953  
**SURFACE ELEVATION (FT.):** 570.0    **LOGGED (FT.):** 36.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    5J    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
555.0	PLEISTOCENE		SAND & GRAVEL	9.0	15.0	
546.0	SHELBURN		SHALE	4.0	24.0	
542.0	SHELBURN	DANVILLE	COAL	5.8	28.0	GOOD
536.2	SHELBURN		UNDERCLAY	2.3	33.8	

**MAPID:** 18390510000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 17    **QUARTERS/FOOTAGES:** NE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.746439    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107373    **DATE COLLECTED:** 2 / 10 / 1953  
**SURFACE ELEVATION (FT.):** 550.0    **LOGGED (FT.):** 20.1    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    5K    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
540.0	PLEISTOCENE		SAND & GRAVEL	6.0	10.0	
534.0	SHELBURN	DANVILLE	COAL	2.1	16.0	SOFT; TOP ERODED
531.9	SHELBURN		UNDERCLAY	2.0	18.1	

**MAPID:** 18390511000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 17    **QUARTERS/FOOTAGES:** NE SW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.746439    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.107373    **DATE COLLECTED:** 2 / 10 / 1953  
**SURFACE ELEVATION (FT.):** 570.0    **LOGGED (FT.):** 21.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    6    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
560.0	PLEISTOCENE		SAND & GRAVEL	2.0	10.0	
558.0	SHELBURN		SHALE	3.0	12.0	
555.0	SHELBURN	DANVILLE	COAL	5.6	15.0	GOOD
549.4	SHELBURN		UNDERCLAY	0.4	20.6	

MAPID: 18390512000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 17 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.746439 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.107373 DATE COLLECTED: 2 / 10 / 1953

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 20.3 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 6B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
544.0	PLEISTOCENE		SAND & GRAVEL	4.0	6.0	
540.0	SHELBURN		SHALE	2.5	10.0	
537.5	SHELBURN	DANVILLE	COAL	4.0	12.5	GOOD
533.5	SHELBURN	DANVILLE	UNCLASSIFIED	0.3	16.5	SULPHUR
533.2	SHELBURN	DANVILLE	COAL	1.5	16.8	GOOD
531.7	SHELBURN		UNDERCLAY	2.0	18.3	

MAPID: 18300248000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 18 QUARTERS/FOOTAGES: 300' S line, 1170' E line

QUADRANGLE: OAKWOOD LONGITUDE: -87.757771 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.102785 DATE COLLECTED:

SURFACE ELEVATION (FT.): 566.3 LOGGED (FT.): 42.4 LOG TYPE: Drillers Log

SOURCE: TWO RIVERS COAL CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
566.3	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
549.3	MODESTO		SHALE	19.8	17.0	
529.5	CARBONDALE	DANVILLE	COAL	5.7	36.8	

MAPID: 18300249000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 18 QUARTERS/FOOTAGES: 100' S line, 610' E line

QUADRANGLE: OAKWOOD LONGITUDE: -87.755753 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.10225 DATE COLLECTED:

SURFACE ELEVATION (FT.): 560.3 LOGGED (FT.): 34.1 LOG TYPE: Drillers Log

SOURCE: TWO RIVERS COAL CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.3	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
548.3	MODESTO		SHALE	16.5	12.0	
531.8	CARBONDALE	DANVILLE	COAL	5.6	28.5	

MAPID: 18300250000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 18 QUARTERS/FOOTAGES: 400' S line, 1590' W line

QUADRANGLE: OAKWOOD LONGITUDE: -87.762736 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.103021 DATE COLLECTED:

SURFACE ELEVATION (FT.): 567.7 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log

SOURCE: TWO RIVERS COAL CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
567.7	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0
561.7			SHALE	36.4	6.0
525.3	CARBONDALE	DANVILLE	COAL	5.6	42.4

MAPID: 18301170000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 18 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: OAKWOOD LONGITUDE: -87.766709 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.110951 DATE COLLECTED:

SURFACE ELEVATION (FT.): 646.0 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log

SOURCE: S OAKWOOD COAL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
646.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
634.0	MODESTO		SHALE	112.7	12.0
521.3	CARBONDALE	DANVILLE	COAL	5.3	124.7

MAPID: 18300251000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 19 QUARTERS/FOOTAGES: N2 SE

QUADRANGLE: OAKWOOD LONGITUDE: -87.758186 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.092774 DATE COLLECTED: 4 / 22 / 1932

SURFACE ELEVATION (FT.): LOGGED (FT.): 103.0 LOG TYPE: Drillers Log

SOURCE: JOS T. CARPENTER WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		CLAY	15.0	0.0
-	PLEISTOCENE		CLAY	5.0	15.0
-	MODESTO		BLUE SHALE	77.5	20.0
-	CARBONDALE	DANVILLE	COAL	5.5	97.5

MAPID: 18300252000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 19 QUARTERS/FOOTAGES: 0' N line, 1816' W line  
 QUADRANGLE: OAKWOOD LONGITUDE: -87.761904 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 40.101924 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 571.0 LOGGED (FT.): 46.0 LOG TYPE: Drillers Log  
 SOURCE: TWO RIVERS COAL CO WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
571.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0
553.0	MODESTO		SHALE	22.3	18.0
530.7	CARBONDALE	DANVILLE	COAL	5.8	40.3

MAPID: 18300253000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 19 QUARTERS/FOOTAGES: 0' N line, 2000' W line  
 QUADRANGLE: OAKWOOD LONGITUDE: -87.761243 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 40.101928 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 564.3 LOGGED (FT.): 39.8 LOG TYPE: Drillers Log  
 SOURCE: TWO RIVERS COAL CO WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
564.3	PLEISTOCENE		UNCONSOLIDATED	18.8	0.0
545.5			SHALE	15.6	18.8
530.0	CARBONDALE	DANVILLE	COAL	5.4	34.3

MAPID: 18300254000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 19 QUARTERS/FOOTAGES: 0' N line, 1355' E line  
 QUADRANGLE: OAKWOOD LONGITUDE: -87.758428 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 40.101953 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 560.3 LOGGED (FT.): 33.2 LOG TYPE: Drillers Log  
 SOURCE: TWO RIVERS COAL CO WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
560.3	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0
544.3	MODESTO		SHALE	11.2	16.0
533.1	CARBONDALE	DANVILLE	COAL	6.0	27.2

MAPID: 18300255000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 19 QUARTERS/FOOTAGES: 330' N line, 1170' E line

QUADRANGLE: OAKWOOD LONGITUDE: -87.757749 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.101048 DATE COLLECTED:

SURFACE ELEVATION (FT.): 559.5 LOGGED (FT.): 25.3 LOG TYPE: Drillers Log

SOURCE: TWO RIVERS COAL CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
559.5	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0
543.5	MODESTO		SHALE	3.6	16.0
539.9	CARBONDALE	DANVILLE	COAL	5.7	19.6

MAPID: 18300256000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 19 QUARTERS/FOOTAGES: 360' N line, 2000' W line

QUADRANGLE: OAKWOOD LONGITUDE: -87.761228 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.100937 DATE COLLECTED:

SURFACE ELEVATION (FT.): 560.9 LOGGED (FT.): 25.5 LOG TYPE: Drillers Log

SOURCE: TWO RIVERS COAL CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
560.9	PLEISTOCENE		UNCONSOLIDATED	17.3	0.0
543.6	MODESTO		SHALE	2.4	17.3
541.1	CARBONDALE	DANVILLE	COAL	5.8	19.8

MAPID: 18300257000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 19 QUARTERS/FOOTAGES: 620' N line, 1520' W line

QUADRANGLE: OAKWOOD LONGITUDE: -87.762939 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.100205 DATE COLLECTED:

SURFACE ELEVATION (FT.): 562.3 LOGGED (FT.): 23.3 LOG TYPE: Drillers Log

SOURCE: TWO RIVERS COAL CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
562.3	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0
546.3	MODESTO		SHALE	1.6	16.0
544.7	CARBONDALE	DANVILLE	COAL	5.7	17.6

**MAPID:** 18300258000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 19    **QUARTERS/FOOTAGES:** 600' N line, 1000' W line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.764807    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.100244    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 562.1    **LOGGED (FT.):** 25.0    **LOG TYPE:** Drillers Log  
**SOURCE:** TWO RIVERS COAL CO    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
562.1	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0
549.1	MODESTO		SHALE	6.2	13.0
542.9	CARBONDALE	DANVILLE	COAL	5.8	19.2

**MAPID:** 18300259000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 19    **QUARTERS/FOOTAGES:** 1336' N line, 920' W line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.765063    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.098213    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 558.6    **LOGGED (FT.):** 23.5    **LOG TYPE:** Drillers Log  
**SOURCE:** TWO RIVERS COAL CO    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
558.6	PLEISTOCENE		UNCONSOLIDATED	11.5	0.0
547.1	MODESTO		SHALE	6.3	11.5
540.8	CARBONDALE	DANVILLE	COAL	5.7	17.8

**MAPID:** 18300260000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 19    **QUARTERS/FOOTAGES:** 360' N line, 600' E line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.755702    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.10098    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 557.6    **LOGGED (FT.):** 26.3    **LOG TYPE:** Drillers Log  
**SOURCE:** TWO RIVERS COAL CO    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
557.6	PLEISTOCENE		UNCONSOLIDATED	13.5	0.0
544.1	MODESTO		SHALE	7.1	13.5
537.0	CARBONDALE	DANVILLE	COAL	5.8	20.6

**MAPID:** 18300261000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 19    **QUARTERS/FOOTAGES:** 660' N line, 25' E line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.753627    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.100171    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 556.4    **LOGGED (FT.):** 23.7    **LOG TYPE:** Drillers Log  
**SOURCE:** TWO RIVERS COAL CO    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
556.4	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
545.4	MODESTO		SHALE	7.0	11.0	
538.4	CARBONDALE	DANVILLE	COAL	5.7	18.0	

**MAPID:** 18300262000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 19    **QUARTERS/FOOTAGES:** 1070' N line, 660' E line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.755891    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.09902    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 556.6    **LOGGED (FT.):** 18.7    **LOG TYPE:** Drillers Log  
**SOURCE:** TWO RIVERS COAL CO    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SHALE	12.8		
543.8	CARBONDALE	DANVILLE	COAL	5.8	12.8	

**MAPID:** 18390292000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 20    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.746364    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.100113    **DATE COLLECTED:** 9 / 14 / 1967  
**SURFACE ELEVATION (FT.):** 575.7    **LOGGED (FT.):** 27.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B412P    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.7	PLEISTOCENE		SAND	5.0	0.0	
570.7	SHELBURN		SHALE	16.0	5.0	
554.7	SHELBURN	DANVILLE	COAL	5.5	21.0	HARD
549.2	SHELBURN		UNDERCLAY	0.5	26.5	



**MAPID:** 18390293000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 20    **QUARTERS/FOOTAGES:** NW NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.741581    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.100086    **DATE COLLECTED:** 9 / 14 / 1967  
**SURFACE ELEVATION (FT.):** 561.2    **LOGGED (FT.):** 27.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B414    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
561.2	PLEISTOCENE		SAND & GRAVEL	19.0	0.0
542.2			MICACEOUS SHALE	8.0	19.0

**MAPID:** 18390294000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 20    **QUARTERS/FOOTAGES:** NE NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.736801    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.100056    **DATE COLLECTED:** 8 / 31 / 1967  
**SURFACE ELEVATION (FT.):** 592.4    **LOGGED (FT.):** 32.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B415B    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
592.4	PLEISTOCENE		UNCONSOLIDATED	1.0	0.0
591.4	SHELBURN		SHALE	31.0	1.0
560.4	SHELBURN	DANVILLE	CAVITY	-	32.0

**MAPID:** 18390295000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 20    **QUARTERS/FOOTAGES:** NE NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.736801    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.100056    **DATE COLLECTED:** 8 / 31 / 1967  
**SURFACE ELEVATION (FT.):** 548.8    **LOGGED (FT.):** 57.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B415Y    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
548.8	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0
532.8			GRAY SHALE	41.0	16.0

**MAPID:** 18390297000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 20    **QUARTERS/FOOTAGES:** NE NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.736801    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.100056    **DATE COLLECTED:** 9 / 6 / 1967  
**SURFACE ELEVATION (FT.):** 648.7    **LOGGED (FT.):** 99.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B416B    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
648.7	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
632.7	PLEISTOCENE		CLAY	11.0	16.0	
621.7	SHELBURN		SHALE	65.0	27.0	
556.7	SHELBURN	DANVILLE	COAL	5.8	92.0	HARD
550.9	SHELBURN		UNDERCLAY	1.3	97.8	

**MAPID:** 18390298000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 20    **QUARTERS/FOOTAGES:** NE NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.736801    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.100056    **DATE COLLECTED:** 9 / 7 / 1967  
**SURFACE ELEVATION (FT.):** 646.7    **LOGGED (FT.):** 97.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B416P    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
646.7	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
633.7	PLEISTOCENE		UNCONSOLIDATED	11.0	13.0	
622.7	SHELBURN		SHALE	66.0	24.0	
556.7	SHELBURN	DANVILLE	COAL	5.8	90.0	HARD
550.9	SHELBURN		UNDERCLAY	1.3	95.8	

MAPID: 18390299000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 20 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.73561 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.100969 DATE COLLECTED: 2 / 13 / 1964

SURFACE ELEVATION (FT.): 643.0 LOGGED (FT.): 93.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B417 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
643.0	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
626.0	PLEISTOCENE		CLAY	8.0	17.0	
618.0	SHELBURN		SHALE	60.0	25.0	
558.0	SHELBURN	DANVILLE	COAL	5.8	85.0	GOOD
552.2	SHELBURN	DANVILLE	CLAYSTONE	0.3	90.8	SOFT
552.0	SHELBURN	DANVILLE	COAL	0.3	91.0	
551.7	SHELBURN		UNDERCLAY	1.8	91.3	

MAPID: 18390274000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 21 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.732055 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.099991 DATE COLLECTED: 9 / 8 / 1967

SURFACE ELEVATION (FT.): 649.5 LOGGED (FT.): 105.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B393 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
649.5	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
636.5	PLEISTOCENE		UNCONSOLIDATED	11.0	13.0	
625.5	SHELBURN		SHALE	73.0	24.0	
552.5	SHELBURN	DANVILLE	COAL	6.2	97.0	HARD
546.3	SHELBURN		UNDERCLAY	1.8	103.2	

**MAPID:** 18390275000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 21    **QUARTERS/FOOTAGES:** NW NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732055    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.099991    **DATE COLLECTED:** 9 / 7 / 1967  
**SURFACE ELEVATION (FT.):** 645.5    **LOGGED (FT.):** 93.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B393A    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
645.5	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
632.5	PLEISTOCENE		CLAY	7.0	13.0	
625.5	SHELBURN		SHALE	65.0	20.0	
560.5	SHELBURN	DANVILLE	COAL	6.1	85.0	HARD
554.4	SHELBURN		UNDERCLAY	1.9	91.1	

**MAPID:** 18390276000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 21    **QUARTERS/FOOTAGES:** NW NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.732055    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.099991    **DATE COLLECTED:** 9 / 11 / 1967  
**SURFACE ELEVATION (FT.):** 643.9    **LOGGED (FT.):** 101.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B393B    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
643.9	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
633.9	PLEISTOCENE		UNCONSOLIDATED	8.0	10.0	
625.9	SHELBURN		SHALE	75.0	18.0	
550.9	SHELBURN	DANVILLE	COAL	6.0	93.0	HARD
544.9	SHELBURN		UNDERCLAY	2.0	99.0	

MAPID: 18390277000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 21    QUARTERS/FOOTAGES: NW NW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.732055    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.099991    DATE COLLECTED: 2 / 13 / 1964

SURFACE ELEVATION (FT.): 642.0    LOGGED (FT.): 97.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B393C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
642.0	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
626.0	PLEISTOCENE		CLAY	9.0	16.0	
617.0	SHELBURN		SHALE	23.0	25.0	SOFT
594.0	SHELBURN		SHALE	37.0	48.0	MED. HARD
557.0	SHELBURN		DARK SHALE	4.0	85.0	SOFT
553.0	SHELBURN	DANVILLE	COAL	5.8	89.0	GOOD
547.2	SHELBURN	DANVILLE	CLAYSTONE	0.3	94.8	SOFT
547.0	SHELBURN	DANVILLE	COAL	0.3	95.0	
546.7	SHELBURN		UNDERCLAY	1.8	95.3	

MAPID: 18390278000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 21    QUARTERS/FOOTAGES: NW NW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.732055    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.099991    DATE COLLECTED: 9 / 20 / 1967

SURFACE ELEVATION (FT.): 645.7    LOGGED (FT.): 100.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B393J    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
645.7	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
628.7	PLEISTOCENE		CLAY	8.0	17.0	
620.7	SHELBURN		SHALE	67.0	25.0	
553.7	SHELBURN	DANVILLE	COAL	6.1	92.0	HARD
547.6	SHELBURN		UNDERCLAY	1.9	98.1	

MAPID: 18390279000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 21    QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.727341    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.09989    DATE COLLECTED: 3 / 21 / 1966

SURFACE ELEVATION (FT.): 660.6    LOGGED (FT.): 103.8    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B394    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
660.6	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
648.6	PLEISTOCENE		UNCONSOLIDATED	15.0	12.0	
633.6	SHELBURN		GRAY SHALE	69.0	27.0	
564.6	SHELBURN	DANVILLE	COAL	6.3	96.0	HARD
558.3	SHELBURN		UNDERCLAY	1.6	102.3	

MAPID: 18390280000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 21    QUARTERS/FOOTAGES: NW NW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.732055    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.099991    DATE COLLECTED: 9 / 7 / 1967

SURFACE ELEVATION (FT.): 647.5    LOGGED (FT.): 99.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B394C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
647.5	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
634.5	PLEISTOCENE		UNCONSOLIDATED	7.0	13.0	
627.5	SHELBURN		SHALE	72.0	20.0	
555.5	SHELBURN	DANVILLE	COAL	6.0	92.0	HARD
549.5	SHELBURN		UNDERCLAY	1.0	98.0	

MAPID: 18390281000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 21    QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.727341

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.09989

DATE COLLECTED: 1 / 17 / 1966

SURFACE ELEVATION (FT.): 659.1    LOGGED (FT.): 106.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B395

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
659.1	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
644.1	PLEISTOCENE		CLAY	11.0	15.0	
633.1	SHELBURN		GRAY SHALE	72.0	26.0	
561.1	SHELBURN	DANVILLE	COAL	6.1	98.0	HARD
555.0	SHELBURN	DANVILLE	CLAYSTONE	0.3	104.1	
554.8	SHELBURN	DANVILLE	COAL	0.3	104.3	
554.5	SHELBURN		UNDERCLAY	1.4	104.6	

MAPID: 18390282000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 21    QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.727341

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.09989

DATE COLLECTED: 1 / 17 / 1966

SURFACE ELEVATION (FT.): 658.1    LOGGED (FT.): 112.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B396

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
658.1	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
643.1	PLEISTOCENE		CLAY	11.0	15.0	
632.1	SHELBURN		GRAY SHALE	78.0	26.0	
554.1	SHELBURN	DANVILLE	COAL	6.2	104.0	HARD
547.9	SHELBURN		UNDERCLAY	1.8	110.2	

**MAPID:** 18390283000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 21    **QUARTERS/FOOTAGES:** NW NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.722628    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.099786    **DATE COLLECTED:** 8 / 30 / 1967  
**SURFACE ELEVATION (FT.):** 640.7    **LOGGED (FT.):** 103.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B396C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.7	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
625.7	PLEISTOCENE		CLAY	9.0	15.0	
616.7	SHELBURN		SHALE	72.0	24.0	
544.7	SHELBURN	DANVILLE	COAL	5.7	96.0	HARD
539.0	SHELBURN		UNDERCLAY	1.3	101.7	

**MAPID:** 18390284000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 21    **QUARTERS/FOOTAGES:** NW NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.722628    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.099786    **DATE COLLECTED:** 8 / 16 / 1967  
**SURFACE ELEVATION (FT.):** 630.2    **LOGGED (FT.):** 97.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B396GB    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.2	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
610.2	SHELBURN		GRAY SHALE	69.0	20.0	
541.2	SHELBURN	DANVILLE	COAL	6.3	89.0	HARD
534.9	SHELBURN		UNDERCLAY	1.8	95.3	

**MAPID:** 18390285000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 21    **QUARTERS/FOOTAGES:** NW NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.722628    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.099786    **DATE COLLECTED:** 8 / 30 / 1967  
**SURFACE ELEVATION (FT.):** 640.2    **LOGGED (FT.):** 102.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B396H    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.2	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
629.2	PLEISTOCENE		CLAY	7.0	11.0	
622.2	SHELBURN		SHALE	77.0	18.0	
545.2	SHELBURN	DANVILLE	COAL	5.9	95.0	HARD
539.3	SHELBURN		UNDERCLAY	1.1	100.9	



**MAPID:** 18390286000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 21    **QUARTERS/FOOTAGES:** NW NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.722628    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.099786    **DATE COLLECTED:** 8 / 30 / 1967  
**SURFACE ELEVATION (FT.):** 639.4    **LOGGED (FT.):** 101.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B396HC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
639.4	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
625.4	PLEISTOCENE		SAND	3.0	14.0	
622.4	SHELBURN		SHALE	77.0	17.0	
545.4	SHELBURN	DANVILLE	COAL	5.6	94.0	HARD
539.8	SHELBURN		UNDERCLAY	1.4	99.6	

**MAPID:** 18390287000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 21    **QUARTERS/FOOTAGES:** NW NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.722628    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.099786    **DATE COLLECTED:** 8 / 16 / 1967  
**SURFACE ELEVATION (FT.):** 642.2    **LOGGED (FT.):** 106.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B396I    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
642.2	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
623.2	SHELBURN		SHALE	81.0	19.0	
542.2	SHELBURN	DANVILLE	CAVITY	6.0	100.0	

**MAPID:** 18390288000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 21    **QUARTERS/FOOTAGES:** NW NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.722628    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.099786    **DATE COLLECTED:** 8 / 30 / 1967  
**SURFACE ELEVATION (FT.):** 641.1    **LOGGED (FT.):** 105.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B396J    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
641.1	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	
620.1	SHELBURN		SHALE	77.0	21.0	
543.1	SHELBURN	DANVILLE	COAL	6.0	98.0	HARD
537.1	SHELBURN		UNDERCLAY	1.0	104.0	

**MAPID:** 18390289000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 21    **QUARTERS/FOOTAGES:** NW NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.722628    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.099786    **DATE COLLECTED:** 8 / 30 / 1967  
**SURFACE ELEVATION (FT.):** 641.2    **LOGGED (FT.):** 97.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B396K    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
641.2	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
621.2	SHELBURN		SHALE	77.0	20.0
544.2	SHELBURN	DANVILLE	CAVITY	-	97.0

**MAPID:** 18390290000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 21    **QUARTERS/FOOTAGES:** NW NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.722628    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.099786    **DATE COLLECTED:** 8 / 30 / 1967  
**SURFACE ELEVATION (FT.):** 642.9    **LOGGED (FT.):** 87.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B396N    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
642.9	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
627.9	PLEISTOCENE		CLAY	10.0	15.0
617.9	SHELBURN		SHALE	62.0	25.0
555.9	SHELBURN	DANVILLE	CAVITY	-	87.0

**MAPID:** 18390291000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 21    **QUARTERS/FOOTAGES:** NW NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.722628    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.099786    **DATE COLLECTED:** 8 / 16 / 1967  
**SURFACE ELEVATION (FT.):** 641.5    **LOGGED (FT.):** 117.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    B396P    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
641.5	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0
609.5	SHELBURN		GRAY SHALE	77.0	32.0
532.5	SHELBURN	DANVILLE	COAL	6.3	109.0    HARD
526.2	SHELBURN		UNDERCLAY	1.7	115.3

MAPID: 18390300000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 21 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.732055 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.099991 DATE COLLECTED: 9 / 11 / 1967

SURFACE ELEVATION (FT.): 626.4 LOGGED (FT.): 91.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B417B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
626.4	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
616.4	PLEISTOCENE		CLAY	6.0	10.0	
610.4	SHELBURN		SHALE	68.0	16.0	
542.4	SHELBURN	DANVILLE	COAL	5.7	84.0	HARD
536.7	SHELBURN		UNDERCLAY	1.3	89.7	

MAPID: 18390302000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 21 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.732055 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.099991 DATE COLLECTED: 9 / 20 / 1967

SURFACE ELEVATION (FT.): 642.5 LOGGED (FT.): 73.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE B418 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
642.5	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
633.5	SHELBURN		SHALE	57.0	9.0	
576.5	SHELBURN	DANVILLE	COAL	5.8	66.0	HARD
570.7	SHELBURN		UNDERCLAY	1.2	71.8	

MAPID: 18390309000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 21    QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.730882    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.100884    DATE COLLECTED: 2 / 13 / 1964

SURFACE ELEVATION (FT.): 643.0    LOGGED (FT.): 99.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B419    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
643.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
629.0	PLEISTOCENE		CLAY	9.0	14.0	
620.0	SHELBURN		SHALE	25.0	23.0	SOFT
595.0	SHELBURN		SHALE	40.0	48.0	MED. HARD
555.0	SHELBURN		DARK SHALE	4.0	88.0	SOFT
551.0	SHELBURN	DANVILLE	COAL	5.3	92.0	GOOD
545.7	SHELBURN		UNDERCLAY	1.8	97.3	

MAPID: 18390324000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 21    QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.722628    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.099786    DATE COLLECTED: 8 / 16 / 1967

SURFACE ELEVATION (FT.): 628.9    LOGGED (FT.): 91.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    B421B    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
628.9	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
614.9	SHELBURN		GRAY SHALE	70.0	14.0	
544.9	SHELBURN	DANVILLE	COAL	5.9	84.0	HARD
539.0	SHELBURN		UNDERCLAY	1.1	89.9	

MAPID: 18301082000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 23 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.678529 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.087948 DATE COLLECTED: 11 / 0 / 1951

SURFACE ELEVATION (FT.): 648.0 LOGGED (FT.): 98.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
648.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0
644.0	PLEISTOCENE		SAND	16.0	4.0
628.0	MODESTO		SHALE	50.0	20.0
578.0	MODESTO		SHALE	16.5	70.0
561.5	CARBONDALE	DANVILLE	COAL	3.0	86.5
558.5	CARBONDALE	DANVILLE	ROCK	0.3	89.5
558.2	CARBONDALE	DANVILLE	COAL	3.0	89.8
555.2	CARBONDALE		UNDERCLAY	6.0	92.8

MAPID: 18301083000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 23 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.694979 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.087907 DATE COLLECTED: 11 / 0 / 1951

SURFACE ELEVATION (FT.): 649.0 LOGGED (FT.): 122.6 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP SWH7 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
649.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0
643.0	PLEISTOCENE		SAND	19.0	6.0
624.0	MODESTO		SHALE	85.6	25.0
538.4	CARBONDALE	DANVILLE	COAL	6.5	110.6
531.9	CARBONDALE	DANVILLE	CLAYSTONE	3.0	117.1
528.9	CARBONDALE	DANVILLE	COAL	0.5	120.1
528.4	CARBONDALE		UNDERCLAY	2.0	120.6

MAPID: 18301084000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 23 QUARTERS/FOOTAGES: 1' N line, 1' W line of NE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.682137 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.094327 DATE COLLECTED: 10 / 0 / 1951

SURFACE ELEVATION (FT.): 654.0 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP SWH6 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
654.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
646.0	PLEISTOCENE		HARD PAN	19.0	8.0
627.0	MODESTO		SHALE	91.0	27.0
536.0	CARBONDALE	DANVILLE	COAL	6.6	118.0
529.4	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	2.4	124.6
527.0	CARBONDALE	DANVILLE	COAL	1.2	127.0
525.8	CARBONDALE		UNDERCLAY	1.8	128.2

MAPID: 18301084000C VERSION: 2

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 23 QUARTERS/FOOTAGES: 1' N line, 1' W line of NE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.682137 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.094327 DATE COLLECTED: 10 / 30 / 1951

SURFACE ELEVATION (FT.): 654.0 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES SWH6 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
536.0	SHELBURN	DANVILLE	COAL	6.6	118.0
527.0			COAL	1.2	127.0

MAPID: 18301085000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 23 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.693894 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.096103 DATE COLLECTED: 10 / 0 / 1951

SURFACE ELEVATION (FT.): 653.0 LOGGED (FT.): 134.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP SWH1 WELL TYPE: Coal Test

COMMENT: COAL TEST FISHTAIL BIT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
653.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
645.0	PLEISTOCENE		HARD PAN	16.0	8.0
629.0	MODESTO		SHALE	71.0	24.0
558.0	MODESTO		SHALE	14.0	95.0
544.0	MODESTO		SANDSTONE	13.0	109.0
531.0	CARBONDALE	DANVILLE	COAL	6.0	122.0
525.0	CARBONDALE		UNDERCLAY	2.0	128.0
523.0	CARBONDALE		SHALE	4.0	130.0

MAPID: 18301086000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 23 QUARTERS/FOOTAGES: NE NW NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.683397 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.100712 DATE COLLECTED: 10 / 0 / 1951

SURFACE ELEVATION (FT.): 654.0 LOGGED (FT.): 142.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP SWH3 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
654.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0
643.0	PLEISTOCENE		HARD PAN	15.0	11.0
628.0	MODESTO		SHALE	52.0	26.0
576.0	MODESTO		SHALE	52.0	78.0
524.0	CARBONDALE	DANVILLE	COAL	6.2	130.0
517.8	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	2.9	136.2
514.9	CARBONDALE	DANVILLE	COAL	1.1	139.1
513.8	CARBONDALE		UNDERCLAY	1.8	140.2

**MAPID:** 18301087000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 23    **QUARTERS/FOOTAGES:** NE NW NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.692773    **GEOLOGIST:** C TREWORYG  
**CONFIDENTIAL:** N    **LATITUDE:** 40.100659    **DATE COLLECTED:** 10 / 0 / 1951  
**SURFACE ELEVATION (FT.):** 652.0    **LOGGED (FT.):** 128.8    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE COLLIERIES CORP    SWH2    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
652.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0
646.0	PLEISTOCENE		SAND	9.0	6.0
637.0	PLEISTOCENE		HARD PAN	10.0	15.0
627.0	MODESTO		GRAY SHALE	60.0	25.0
567.0	MODESTO		SHALE	32.0	85.0
535.0	CARBONDALE	DANVILLE	COAL	6.0	117.0
529.0	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	2.5	123.0
526.5	CARBONDALE	DANVILLE	PYRITE	1.3	125.5
525.2	CARBONDALE		UNDERCLAY	2.0	126.8

**MAPID:** 18301775000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 23    **QUARTERS/FOOTAGES:** 1320' S line, 1320' E line of NW SW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.691773    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.131043    **DATE COLLECTED:** 5 / 11 / 1972  
**SURFACE ELEVATION (FT.):** 650.0    **LOGGED (FT.):** 158.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AMAX C.C.    11    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
538.0	SHELBURN	DANVILLE	COAL	5.4	112.0

**MAPID:** 18301776000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 23    **QUARTERS/FOOTAGES:** 1320' N line, 1320' W line of SW NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.682093    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.094337    **DATE COLLECTED:** 5 / 15 / 1972  
**SURFACE ELEVATION (FT.):** 654.0    **LOGGED (FT.):** 152.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AMAX C.C.    12    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
538.0	SHELBURN	DANVILLE	COAL	6.3	116.0
506.0	CARBONDALE	HERRIN	COAL	0.6	148.0



**MAPID:** 18301777000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 23    **QUARTERS/FOOTAGES:** 1320' N line, 1320' W line of SE SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.684364    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.092573    **DATE COLLECTED:** 5 / 16 / 1972  
**SURFACE ELEVATION (FT.):** 646.0    **LOGGED (FT.):** 1480.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AMAX C.C.    18    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
556.0	SHELburn	DANVILLE	COAL	3.3	90.0
522.0	CARBONDALE	HERRIN	COAL	3.4	124.0

**MAPID:** 18301778000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 23    **QUARTERS/FOOTAGES:** 1320' S line, 1320' W line of NE NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.684707    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.096249    **DATE COLLECTED:** 5 / 18 / 1972  
**SURFACE ELEVATION (FT.):** 652.0    **LOGGED (FT.):** 175.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AMAX C.C.    19    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
518.0	SHELburn	DANVILLE	COAL	5.4	134.0
485.0	CARBONDALE	HERRIN	COAL	5.5	167.0

**MAPID:** 18301779000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 23    **QUARTERS/FOOTAGES:** 0' N line, 1320' E line  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.682291    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.10163    **DATE COLLECTED:** 5 / 19 / 1972  
**SURFACE ELEVATION (FT.):** 652.0    **LOGGED (FT.):** 187.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AMAX C.C.    26    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
523.0	SHELburn	DANVILLE	COAL	7.0	129.0
491.5	CARBONDALE	HERRIN	COAL	6.5	160.5

MAPID: 18301779000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 23 QUARTERS/FOOTAGES: 0' N line, 1320' E line  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.682291 GEOLOGIST:  
 CONFIDENTIAL: N LATITUDE: 40.10163 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 652.0 LOGGED (FT.): 167.5 LOG TYPE: Drillers Log  
 SOURCE: AMAX C.C. 26 WELL TYPE: Coal Test  
 COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
612.5	MODESTO		SHALE	90.0	39.5
522.5	CARBONDALE	DANVILLE	COAL	7.0	129.5
515.5	CARBONDALE		CLAYSTONE	2.5	136.5
513.0	CARBONDALE		GRAY SHALE	11.5	139.0
501.5	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	4.0	150.5
497.5	CARBONDALE	LAWSON	DARK GRAY SHALE	6.5	154.5
491.0	CARBONDALE	HERRIN	COAL	6.5	161.0

MAPID: 18301792000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 23 QUARTERS/FOOTAGES: 1320' S line, 1320' W line of NE NW  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.686871 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 40.101599 DATE COLLECTED: 5 / 22 / 1972  
 SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 177.0 LOG TYPE: Drillers Log  
 SOURCE: AMAX C.C. 33 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
533.0	SHELBURN	DANVILLE	COAL	6.5	117.0

MAPID: 18301088000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 24 QUARTERS/FOOTAGES: SW SE NW  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.671492 GEOLOGIST: C TREWORYG  
 CONFIDENTIAL: N LATITUDE: 40.095226 DATE COLLECTED: 11 / 0 / 1951  
 SURFACE ELEVATION (FT.): 651.0 LOGGED (FT.): 134.0 LOG TYPE: Drillers Log  
 SOURCE: AYRSHIRE COLLIERIES CORP SWH5 WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
651.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
643.0	PLEISTOCENE		HARD PAN	16.0	8.0
627.0	MODESTO		SHALE	100.0	24.0
527.0	CARBONDALE	DANVILLE	COAL	4.8	124.0
522.2	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	3.2	128.8
519.1	CARBONDALE	DANVILLE	COAL	0.8	131.9
518.2	CARBONDALE		UNDERCLAY	1.3	132.8

MAPID: 18301089000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 24 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.673969 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.100729 DATE COLLECTED: 10 / 0 / 1951

SURFACE ELEVATION (FT.): 649.0 LOGGED (FT.): 133.6 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP SWH4 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
649.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0
644.0	PLEISTOCENE		SAND	10.0	5.0
634.0	PLEISTOCENE		HARD PAN	13.0	15.0
621.0	MODESTO		SHALE	15.0	28.0
606.0	MODESTO		SHALE	30.0	43.0
576.0	MODESTO		SHALE	48.5	73.0
527.5	CARBONDALE	DANVILLE	COAL	6.3	121.5
521.2	CARBONDALE	DANVILLE	CLAYSTONE & SILTSTONE	2.8	127.8
518.4	CARBONDALE	DANVILLE	COAL	1.0	130.6
517.4	CARBONDALE		UNDERCLAY	2.0	131.6

MAPID: 18301780000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 24 QUARTERS/FOOTAGES: 1320' N line, 1320' W line of SW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.672705 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.094336 DATE COLLECTED: 5 / 17 / 1972

SURFACE ELEVATION (FT.): 652.0 LOGGED (FT.): 167.0 LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 13 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
529.0	SHELBURN	DANVILLE	COAL	5.4	123.0
493.5	CARBONDALE	HERRIN	COAL	5.6	158.5

MAPID: 18301781000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 24 QUARTERS/FOOTAGES: 1320' N line, 1320' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.672757 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.097997 DATE COLLECTED: 5 / 15 / 1972

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 167.0 LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 14 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
527.0	SHELBURN	DANVILLE	COAL	6.1	123.0
492.0	CARBONDALE	HERRIN	COAL	7.3	158.0

MAPID: 18301781000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 24    QUARTERS/FOOTAGES: 1320' N line, 1320' W line

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.672757

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 40.097997

DATE COLLECTED:

SURFACE ELEVATION (FT.): 650.0

LOGGED (FT.): 165.3

LOG TYPE: Drillers Log

SOURCE: AMAX C.C.    14

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.0	MODESTO		GRAY SHALE	90.0	33.0	
527.0	CARBONDALE	DANVILLE	COAL	6.1	123.0	
520.9	CARBONDALE		CLAYSTONE	2.9	129.1	
518.0	CARBONDALE		GRAY SHALE	5.0	132.0	
513.0	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	6.0	137.0	SHALE PARTING
507.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	143.0	LOWER BENCH
504.0	CARBONDALE	LAWSON	GRAY SHALE	1.5	146.0	
502.5	CARBONDALE	LAWSON	DARK GRAY SHALE	10.5	147.5	
492.0	CARBONDALE	HERRIN	COAL	7.3	158.0	

MAPID: 18322141000C    VERSION: 1

PROJECT: CONF

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 24    QUARTERS/FOOTAGES: SE SW SW NW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.675662

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N    LATITUDE: 40.094793

DATE COLLECTED:

SURFACE ELEVATION (FT.):    LOGGED (FT.): 166.0

LOG TYPE: Survey Core Study

SOURCE: AMAX C.C.    A-318

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	DANVILLE	COAL	-	-	REMOVED BY CO./NO OTHER INFO
-			COAL	-	-	REMOVED BY CO./NO OTHER INFO

MAPID: 18300265000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 25 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.660363 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.07418 DATE COLLECTED: 12 / 20 / 1911

SURFACE ELEVATION (FT.): 656.0 LOGGED (FT.): 144.1 LOG TYPE: Drillers Log

SOURCE: HEGLER BROS SMELTING WORKS WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
656.0	PLEISTOCENE		SOIL	3.0	0.0	
653.0	PLEISTOCENE		CLAY	6.0	3.0	
647.0	PLEISTOCENE		CLAY	12.0	9.0	
635.0	PLEISTOCENE		CLAY	9.0	21.0	
626.0	MODESTO		GRAY SHALE	66.0	30.0	
560.0	CARBONDALE	DANVILLE	COAL	5.9	96.0	
554.1	CARBONDALE		UNDERCLAY	3.0	101.9	
551.1	CARBONDALE		GRAY SHALE	33.1	104.9	
518.0	CARBONDALE	HERRIN	COAL	6.1	138.0	

MAPID: 18300266000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 25 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.665149 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.074182 DATE COLLECTED: 0 / 0 / 1919

SURFACE ELEVATION (FT.): 652.1 LOGGED (FT.): 129.0 LOG TYPE: Drillers Log

SOURCE: SULLIVAN MACHINERY CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
652.1	PLEISTOCENE		SOIL	6.0	0.0	
646.1	PLEISTOCENE		CLAY	11.0	6.0	SMALL BOULDERS
635.1	MODESTO		GRAY SHALE	5.0	17.0	
630.1	MODESTO		SHALE	23.0	22.0	
607.1	MODESTO		GRAY SHALE	29.0	45.0	
578.1	MODESTO		BLUE SHALE	12.9	74.0	
565.2	CARBONDALE	DANVILLE	COAL	5.7	86.9	
559.5	CARBONDALE		UNDERCLAY	5.0	92.6	
554.5	CARBONDALE		CALCAREOUS SHALE	20.4	97.6	
534.1	CARBONDALE		GRAY SHALE	4.8	118.0	
529.3	CARBONDALE	HERRIN	COAL	5.8	122.8	
523.6	CARBONDALE		UNDERCLAY	0.5	128.5	

MAPID: 18300267000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 25 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.669938 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.074185 DATE COLLECTED: 0 / 0 / 1919

SURFACE ELEVATION (FT.): 653.4 LOGGED (FT.): 151.5 LOG TYPE: Drillers Log

SOURCE: SULLIVAN MACHINERY CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
653.4	PLEISTOCENE		SOIL	5.0	0.0
648.4	PLEISTOCENE		CLAY	7.0	5.0
641.4	PLEISTOCENE		SAND	11.0	12.0
630.4	MODESTO		SHALE	21.0	23.0
609.4	MODESTO		GRAY SHALE	36.0	44.0
573.4	MODESTO		BLUE SHALE	18.2	80.0
555.2	CARBONDALE	DANVILLE	COAL	5.6	98.2
549.6	CARBONDALE		UNDERCLAY	4.3	103.8
545.4	CARBONDALE		LIMESTONE	2.0	108.0
543.4	CARBONDALE		CALCAREOUS SHALE	17.0	110.0
526.4	CARBONDALE		GRAY SHALE	16.6	127.0
509.8	CARBONDALE	HERRIN	COAL	6.7	143.6
503.1	CARBONDALE		UNDERCLAY	1.3	150.3

MAPID: 18301782000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 25 QUARTERS/FOOTAGES: 0' N line, 1620' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.664001 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.086928 DATE COLLECTED: 5 / 19 / 1972

SURFACE ELEVATION (FT.): 645.0 LOGGED (FT.): 255.0 LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 21 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
529.0	SHELBURN	DANVILLE	COAL	5.4	116.0
481.0	CARBONDALE	HERRIN	COAL	6.3	164.0
451.0	CARBONDALE	SPRINGFIELD	COAL	1.5	194.0

MAPID: 18301782000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 25 QUARTERS/FOOTAGES: 0' N line, 1620' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.664001

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.086928

DATE COLLECTED:

SURFACE ELEVATION (FT.): 645.0

LOGGED (FT.): 170.3

LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 21

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
619.0	MODESTO		GRAY SHALE	90.0	26.0	
529.0	CARBONDALE	DANVILLE	COAL	5.4	116.0	
523.6	CARBONDALE		CLAYSTONE	1.6	121.4	
522.0	CARBONDALE		GRAY SHALE	27.0	123.0	
495.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	150.0	
494.0	CARBONDALE	ENERGY	GRAY SHALE	13.0	151.0	
481.0	CARBONDALE	HERRIN	COAL	6.3	164.0	

MAPID: 18301783000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 25 QUARTERS/FOOTAGES: 1320' N line, 300' E line of NW NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.663986

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.083284

DATE COLLECTED: 5 / 22 / 1972

SURFACE ELEVATION (FT.): 645.0

LOGGED (FT.): 146.0

LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 22

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
546.0	SHELburn	DANVILLE	COAL	5.8	99.0	
506.0	CARBONDALE	HERRIN	COAL	5.3	139.0	

MAPID: 18301784000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 25 QUARTERS/FOOTAGES: 1320' N line, 300' E line of SW NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.663927

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.079643

DATE COLLECTED: 5 / 19 / 1972

SURFACE ELEVATION (FT.): 646.0

LOGGED (FT.): 155.0

LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 23

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
542.0	SHELburn	DANVILLE	COAL	5.6	104.0	
496.0	CARBONDALE	HERRIN	COAL	5.8	150.0	

MAPID: 18301785000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 25 QUARTERS/FOOTAGES: 1320' N line, 1320' E line of SW NE  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.667588 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 40.079666 DATE COLLECTED: 5 / 22 / 1972  
 SURFACE ELEVATION (FT.): 647.0 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log  
 SOURCE: AMAX C.C. 24 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
541.0	SHELburn	DANVILLE	COAL	5.5	106.0
505.0	CARBONDALE	HERRIN	COAL	5.0	142.0

MAPID: 18301786000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 25 QUARTERS/FOOTAGES: 1320' N line, 1320' E line of NW SE  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.667526 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 40.076016 DATE COLLECTED: 5 / 23 / 1972  
 SURFACE ELEVATION (FT.): 651.0 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log  
 SOURCE: AMAX C.C. 25 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
549.0	SHELburn	DANVILLE	COAL	5.5	102.0
511.0	CARBONDALE	HERRIN	COAL	5.3	140.0

MAPID: 18301090000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 26 QUARTERS/FOOTAGES: SW NW SW  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.694861 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 40.076911 DATE COLLECTED: 10 / 0 / 1951  
 SURFACE ELEVATION (FT.): 653.0 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log  
 SOURCE: AYRSHIRE COLLIERIES CORP SWH8 WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
653.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0
646.0	PLEISTOCENE		HARD PAN	17.0	7.0
629.0	MODESTO		SHALE	78.0	24.0
551.0	MODESTO		SHALE	14.0	102.0
537.0	CARBONDALE	DANVILLE	COAL	6.0	116.0
531.0	CARBONDALE		UNDERCLAY	3.0	122.0
528.0	CARBONDALE		SANDSTONE	5.0	125.0



MAPID: 18301091000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 26 QUARTERS/FOOTAGES:

QUADRANGLE: DANVILLE SW LONGITUDE: -87.68664 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.079678 DATE COLLECTED: 11 / 0 / 1951

SURFACE ELEVATION (FT.): 644.0 LOGGED (FT.): 116.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP SWH9 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
644.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0
635.0	PLEISTOCENE		HARD PAN	12.0	9.0
623.0	MODESTO		SHALE	83.0	21.0
540.0	CARBONDALE	DANVILLE	COAL	5.8	104.0
534.2	CARBONDALE		UNDERCLAY	6.2	109.8

MAPID: 18301787000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 26 QUARTERS/FOOTAGES: 0' S line, 0' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.695993 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.072324 DATE COLLECTED: 5 / 17 / 1972

SURFACE ELEVATION (FT.): 653.0 LOGGED (FT.): 157.0 LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 15 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
537.7	SHELBURN	DANVILLE	COAL	5.5	115.3
504.5	CARBONDALE	HERRIN	COAL	2.4	148.5

MAPID: 18301787000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 26 QUARTERS/FOOTAGES: 0' S line, 0' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.695993 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.072324 DATE COLLECTED:

SURFACE ELEVATION (FT.): 653.0 LOGGED (FT.): 151.4 LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 15 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN COMMENT	
626.5	MODESTO		GRAY SHALE	89.3	26.5	
537.2	CARBONDALE	DANVILLE	COAL	5.5	115.8	
531.7	CARBONDALE		CLAYSTONE	2.2	121.3	
529.5	CARBONDALE		SILTY SHALE	7.0	123.5	
522.5	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	6.0	130.5	SHALE PARTING
516.5	CARBONDALE	BANKSTON FORK	LIMESTONE	9.0	136.5	LOWER BENCH
507.5	CARBONDALE	LAWSON	DARK GRAY SHALE	3.5	145.5	
504.0	CARBONDALE	HERRIN	COAL	2.4	149.0	

MAPID: 18301788000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 26 QUARTERS/FOOTAGES: 1320' S line, 1320' W line of NE SW  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.686615 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 40.07965 DATE COLLECTED: 5 / 15 / 1972  
 SURFACE ELEVATION (FT.): 647.0 LOGGED (FT.): 167.0 LOG TYPE: Drillers Log  
 SOURCE: AMAX C.C. 16 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
544.0	SHELburn	DANVILLE	COAL	5.1	103.0
489.0	CARBONDALE	HERRIN	COAL	7.3	158.0

MAPID: 18301789000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 26 QUARTERS/FOOTAGES: 1320' N line, 1320' W line of NE NE  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.679661 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 40.085197 DATE COLLECTED: 5 / 16 / 1972  
 SURFACE ELEVATION (FT.): 653.0 LOGGED (FT.): 147.0 LOG TYPE: Drillers Log  
 SOURCE: AMAX C.C. 17 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
547.0	SHELburn	DANVILLE	COAL	5.3	106.0
512.0	CARBONDALE	HERRIN	COAL	3.8	141.0

MAPID: 18301761000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 27 QUARTERS/FOOTAGES: 1320' N line, 1320' W line of NE SE  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.696077 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 40.076016 DATE COLLECTED: 5 / 10 / 1972  
 SURFACE ELEVATION (FT.): 653.0 LOGGED (FT.): 168.0 LOG TYPE: Drillers Log  
 SOURCE: AMAX C.C. 7 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
538.0	SHELburn	DANVILLE	COAL	5.6	115.0
506.0	CARBONDALE	HERRIN	COAL	3.8	147.0

**MAPID:** 18301762000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 27    **QUARTERS/FOOTAGES:** 1320' S line, 1320' W line of NE SE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.69612    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.079633    **DATE COLLECTED:** 5 / 10 / 1972  
**SURFACE ELEVATION (FT.):** 655.0    **LOGGED (FT.):** 145.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AMAX C.C.    8    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
547.0	SHELburn	DANVILLE	COAL	5.6	108.0
514.0	CARBONDALE	HERRIN	COAL	2.8	141.0

**MAPID:** 18301763000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 27    **QUARTERS/FOOTAGES:** 1320' S line, 1320' W line of SE NE  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.696162    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.083302    **DATE COLLECTED:** 5 / 10 / 1972  
**SURFACE ELEVATION (FT.):** 653.0    **LOGGED (FT.):** 178.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AMAX C.C.    9    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
539.0	SHELburn	DANVILLE	COAL	5.8	114.0
507.0	CARBONDALE	HERRIN	COAL	0.7	146.0

**MAPID:** 18301764000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 27    **QUARTERS/FOOTAGES:** 0' N line, 0' E line  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.696142    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.086998    **DATE COLLECTED:** 5 / 12 / 1972  
**SURFACE ELEVATION (FT.):** 650.0    **LOGGED (FT.):** 145.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AMAX C.C.    10    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
540.5	SHELburn	DANVILLE	COAL	5.5	109.5
509.4	CARBONDALE	HERRIN	COAL	2.2	140.6

MAPID: 18301764000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 27 QUARTERS/FOOTAGES: 0' N line, 0' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.696142

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.086998

DATE COLLECTED:

SURFACE ELEVATION (FT.): 650.0

LOGGED (FT.): 143.2

LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 10

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
624.6	MODESTO		SILTY SHALE	84.5	25.4	
540.1	CARBONDALE	DANVILLE	COAL	5.5	109.9	
534.6	CARBONDALE		SILTY SHALE	11.0	115.4	
523.6	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	126.4	UPPER BENCH
522.1	CARBONDALE	BANKSTON FORK	SILTY SHALE	6.0	127.9	SHALE PARTING
516.1	CARBONDALE	BANKSTON FORK	LIMESTONE	2.8	133.9	LOWER BENCH
513.3	CARBONDALE	LAWSON	SILTY SHALE	1.8	136.7	
511.6	CARBONDALE	LAWSON	DARK GRAY SHALE	2.6	138.4	
509.0	CARBONDALE	HERRIN	COAL	2.2	141.0	

MAPID: 18301350000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 28 QUARTERS/FOOTAGES: SW SW NE NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.728991

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.083886

DATE COLLECTED: 10 / 29 / 1957

SURFACE ELEVATION (FT.): 653.0

LOGGED (FT.): 102.2

LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO 24

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
557.7	SHELBURN	DANVILLE	COAL	6.2	95.3	

MAPID: 18301793000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 29 QUARTERS/FOOTAGES: 1320' N line, 1320' W line of NW SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.748591

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.076272

DATE COLLECTED: 5 / 24 / 1972

SURFACE ELEVATION (FT.): 658.0

LOGGED (FT.): 143.0

LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 34

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	SHELBURN	DANVILLE	COAL	5.6	108.0	
521.0	CARBONDALE	HERRIN	COAL	2.0	137.0	

MAPID: 18301794000C    VERSION: 1

PROJECT: CONF

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 29    QUARTERS/FOOTAGES: 1320' S line, 1320' W line of SE NW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.743863    GEOLOGIST: LOG BOOK

CONFIDENTIAL: N    LATITUDE: 40.083514    DATE COLLECTED: 5 / 24 / 1972

SURFACE ELEVATION (FT.): 653.0    LOGGED (FT.): 168.0    LOG TYPE: Drillers Log

SOURCE: AMAX C.C.    36    WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
540.0	SHELburn	DANVILLE	COAL	6.4	113.0
513.0	CARBONDALE	HERRIN	COAL	1.7	140.0

MAPID: 18301795000C    VERSION: 1

PROJECT: CONF

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 29    QUARTERS/FOOTAGES: 0' N line, 1320' W line

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.748631    GEOLOGIST: LOG BOOK

CONFIDENTIAL: N    LATITUDE: 40.08727    DATE COLLECTED: 5 / 0 / 1972

SURFACE ELEVATION (FT.): 653.0    LOGGED (FT.): 158.0    LOG TYPE: Drillers Log

SOURCE: AMAX C.C.    37    WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
543.0	SHELburn	DANVILLE	COAL	6.6	110.0
516.0	CARBONDALE	HERRIN	COAL	2.8	137.0

MAPID: 18301795000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 29    QUARTERS/FOOTAGES: 0' N line, 1320' W line

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.748631    GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 40.08727    DATE COLLECTED:

SURFACE ELEVATION (FT.): 653.0    LOGGED (FT.): 139.8    LOG TYPE: Drillers Log

SOURCE: AMAX C.C.    37    WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
581.0	MODESTO		GRAY SHALE	38.0	72.0
543.0	CARBONDALE	DANVILLE	COAL	6.6	110.0
536.4	CARBONDALE		CLAYSTONE	2.4	116.6
534.0	CARBONDALE		GRAY SHALE	11.0	119.0
523.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	130.0
518.0	CARBONDALE	ENERGY	GRAY SHALE	2.0	135.0
516.0	CARBONDALE	HERRIN	COAL	2.8	137.0

MAPID: 18301799000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 29 QUARTERS/FOOTAGES: 1320' S line, 1320' W line of NW SW  
 QUADRANGLE: DANVILLE SW LONGITUDE: -87.748605 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 40.07988 DATE COLLECTED: 5 / 24 / 1972  
 SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 147.0 LOG TYPE: Drillers Log  
 SOURCE: AMAX C.C. 35 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
544.0	SHELburn	DANVILLE	COAL	5.8	106.0
517.0	CARBONDALE	HERRIN	COAL	2.2	133.0

MAPID: 18301796000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 30 QUARTERS/FOOTAGES: 1650' S line, 2040' W line  
 QUADRANGLE: OAKWOOD LONGITUDE: -87.760794 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 40.077123 DATE COLLECTED: 5 / 25 / 1972  
 SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log  
 SOURCE: AMAX C.C. 41 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
526.5	SHELburn	DANVILLE	COAL	5.6	113.5
500.0	CARBONDALE	HERRIN	COAL	2.3	140.0

MAPID: 18301796000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 30 QUARTERS/FOOTAGES: 1650' S line, 2040' W line  
 QUADRANGLE: OAKWOOD LONGITUDE: -87.760794 GEOLOGIST:  
 CONFIDENTIAL: N LATITUDE: 40.077123 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 142.3 LOG TYPE: Drillers Log  
 SOURCE: AMAX C.C. 41 WELL TYPE: Coal Test  
 COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
594.0	MODESTO		GRAY SHALE	67.5	46.0
526.5	CARBONDALE	DANVILLE	COAL	5.5	113.5
521.0	CARBONDALE		CLAYSTONE	2.0	119.0
519.0	CARBONDALE		CALCAREOUS SHALE	13.0	121.0
506.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	134.0
502.0	CARBONDALE	LAWSON	DARK GRAY SHALE	2.0	138.0
500.0	CARBONDALE	HERRIN	COAL	2.3	140.0

MAPID: 18323368000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 30 QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: OAKWOOD LONGITUDE: -87.75927 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.079002 DATE COLLECTED: 8 / 24 / 1984

SURFACE ELEVATION (FT.): LOGGED (FT.): 200.0 LOG TYPE: Drillers Log

SOURCE: JAMES H. BRENNER WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		CLAY	14.0	0.0
-	PLEISTOCENE		CLAY	4.0	14.0
-	PLEISTOCENE		HARD PAN	7.0	18.0
-	MODESTO		GRAY SHALE	18.0	25.0
-	MODESTO		GRAY SHALE	70.0	43.0
-	CARBONDALE	DANVILLE	COAL	5.0	113.0
-	CARBONDALE		GRAY SHALE	13.0	118.0
-	CARBONDALE		ROCK	6.0	131.0
-	CARBONDALE	HERRIN	COAL	5.0	137.0
-			GRAY SHALE	7.0	142.0
-			GRAY SHALE	51.0	149.0

MAPID: 18323387000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 30 QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: OAKWOOD LONGITUDE: -87.75927 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.079002 DATE COLLECTED: 8 / 24 / 1984

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

SOURCE: JAMES H. BRENNER WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		SOIL	1.0	0.0	
-	PLEISTOCENE		CLAY	15.0	1.0	
-	PLEISTOCENE		CLAY	5.0	16.0	
-	PLEISTOCENE		HARD PAN	9.0	21.0	
-			GRAY SHALE	9.0	30.0	
-			GRAY SHALE	7.0	39.0	
-			GRAY SHALE	3.0	46.0	
-			GRAY SHALE	65.0	49.0	
-	CARBONDALE	HERRIN	COAL	4.0	114.0	
-			LIGHT SHALE	14.0	118.0	
-			ROCK	2.0	132.0	
-			GRAY SHALE	3.0	134.0	
-			BLACK SHALE	3.0	137.0	
-			GRAY SHALE	4.0	140.0	
-			GRAY SHALE	4.0	144.0	
-			GRAY SHALE	2.0	148.0	
-			SHALE	20.0	150.0	

MAPID: 18301797000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 31 QUARTERS/FOOTAGES: 1320' S line, 600' E line of SE NW

QUADRANGLE: OAKWOOD LONGITUDE: -87.764975 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.068799 DATE COLLECTED: 5 / 0 / 1972

SURFACE ELEVATION (FT.): 655.0 LOGGED (FT.): 168.0 LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 39 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
524.0	SHELBURN	DANVILLE	COAL	5.3	131.0	



MAPID: 18301798000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 31 QUARTERS/FOOTAGES: 0' N line, 2040' W line  
 QUADRANGLE: OAKWOOD LONGITUDE: -87.760767 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 40.072571 DATE COLLECTED: 5 / 25 / 1972  
 SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 168.0 LOG TYPE: Drillers Log  
 SOURCE: AMAX C.C. 40 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
526.0	SHELBURN	DANVILLE	COAL	5.2	114.0
498.0	CARBONDALE	HERRIN	COAL	0.8	142.0

MAPID: 18301798000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 31 QUARTERS/FOOTAGES: 0' N line, 2040' W line  
 QUADRANGLE: OAKWOOD LONGITUDE: -87.760767 GEOLOGIST:  
 CONFIDENTIAL: N LATITUDE: 40.072571 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 142.8 LOG TYPE: Drillers Log  
 SOURCE: AMAX C.C. 40 WELL TYPE: Coal Test  
 COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
614.0	MODESTO		SHALE	88.0	26.0
526.0	CARBONDALE	DANVILLE	COAL	5.2	114.0
520.8	CARBONDALE		CLAYSTONE	1.8	119.2
519.0	CARBONDALE		GRAY SHALE	15.0	121.0
504.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	136.0
503.0	CARBONDALE	LAWSON	GRAY SHALE	2.0	137.0
501.0	CARBONDALE	ANNA	BLACK SHALE	3.0	139.0
498.0	CARBONDALE	HERRIN	COAL	0.8	142.0

MAPID: 18390444000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 31 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: OAKWOOD LONGITUDE: -87.765135 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.066827 DATE COLLECTED: 5 / 26 / 1972

SURFACE ELEVATION (FT.): 653.0 LOGGED (FT.): 178.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE E505Z WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
653.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0
647.0	PLEISTOCENE		UNCONSOLIDATED	30.0	6.0
617.0	SHELBURN		GRAY SHALE	110.0	36.0
507.0	SHELBURN	DANVILLE	COAL	5.3	146.0
501.7	SHELBURN		UNDERCLAY	1.7	151.3
500.0	SHELBURN		GRAY SHALE & LIMESTONE	11.0	153.0
489.0	SHELBURN		LIMESTONE	8.0	164.0
481.0	CARBONDALE	ANNA	DARK SHALE	2.5	172.0
478.5	CARBONDALE	HERRIN	COAL	1.7	174.5
476.8	CARBONDALE		UNDERCLAY	1.8	176.2

MAPID: 18390445000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 31 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: OAKWOOD LONGITUDE: -87.765117 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.070592 DATE COLLECTED: 5 / 25 / 1972

SURFACE ELEVATION (FT.): 655.0 LOGGED (FT.): 168.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE E555Z WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
655.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0
651.0	PLEISTOCENE		UNCONSOLIDATED	40.0	4.0
611.0	SHELBURN		GRAY SHALE	87.0	44.0
524.0	SHELBURN	DANVILLE	COAL	0.5	131.0
523.5	SHELBURN	DANVILLE	CLAYSTONE	0.3	131.5
523.2	SHELBURN	DANVILLE	COAL	4.0	131.8
519.2	SHELBURN	DANVILLE	CLAYSTONE	0.3	135.8
518.9	SHELBURN	DANVILLE	COAL	0.3	136.1
518.7	SHELBURN		UNDERCLAY	1.7	136.3
517.0	SHELBURN		GRAY SHALE & LIMESTONE	13.0	138.0
504.0	SHELBURN		LIMESTONE	3.0	151.0
501.0	SHELBURN		GRAY SHALE	5.0	154.0
496.0	CARBONDALE	HERRIN	COAL	2.2	159.0
493.8	CARBONDALE		UNDERCLAY	1.8	161.2
492.0	CARBONDALE		GRAY SHALE	5.0	163.0

**MAPID:** 18390468000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 31    **QUARTERS/FOOTAGES:** SW NW SW  
**QUADRANGLE:** HUMRICK    **LONGITUDE:**    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:**    **DATE COLLECTED:** 11 / 14 / 1951  
**SURFACE ELEVATION (FT.):** 650.0    **LOGGED (FT.):** 150.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AMAX    SWH14    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
643.0	PLEISTOCENE		SAND & GRAVEL	31.0	7.0	
612.0	PLEISTOCENE		CLAY	103.0	38.0	
509.0			SHALE	9.0	141.0	HARD

**MAPID:** 18301092000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 32    **QUARTERS/FOOTAGES:** 1320' N line, 1320' W line  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.748592    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.068919    **DATE COLLECTED:** 11 / 16 / 1951  
**SURFACE ELEVATION (FT.):** 664.0    **LOGGED (FT.):** 175.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE COLLIERIES    SWH6    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
525.0	SHELBURN	DANVILLE	COAL	6.0	139.0	
500.0	CARBONDALE	HERRIN	COAL	3.4	164.0	

**MAPID:** 18301092000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 32    **QUARTERS/FOOTAGES:** 1320' N line, 1320' W line  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.748592    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 40.068919    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 664.0    **LOGGED (FT.):** 167.4    **LOG TYPE:** Drillers Log  
**SOURCE:**    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
617.0	MODESTO		SHALE	94.5	47.0	
522.5	CARBONDALE	DANVILLE	COAL	6.5	141.5	
516.0	CARBONDALE		CLAYSTONE	5.0	148.0	
511.0	CARBONDALE		SANDSTONE	5.0	153.0	
506.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	158.0	
504.0	CARBONDALE	LAWSON	SHALE & SANDSTONE	4.0	160.0	
500.0	CARBONDALE	HERRIN	COAL	3.4	164.0	

MAPID: 18301092000C VERSION: 3

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 32 QUARTERS/FOOTAGES: 1320' N line, 1320' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.748592 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.068919 DATE COLLECTED: 11 / 0 / 1951

SURFACE ELEVATION (FT.): 664.0 LOGGED (FT.): 175.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP SWH16 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
664.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
653.0	PLEISTOCENE		HARD PAN	33.0	11.0	
620.0	MODESTO		SHALE	94.5	44.0	
525.5	CARBONDALE	DANVILLE	COAL	6.5	138.5	
519.0	CARBONDALE		UNDERCLAY	3.0	145.0	
516.0	CARBONDALE		SHALE	5.0	148.0	
511.0	CARBONDALE		SANDSTONE	4.0	153.0	
507.0	CARBONDALE		SANDSTONE	1.0	157.0	
506.0	CARBONDALE		LIMESTONE	2.0	158.0	
504.0	CARBONDALE		SANDSTONE	4.0	160.0	
500.0	CARBONDALE	HERRIN	COAL	3.4	164.0	
496.6	CARBONDALE		UNDERCLAY	2.5	167.4	
494.1	CARBONDALE		SANDSTONE	5.1	169.9	

MAPID: 18390446000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 32 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.749745 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.069797 DATE COLLECTED: 11 / 16 / 1951

SURFACE ELEVATION (FT.): 664.0 LOGGED (FT.): 175.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE E561 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
664.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
653.0	PLEISTOCENE		CLAY	33.0	11.0	
620.0	SHELBURN		SHALE	94.5	44.0	
525.5	SHELBURN	DANVILLE	COAL	6.5	138.5	GOOD
519.0	SHELBURN		UNDERCLAY	3.0	145.0	
516.0	SHELBURN		SHALE	5.0	148.0	
511.0	SHELBURN		SANDSTONE	4.0	153.0	SOFT
507.0	SHELBURN		SANDSTONE	1.0	157.0	HARD
506.0	SHELBURN		LIMESTONE	2.0	158.0	
504.0	SHELBURN		SHALE & SANDSTONE	4.0	160.0	
500.0	CARBONDALE	HERRIN	COAL	3.4	164.0	GOOD
496.6	CARBONDALE		UNDERCLAY	2.5	167.4	
494.1	CARBONDALE		SHALE & SANDSTONE	5.1	169.9	

MAPID: 18301093000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 33 QUARTERS/FOOTAGES: 1320' N line, 2640' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.724608 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.068757 DATE COLLECTED: 11 / 0 / 1951

SURFACE ELEVATION (FT.): 657.0 LOGGED (FT.): 150.2 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES CORP SWH15 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
657.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
647.0	PLEISTOCENE		HARD PAN	25.0	10.0
622.0	MODESTO		SHALE	25.0	35.0
597.0	MODESTO		SANDSTONE	1.5	60.0
595.5	MODESTO		SHALE	38.5	61.5
557.0	MODESTO		SANDSTONE	19.0	100.0
538.0	CARBONDALE	DANVILLE	COAL	5.7	119.0
532.3	CARBONDALE		UNDERCLAY	1.5	124.7
530.8	CARBONDALE		SHALE	6.0	126.2
524.8	CARBONDALE		LIMESTONE	5.0	132.2
519.8	CARBONDALE		SHALE	5.0	137.2
514.8	CARBONDALE	HERRIN	COAL	4.0	142.2
510.8	CARBONDALE		UNDERCLAY	4.0	146.2

MAPID: 18301093000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 33 QUARTERS/FOOTAGES: 1320' N line, 2640' E line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.724608 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.068757 DATE COLLECTED:

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 146.2 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
615.2	MODESTO		SHALE & SANDSTONE	84.0	34.8
531.2	CARBONDALE	DANVILLE	COAL	5.7	118.8
525.5	CARBONDALE		CLAYSTONE	1.5	124.5
524.0	CARBONDALE		SHALE	6.0	126.0
518.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	132.0
513.0	CARBONDALE	LAWSON	SHALE	5.0	137.0
508.0	CARBONDALE	HERRIN	COAL	4.2	142.0

MAPID: 18301377000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 33 QUARTERS/FOOTAGES: 1320' N line, 2850' W line of SW NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.724532 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.068922 DATE COLLECTED: 11 / 16 / 1951

SURFACE ELEVATION (FT.): 657.0 LOGGED (FT.): 150.2 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE COLLIERIES SWH15 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
538.0	SHELburn	DANVILLE	COAL	5.7	119.0
515.0	CARBONDALE	HERRIN	COAL	4.2	142.0

MAPID: 18300282000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 35 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.684111 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.05947 DATE COLLECTED:

SURFACE ELEVATION (FT.): 662.0 LOGGED (FT.): 177.7 LOG TYPE: Drillers Log

SOURCE: BUNSEN COAL CO WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
662.0	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0
632.0	MODESTO		BLUE SHALE	30.0	30.0
602.0	MODESTO		SHALE	36.0	60.0
566.0	MODESTO		BLUE SHALE	37.3	96.0
528.7	CARBONDALE	DANVILLE	COAL	5.5	133.3
523.3	CARBONDALE		UNDERCLAY	3.3	138.7
520.0	CARBONDALE	ENERGY	SANDSTONE	24.0	142.0
496.0	CARBONDALE	ENERGY	BLACK SHALE	4.8	166.0
491.2	CARBONDALE	ENERGY	BLACK SHALE	0.4	170.8
490.7	CARBONDALE	HERRIN	COAL	6.4	171.3

MAPID: 18301765000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 35 QUARTERS/FOOTAGES: 1320' S line, 1320' E line of NE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.681784 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.064946 DATE COLLECTED: 5 / 8 / 1972

SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 198.0 LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 1 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
531.0	SHELburn	DANVILLE	COAL	5.1	129.0
495.0	CARBONDALE	HERRIN	COAL	3.3	165.0

**MAPID:** 18301766000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 35    **QUARTERS/FOOTAGES:** 0' S line, 1320' E line  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.681738    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.057623    **DATE COLLECTED:** 5 / 8 / 1972  
**SURFACE ELEVATION (FT.):** 669.0    **LOGGED (FT.):** 208.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AMAX C.C.    3    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
524.0	SHELburn	DANVILLE	COAL	5.1	145.0
487.0	CARBONDALE	HERRIN	COAL	4.7	182.0

**MAPID:** 18301766000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 35    **QUARTERS/FOOTAGES:** 0' S line, 1320' E line  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.681738    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 40.057623    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 669.0    **LOGGED (FT.):** 186.7    **LOG TYPE:** Drillers Log  
**SOURCE:** AMAX C.C.    3    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
615.0	MODESTO		GRAY SHALE	91.0	54.0
524.0	CARBONDALE	DANVILLE	COAL	5.1	145.0
518.9	CARBONDALE		CLAYSTONE	3.9	150.1
515.0	CARBONDALE	ENERGY	SILTY SHALE	28.0	154.0
487.0	CARBONDALE	HERRIN	COAL	4.7	182.0

**MAPID:** 18301790000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 12W    **SECTION:** 35    **QUARTERS/FOOTAGES:** 1320' N line, 1320' E line of SE NW  
**QUADRANGLE:** DANVILLE SW    **LONGITUDE:** -87.691245    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.06502    **DATE COLLECTED:** 5 / 23 / 1972  
**SURFACE ELEVATION (FT.):** 665.0    **LOGGED (FT.):** 175.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AMAX C.C.    29    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
540.0	SHELburn	DANVILLE	COAL	5.5	125.0
498.0	CARBONDALE	HERRIN	COAL	4.6	167.0

MAPID: 18390453000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 35 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.684111 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.05947 DATE COLLECTED: 5 / 8 / 1972

SURFACE ELEVATION (FT.): 669.0 LOGGED (FT.): 208.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE F415 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
669.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
661.0	PLEISTOCENE		UNCONSOLIDATED	27.0	8.0
634.0	PLEISTOCENE		CLAY	19.0	35.0
615.0	SHELBURN		GRAY SHALE	24.0	54.0
591.0	SHELBURN		SANDY SHALE	67.0	78.0
524.0	SHELBURN	DANVILLE	COAL	5.1	145.0
518.9	SHELBURN		UNDERCLAY	3.9	150.1
515.0	SHELBURN		SANDY SHALE	28.0	154.0
487.0	CARBONDALE	HERRIN	COAL	4.7	182.0
482.3	CARBONDALE		UNDERCLAY	1.3	186.7
481.0	CARBONDALE		SANDY SHALE	20.0	188.0

MAPID: 18390454000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 35 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.684111 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.05947 DATE COLLECTED: 6 / 2 / 1972

SURFACE ELEVATION (FT.): 669.0 LOGGED (FT.): 190.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE F415-1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
669.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
661.0	PLEISTOCENE		UNCONSOLIDATED	28.0	8.0
633.0	SHELBURN		GRAY SHALE	106.0	36.0
527.0	SHELBURN		DARK SHALE	2.3	142.0
524.7	SHELBURN	DANVILLE	COAL	5.2	144.3
519.5	SHELBURN		UNDERCLAY	1.5	149.5
518.0	SHELBURN		GRAY SHALE & LIMESTONE	29.2	151.0
488.8	CARBONDALE	HERRIN	COAL	0.8	180.2
488.0	CARBONDALE		CLAYSTONE	0.5	181.0 PYRITE
487.5	CARBONDALE	HERRIN	COAL	5.2	181.5
482.3	CARBONDALE		UNDERCLAY	3.3	186.7



MAPID: 18390457000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 35 QUARTERS/FOOTAGES: SW NE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.680573 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.062223 DATE COLLECTED: 6 / 13 / 1972

SURFACE ELEVATION (FT.): 663.0 LOGGED (FT.): 179.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE F465 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
663.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0
656.0	PLEISTOCENE		UNCONSOLIDATED	18.0	7.0
638.0	SHELBURN		GRAY SHALE	108.0	25.0
530.0	SHELBURN	DANVILLE	COAL	5.0	133.0
525.0	SHELBURN		UNDERCLAY	2.0	138.0
523.0	SHELBURN		GRAY SHALE	30.0	140.0
493.0	CARBONDALE	ANNA	DARK SHALE	1.0	170.0
492.0	CARBONDALE	HERRIN	COAL	4.5	171.0
487.5	CARBONDALE		CLAYSTONE	0.3	175.5
487.2	CARBONDALE	HERRIN	COAL	1.7	175.8
485.5	CARBONDALE		UNDERCLAY	1.5	177.5

MAPID: 18390458000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 35 QUARTERS/FOOTAGES: SW SE NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.690058 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.06591 DATE COLLECTED: 5 / 23 / 1972

SURFACE ELEVATION (FT.): 665.0 LOGGED (FT.): 175.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE F511 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
665.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0
654.0	PLEISTOCENE		UNCONSOLIDATED	35.0	11.0
619.0	SHELBURN		GRAY SHALE	79.0	46.0
540.0	SHELBURN	DANVILLE	COAL	5.5	125.0
534.5	SHELBURN		UNDERCLAY	2.5	130.5
532.0	SHELBURN		MICACEOUS SHALE	32.0	133.0
500.0	CARBONDALE	ANNA	DARK SHALE	2.0	165.0
498.0	CARBONDALE	HERRIN	COAL	4.6	167.0
493.4	CARBONDALE		CLAYSTONE	0.3	171.6
493.1	CARBONDALE	HERRIN	COAL	1.6	171.9
491.5	CARBONDALE		UNDERCLAY	1.5	173.5

MAPID: 18390459000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 35 QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.685327 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.065906 DATE COLLECTED: 6 / 14 / 1972

SURFACE ELEVATION (FT.): 663.0 LOGGED (FT.): 178.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE F513 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
663.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
653.0	PLEISTOCENE		UNCONSOLIDATED	27.0	10.0
626.0	SHELBURN		SHALE	96.0	37.0
530.0	SHELBURN	DANVILLE	COAL	5.2	133.0
524.8	SHELBURN		UNDERCLAY	2.8	138.2
522.0	SHELBURN		MICACEOUS SHALE	10.0	141.0
512.0	SHELBURN		SHALE WITH LIMESTONE	10.0	151.0
502.0	SHELBURN		GRAY SHALE	10.0	161.0
492.0	CARBONDALE	HERRIN	COAL	5.8	171.0
486.2	CARBONDALE		UNDERCLAY	1.2	176.8

MAPID: 18390460000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 35 QUARTERS/FOOTAGES: NW NE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.680586 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.064064 DATE COLLECTED: 5 / 8 / 1972

SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 198.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE F515 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
660.0	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0
643.0	PLEISTOCENE		UNCONSOLIDATED	7.0	17.0
636.0	SHELBURN		GRAY SHALE	103.0	24.0
533.0	SHELBURN		DARK SHALE	2.0	127.0
531.0	SHELBURN	DANVILLE	COAL	5.1	129.0
525.9	SHELBURN		UNDERCLAY	2.9	134.1
523.0	SHELBURN		GRAY SHALE	26.0	137.0
497.0	CARBONDALE	ANNA	DARK SHALE	2.0	163.0
495.0	CARBONDALE	HERRIN	COAL	3.3	165.0
491.7	CARBONDALE		CLAYSTONE	0.7	168.3 SOFT
491.0	CARBONDALE	HERRIN	COAL	1.8	169.0
489.2	CARBONDALE		UNDERCLAY	1.2	170.8
488.0	CARBONDALE		GRAY SHALE	26.0	172.0

MAPID: 18390461000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 35 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.678228 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.065902 DATE COLLECTED: 6 / 14 / 1972

SURFACE ELEVATION (FT.): 661.0 LOGGED (FT.): 171.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE F517 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
661.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0
648.0	PLEISTOCENE		UNCONSOLIDATED	12.0	13.0
636.0	SHELBURN		GRAY SHALE	106.0	25.0
530.0	SHELBURN	DANVILLE	COAL	5.0	131.0
525.0	SHELBURN		UNDERCLAY	2.0	136.0
523.0	SHELBURN		SHALE WITH LIMESTONE	16.0	138.0
507.0	SHELBURN		LIMESTONE	4.0	154.0
503.0	SHELBURN		GRAY SHALE	5.0	158.0
498.0	CARBONDALE	ANNA	BLACK SHALE	2.0	163.0
496.0	CARBONDALE	HERRIN	COAL	4.3	165.0
491.7	CARBONDALE		UNDERCLAY	1.7	169.3

MAPID: 18301767000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 36 QUARTERS/FOOTAGES: 2640' S line, 1320' W line

QUADRANGLE: DANVILLE SW LONGITUDE: -87.672301 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.064889 DATE COLLECTED: 5 / 8 / 1972

SURFACE ELEVATION (FT.): 658.0 LOGGED (FT.): 178.0 LOG TYPE: Drillers Log

SOURCE: AMAX C.C. 2 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
544.0	SHELBURN	DANVILLE	COAL	5.3	114.0
507.0	CARBONDALE	HERRIN	COAL	6.0	151.0

MAPID: 18301767000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 36    QUARTERS/FOOTAGES: 2640' S line, 1320' W line

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.672301

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 40.064889

DATE COLLECTED:

SURFACE ELEVATION (FT.): 658.0

LOGGED (FT.): 157.0

LOG TYPE: Drillers Log

SOURCE: AMAX C.C.    2

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
637.0	MODESTO		GRAY SHALE	93.0	21.0
544.0	CARBONDALE	DANVILLE	COAL	5.3	114.0
538.7	CARBONDALE		CLAYSTONE	1.8	119.3
537.0	CARBONDALE		GRAY SHALE	8.0	121.0
529.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	129.0
526.0	CARBONDALE	ENERGY	GRAY SHALE	19.0	132.0
507.0	CARBONDALE	HERRIN	COAL	6.0	151.0

MAPID: 18301768000C    VERSION: 1

PROJECT: CONF

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 36    QUARTERS/FOOTAGES: 1320' S line, 1320' E line of NE SE

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.662489

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N    LATITUDE: 40.064924

DATE COLLECTED: 5 / 9 / 1972

SURFACE ELEVATION (FT.): 656.0

LOGGED (FT.): 168.0

LOG TYPE: Drillers Log

SOURCE: AMAX C.C.    4

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
506.0	CARBONDALE	HERRIN	COAL	6.5	150.0

MAPID: 18301769000C    VERSION: 1

PROJECT: CONF

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 36    QUARTERS/FOOTAGES: 1320' N line, 660' E line of SE SW

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.669653

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N    LATITUDE: 40.057646

DATE COLLECTED: 5 / 9 / 1972

SURFACE ELEVATION (FT.): 660.0

LOGGED (FT.): 178.0

LOG TYPE: Drillers Log

SOURCE: AMAX C.C.    5

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
546.0	SHELBURN	DANVILLE	COAL	5.2	114.0
509.0	CARBONDALE	HERRIN	COAL	6.3	151.0

MAPID: 18390455000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 36 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.669735 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.059447 DATE COLLECTED: 5 / 9 / 1972

SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 178.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE F420 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
660.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0
646.0	PLEISTOCENE		UNCONSOLIDATED	12.0	14.0
634.0	SHELBURN		GRAY SHALE	74.0	26.0
560.0	SHELBURN		DARK SHALE	14.0	100.0
546.0	SHELBURN	DANVILLE	COAL	5.2	114.0
540.8	SHELBURN		UNDERCLAY	2.8	119.2
538.0	SHELBURN		GRAY SHALE	26.0	122.0
512.0	SHELBURN		DARK SHALE	3.0	148.0
509.0	CARBONDALE	HERRIN	COAL	6.3	151.0
502.7	CARBONDALE		UNDERCLAY	2.8	157.3
500.0	CARBONDALE		GRAY SHALE	18.0	160.0

MAPID: 18390456000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 36 QUARTERS/FOOTAGES: SW SE SE

QUADRANGLE: DANVILLE SW LONGITUDE: -87.661228 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.058514 DATE COLLECTED: 6 / 13 / 1972

SURFACE ELEVATION (FT.): 681.0 LOGGED (FT.): 158.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE F423 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
681.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
671.0	PLEISTOCENE		CLAY	18.0	10.0
653.0	PLEISTOCENE		SAND & GRAVEL	19.0	28.0
634.0	SHELBURN		GRAY SHALE	72.0	47.0
562.0	SHELBURN		DARK SHALE	2.0	119.0
560.0	SHELBURN	DANVILLE	COAL	4.5	121.0
555.5	SHELBURN		UNDERCLAY	2.5	125.5
553.0	SHELBURN		SHALE WITH LIMESTONE	25.0	128.0
528.0	CARBONDALE	HERRIN	CAVITY	5.0	153.0 TOOLS DROPPED

MAPID: 18390462000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 36 QUARTERS/FOOTAGES: NW NE SW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.671001 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.064057 DATE COLLECTED: 5 / 8 / 1972

SURFACE ELEVATION (FT.): 658.0 LOGGED (FT.): 178.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE F519 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
658.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0
652.0	PLEISTOCENE		UNCONSOLIDATED	15.0	6.0
637.0	SHELBURN		GRAY SHALE	93.0	21.0
544.0	SHELBURN	DANVILLE	COAL	5.3	114.0
538.7	SHELBURN		UNDERCLAY	1.8	119.3
537.0	SHELBURN		GRAY SHALE	8.0	121.0
529.0	SHELBURN		LIMESTONE	3.0	129.0
526.0	SHELBURN		GRAY SHALE	19.0	132.0
507.0	CARBONDALE	HERRIN	COAL	6.0	151.0
501.0	CARBONDALE		UNDERCLAY	2.0	157.0
499.0	CARBONDALE		GRAY SHALE	19.0	159.0

MAPID: 18390463000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 12W SECTION: 36 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: DANVILLE SW LONGITUDE: -87.668614 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.0659 DATE COLLECTED: 6 / 14 / 1972

SURFACE ELEVATION (FT.): 653.0 LOGGED (FT.): 148.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE F521 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
653.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0
648.0	PLEISTOCENE		UNCONSOLIDATED	15.0	5.0
633.0	SHELBURN		GRAY SHALE	79.0	20.0
554.0	SHELBURN	DANVILLE	COAL	5.3	99.0
548.7	SHELBURN		UNDERCLAY	1.7	104.3
547.0	SHELBURN		GRAY SHALE	24.0	106.0
523.0	SHELBURN		LIMESTONE	4.0	130.0
519.0	SHELBURN		GRAY SHALE	4.0	134.0
515.0	CARBONDALE	HERRIN	COAL	6.3	138.0
508.7	CARBONDALE		UNDERCLAY	1.7	144.3
507.0	CARBONDALE		GRAY SHALE	1.0	146.0
506.0	CARBONDALE		SANDSTONE	1.0	147.0

MAPID: 18390464000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 19N 12W    SECTION: 36    QUARTERS/FOOTAGES: NW NE SE

QUADRANGLE: DANVILLE SW    LONGITUDE: -87.661348    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.064054    DATE COLLECTED: 5 / 9 / 1972

SURFACE ELEVATION (FT.): 656.0    LOGGED (FT.): 168.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    F523    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
656.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0
652.0	PLEISTOCENE		UNCONSOLIDATED	22.0	4.0
630.0	SHELBURN		GRAY SHALE	79.0	26.0
551.0	SHELBURN	DANVILLE	COAL	5.3	105.0
545.7	SHELBURN		UNDERCLAY	1.8	110.3
544.0	SHELBURN		GRAY SHALE	38.0	112.0
506.0	CARBONDALE	HERRIN	COAL	6.5	150.0
499.5	CARBONDALE		UNDERCLAY	1.5	156.5
498.0	CARBONDALE		GRAY SHALE	10.0	158.0

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MAPID: 18300285000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 13W SECTION: 1 QUARTERS/FOOTAGES: 1980' N line, 660' E line

QUADRANGLE: COLLISON LONGITUDE: -87.771285 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.139948 DATE COLLECTED:

SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 406.0 LOG TYPE: Drillers Log

SOURCE: GEO HOWARD ET AL WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
660.0	PLEISTOCENE		UNCONSOLIDATED	56.0	0.0
604.0	PLEISTOCENE		SAND	6.0	56.0
598.0	MODESTO		BLUE SHALE	71.0	62.0
527.0	CARBONDALE	DANVILLE	COAL	4.7	133.0
522.3	CARBONDALE		BLUE SHALE	24.3	137.7
498.0	CARBONDALE		BLACK SHALE	3.0	162.0
495.0	CARBONDALE	HERRIN	COAL	2.0	165.0
493.0	CARBONDALE		BROWN SHALE	11.0	167.0
482.0	CARBONDALE		BLUE LIMESTONE	6.0	178.0
476.0	CARBONDALE		BLACK SHALE	2.0	184.0
474.0	CARBONDALE		GRAY SANDSTONE	10.0	186.0
464.0	CARBONDALE		BLUE SHALE	36.0	196.0
428.0	CARBONDALE		BROWN SHALE	16.0	232.0
412.0	CARBONDALE		BLACK SHALE	4.0	248.0
408.0	CARBONDALE		GRAY SHALE	23.0	252.0
385.0	CARBONDALE		BLUE SHALE	8.0	275.0
377.0	CARBONDALE		BROWN SHALE	19.0	283.0
358.0	CARBONDALE		GRAY SANDSTONE	13.0	302.0
345.0	CARBONDALE		BLACK SHALE	9.0	315.0
336.0	CARBONDALE		BROWN SHALE	9.0	324.0
327.0	CARBONDALE	COLCHESTER	COAL	1.0	333.0
326.0	SPOON		BROWN SHALE	4.0	334.0
322.0	SPOON		GRAY SANDSTONE	4.0	338.0
318.0	SPOON		GRAY LIMESTONE	1.5	342.0
316.5	SPOON		BLACK SHALE	10.5	343.5
306.0	SPOON		COAL	4.0	354.0
302.0	SPOON		BLACK SHALE	7.0	358.0
295.0	SPOON		COAL	6.0	365.0
289.0	SPOON		BLACK SHALE	9.0	371.0
280.0	SPOON		BLACK SHALE	7.0	380.0
273.0	SPOON		GRAY LIMESTONE	3.0	387.0
270.0	SPOON		GRAY SANDSTONE	12.0	390.0
258.0	SPOON		BLACK SHALE	4.0	402.0



MAPID: 18300285000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION    TWP/RNG: 19N 13W    SECTION: 1    QUARTERS/FOOTAGES: 1980' N line, 660' E line

QUADRANGLE: COLLISON    LONGITUDE: -87.771285

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 40.139948

DATE COLLECTED:

SURFACE ELEVATION (FT.): 660.0

LOGGED (FT.): 167.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
598.7	MODESTO		GRAY SHALE	71.0	61.3	
527.7	CARBONDALE	DANVILLE	COAL	4.7	132.3	
523.0	CARBONDALE	LAWSON	GRAY SHALE	25.0	137.0	
498.0	CARBONDALE	ANNA	BLACK SHALE	3.0	162.0	
495.0	CARBONDALE	HERRIN	COAL	2.0	165.0	

MAPID: 18322070000C    VERSION: 1

PROJECT: CONF

COUNTY: VERMILION    TWP/RNG: 19N 13W    SECTION: 1    QUARTERS/FOOTAGES: NW SE

QUADRANGLE: COLLISON    LONGITUDE: -87.77604

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N    LATITUDE: 40.136012

DATE COLLECTED: 5 / 17 / 1976

SURFACE ELEVATION (FT.): 647.0

LOGGED (FT.): 240.0

LOG TYPE: Survey Core Study

SOURCE: KERR-MCGEE COAL CO.    19,13-1-1

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
458.3	SHELBURN	DANVILLE	COAL	5.7	188.7	
430.2	CARBONDALE	HERRIN	COAL	2.7	216.8	

MAPID: 18323008000C    VERSION: 1

PROJECT: CONF

COUNTY: VERMILION    TWP/RNG: 19N 13W    SECTION: 1    QUARTERS/FOOTAGES: 18' S line, 150' E line

QUADRANGLE: COLLISON    LONGITUDE: -87.769347

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N    LATITUDE: 40.130833

DATE COLLECTED: 8 / 0 / 1971

SURFACE ELEVATION (FT.): 643.0

LOGGED (FT.): 339.0

LOG TYPE: Electric Log

SOURCE: HYDROCARBON SURVEY    PD-58

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-	-	NO COAL PICKS

**MAPID:** 18322539000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 2    **QUARTERS/FOOTAGES:** 975' S line, 1250' W line of SW SW  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.802613    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.132294    **DATE COLLECTED:** 0 / 0 / 1981  
**SURFACE ELEVATION (FT.):** 647.0    **LOGGED (FT.):** 320.0    **LOG TYPE:** Drillers Log  
**SOURCE:** KERR-MCGEE COAL CO.    22539    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
423.5	SHELBURN	DANVILLE	COAL	6.0	223.5	REMOVED BY CO.
394.0	CARBONDALE	HERRIN	COAL	3.0	253.0	

**MAPID:** 18390007000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 2    **QUARTERS/FOOTAGES:** 158' N line, 158' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.806685    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.144067    **DATE COLLECTED:** 6 / 3 / 1965  
**SURFACE ELEVATION (FT.):** 650.0    **LOGGED (FT.):** 290.7    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0			UNKNOWN	285.7	0.0	
364.3	CARBONDALE	HERRIN	COAL	5.0	285.7	

**MAPID:** 18390072000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 2    **QUARTERS/FOOTAGES:** 2' N line, 2200' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.799351    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.144679    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 648.0    **LOGGED (FT.):** 280.0    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.  
**COMMENT:** FITHIAN QUAD MAP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
648.0			UNKNOWN	238.3	0.0	
409.7	CARBONDALE	DANVILLE	COAL	5.7	238.3	
404.0	CARBONDALE		UNKNOWN	31.0	244.0	
373.0	CARBONDALE	HERRIN	COAL	5.0	275.0	

**MAPID:** 18323009000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 4    **QUARTERS/FOOTAGES:** 30' S line, 42' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.844744    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.128794    **DATE COLLECTED:** 8 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 661.0    **LOGGED (FT.):** 308.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PD-61    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
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-    -    NO COAL PICKS

**MAPID:** 18321919000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 6    **QUARTERS/FOOTAGES:** 52' S line, 25' W line  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.883764    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.128216    **DATE COLLECTED:** 5 / 9 / 1974  
**SURFACE ELEVATION (FT.):** 657.0    **LOGGED (FT.):** 234.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** PHILLIPS PETROLEUM CO.    C-(7)    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
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433.5    SHELBURN    DANVILLE    COAL    4.7    223.5

**MAPID:** 18323010000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 6    **QUARTERS/FOOTAGES:** 100' S line, 30' W line  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.88375    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.128348    **DATE COLLECTED:** 7 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 655.0    **LOGGED (FT.):** 375.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PC-57    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
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-    -    NO COAL PICKS

MAPID: 18300287000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 13W SECTION: 7 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: OAKWOOD LONGITUDE: -87.87615 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.115456 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 230.0 LOG TYPE: Drillers Log

SOURCE: MR. STEWART WELL TYPE: Coal Test

COMMENT: ENDED HOLE WHEN HIT COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	65.0	0.0	LYRS SH 2"THK, ALT. CLY 65' TO 230'
-			SHALE	165.0	65.0	COAL #6 AFTER SH
-	CARBONDALE	HERRIN	COAL	-	230.0	NO THICKNESS GIVEN

MAPID: 18300824000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 13W SECTION: 8 QUARTERS/FOOTAGES: 100' N line, 400' E line of SE

QUADRANGLE: OAKWOOD LONGITUDE: -87.846288 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.121121 DATE COLLECTED: 8 / 0 / 1943

SURFACE ELEVATION (FT.): 652.0 LOGGED (FT.): 220.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST DRILLING CO WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
652.0	PLEISTOCENE		SOIL	15.0	0.0	
637.0	PLEISTOCENE		SAND	10.0	15.0	
627.0	PLEISTOCENE		GRAVEL	10.0	25.0	
617.0			GRAY SHALE	16.0	35.0	
601.0			RED SHALE	5.0	51.0	
596.0			LIMESTONE	2.0	56.0	
594.0			GRAY SHALE	8.0	58.0	
586.0			GRAY SHALE	10.0	66.0	
576.0			BROWN SHALE	15.0	76.0	
561.0			BLACK SHALE	5.0	91.0	
556.0			COAL	1.0	96.0	
555.0			RED SHALE	10.0	97.0	
545.0			LIMESTONE	4.0	107.0	
541.0			GRAY SHALE	69.0	111.0	
472.0			DARK GRAY SHALE	28.0	180.0	
444.0			GRAY SHALE	12.0	208.0	

**MAPID:** 18300503000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 9    **QUARTERS/FOOTAGES:** SW SW  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.842437    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.116002    **DATE COLLECTED:** 0 / 0 / 1892  
**SURFACE ELEVATION (FT.):** 635.0    **LOGGED (FT.):** 196.5    **LOG TYPE:** Drillers Log  
**SOURCE:** MUNCIE COAL CO    **WELL TYPE:** Coal Test  
**COMMENT:** MINE IS NOW ABANDONED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.0	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
616.0	PLEISTOCENE		SAND	92.0	19.0	
524.0	MODESTO		SHALE	80.0	111.0	
444.0	CARBONDALE	DANVILLE	COAL	5.5	191.0	

**MAPID:** 18323011000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 10    **QUARTERS/FOOTAGES:** 645' S line, 300' E line of NW NE  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.812829    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.127546    **DATE COLLECTED:** 7 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 648.0    **LOGGED (FT.):** 368.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PD-46    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-	-	NO COAL PICKS

**MAPID:** 18390465000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 10    **QUARTERS/FOOTAGES:** SW NW SW  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.824603    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.119094    **DATE COLLECTED:** 11 / 5 / 1951  
**SURFACE ELEVATION (FT.):** 645.0    **LOGGED (FT.):** 150.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AMAX    SWH11    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
645.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
635.0	PLEISTOCENE		CLAY	29.0	10.0	
606.0			SANDSTONE	2.0	39.0	HARD
604.0			SANDSTONE	7.0	41.0	SOFT
597.0			SHALE & SANDSTONE	102.0	48.0	

**MAPID:** 18301415000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 1650' S line, 0' W line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.806845    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.119583    **DATE COLLECTED:** 11 / 19 / 1966  
**SURFACE ELEVATION (FT.):** 705.0    **LOGGED (FT.):** 232.8    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    19    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
477.7	CARBONDALE	HERRIN	COAL	2.7	227.3

**MAPID:** 18301415000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 1650' S line, 0' W line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.806845    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 40.119583    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 705.0    **LOGGED (FT.):** 229.5    **LOG TYPE:** Survey Core Study  
**SOURCE:** PEABODY COAL CO.    19    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
599.4	MODESTO		SHALE & SANDSTONE	90.0	105.6
509.4	CARBONDALE	DANVILLE	COAL	4.9	195.6
504.5	CARBONDALE		CALCAREOUS SHALE	1.0	200.5
503.5	CARBONDALE	BANKSTON FORK	LIMESTONE	0.2	201.5
503.3	CARBONDALE	LAWSON	GRAY SHALE	3.5	201.7
499.8	CARBONDALE	LAWSON	COAL	0.5	205.2
499.3	CARBONDALE	LAWSON	SILTY SHALE	11.5	205.7
487.7	CARBONDALE	LAWSON	MOTTLED SHALE	4.2	217.3
483.6	CARBONDALE	LAWSON	CALCAREOUS SHALE	5.6	221.4
478.0	CARBONDALE	HERRIN	COAL	2.5	227.0

**MAPID:** 18301420000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 660' S line, 1320' E line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.773189    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.103141    **DATE COLLECTED:** 12 / 21 / 1966  
**SURFACE ELEVATION (FT.):** 715.0    **LOGGED (FT.):** 237.1    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    23    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
491.8	CARBONDALE	HERRIN	COAL	9.1	223.2

MAPID: 18301420000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 19N 13W SECTION: 13 QUARTERS/FOOTAGES: 660' S line, 1320' E line

QUADRANGLE: OAKWOOD LONGITUDE: -87.773189

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.103141

DATE COLLECTED:

SURFACE ELEVATION (FT.): 715.0 LOGGED (FT.): 232.0

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. 23

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
611.1	MODESTO		GRAY SHALE	80.6	103.9
530.5	CARBONDALE	DANVILLE	COAL	5.8	184.5
524.7	CARBONDALE		CARBONACEOUS SHALE	2.9	190.3
521.9	CARBONDALE	LAWSON	SANDSTONE	5.8	193.1
516.1	CARBONDALE	LAWSON	GRAY SHALE	14.6	198.9
501.5	CARBONDALE	LAWSON	SILTY SHALE	4.4	213.5
497.1	CARBONDALE	LAWSON	SILTSTONE	0.5	217.9
496.6	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	0.5	218.4
496.1	CARBONDALE	ANNA	BLACK SHALE	4.1	218.9
492.0	CARBONDALE	HERRIN	COAL	9.0	223.0

MAPID: 18301422000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 13W SECTION: 14 QUARTERS/FOOTAGES: 2640' N line, 990' W line

QUADRANGLE: OAKWOOD LONGITUDE: -87.803115

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.107807

DATE COLLECTED: 1 / 26 / 1967

SURFACE ELEVATION (FT.): 703.0 LOGGED (FT.): 244.3

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 17

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
496.0	SHELburn	DANVILLE	COAL	4.6	207.0
465.7	CARBONDALE	HERRIN	COAL	5.3	237.3

MAPID: 18301422000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 19N 13W SECTION: 14 QUARTERS/FOOTAGES: 2640' N line, 990' W line

QUADRANGLE: OAKWOOD LONGITUDE: -87.803115

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.107807

DATE COLLECTED:

SURFACE ELEVATION (FT.): 703.0 LOGGED (FT.): 242.3

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. 17

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
583.3	MODESTO		SHALE & SANDSTONE	87.0	119.7	
496.3	CARBONDALE	DANVILLE	COAL	4.6	206.7	
491.7	CARBONDALE		SHALE	1.0	211.3	
490.7	CARBONDALE	BANKSTON FORK	LIMESTONE	0.3	212.3	
490.5	CARBONDALE	LAWSON	GRAY SHALE	14.5	212.5	
476.0	CARBONDALE	LAWSON	SILTY SHALE	2.0	227.0	
474.0	CARBONDALE	LAWSON	CALCAREOUS SHALE	6.8	229.0	
467.2	CARBONDALE	LAWSON	DARK GRAY SHALE	0.8	235.8	
466.4	CARBONDALE	LAWSON	CARBONACEOUS SHALE	0.4	236.6	
466.0	CARBONDALE	HERRIN	COAL	5.3	237.0	

MAPID: 18301412000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 13W SECTION: 15 QUARTERS/FOOTAGES: 1320' N line, 1320' W line

QUADRANGLE: OAKWOOD LONGITUDE: -87.820958

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.110985

DATE COLLECTED: 11 / 9 / 1966

SURFACE ELEVATION (FT.): 703.0 LOGGED (FT.): 269.0

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 18

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
444.2	CARBONDALE	HERRIN	COAL	5.2	258.8	



MAPID: 18301412000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION    TWP/RNG: 19N 13W    SECTION: 15    QUARTERS/FOOTAGES: 1320' N line, 1320' W line

QUADRANGLE: OAKWOOD    LONGITUDE: -87.820958

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 40.110985

DATE COLLECTED:

SURFACE ELEVATION (FT.): 713.0    LOGGED (FT.): 264.3

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO.    18

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
572.9	MODESTO		SHALE & SANDSTONE	90.0	140.1
482.9	CARBONDALE	DANVILLE	COAL	4.7	230.1
478.3	CARBONDALE		DARK GRAY SHALE	1.2	234.7
477.1	CARBONDALE	BANKSTON FORK	LIMESTONE	0.4	235.9
476.7	CARBONDALE	ENERGY	GRAY SHALE	4.5	236.3
472.2	CARBONDALE	ENERGY	SANDSTONE	2.5	240.8
469.7	CARBONDALE	ENERGY	SILTY SHALE	15.2	243.3
454.5	CARBONDALE	ENERGY	CARBONACEOUS SHALE	0.3	258.5
454.2	CARBONDALE	ENERGY	CLAYSTONE	0.2	258.8
454.0	CARBONDALE	HERRIN	COAL	5.3	259.0

MAPID: 18322583000C VERSION: 1

PROJECT: NCRDS99

COUNTY: VERMILION TWP/RNG: 19N 13W SECTION: 15 QUARTERS/FOOTAGES: 210' N line, 678' E line

QUADRANGLE: OAKWOOD LONGITUDE: -87.809171 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 40.114386 DATE COLLECTED: 8 / 31 / 1977

SURFACE ELEVATION (FT.): 648.0 LOGGED (FT.): 243.0 LOG TYPE: Drillers Log

SOURCE: GULF OIL CORPORATION C-15-2C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
648.0	PLEISTOCENE		UNCONSOLIDATED	45.0	0.0	
603.0			SANDSTONE	2.0	45.0	
601.0			SANDY SHALE	5.5	47.0	
595.5			SANDY LIMESTONE	3.0	52.5	
592.5			BLACK SHALE	3.0	55.5	
589.5			SHALE	3.5	58.5	
586.0			SHALE	2.0	62.0	MULTICOLORED SHALE
584.0			SHALE	6.5	64.0	
577.5			SHALE	9.0	70.5	MULTICOLORED SHALE
568.5			SHALE	2.0	79.5	
566.5			SHALE	19.5	81.5	MULTICOLORED SHALE
547.0			SHALE	16.5	101.0	
530.5			SHALE	10.5	117.5	MULTICOLORED SHALE
520.0			SILTY SHALE	68.5	128.0	
451.5	CARBONDALE	DANVILLE	COAL	5.0	196.5	
446.5	CARBONDALE		UNDERCLAY	10.5	201.5	
436.0	CARBONDALE		LIMESTONE	2.5	212.0	
433.5	CARBONDALE		SHALE	11.4	214.5	
422.1	CARBONDALE	HERRIN	COAL	2.8	225.9	
419.3	CARBONDALE		CALCAREOUS SHALE	13.9	228.7	

MAPID: 18322583000C VERSION: 2

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 13W SECTION: 15 QUARTERS/FOOTAGES: 210' N line, 678' E line

QUADRANGLE: OAKWOOD LONGITUDE: -87.809171 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.114386 DATE COLLECTED: 8 / 31 / 1977

SURFACE ELEVATION (FT.): 648.0 LOGGED (FT.): 242.6 LOG TYPE: Electric Log

SOURCE: GULF OIL CORPORATION C-15-2C WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
451.9	SHELBURN	DANVILLE	COAL	4.9	196.1	
423.0	CARBONDALE	HERRIN	COAL	2.9	225.0	

**MAPID:** 18323012000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 17    **QUARTERS/FOOTAGES:** 321' S line, 141' E line  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.845118    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.100428    **DATE COLLECTED:** 8 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 654.0    **LOGGED (FT.):** 299.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PC-81    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

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

-    -    NO COAL PICKS

**MAPID:** 18322587000C    **VERSION:** 1    **PROJECT:** NCRDS99  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 19    **QUARTERS/FOOTAGES:** SE SE NE  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.86469    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.092866    **DATE COLLECTED:** 9 / 20 / 1977  
**SURFACE ELEVATION (FT.):** 650.0    **LOGGED (FT.):** 242.2    **LOG TYPE:** Other Core Study  
**SOURCE:** GULF OIL CORPORATION    C-19-3C    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FROM CHEMICAL ANALYSIS

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

650.0			CORE LOSS	211.4	0.0	
438.6	CARBONDALE	DANVILLE	COAL	5.0	211.4	
433.6	CARBONDALE		NO RECORD	22.8	216.4	
410.8	CARBONDALE	HERRIN	COAL	3.0	239.2	

**MAPID:** 18322587000C    **VERSION:** 2    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 19    **QUARTERS/FOOTAGES:** SE SE NE  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.86469    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.092866    **DATE COLLECTED:** 9 / 7 / 1977  
**SURFACE ELEVATION (FT.):** 650.0    **LOGGED (FT.):** 275.0    **LOG TYPE:** Electric Log  
**SOURCE:** GULF OIL CORPORATION    C-19-3C    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

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

424.4	SHELBURN	DANVILLE	COAL	4.5	225.6	
397.1	CARBONDALE	HERRIN	COAL	4.5	252.9	

**MAPID:** 18323013000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 19    **QUARTERS/FOOTAGES:** 1335' N line, 15' W line  
**QUADRANGLE:** HOMER    **LONGITUDE:** -87.88323    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.095423    **DATE COLLECTED:** 8 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 664.0    **LOGGED (FT.):** 300.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PC-82    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT	OVERBURDEN	COMMENT
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-    -    NO COAL PICKS

**MAPID:** 18322071000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 23    **QUARTERS/FOOTAGES:** SW NW  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.804153    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.094998    **DATE COLLECTED:** 5 / 25 / 1976  
**SURFACE ELEVATION (FT.):** 646.0    **LOGGED (FT.):** 242.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    19,13-23-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT	OVERBURDEN	COMMENT
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458.7	SHELBURN	DANVILLE	COAL	5.8	187.3	
430.5	CARBONDALE	HERRIN	COAL	2.5	215.5	

**MAPID:** 18322335000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 25    **QUARTERS/FOOTAGES:** SW NW SW  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.786007    **GEOLOGIST:** C TREWORYG  
**CONFIDENTIAL:** N    **LATITUDE:** 40.076365    **DATE COLLECTED:** 2 / 23 / 1978  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 44.0    **LOG TYPE:** Drillers Log  
**SOURCE:** HAROLD LINDE    **WELL TYPE:** Water Well  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT	OVERBURDEN	COMMENT
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-	PLEISTOCENE		CLAY	21.0	0.0	
-	PLEISTOCENE		GRAVEL	3.0	21.0	
-	PLEISTOCENE		HARD PAN	4.0	24.0	
-	PLEISTOCENE		HARD PAN	2.0	28.0	
-	PLEISTOCENE		HARD PAN	7.0	30.0	
-			COAL	3.0	37.0	
-			BLACK SHALE	4.0	40.0	

MAPID: 18390442000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 13W SECTION: 25 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: OAKWOOD LONGITUDE: -87.78003 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.07381 DATE COLLECTED: 6 / 5 / 1972

SURFACE ELEVATION (FT.): 647.0 LOGGED (FT.): 208.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE D69 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
647.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
635.0	PLEISTOCENE		UNCONSOLIDATED	46.0	12.0
589.0	SHELBURN		SANDY SHALE	20.0	58.0
569.0	SHELBURN		GRAY SHALE	99.0	78.0
470.0	SHELBURN	DANVILLE	COAL	5.8	177.0
464.2	SHELBURN		UNDERCLAY	2.3	182.8
462.0	SHELBURN		SHALE WITH LIMESTONE	17.0	185.0
445.0	CARBONDALE	ANNA	BLACK SHALE	2.0	202.0
443.0	CARBONDALE	HERRIN	COAL	2.3	204.0
440.7	CARBONDALE		UNDERCLAY	1.7	206.3

MAPID: 18390443000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 13W SECTION: 26 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: OAKWOOD LONGITUDE: -87.794373 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.077074 DATE COLLECTED: 6 / 5 / 1972

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 218.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE D113 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
615.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0
609.0	PLEISTOCENE		GRAY SHALE	14.0	6.0
595.0	SHELBURN		SANDSTONE	4.0	20.0 HARD
591.0	SHELBURN		SANDY SHALE	46.0	24.0
545.0	SHELBURN		LIMESTONE	1.0	70.0
544.0	SHELBURN		GRAY SHALE	75.0	71.0
469.0	SHELBURN	DANVILLE	COAL	1.0	146.0
468.0	SHELBURN	DANVILLE	CLAYSTONE	0.7	147.0
467.3	SHELBURN	DANVILLE	COAL	3.0	147.7
464.3	SHELBURN		UNDERCLAY	4.3	150.7
460.0	SHELBURN		SANDY SHALE	19.0	155.0
441.0	CARBONDALE	HERRIN	COAL	1.3	174.0
439.7	CARBONDALE		SANDY SHALE	42.7	175.3

MAPID: 18322584000C VERSION: 1

PROJECT: NCRDS99

COUNTY: VERMILION TWP/RNG: 19N 13W SECTION: 27 QUARTERS/FOOTAGES: 9' N line, 1637' W line  
 QUADRANGLE: OAKWOOD LONGITUDE: -87.819543 GEOLOGIST: MCCRACKEN  
 CONFIDENTIAL: N LATITUDE: 40.085571 DATE COLLECTED: 8 / 21 / 1977  
 SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 243.0 LOG TYPE: Multiple log types  
 SOURCE: GULF OIL CORPORATION C-27-2C WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0	PLEISTOCENE		UNCONSOLIDATED	46.6	0.0	
603.4			SHALE	23.5	46.6	
579.9			BLACK SHALE	1.0	70.1	
578.9			SHALE	4.5	71.1	COAL SEAMS
574.4			SHALE	6.3	75.6	MULTI COLORED SHALE
568.1			SHALE	1.1	81.9	
567.0			SHALE	17.8	83.0	MULTICOLORED SHALE
549.2			SANDSTONE	13.9	100.8	
535.3			SHALE	18.7	114.7	
516.6			SANDSTONE	3.6	133.4	
513.0			SHALE	66.0	137.0	
447.0	CARBONDALE	DANVILLE	COAL	5.3	203.0	
441.7	CARBONDALE		UNDERCLAY	0.7	208.3	
441.0	CARBONDALE		CALCAREOUS SHALE	19.0	209.0	
422.0	CARBONDALE	HERRIN	COAL	4.3	228.0	
417.7	CARBONDALE		UNDERCLAY	0.7	232.3	
417.0	CARBONDALE		SHALE	10.0	233.0	

MAPID: 18322584000C VERSION: 2

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 13W SECTION: 27 QUARTERS/FOOTAGES: 9' N line, 1637' W line  
 QUADRANGLE: OAKWOOD LONGITUDE: -87.819543 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 40.085571 DATE COLLECTED: 8 / 21 / 1977  
 SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 244.0 LOG TYPE: Electric Log  
 SOURCE: GULF OIL CORPORATION C-27-2C WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
447.9	SHELBURN	DANVILLE	COAL	5.4	202.1	
423.9	CARBONDALE	HERRIN	COAL	4.0	226.1	

MAPID: 18323294000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 13W SECTION: 27 QUARTERS/FOOTAGES: SW NE NE

QUADRANGLE: OAKWOOD LONGITUDE: -87.809988 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.08305 DATE COLLECTED: 8 / 1 / 1988

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

SOURCE: DELBERT HACKER WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0
-	PLEISTOCENE		HARD PAN	12.0	16.0
-			LIMESTONE	6.0	28.0
-			UNDERCLAY	6.0	34.0
-			SHALE	12.0	40.0
-			LIMESTONE	2.0	52.0
-			SHALE	13.0	54.0
-			COAL	1.0	67.0
-			SOFT SHALE	32.0	68.0

MAPID: 18322097000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 13W SECTION: 29 QUARTERS/FOOTAGES:

QUADRANGLE: OAKWOOD LONGITUDE: -87.853825 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.077659 DATE COLLECTED: 6 / 10 / 1976

SURFACE ELEVATION (FT.): 642.0 LOGGED (FT.): 263.5 LOG TYPE: Drillers Log

SOURCE: KERR-MCGEE COAL CO. 19,13-29-1 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
432.4	SHELBURN	DANVILLE	COAL	5.2	209.6
404.0	CARBONDALE	HERRIN	COAL	3.5	238.0

MAPID: 18301755000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 19N 13W    SECTION: 31    QUARTERS/FOOTAGES: 1000' N line, 1000' W line of NW

QUADRANGLE: OAKWOOD    LONGITUDE: -87.879238    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 40.067341    DATE COLLECTED: 0 / 0 / 1971

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

SOURCE: W P WISE    WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		SOIL	2.0	0.0
-	PLEISTOCENE		CLAY	20.0	2.0
-	PLEISTOCENE		HARD PAN	3.0	22.0
-	PLEISTOCENE		SAND	1.0	25.0
-			SHALE	17.0	26.0
-			ROCK	3.0	43.0
-			SHALE	26.0	46.0
-			COAL	1.0	72.0
-			SHALE	52.0	73.0

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MAPID: 18322585000C    VERSION: 1

PROJECT: NCRDS99

COUNTY: VERMILION    TWP/RNG: 19N 13W    SECTION: 31    QUARTERS/FOOTAGES: 1169' N line, 234' W line

QUADRANGLE: HOMER    LONGITUDE: -87.881983    GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N    LATITUDE: 40.066863    DATE COLLECTED: 8 / 11 / 1977

SURFACE ELEVATION (FT.): 650.0    LOGGED (FT.): 258.0    LOG TYPE: Multiple log types

SOURCE: GULF OIL CORPORATION    C-31-3C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
639.0			LIMESTONE	7.0	11.0	
632.0			SANDSTONE	1.5	18.0	
630.5			SHALE	22.5	19.5	
608.0			COAL	2.0	42.0	
606.0			SHALE	10.0	44.0	
596.0			LIMESTONE	1.0	54.0	
595.0			CALCAREOUS SHALE	3.0	55.0	
592.0			LIMESTONE	1.0	58.0	
591.0			SHALE	2.5	59.0	
588.5			BLACK SHALE	1.0	61.5	
587.5			SHALE	20.0	62.5	
567.5			LIMESTONE	2.0	82.5	
565.5			SHALE	3.0	84.5	
562.5			BLACK SHALE	2.0	87.5	COAL LAMINAE
560.5			SILTY SHALE	8.0	89.5	
552.5			SHALE	16.5	97.5	LIMEY AND MULTI-COLORED SHALE
536.0			LIMESTONE	2.5	114.0	
533.5			SHALE	5.0	116.5	
528.5			SHALE	8.5	121.5	MULTI-COLORED SHALE
520.0			SANDY SHALE	2.0	130.0	
518.0			SANDSTONE	4.0	132.0	
514.0			SHALE	4.0	136.0	
510.0			SHALE	2.0	140.0	MULTICOLORED SHALE
508.0			SILTY SHALE	11.5	142.0	
496.5			SHALE	10.0	153.5	MULTICOLORED SHALE
486.5			SHALE	4.0	163.5	
482.5			LIMESTONE	1.0	167.5	
481.5			SHALE	44.6	168.5	
436.9	CARBONDALE	DANVILLE	COAL	5.8	213.1	CORE LOSS (214.4- 214.5)
431.1	CARBONDALE		SHALE	6.6	218.9	
424.5	CARBONDALE		LIMESTONE	6.6	225.5	
417.9	CARBONDALE		BLACK SHALE	2.2	232.1	
415.7	CARBONDALE	ENERGY	SHALE	3.1	234.3	
412.6	CARBONDALE	HERRIN	COAL	5.5	237.4	
407.1	CARBONDALE		SHALE	15.1	242.9	CORE LOSS (245.3- 247.0)

**MAPID:** 18322585000C    **VERSION:** 2    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 31    **QUARTERS/FOOTAGES:** 1169' N line, 234' W line  
**QUADRANGLE:** HOMER    **LONGITUDE:** -87.881983    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.066863    **DATE COLLECTED:** 8 / 11 / 1977  
**SURFACE ELEVATION (FT.):** 650.0    **LOGGED (FT.):** 260.0    **LOG TYPE:** Electric Log  
**SOURCE:** GULF OIL CORPORATION    C-31-3C    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
437.1	SHELBURN	DANVILLE	COAL	5.1	212.9
412.2	CARBONDALE	HERRIN	COAL	5.3	237.8

**MAPID:** 18390466000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 32    **QUARTERS/FOOTAGES:** SW NW  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.860846    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.064794    **DATE COLLECTED:** 11 / 13 / 1951  
**SURFACE ELEVATION (FT.):** 600.0    **LOGGED (FT.):** 150.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AMAX    SWH12    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0
594.0	PLEISTOCENE		SAND & GRAVEL	18.0	6.0
576.0			SANDSTONE	3.0	24.0 HARD
573.0			SHALE & SANDSTONE	28.0	27.0
545.0			SANDSTONE	2.5	55.0 HARD
542.5			SHALE & SANDSTONE	35.0	57.5
507.5			SANDSTONE	2.5	92.5 HARD
505.0			SHALE & SANDSTONE	37.0	95.0
468.0			SANDSTONE	1.0	132.0 HARD
467.0			SHALE & SANDSTONE	17.0	133.0

**MAPID:** 18322072000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 33    **QUARTERS/FOOTAGES:** NW NE  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.832418    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.069045    **DATE COLLECTED:** 5 / 27 / 1976  
**SURFACE ELEVATION (FT.):** 648.0    **LOGGED (FT.):** 272.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    19,13-33-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
427.5	SHELBURN	DANVILLE	COAL	5.5	220.5
398.5	CARBONDALE	HERRIN	COAL	2.5	249.5

**MAPID:** 1839044000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 35    **QUARTERS/FOOTAGES:** SE NW  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.799031    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.066122    **DATE COLLECTED:** 6 / 5 / 1972  
**SURFACE ELEVATION (FT.):** 664.0    **LOGGED (FT.):** 232.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    C5132    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
664.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
649.0	PLEISTOCENE		UNCONSOLIDATED	52.0	15.0
597.0	SHELBURN		GRAY SHALE	20.0	67.0
577.0	SHELBURN		LIMESTONE	2.5	87.0
574.5	SHELBURN		GRAY SHALE	21.0	89.5
553.5	SHELBURN		LIMESTONE	1.5	110.5
552.0	SHELBURN		SANDY SHALE	30.0	112.0
522.0	SHELBURN		GRAY SHALE	82.0	142.0
440.0	SHELBURN	DANVILLE	COAL	5.5	224.0
434.5	SHELBURN		UNDERCLAY	2.5	229.5

**MAPID:** 18390441000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 13W    **SECTION:** 35    **QUARTERS/FOOTAGES:** NE NW  
**QUADRANGLE:** OAKWOOD    **LONGITUDE:** -87.799075    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.069747    **DATE COLLECTED:** 6 / 5 / 1972  
**SURFACE ELEVATION (FT.):** 652.0    **LOGGED (FT.):** 218.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    C613    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
652.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0
647.0	PLEISTOCENE		UNCONSOLIDATED	40.0	5.0
607.0	SHELBURN		GRAY SHALE	63.0	45.0
544.0	SHELBURN		BLACK SHALE	1.0	108.0
543.0	SHELBURN		SANDY SHALE	27.0	109.0
516.0	SHELBURN		BLACK SHALE	3.0	136.0
513.0	SHELBURN		GRAY SHALE	63.0	139.0
450.0	SHELBURN		BLACK SHALE	4.0	202.0
446.0	SHELBURN	DANVILLE	COAL	5.3	206.0
440.7	SHELBURN		CLAYSTONE	0.3	211.3
440.4	SHELBURN	DANVILLE	COAL	0.5	211.6
439.9	SHELBURN		UNDERCLAY	1.9	212.1
438.0	SHELBURN		GRAY SHALE	4.0	214.0

MAPID: 18390439000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 13W SECTION: 36 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: OAKWOOD LONGITUDE: -87.770442 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.066778 DATE COLLECTED: 11 / 21 / 1968

SURFACE ELEVATION (FT.): 637.0 LOGGED (FT.): 162.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE C503 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
637.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
629.0	PLEISTOCENE		CLAY	19.0	8.0	
610.0	SHELBURN		GRAY SHALE	98.0	27.0	
512.0	SHELBURN		BLACK SHALE	5.0	125.0	
507.0	SHELBURN	DANVILLE	COAL	6.0	130.0	
501.0	SHELBURN		UNDERCLAY	3.0	136.0	
498.0	SHELBURN		GRAY SHALE	18.0	139.0	
480.0	CARBONDALE	HERRIN	COAL	2.1	157.0	HARD
477.9	CARBONDALE		UNDERCLAY	2.9	159.1	

MAPID: 18322586000C VERSION: 1

PROJECT: NCRDS99

COUNTY: VERMILION TWP/RNG: 19N 14W SECTION: 1 QUARTERS/FOOTAGES: 2610' S line, 60' W line

QUADRANGLE: ROYAL LONGITUDE: -87.902486 GEOLOGIST: MCCracken

CONFIDENTIAL: N LATITUDE: 40.134832 DATE COLLECTED: 10 / 5 / 1977

SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 291.5 LOG TYPE: Multiple log types

SOURCE: GULF OIL CORPORATION D-1-3C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
660.0	PLEISTOCENE		UNCONSOLIDATED	122.0	0.0	
538.0			SHALE	15.5	122.0	
522.5			LIMESTONE	0.5	137.5	
522.0			BLACK SHALE	4.0	138.0	
518.0			SHALE	88.3	142.0	
429.7	CARBONDALE	DANVILLE	COAL	4.5	230.3	
425.2	CARBONDALE		UNDERCLAY	0.7	234.8	
424.5	CARBONDALE		CALCAREOUS SHALE	7.0	235.5	
417.5	CARBONDALE		LIMESTONE	5.0	242.5	
412.5	CARBONDALE		SHALE	13.2	247.5	CONGLOMERATIC
399.3	CARBONDALE	HERRIN	COAL	3.5	260.7	
395.8	CARBONDALE		UNDERCLAY	0.2	264.2	
395.6	CARBONDALE		CLAYSTONE & SILTSTONE	5.6	264.4	CORE LOSS (265.1-265.5)
390.0	CARBONDALE		SHALE	21.5	270.0	

**MAPID:** 18322586000C    **VERSION:** 2    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 14W    **SECTION:** 1    **QUARTERS/FOOTAGES:** 2610' S line, 60' W line  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.902486    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.134832    **DATE COLLECTED:** 10 / 5 / 1977  
**SURFACE ELEVATION (FT.):** 660.0    **LOGGED (FT.):** 291.5    **LOG TYPE:** Electric Log  
**SOURCE:** GULF OIL CORPORATION    D-1-3C    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
427.3	SHELburn	DANVILLE	COAL	4.0	232.7	
397.1	CARBONDALE	HERRIN	COAL	3.2	262.9	

**MAPID:** 18323014000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 14W    **SECTION:** 3    **QUARTERS/FOOTAGES:** 53' S line, 62' E line  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.921414    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.127595    **DATE COLLECTED:** 6 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 664.0    **LOGGED (FT.):** 374.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PC-45    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-		NO COAL PICKS

**MAPID:** 18323015000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 14W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 240' S line, 150' E line  
**QUADRANGLE:** HOMER    **LONGITUDE:** -87.902639    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.113868    **DATE COLLECTED:** 8 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 664.0    **LOGGED (FT.):** 298.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PD-65    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-		NO COAL PICKS

MAPID: 18323016000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 14W SECTION: 22 QUARTERS/FOOTAGES: 11' N line, 165' E line  
 QUADRANGLE: HOMER LONGITUDE: -87.92135 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 40.098339 DATE COLLECTED: 8 / 0 / 1971  
 SURFACE ELEVATION (FT.): 669.0 LOGGED (FT.): 345.0 LOG TYPE: Electric Log  
 SOURCE: HYDROCARBON SURVEY PC-75 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-	-	NO COAL PICKS

MAPID: 18300298000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 19N 14W SECTION: 25 QUARTERS/FOOTAGES: SE SE  
 QUADRANGLE: HOMER LONGITUDE: -87.885239 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 40.07166 DATE COLLECTED: 9 / 0 / 1918  
 SURFACE ELEVATION (FT.): 665.0 LOGGED (FT.): 133.0 LOG TYPE: Drillers Log  
 SOURCE: JAMES T CARPENTER WELL TYPE: Water Well  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
665.0	PLEISTOCENE		SOIL	3.0	0.0	
662.0	PLEISTOCENE		CLAY	10.0	3.0	
652.0	PLEISTOCENE		CLAY	30.0	13.0	
622.0	PLEISTOCENE		SANDY CLAY	20.0	43.0	
602.0			BLUE SHALE	20.0	63.0	
582.0	CARBONDALE	DANVILLE	COAL	2.0	83.0	
580.0	CARBONDALE		UNDERCLAY	4.0	85.0	
576.0			BLUE SHALE	30.0	89.0	
546.0			SHALE	8.0	119.0	
538.0			BLUE SHALE	6.0	127.0	

MAPID: 18321918000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 14W SECTION: 25 QUARTERS/FOOTAGES: 945' S line, 74' E line  
 QUADRANGLE: HOMER LONGITUDE: -87.883178 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 40.072502 DATE COLLECTED: 5 / 8 / 1974  
 SURFACE ELEVATION (FT.): 658.0 LOGGED (FT.): 253.0 LOG TYPE: Survey Core Study  
 SOURCE: PHILLIPS PETROLEUM CO. G(6) WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
414.9	SHELBURN	DANVILLE	COAL	5.2	243.1	

MAPID: 18322588000C    VERSION: 1

PROJECT: NCRDS99

COUNTY: VERMILION    TWP/RNG: 19N 14W    SECTION: 25    QUARTERS/FOOTAGES: 660' S line, 50' W line

QUADRANGLE: HOMER    LONGITUDE: -87.901469    GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N    LATITUDE: 40.07142    DATE COLLECTED: 8 / 11 / 1977

SURFACE ELEVATION (FT.): 670.0    LOGGED (FT.): 300.0    LOG TYPE: Multiple log types

SOURCE: GULF OIL CORPORATION    D-25-3C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
670.0	PLEISTOCENE		UNCONSOLIDATED	36.5	0.0	
633.5			SHALE	7.0	36.5	
626.5			BLACK SHALE	1.0	43.5	
625.5			COAL	0.5	44.5	
625.0			SHALE	28.5	45.0	
596.5			BLACK SHALE	2.0	73.5	
594.5			COAL	2.5	75.5	
592.0			UNDERCLAY	1.5	78.0	
590.5			SHALE	37.5	79.5	
553.0			BLACK SHALE	2.5	117.0	
550.5			COAL	4.5	119.5	COAL WITH BLACK SHALE
546.0			UNDERCLAY	4.0	124.0	
542.0			SHALE	22.5	128.0	
519.5			LIMESTONE	6.0	150.5	
513.5			SHALE	50.5	156.5	
463.0			BLACK SHALE	5.7	207.0	
457.3			SHALE	37.7	212.7	
419.6	CARBONDALE	DANVILLE	COAL	5.1	250.4	
414.5	CARBONDALE		UNDERCLAY	2.0	255.5	
412.5	CARBONDALE		CALCAREOUS SHALE	5.0	257.5	
407.5	CARBONDALE		LIMESTONE	3.5	262.5	
404.0	CARBONDALE		SHALE	12.3	266.0	
391.7	CARBONDALE	HERRIN	COAL	4.1	278.3	
387.6	CARBONDALE		UNDERCLAY	2.3	282.4	
385.4	CARBONDALE		LIMESTONE	15.4	284.6	

**MAPID:** 18322588000C    **VERSION:** 2    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 14W    **SECTION:** 25    **QUARTERS/FOOTAGES:** 660' S line, 50' W line  
**QUADRANGLE:** HOMER    **LONGITUDE:** -87.901469    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.07142    **DATE COLLECTED:** 8 / 11 / 1977  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 300.0    **LOG TYPE:** Electric Log  
**SOURCE:** GULF OIL CORPORATION    D-25-3C    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.1	SHELburn	DANVILLE	COAL	4.6	249.9	
392.8	CARBONDALE	HERRIN	COAL	5.2	277.2	

**MAPID:** 18323017000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 14W    **SECTION:** 25    **QUARTERS/FOOTAGES:** 200' S line, 240' E line  
**QUADRANGLE:** HOMER    **LONGITUDE:** -87.883733    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.070439    **DATE COLLECTED:** 7 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 659.0    **LOGGED (FT.):** 319.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PD-42    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-	-	NO COAL PICKS

**MAPID:** 18323018000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 19N 14W    **SECTION:** 25    **QUARTERS/FOOTAGES:** 180' N line, 435' W line  
**QUADRANGLE:** HOMER    **LONGITUDE:** -87.900225    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.083548    **DATE COLLECTED:** 8 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 665.0    **LOGGED (FT.):** 300.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PD-64    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-	-	NO COAL PICKS



MAPID: 18323019000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 14W SECTION: 27 QUARTERS/FOOTAGES: 360' N line, 45' E line of NW NW

QUADRANGLE: HOMER LONGITUDE: -87.935046 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.082683 DATE COLLECTED: 8 / 0 / 1971

SURFACE ELEVATION (FT.): 667.0 LOGGED (FT.): 324.0 LOG TYPE: Electric Log

SOURCE: HYDROCARBON SURVEY PC-79 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
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NO COAL PICKS

MAPID: 18390467000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 19N 14W SECTION: 33 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: HUMRICK LONGITUDE: GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: DATE COLLECTED: 11 / 13 / 1951

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 145.0 LOG TYPE: Drillers Log

SOURCE: AMAX SWH13 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
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630.0	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	
627.0	PLEISTOCENE		SAND & GRAVEL	45.0	3.0	
582.0			SANDY SHALE	39.0	48.0	
543.0			SANDSTONE	0.5	87.0	HARD
542.5			SHALE	5.0	87.5	SOFT
537.5			SANDSTONE	3.0	92.5	HARD
534.5			SHALE	8.0	95.5	SOFT
526.5			SANDSTONE	1.0	103.5	HARD
525.5			SANDSTONE	4.5	104.5	SOFT
521.0			CLAYSTONE	4.0	109.0	
517.0			SHALE	14.0	113.0	
503.0			SANDSTONE	13.0	127.0	HARD
490.0			SHALE	1.5	140.0	
488.5			LIMESTONE	3.5	141.5	VERY HARD

MAPID: 18323020000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 19N 14W SECTION: 35 QUARTERS/FOOTAGES: 240' S line, 42' E line of NE NW NW

QUADRANGLE: HOMER LONGITUDE: -87.915959 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.068225 DATE COLLECTED: 7 / 0 / 1971

SURFACE ELEVATION (FT.): 665.0 LOGGED (FT.): 315.0 LOG TYPE: Electric Log

SOURCE: HYDROCARBON SURVEY PC-52 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-				-	NO COAL PICKS

MAPID: 18322105000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 11W SECTION: 8 QUARTERS/FOOTAGES: 2200' S line, 300' E line of SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.623698 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.210416 DATE COLLECTED: 5 / 0 / 1973

SURFACE ELEVATION (FT.): LOGGED (FT.): 190.0 LOG TYPE: Drillers Log

SOURCE: W P WISE WELL TYPE: Dry Hole

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-	PLEISTOCENE		CLAY	18.0	0.0
-	PLEISTOCENE		HARD PAN	30.0	18.0
-			GRAY SHALE	67.0	48.0
-			SANDSTONE	2.0	115.0 SOME GAS
-			DARK GRAY SHALE	67.0	117.0
-			BLACK SHALE	4.0	184.0
-			COAL	2.0	188.0

MAPID: 18300304000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 11W SECTION: 14 QUARTERS/FOOTAGES: SE SW SW

QUADRANGLE: DANVILLE NE LONGITUDE: -87.580478 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.19173 DATE COLLECTED:

SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 191.0 LOG TYPE: Drillers Log

SOURCE: L C STUBBENS WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
660.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
648.0	PLEISTOCENE		HARD PAN	6.0	12.0
642.0	PLEISTOCENE		SAND	25.0	18.0
617.0	PLEISTOCENE		SAND	2.0	43.0
615.0	PLEISTOCENE		HARD PAN	20.0	45.0
595.0	PLEISTOCENE		SAND	18.0	65.0
577.0	PLEISTOCENE		UNCONSOLIDATED	29.0	83.0
548.0	CARBONDALE		SHALE	10.0	112.0
538.0	CARBONDALE		LIGHT SHALE	6.0	122.0
532.0	CARBONDALE		BLUE SHALE	28.3	128.0
503.7	CARBONDALE		BLACK SHALE	2.0	156.3
501.7	CARBONDALE	COLCHESTER	COAL	1.6	158.3
500.1	SPOON		UNDERCLAY	4.1	159.9
496.0	SPOON		CLAYSTONE	7.0	164.0
489.0	SPOON		DARK GRAY SHALE	4.0	171.0
485.0	SPOON		BROWN SHALE	5.5	175.0
479.5	SPOON	SEELYVILLE	COAL	3.3	180.5
476.2	SPOON	SEELYVILLE	BLACK SHALE	0.4	183.8
475.8	SPOON	SEELYVILLE	PYRITE	0.5	184.2
475.3	SPOON	SEELYVILLE	BLACK SHALE	0.7	184.7
474.7	SPOON	SEELYVILLE	PYRITE	0.6	185.3
474.1	SPOON	SEELYVILLE	BLACK SHALE	0.6	185.9
473.5	SPOON	SEELYVILLE	COAL	2.4	186.5
471.1	SPOON		UNDERCLAY	2.1	188.9

MAPID: 18300321000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 20N 11W    SECTION: 30    QUARTERS/FOOTAGES: SE NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.643462    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 40.169087    DATE COLLECTED: 12 / 0 / 1911

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

SOURCE: DANVILLE WATER CO    3    WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		SAND	20.0	0.0
-	PLEISTOCENE		SAND	10.0	20.0
-	PLEISTOCENE		SAND	12.0	30.0
-	PLEISTOCENE		SAND	6.0	42.0
-	PLEISTOCENE		CLAY	24.0	48.0
-	PLEISTOCENE		GRAVEL	3.0	72.0
-	PLEISTOCENE		CLAY	15.0	75.0
-	PLEISTOCENE		GRAVEL	2.0	90.0
-	PLEISTOCENE		ROCK	3.0	92.0
-	PLEISTOCENE		CLAY	9.0	95.0
-	CARBONDALE		COAL	2.0	104.0
-			SHALE	64.0	106.0

MAPID: 18300325000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 11W SECTION: 31 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.652708 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.157885 DATE COLLECTED: 1 / 0 / 1910

SURFACE ELEVATION (FT.): 573.0 LOGGED (FT.): 187.3 LOG TYPE: Drillers Log

SOURCE: BIG 4 R.R. WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
573.0	PLEISTOCENE		SAND	4.0	0.0
569.0	CARBONDALE		SANDSTONE	10.0	4.0
559.0	CARBONDALE		SANDSTONE	46.0	14.0
513.0	CARBONDALE		BLUE SHALE	32.0	60.0
481.0	CARBONDALE		BLACK SHALE	8.0	92.0
473.0	CARBONDALE		BLUE SHALE	11.0	100.0
462.0	CARBONDALE		LIMESTONE	7.0	111.0
455.0	CARBONDALE		BLUE SHALE	34.0	118.0
421.0	CARBONDALE		UNCLASSIFIED	1.3	152.0
419.7	CARBONDALE		BLUE SHALE	2.7	153.3
417.0	CARBONDALE	COLCHESTER	COAL	1.3	156.0
415.7	SPOON		GRAY SANDSTONE	10.7	157.3
405.0	SPOON		DARK SHALE	10.0	168.0
395.0	SPOON	SEELYVILLE	COAL	2.3	178.0
392.7	SPOON	SEELYVILLE	BLUE SHALE	0.8	180.3
391.9	SPOON	SEELYVILLE	COAL	0.2	181.1
391.7	SPOON	SEELYVILLE	LIMESTONE	2.5	181.3
389.2	SPOON	SEELYVILLE	COAL	1.6	183.8
387.7	SPOON		BLUE SHALE	2.0	185.3

MAPID: 18390004000C VERSION: 1

PROJECT: ISGS97

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 6 QUARTERS/FOOTAGES: 3000' N line, 1630' E line

QUADRANGLE: COLLISON LONGITUDE: -87.760445 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 40.218541 DATE COLLECTED: 6 / 3 / 1965

SURFACE ELEVATION (FT.): 639.0 LOGGED (FT.): 134.8 LOG TYPE: Company map

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT: DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
639.0			UNKNOWN	133.0	0.0
506.0	CARBONDALE	HERRIN	COAL	1.8	133.0

MAPID: 18300333000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 7 QUARTERS/FOOTAGES: 100' S line, 1254' E line of SE SE

QUADRANGLE: COLLISON LONGITUDE: -87.756862 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.205345 DATE COLLECTED: 9 / 0 / 1911

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 154.7 LOG TYPE: Drillers Log

SOURCE: BIG 4 R. R. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
612.0	PLEISTOCENE		SOIL	2.0	0.0
610.0	PLEISTOCENE		CLAY	48.0	2.0
562.0	PLEISTOCENE		SAND	6.0	50.0
556.0	PLEISTOCENE		CLAY	20.0	56.0
536.0	PLEISTOCENE		SAND	16.0	76.0
520.0	MODESTO		BLUE SHALE	19.0	92.0
501.0	CARBONDALE	DANVILLE	COAL	3.7	111.0
497.3	CARBONDALE		UNDERCLAY	4.0	114.7
493.3			GRAY SHALE	36.0	118.7

MAPID: 18300334000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 7 QUARTERS/FOOTAGES: 1600' S line, 2200' E line

QUADRANGLE: COLLISON LONGITUDE: -87.762422 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.207996 DATE COLLECTED: 9 / 0 / 1911

SURFACE ELEVATION (FT.): 632.0 LOGGED (FT.): 195.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 R. R. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
632.0	PLEISTOCENE		SOIL	1.0	0.0
631.0	PLEISTOCENE		SAND	56.0	1.0
575.0	PLEISTOCENE		CLAY	7.0	57.0
568.0			BLUE SHALE	63.7	64.0
504.3	CARBONDALE	DANVILLE	COAL	5.6	127.7
498.7	CARBONDALE		GRAY SHALE	1.3	133.3
497.5	CARBONDALE		BLACK SHALE	0.1	134.5
497.4	CARBONDALE		GRAY SHALE	15.0	134.6
482.4	CARBONDALE		COAL	0.1	149.6
482.3	CARBONDALE		GRAY SHALE	9.0	149.7
473.3	CARBONDALE		COAL	0.3	158.7
473.0	CARBONDALE		GRAY SHALE	2.0	159.0
471.0	CARBONDALE		BLACK SHALE	5.0	161.0
466.0	CARBONDALE	HERRIN	COAL	9.3	166.0
456.7	CARBONDALE		GRAY SHALE	19.8	175.3

MAPID: 18300335000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 7 QUARTERS/FOOTAGES: 600' S line, 2125' E line

QUADRANGLE: COLLISON LONGITUDE: -87.762135

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.205232

DATE COLLECTED:

SURFACE ELEVATION (FT.): 619.0

LOGGED (FT.): 141.8

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
552.0	MODESTO		GRAY SHALE	38.0	67.0
514.0	CARBONDALE	DANVILLE	COAL	5.6	105.0
508.4	CARBONDALE		GRAY SHALE	13.0	110.6
495.4	CARBONDALE	BANKSTON FORK	LIMESTONE	2.4	123.6
493.0	CARBONDALE	ENERGY	GRAY SHALE	11.0	126.0
482.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	4.8	137.0

MAPID: 18300847000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 7 QUARTERS/FOOTAGES: 1400' S line, 800' W line

QUADRANGLE: COLLISON LONGITUDE: -87.766653

GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.207528

DATE COLLECTED: 0 / 0 / 1953

SURFACE ELEVATION (FT.): 633.0

LOGGED (FT.): 175.3

LOG TYPE: Drillers Log

SOURCE: MORGAN COAL CO. 1

WELL TYPE: Coal Test

COMMENT: DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
633.0	PLEISTOCENE		UNCONSOLIDATED	128.0	0.0
505.0	CARBONDALE	DANVILLE	COAL	5.6	128.0
499.4	CARBONDALE		UNCLASSIFIED	32.4	133.6
467.0	CARBONDALE	HERRIN	COAL	9.3	166.0

MAPID: 18300851000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 7    QUARTERS/FOOTAGES: 1700' S line, 2250' E line

QUADRANGLE: COLLISON    LONGITUDE: -87.762606    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 40.208278    DATE COLLECTED: 11 / 0 / 1909

SURFACE ELEVATION (FT.): 670.0    LOGGED (FT.): 218.4    LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.0	PLEISTOCENE		SOIL	5.0	0.0
665.0	PLEISTOCENE		HARD PAN	10.0	5.0
655.0	PLEISTOCENE		SAND	3.0	15.0
652.0	PLEISTOCENE		GRAVEL	3.0	18.0
649.0	PLEISTOCENE		GRAVEL	1.0	21.0
648.0	PLEISTOCENE		CLAY	31.0	22.0
617.0	PLEISTOCENE		SAND	5.0	53.0
612.0	PLEISTOCENE		CLAY	4.0	58.0
608.0	MODESTO		GRAY SHALE	13.0	62.0
595.0	MODESTO		GRAY SHALE	35.0	75.0
560.0	MODESTO		SHALE	17.8	110.0
542.2	CARBONDALE	DANVILLE	COAL	4.6	127.8
537.7	CARBONDALE	DANVILLE	SHALE	0.1	132.3
537.6	CARBONDALE	DANVILLE	COAL	0.6	132.4
537.0	CARBONDALE	DANVILLE	SHALE	0.2	133.0
536.8	CARBONDALE	DANVILLE	COAL	0.6	133.2
536.2	CARBONDALE		UNDERCLAY	4.6	133.8
531.6	CARBONDALE		CLAYSTONE & SILTSTONE	20.5	138.4
511.1	CARBONDALE		BLACK SHALE	6.0	158.9
505.1	CARBONDALE	HERRIN	COAL	4.2	164.9
500.9	CARBONDALE	HERRIN	SHALE	0.1	169.1
500.8	CARBONDALE	HERRIN	COAL	3.8	169.2
497.1	CARBONDALE		CLAYSTONE & SILTSTONE	10.5	172.9
486.6			GRAY SHALE	10.0	183.4
476.6			BLUE SHALE	25.0	193.4



**MAPID:** 18390022000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 7    **QUARTERS/FOOTAGES:** 1581' S line, 2266' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.762661    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.20795    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 650.0    **LOGGED (FT.):** 133.8    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    P-1    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0			UNKNOWN	131.8	0.0	
518.2	CARBONDALE	HERRIN	COAL	2.0	131.8	

**MAPID:** 18390031000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 7    **QUARTERS/FOOTAGES:** 710' S line, 30' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.769399    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.205678    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 670.6    **LOGGED (FT.):** 209.4    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    22    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
670.6			UNKNOWN	205.0	0.0	
465.6	CARBONDALE	HERRIN	COAL	4.4	205.0	

**MAPID:** 18390032000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 7    **QUARTERS/FOOTAGES:** 1584' S line, 2080' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.761991    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.207946    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 621.0    **LOGGED (FT.):** 161.0    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    3    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
621.0			UNKNOWN	155.9	0.0	
465.1	CARBONDALE	HERRIN	COAL	5.1	155.9	

**MAPID:** 18390033000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 7    **QUARTERS/FOOTAGES:** 1980' S line, 2046' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.761878    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.209037    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 630.0    **LOGGED (FT.):** 172.0    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0			UNKNOWN	164.0	0.0	
466.0	CARBONDALE	HERRIN	COAL	8.0	164.0	

**MAPID:** 18390034000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 7    **QUARTERS/FOOTAGES:** 2409' S line, 297' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.755591    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.210096    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 648.0    **LOGGED (FT.):** 154.0    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    B2    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
648.0			UNKNOWN	150.0	0.0	
498.0	CARBONDALE	HERRIN	COAL	4.0	150.0	

**MAPID:** 18390035000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 7    **QUARTERS/FOOTAGES:** 2277' S line, 429' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.768014    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.209977    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 658.0    **LOGGED (FT.):** 167.3    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    B1    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
658.0			UNKNOWN	163.0	0.0	
495.0	CARBONDALE	HERRIN	COAL	4.3	163.0	

MAPID: 18390071000C VERSION: 1

PROJECT: ISGS97

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 7 QUARTERS/FOOTAGES: 2600' S line, 1800' E line

QUADRANGLE: COLLISON LONGITUDE: -87.761004 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 40.21073 DATE COLLECTED:

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 165.0 LOG TYPE: Company map

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT: FITHIAN QUAD MAP

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
670.0			UNKNOWN	121.9	0.0	
548.1	CARBONDALE	DANVILLE	COAL	6.1	121.9	
542.0	CARBONDALE		UNKNOWN	29.0	128.0	
513.0	CARBONDALE	HERRIN	COAL	8.0	157.0	

MAPID: 18300337000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 8 QUARTERS/FOOTAGES: 1200' S line, 1630' W line of SE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.743901 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.206674 DATE COLLECTED: 8 / 0 / 1911

SURFACE ELEVATION (FT.): 596.9 LOGGED (FT.): 175.2 LOG TYPE: Drillers Log

SOURCE: BIG 4 R. R. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
596.9	PLEISTOCENE		SOIL	3.0	0.0	
593.9	PLEISTOCENE		SAND	9.0	3.0	
584.9	PLEISTOCENE		CLAY	32.0	12.0	
552.9	PLEISTOCENE		SAND	18.0	44.0	
534.9	PLEISTOCENE		CLAY	20.0	62.0	
514.9	PLEISTOCENE		SAND	16.0	82.0	
498.9	CARBONDALE		BLUE SHALE	1.0	98.0	
497.9	CARBONDALE	HERRIN	COAL	3.5	99.0	
494.4	CARBONDALE		GRAY SHALE	72.7	102.5	

MAPID: 18300338000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 12    QUARTERS/FOOTAGES: 2200' S line, 1700' W line

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.672589    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 40.20993    DATE COLLECTED: 7 / 0 / 1910

SURFACE ELEVATION (FT.): 637.0    LOGGED (FT.): 302.0    LOG TYPE: Drillers Log

SOURCE: BIG 4 R. R.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
637.0	PLEISTOCENE		SOIL	2.0	0.0
635.0	PLEISTOCENE		SAND	28.0	2.0
607.0	PLEISTOCENE		CLAY	22.0	30.0
585.0	PLEISTOCENE		SAND	24.0	52.0
561.0	PLEISTOCENE		CLAY	59.0	76.0
502.0	PLEISTOCENE		SAND	8.6	135.0
493.4	CARBONDALE		SHALE	23.4	143.6
470.0	CARBONDALE		BLUE SHALE	18.0	167.0
452.0	CARBONDALE		BLACK SHALE	1.5	185.0
450.5	CARBONDALE	HOUCHIN CREEK	COAL	1.2	186.5
449.3	CARBONDALE		GRAY SHALE	2.5	187.7
446.8	CARBONDALE		ROCK	8.3	190.2
438.5	CARBONDALE		BLUE SHALE	16.5	198.5
422.0	CARBONDALE		BLUE SHALE	3.0	215.0
419.0	CARBONDALE	COLCHESTER	COAL	1.1	218.0
417.9	SPOON		LIMESTONE	1.6	219.1
416.3	SPOON		SHALE	0.8	220.7
415.5	SPOON		COAL	3.5	221.5
412.0	SPOON		SANDSTONE	15.3	225.0
396.7	SPOON		ROCK	4.5	240.3
392.2	SPOON		SHALE	9.3	244.8
383.0	SPOON		ROCK	29.0	254.0
354.0	SPOON	SEELYVILLE	COAL	0.3	283.0
353.7	SPOON	SEELYVILLE	SHALE	3.0	283.3
350.7	SPOON	SEELYVILLE	COAL	5.8	286.3
345.0	SPOON		LIGHT SHALE	10.0	292.0

MAPID: 18300340000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 16    QUARTERS/FOOTAGES: 2300' S line, 1500' W line

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.730097    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 40.195302    DATE COLLECTED: 7 / 0 / 1910

SURFACE ELEVATION (FT.): 606.0    LOGGED (FT.): 181.0    LOG TYPE: Drillers Log

SOURCE: BIG 4 R. R.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
606.0	PLEISTOCENE		SOIL	6.0	0.0
600.0	PLEISTOCENE		SAND	10.0	6.0
590.0	PLEISTOCENE		CLAY	19.0	16.0
571.0	PLEISTOCENE		SAND	40.0	35.0
531.0	PLEISTOCENE		UNCONSOLIDATED	39.0	75.0
492.0	CARBONDALE	HERRIN	COAL	0.5	114.0
491.5			IRONSTONE	0.7	114.5
490.8			BLUE SHALE	11.8	115.2
479.0			BLUE SHALE	44.0	127.0
435.0			DARK GRAY SHALE	10.0	171.0

TOP OF COAL  
ERODED

MAPID: 18300341000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 16 QUARTERS/FOOTAGES: 2300' S line, 1500' E line of NE NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.726558 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.200835 DATE COLLECTED: 7 / 0 / 1910

SURFACE ELEVATION (FT.): 636.0 LOGGED (FT.): 359.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 R. R. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
636.0	PLEISTOCENE		SAND	62.0	0.0	
574.0	PLEISTOCENE		CLAY	23.0	62.0	
551.0	PLEISTOCENE		SAND	9.0	85.0	
542.0	PLEISTOCENE		GRAVEL	2.0	94.0	
540.0	PLEISTOCENE		SAND	8.0	96.0	
532.0	PLEISTOCENE		CLAY	2.0	104.0	
530.0	CARBONDALE		IRONSTONE	1.5	106.0	
528.5	CARBONDALE	HERRIN	COAL	2.0	107.5	TOP OF COAL ERODED
526.5	CARBONDALE		UNDERCLAY	1.0	109.5	
525.5	CARBONDALE		BLUE SHALE	60.5	110.5	
465.0	CARBONDALE		BLUE SHALE	27.0	171.0	
438.0	CARBONDALE		BLACK SHALE	5.0	198.0	
433.0	CARBONDALE		BLUE SHALE	19.0	203.0	
414.0	CARBONDALE		LIMESTONE	6.0	222.0	
408.0	CARBONDALE		BLUE SHALE	20.0	228.0	
388.0	CARBONDALE		SANDSTONE	20.0	248.0	
368.0	CARBONDALE		BLACK SHALE	1.0	268.0	
367.0	CARBONDALE		BLUE SHALE	3.0	269.0	
364.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	272.0	
362.0	CARBONDALE		BLUE SHALE	6.0	274.0	
356.0	CARBONDALE		SANDSTONE	9.0	280.0	
347.0	CARBONDALE		BLUE SHALE	8.0	289.0	
339.0	CARBONDALE		BLACK SHALE	0.5	297.0	
338.5	CARBONDALE		COAL	0.7	297.5	
337.8	CARBONDALE		BLUE SHALE	7.0	298.2	
330.8	CARBONDALE	COLCHESTER	COAL	2.9	305.2	
327.9	SPOON		GRAY SHALE	1.9	308.1	
326.0	SPOON		LIGHT SHALE	19.0	310.0	
307.0	SPOON		GRAY SHALE	10.0	329.0	
297.0	SPOON		BLUE SHALE	5.0	339.0	
292.0	SPOON		GRAY SHALE	11.0	344.0	
281.0	SPOON		GRAY SHALE	4.0	355.0	

MAPID: 18300342000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 16    QUARTERS/FOOTAGES: 660' S line, 475' W line

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.733759    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 40.190708    DATE COLLECTED: 8 / 0 / 1910

SURFACE ELEVATION (FT.): 588.0    LOGGED (FT.): 312.8    LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD    13    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
588.0	PLEISTOCENE		UNCONSOLIDATED	2.0	0.0
586.0	PLEISTOCENE		CLAY	5.0	2.0
581.0	PLEISTOCENE		SAND	8.0	7.0
573.0	PLEISTOCENE		GRAVEL	2.0	15.0
571.0	PLEISTOCENE		CLAY	9.0	17.0
562.0	PLEISTOCENE		SAND	5.0	26.0
557.0	MODESTO		BLUE SHALE	30.6	31.0
526.4	CARBONDALE	DANVILLE	COAL	5.0	61.6
521.4	CARBONDALE		UNDERCLAY	1.2	66.6
520.2	CARBONDALE		BLACK SHALE	1.3	67.8
519.0	CARBONDALE		BLUE SHALE	1.5	69.0
517.5	CARBONDALE		LIMESTONE	4.3	70.5
513.2	CARBONDALE		BLUE SHALE	0.3	74.8
512.8	CARBONDALE		LIMESTONE	3.7	75.2
509.2	CARBONDALE		BLUE SHALE	1.2	78.8
508.0	CARBONDALE		LIMESTONE	2.7	80.0
505.3	CARBONDALE		BLUE SHALE	3.6	82.7
501.7	CARBONDALE	HERRIN	COAL	4.4	86.3
497.3	CARBONDALE		UNDERCLAY	0.7	90.7
496.7	CARBONDALE		BLUE SHALE	4.0	91.3
492.7	CARBONDALE		LIMESTONE	2.5	95.3
490.2	CARBONDALE		SHALE	5.0	97.8
485.2	CARBONDALE		LIMESTONE	4.5	102.8
480.7	CARBONDALE		BLUE SHALE	12.0	107.3
468.7	CARBONDALE		SANDSTONE	18.7	119.3
450.0	CARBONDALE		BLUE SHALE	28.0	138.0
422.0	CARBONDALE		BLACK SHALE	5.0	166.0
417.0	CARBONDALE		BLUE SHALE	4.0	171.0
413.0	CARBONDALE		BLUE SHALE	13.0	175.0
400.0	CARBONDALE		BLACK SHALE	1.0	188.0
399.0	CARBONDALE		SANDSTONE	3.0	189.0
396.0	CARBONDALE		LIMESTONE	6.0	192.0
390.0	CARBONDALE		BLUE SHALE	5.0	198.0
385.0	CARBONDALE		SANDSTONE	10.0	203.0
375.0	CARBONDALE		RED SHALE	0.2	213.0
374.8	CARBONDALE		SANDSTONE	8.8	213.2
366.0	CARBONDALE		BLUE SHALE	17.3	222.0
348.7	CARBONDALE		BLACK SHALE	1.9	239.3
346.7	CARBONDALE		BLUE SHALE	2.0	241.3

344.7	CARBONDALE	COLCHESTER	COAL	1.6	243.3
343.2	CARBONDALE		BLUE SHALE	4.0	244.8
339.2	CARBONDALE		SANDSTONE	1.4	248.8
337.7	CARBONDALE		LIMESTONE	4.0	250.3
333.7	CARBONDALE		BLUE SHALE	13.0	254.3
320.7	SPOON	SEELYVILLE	COAL	1.7	267.3
319.1	SPOON	SEELYVILLE	BLUE SHALE	6.4	268.9
312.7	SPOON	SEELYVILLE	COAL	1.8	275.3
310.9	SPOON	SEELYVILLE	GRAY SHALE	6.3	277.1
304.6	SPOON	SEELYVILLE	BLACK SHALE	0.4	283.4
304.2	SPOON	SEELYVILLE	COAL	1.2	283.8
303.0	SPOON		GRAY SHALE	16.0	285.0
287.0	SPOON		SHALE	0.8	301.0
286.2	SPOON		GRAY SHALE	11.0	301.8

**MAPID:** 18300342000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 16    **QUARTERS/FOOTAGES:** 660' S line, 475' W line  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.733759    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 40.190708    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 588.0    **LOGGED (FT.):** 90.4    **LOG TYPE:** Drillers Log  
**SOURCE:**    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
557.5	MODESTO		GRAY SHALE	30.0	30.5
527.5	CARBONDALE	DANVILLE	COAL	5.0	60.5
522.5	CARBONDALE		CLAYSTONE	1.2	65.5
521.3	CARBONDALE		DARK GRAY SHALE	2.8	66.7
518.6	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	13.2	69.4
505.4	CARBONDALE	LAWSON	GRAY SHALE	3.4	82.6
502.0	CARBONDALE	HERRIN	COAL	4.4	86.0



MAPID: 18300343000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 17 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.742578 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.190781 DATE COLLECTED: 7 / 0 / 1911

SURFACE ELEVATION (FT.): 598.0 LOGGED (FT.): 173.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 R. R. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
598.0	PLEISTOCENE		CLAY	12.0	0.0
586.0	PLEISTOCENE		SAND	18.0	12.0
568.0	PLEISTOCENE		CLAY	20.0	30.0
548.0	PLEISTOCENE		SAND	55.0	50.0
493.0			BLUE SHALE	11.0	105.0
482.0			BLACK SHALE	1.0	116.0
481.0	CARBONDALE	HERRIN	COAL	4.1	117.0
477.0			GRAY SHALE	5.0	121.0
472.0			GRAY SHALE	47.0	126.0

MAPID: 18300344000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 17 QUARTERS/FOOTAGES: SW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.742613 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.197967 DATE COLLECTED: 8 / 0 / 1911

SURFACE ELEVATION (FT.): 606.6 LOGGED (FT.): 154.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 R. R. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
606.6	PLEISTOCENE		CLAY	10.0	0.0
596.6	PLEISTOCENE		SAND	86.0	10.0
510.6	PLEISTOCENE		CLAY	2.0	96.0
508.6	CARBONDALE	HERRIN	COAL	4.0	98.0
504.6			GRAY SHALE	52.0	102.0

**MAPID:** 18390005000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 17    **QUARTERS/FOOTAGES:** 2376' S line, 845' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.751405    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.195706    **DATE COLLECTED:** 6 / 3 / 1965  
**SURFACE ELEVATION (FT.):** 632.0    **LOGGED (FT.):** 142.0    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    345    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
632.0			UNKNOWN	142.0	0.0
490.0	CARBONDALE	HERRIN	COAL	-	142.0

**MAPID:** 18390790000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 17    **QUARTERS/FOOTAGES:** SE NE NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:**    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:**    **DATE COLLECTED:** 1 / 20 / 1954  
**SURFACE ELEVATION (FT.):** 600.0    **LOGGED (FT.):** 106.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    1    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		UNCONSOLIDATED	2.0	0.0
598.0	PLEISTOCENE		SAND & GRAVEL	10.0	2.0
588.0	PLEISTOCENE		CLAY	94.0	12.0

**MAPID:** 18300346000C    **VERSION:** 1    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 18    **QUARTERS/FOOTAGES:** 1980' N line, 660' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.767083    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 40.198205    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 695.0    **LOGGED (FT.):** 229.2    **LOG TYPE:** Drillers Log  
**SOURCE:**    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
512.9	MODESTO		GRAY SHALE	5.0	182.1
507.9	CARBONDALE	DANVILLE	COAL	4.9	187.1
503.0	CARBONDALE		GRAY SHALE	6.0	192.0
497.0	CARBONDALE	LAWSON	SILTY SHALE	14.0	198.0
483.0	CARBONDALE	LAWSON	GRAY SHALE	7.0	212.0
476.0	CARBONDALE	LAWSON	DARK GRAY SHALE	4.0	219.0
472.0	CARBONDALE	ANNA	BLACK SHALE	2.0	223.0
470.0	CARBONDALE	HERRIN	COAL	4.2	225.0

MAPID: 18300347000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 18 QUARTERS/FOOTAGES: 3950' S line, 4120' E line of SE

QUADRANGLE: COLLISON LONGITUDE: -87.769288 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.20015 DATE COLLECTED: 4 / 21 / 1923

SURFACE ELEVATION (FT.): 697.3 LOGGED (FT.): 240.5 LOG TYPE: Drillers Log

SOURCE: JAMES T CARPENTER 25 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
697.3	PLEISTOCENE		SOIL	3.0	0.0
694.3	PLEISTOCENE		CLAY	15.0	3.0
679.3	PLEISTOCENE		CLAY	41.0	18.0
638.3	PLEISTOCENE		SAND	7.0	59.0
631.3	PLEISTOCENE		CLAY	3.0	66.0
628.3	PLEISTOCENE		SAND	25.0	69.0
603.3	PLEISTOCENE		GRAVEL	4.0	94.0
599.3	PLEISTOCENE		CLAY	2.0	98.0
597.3	PLEISTOCENE		SAND	4.0	100.0
593.3	PLEISTOCENE		CLAY	17.0	104.0
576.3	MODESTO		BLUE SHALE	56.0	121.0
520.3	MODESTO		BLACK SHALE	5.0	177.0
515.3	MODESTO		GRAY SHALE	16.0	182.0
499.3	CARBONDALE	DANVILLE	COAL	10.2	198.0
489.1	CARBONDALE		BLACK SHALE	2.8	208.2
486.3	CARBONDALE		GRAY SHALE	19.0	211.0
467.3	CARBONDALE		BLACK SHALE	4.0	230.0
463.3	CARBONDALE	HERRIN	COAL	6.5	234.0

MAPID: 18300849000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 18 QUARTERS/FOOTAGES: 3230' S line, 3450' E line  
 QUADRANGLE: COLLISON LONGITUDE: -87.766868 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 40.198155 DATE COLLECTED: 0 / 0 / 1923  
 SURFACE ELEVATION (FT.): 714.0 LOGGED (FT.): 259.3 LOG TYPE: Drillers Log  
 SOURCE: J T CARPENTER 50 WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
714.0	PLEISTOCENE		CLAY	40.0	0.0
674.0	PLEISTOCENE		SAND	1.0	40.0
673.0	PLEISTOCENE		CLAY	39.0	41.0
634.0	PLEISTOCENE		SAND	14.0	80.0
620.0	PLEISTOCENE		CLAY	16.0	94.0
604.0	PLEISTOCENE		SAND	22.0	110.0
582.0	PLEISTOCENE		CLAY	80.0	132.0
502.0	MODESTO		SHALE	15.0	212.0
487.0	CARBONDALE	DANVILLE	COAL	4.3	227.0
482.7	CARBONDALE		SHALE	24.7	231.3
458.0	CARBONDALE	HERRIN	COAL	3.3	256.0

MAPID: 18390021000C VERSION: 1

PROJECT: ISGS97

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 18 QUARTERS/FOOTAGES: 1950' N line, 790' W line  
 QUADRANGLE: COLLISON LONGITUDE: -87.766617 GEOLOGIST: MCCRACKEN  
 CONFIDENTIAL: N LATITUDE: 40.198281 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 706.0 LOGGED (FT.): 239.3 LOG TYPE: Company map  
 SOURCE: PEABODY COAL CO. 849 WELL TYPE: Coal Test  
 COMMENT: DRILL HOLE MAP FOR COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
706.0			UNKNOWN	235.0	0.0
471.0	CARBONDALE	HERRIN	COAL	4.3	235.0

MAPID: 18390029000C VERSION: 1

PROJECT: ISGS97

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 18 QUARTERS/FOOTAGES: 165' S line, 264' W line  
 QUADRANGLE: COLLISON LONGITUDE: -87.768464 GEOLOGIST: MCCRACKEN  
 CONFIDENTIAL: N LATITUDE: 40.189702 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 732.0 LOGGED (FT.): 265.3 LOG TYPE: Company map  
 SOURCE: MORGAN COAL CO. D1 WELL TYPE: Coal Test  
 COMMENT: COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
732.0			UNKNOWN	262.0	0.0
470.0	CARBONDALE	HERRIN	COAL	3.3	262.0

MAPID: 18390030000C VERSION: 1

PROJECT: ISGS97

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 18 QUARTERS/FOOTAGES: 1090' N line, 100' W line

QUADRANGLE: COLLISON LONGITUDE: -87.769112 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 40.200703 DATE COLLECTED:

SURFACE ELEVATION (FT.): 672.0 LOGGED (FT.): 240.8 LOG TYPE: Company map

SOURCE: MORGAN COAL CO. 15 WELL TYPE: Coal Test

COMMENT: COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
672.0			UNKNOWN	235.9	0.0
436.1	CARBONDALE	HERRIN	COAL	4.8	235.9

MAPID: 18300348000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 19 QUARTERS/FOOTAGES: 950' S line, 600' W line of SE SW

QUADRANGLE: COLLISON LONGITUDE: -87.766413 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 40.177235 DATE COLLECTED: 7 / 0 / 1911

SURFACE ELEVATION (FT.): 684.0 LOGGED (FT.): 249.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 R. R. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
684.0	PLEISTOCENE		SOIL	4.0	0.0
680.0	PLEISTOCENE		CLAY	40.0	4.0
640.0	PLEISTOCENE		SAND	4.0	44.0
636.0	PLEISTOCENE		CLAY	24.0	48.0
612.0	PLEISTOCENE		CLAY	20.0	72.0
592.0	PLEISTOCENE		SAND	4.0	92.0
588.0	PLEISTOCENE		CLAY	8.0	96.0
580.0	PLEISTOCENE		CLAY	6.0	104.0
574.0	MODESTO		BLUE SHALE	5.0	110.0
569.0	MODESTO		BLUE SHALE	63.0	115.0
506.0	MODESTO		BLUE SHALE	30.0	178.0
476.0	CARBONDALE	DANVILLE	COAL	5.8	208.0
470.2	CARBONDALE		GRAY SHALE	4.0	213.8
466.2	CARBONDALE		GRAY SHALE	20.0	217.8
446.2	CARBONDALE	HERRIN	COAL	2.2	237.8
444.0			GRAY SHALE	4.0	240.0
440.0			BLACK SHALE	1.0	244.0
439.0			GRAY SHALE	4.0	245.0

MAPID: 18300349000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 19 QUARTERS/FOOTAGES: 180' N line, 1320' W line

QUADRANGLE: COLLISON LONGITUDE: -87.764655 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.188739 DATE COLLECTED: 8 / 0 / 1910

SURFACE ELEVATION (FT.): 714.0 LOGGED (FT.): 271.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 R. R. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
714.0	PLEISTOCENE		CLAY	15.0	0.0
699.0	PLEISTOCENE		CLAY	25.0	15.0
674.0	PLEISTOCENE		SAND	1.0	40.0
673.0	PLEISTOCENE		CLAY	33.0	41.0
640.0	PLEISTOCENE		CLAY	6.0	74.0
634.0	PLEISTOCENE		SAND	10.0	80.0
624.0	PLEISTOCENE		SAND	4.0	90.0
620.0	PLEISTOCENE		SAND	5.0	94.0
615.0	PLEISTOCENE		CLAY	11.0	99.0
604.0	PLEISTOCENE		SAND	22.0	110.0
582.0	PLEISTOCENE		CLAY	14.0	132.0
568.0	PLEISTOCENE		SANDY CLAY	46.0	146.0
522.0	PLEISTOCENE		CLAY	20.0	192.0
502.0	MODESTO		BLUE SHALE	15.0	212.0
487.0	CARBONDALE	DANVILLE	COAL	4.3	227.0
482.7	CARBONDALE		UNDERCLAY	4.7	231.3
478.0	CARBONDALE		GRAY SANDSTONE	20.0	236.0
458.0	CARBONDALE	HERRIN	COAL	3.3	256.0
454.7			GRAY SANDSTONE	11.7	259.3

MAPID: 18300350000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 19 QUARTERS/FOOTAGES: 2380' N line, 1575' E line

QUADRANGLE: COLLISON LONGITUDE: -87.760031 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.182654 DATE COLLECTED:

SURFACE ELEVATION (FT.): 725.0 LOGGED (FT.): 273.3 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
513.0	MODESTO	PIASA	LIMESTONE	1.0	212.0
512.0	MODESTO		SHALE	27.0	213.0
485.0	CARBONDALE	DANVILLE	COAL	5.7	240.0
479.3	CARBONDALE	ENERGY	GRAY SHALE	23.0	245.7
456.0	CARBONDALE	HERRIN	COAL	4.3	269.0

MAPID: 18300351000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 19 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: COLLISON LONGITUDE: -87.756693 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.176549 DATE COLLECTED:

SURFACE ELEVATION (FT.): 649.0 LOGGED (FT.): 206.4 LOG TYPE: Drillers Log

SOURCE: BIG 4 R. R. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
649.0	PLEISTOCENE		SOIL	1.0	0.0
648.0	PLEISTOCENE		GRAVEL	2.0	1.0
646.0	PLEISTOCENE		CLAY	9.0	3.0
637.0	PLEISTOCENE		SAND	18.0	12.0
619.0	PLEISTOCENE		CLAY	66.0	30.0
553.0	PLEISTOCENE		SAND	31.0	96.0
522.0	MODESTO		BLUE SHALE	27.0	127.0
495.0	CARBONDALE	DANVILLE	COAL	6.2	154.0
488.8	CARBONDALE		GRAY SHALE	21.0	160.2
467.8	CARBONDALE	HERRIN	COAL	3.8	181.2
464.1			GRAY SHALE	21.5	184.9

MAPID: 18322589000C VERSION: 1

PROJECT: NCRDS99

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 19 QUARTERS/FOOTAGES: 2564' N line, 2314' W line

QUADRANGLE: COLLISON LONGITUDE: -87.760976 GEOLOGIST: MC CRACKEN

CONFIDENTIAL: N LATITUDE: 40.182149 DATE COLLECTED: 9 / 14 / 1977

SURFACE ELEVATION (FT.): 760.0 LOGGED (FT.): 269.0 LOG TYPE: Drillers Log

SOURCE: GULF OIL CORPORATION I-19-2C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
760.0	PLEISTOCENE		UNCONSOLIDATED	155.0	0.0
605.0			SHALE	74.2	155.0
530.8	CARBONDALE	DANVILLE	COAL	7.1	229.2
523.7	CARBONDALE	ENERGY	SHALE	19.3	236.3
504.4	CARBONDALE	HERRIN	COAL	7.2	255.6
497.2	CARBONDALE		SHALE	6.2	262.8

**MAPID:** 18322589000C    **VERSION:** 2    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 19    **QUARTERS/FOOTAGES:** 2564' N line, 2314' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.760976    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.182149    **DATE COLLECTED:** 9 / 14 / 1977  
**SURFACE ELEVATION (FT.):** 760.0    **LOGGED (FT.):** 269.0    **LOG TYPE:** Electric Log  
**SOURCE:** GULF OIL CORPORATION    I-19-2C    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
530.0	SHELburn	DANVILLE	COAL	6.5	230.0	
501.7	CARBONDALE	HERRIN	COAL	1.1	258.3	

**MAPID:** 18390027000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 19    **QUARTERS/FOOTAGES:** 2400' N line, 462' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.756028    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.182587    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 725.0    **LOGGED (FT.):** 273.0    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    18    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
725.0			UNKNOWN	268.7	0.0	
456.3	CARBONDALE	HERRIN	COAL	4.3	268.7	

**MAPID:** 18390028000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 19    **QUARTERS/FOOTAGES:** 990' N line, 30' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.754505    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.18647    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 652.0    **LOGGED (FT.):** 280.5    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    12    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
652.0			UNKNOWN	278.4	0.0	
373.6	CARBONDALE	HERRIN	COAL	2.1	278.4	



MAPID: 18300352000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 20 QUARTERS/FOOTAGES: NE NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.746015 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.180921 DATE COLLECTED: 7 / 0 / 1911

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 165.6 LOG TYPE: Drillers Log

SOURCE: BIG 4 R. R. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.0	PLEISTOCENE		CLAY	14.0	0.0
591.0	PLEISTOCENE		SAND	91.0	14.0
500.0	MODESTO		BLUE SHALE	8.0	105.0
492.0	CARBONDALE	DANVILLE	COAL	6.5	113.0
485.5	CARBONDALE		GRAY SHALE	21.3	119.5
464.2	CARBONDALE		GRAY SHALE	2.0	140.8
462.2	CARBONDALE		BLACK SHALE	1.0	142.8
461.2	CARBONDALE	HERRIN	COAL	3.8	143.8
457.4			GRAY SHALE	18.0	147.6

MAPID: 18300353000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 20 QUARTERS/FOOTAGES: 3300' S line, 800' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.738226 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.183549 DATE COLLECTED:

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 56.7 LOG TYPE: Drillers Log

SOURCE: UNITED ELEC. COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		UNCONSOLIDATED	1.0	0.0
599.0	PLEISTOCENE		SAND	9.0	1.0
590.0	MODESTO		SHALE	38.7	10.0
551.3	CARBONDALE	DANVILLE	COAL	6.7	48.7
544.7	CARBONDALE		UNDERCLAY	1.3	55.3

MAPID: 18300354000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 21 QUARTERS/FOOTAGES: 1850' N line, 1200' W line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.73104 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.183839 DATE COLLECTED: 9 / 0 / 1910

SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 131.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 R. R. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
588.0	PLEISTOCENE		SAND	16.0	0.0
572.0	PLEISTOCENE		CLAY	10.0	16.0
562.0	MODESTO		BLUE SHALE	52.5	26.0
509.5	CARBONDALE	DANVILLE	COAL	4.8	78.5
504.7	CARBONDALE		BLUE SHALE	2.7	83.3
502.1	CARBONDALE		COAL	0.2	85.9
501.9	CARBONDALE		BLUE SHALE	10.9	86.1
491.0	CARBONDALE		LIMESTONE	5.0	97.0
486.0	CARBONDALE		BLUE SHALE	8.0	102.0
478.0	CARBONDALE	HERRIN	COAL	4.2	110.0
473.8			BLUE SHALE	16.8	114.2

MAPID: 18300354000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 21 QUARTERS/FOOTAGES: 1850' N line, 1200' W line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.73104 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.183839 DATE COLLECTED:

SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 114.2 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
562.0	MODESTO		GRAY SHALE	52.5	26.0
509.5	CARBONDALE	DANVILLE	COAL	4.8	78.5
504.7	CARBONDALE		CARBONACEOUS SHALE	2.8	83.3
501.9	CARBONDALE		GRAY SHALE	10.9	86.1
491.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	97.0
486.0	CARBONDALE	LAWSON	GRAY SHALE	8.0	102.0
478.0	CARBONDALE	HERRIN	COAL	4.2	110.0

MAPID: 18300355000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 25 QUARTERS/FOOTAGES: 1980' S line, 660' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.661563 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.165149 DATE COLLECTED: 3 / 0 / 1910

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 185.8 LOG TYPE: Drillers Log

SOURCE: BIG FOUR R. R. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
630.0	PLEISTOCENE		SAND	10.0	0.0
620.0	PLEISTOCENE		SAND	10.0	10.0
610.0	PLEISTOCENE		SAND	10.0	20.0
600.0	CARBONDALE		BLUE SHALE	40.0	30.0
560.0	CARBONDALE	EXCELLO	BLACK SHALE	8.0	70.0
552.0	CARBONDALE		BLUE SHALE	14.0	78.0
538.0	CARBONDALE		LIMESTONE	4.0	92.0
534.0	CARBONDALE		SANDSTONE	18.0	96.0
516.0	CARBONDALE		BLUE SHALE	21.0	114.0
495.0	CARBONDALE		UNCLASSIFIED	1.7	135.0
493.3	CARBONDALE		COAL	0.8	136.7
492.6	SPOON		IRONSTONE	0.3	137.4
492.2	SPOON		GRAY SHALE	7.3	137.8
485.0	SPOON		SANDSTONE	17.0	145.0
468.0	SPOON	SEELYVILLE	COAL	1.8	162.0
466.2	SPOON		BLUE SHALE	0.7	163.8
465.6	SPOON		BLACK SHALE	0.3	164.4
465.2	SPOON		LIMESTONE	1.0	164.8
464.2	SPOON		BLUE SHALE	1.6	165.8
462.7	SPOON		COAL	0.8	167.3
461.8	SPOON		SHALE	5.8	168.2
456.0	SPOON		COAL	1.0	174.0
455.0	SPOON		SHALE	1.5	175.0
453.5	SPOON		COAL	0.2	176.5
453.3	SPOON		GRAY SHALE	4.0	176.7
449.3	SPOON		UNCLASSIFIED	0.2	180.7
449.2	SPOON		GRAY SHALE	5.0	180.8

MAPID: 18300355000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 25    QUARTERS/FOOTAGES: 1980' S line, 660' E line

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.661563

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 40.165149

DATE COLLECTED:

SURFACE ELEVATION (FT.): 587.0

LOGGED (FT.): 176.7

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
542.0	MODESTO		SHALE	90.0	45.0
452.0	CARBONDALE	DANVILLE	BONE COAL	2.4	135.0
449.6	CARBONDALE		SHALE	0.3	137.4
449.2	CARBONDALE		GRAY SHALE	7.3	137.8
442.0	CARBONDALE	ENERGY	SILTY SHALE	17.0	145.0
425.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	14.7	162.0

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MAPID: 18300356000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 26 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.680535 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.165387 DATE COLLECTED:

SURFACE ELEVATION (FT.): 691.0 LOGGED (FT.): 281.5 LOG TYPE: Drillers Log

SOURCE: BIG 4 R.R. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
691.0			UNCONSOLIDATED	144.0	0.0
547.0			BLUE SHALE	25.0	144.0
522.0			BLACK SHALE	5.6	169.0
516.4			GREEN SHALE	0.4	174.6
516.0			BLUE SHALE	8.0	175.0
508.0			LIMESTONE	3.0	183.0
505.0			BLUE SHALE	7.0	186.0
498.0			LIMESTONE	4.0	193.0
494.0			SANDY SHALE	6.0	197.0
488.0			BLUE SHALE	26.0	203.0
462.0			BLACK SHALE	2.0	229.0
460.0			COAL	1.0	231.0
459.0			BLUE SHALE	6.0	232.0
453.0			LIMESTONE	3.0	238.0
450.0			BLUE SHALE	15.6	241.0
434.4			BLACK SHALE & CLAY	4.5	256.6
429.9			BLUE SHALE	0.9	261.1
429.0			BLACK SHALE	1.0	262.0
428.0			COAL	0.5	263.0
427.5			UNDERCLAY	18.0	263.5

MAPID: 18300357000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 27    QUARTERS/FOOTAGES: SE NW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.703131    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 40.171882    DATE COLLECTED: 6 / 0 / 1910

SURFACE ELEVATION (FT.): 674.0    LOGGED (FT.): 318.9    LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
674.0			UNCONSOLIDATED	134.0	0.0
540.0			BLUE SHALE	2.5	134.0
537.5			COAL	0.3	136.5
537.2			UNDERCLAY	4.3	136.8
533.0			SANDY SHALE	6.0	141.0
527.0			SHALE	45.7	147.0
481.3			BLACK SHALE	9.3	192.7
472.0			BLUE SHALE	15.0	202.0
457.0			LIMESTONE	7.0	217.0
450.0			SANDSTONE	5.5	224.0
444.5			LIMESTONE	6.0	229.5
438.5			SANDSTONE	4.5	235.5
434.0			SANDY SHALE	27.0	240.0
407.0			BLACK SHALE	3.0	267.0
404.0			COAL	2.0	270.0
402.0			SANDSTONE	11.0	272.0
391.0			BLUE SHALE	7.0	283.0
384.0			COAL	3.0	290.0
381.0			BLUE SHALE	2.3	293.0
378.7			COAL	2.3	295.3
376.4			BLACK SHALE	4.3	297.6
372.2			COAL	0.3	301.8
371.9			BLACK SHALE	6.0	302.1
365.9			GRAY SHALE	8.5	308.1
357.4			SANDY SHALE	2.3	316.6

MAPID: 18300358000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 28 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.718638 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.172737 DATE COLLECTED: 6 / 0 / 1910

SURFACE ELEVATION (FT.): 623.0 LOGGED (FT.): 312.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
623.0			UNCONSOLIDATED	65.0	0.0
558.0	CARBONDALE		BLUE SHALE	7.0	65.0
551.0	CARBONDALE	DANVILLE	COAL	3.7	72.0
547.3	CARBONDALE		BLUE SHALE	2.3	75.7
545.0	CARBONDALE	DANVILLE SUMP	COAL	1.2	78.0
543.8	CARBONDALE		GRAY SHALE	15.8	79.2
528.0	CARBONDALE		BLACK SHALE	0.7	95.0
527.3	CARBONDALE	HERRIN	COAL	0.4	95.7
526.9	CARBONDALE		BLUE SHALE	2.9	96.1
524.0			LIMESTONE	8.0	99.0
516.0			BLACK SHALE	7.0	107.0
509.0			LIMESTONE	2.0	114.0
507.0			BLUE SHALE	71.5	116.0
435.5			BLACK SHALE	6.5	187.5
429.0			GRAY SHALE	16.0	194.0
413.0			BLACK SHALE	1.0	210.0
412.0			SANDSTONE	2.0	211.0
410.0			LIMESTONE	2.0	213.0
408.0			BLUE SHALE	0.5	215.0
407.5			LIMESTONE	1.0	215.5
406.5			BLUE SHALE	8.5	216.5
398.0			SANDY SHALE	28.5	225.0
369.5			BLACK SHALE	2.5	253.5
367.0			BLUE SHALE	0.2	256.0
366.8			LIMESTONE	0.7	256.2
366.2			COAL	1.4	256.8
364.7			SANDY SHALE	6.8	258.3
358.0			GRAY SHALE	18.5	265.0
339.5			COAL	1.7	283.5
337.8			BLUE SHALE	5.4	285.2
332.4			COAL	1.9	290.6
330.5			BLUE SHALE	5.0	292.5
325.5			BLACK SHALE	0.5	297.5
325.0			COAL	1.8	298.0
323.2			BLUE SHALE	0.7	299.8
322.5			BLACK SHALE	0.5	300.5
322.0			GRAY SHALE	11.0	301.0

MAPID: 18300360000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 28 QUARTERS/FOOTAGES: 330' S line, 330' W line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.734026 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.160858 DATE COLLECTED: 9 / 0 / 1910

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 168.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
612.0			UNCONSOLIDATED	12.0	0.0
600.0	MODESTO	FARMINGTON	BLUE SHALE	70.0	12.0
530.0	MODESTO	FARMINGTON	BLACK SHALE	1.6	82.0
528.4	CARBONDALE	DANVILLE	COAL	5.2	83.6
523.2	CARBONDALE	DANVILLE	SHALE	0.3	88.8
523.0	CARBONDALE	DANVILLE	COAL	0.3	89.0
522.6	CARBONDALE		SHALE	2.2	89.4
520.5	CARBONDALE		LIMESTONE	0.5	91.5
520.0	CARBONDALE		BLACK SHALE	0.6	92.0
519.4	CARBONDALE		COAL	0.2	92.6
519.2	CARBONDALE		BLUE SHALE	14.8	92.8
504.5	CARBONDALE	HERRIN	COAL	1.1	107.5
503.4	CARBONDALE		BLUE SHALE	8.4	108.6
495.0	CARBONDALE		SANDY SHALE	22.0	117.0
473.0	CARBONDALE		SANDSTONE	7.0	139.0
466.0	CARBONDALE		SANDY SHALE	22.0	146.0

MAPID: 18300360000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 28 QUARTERS/FOOTAGES: 330' S line, 330' W line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.734026 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.160858 DATE COLLECTED:

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 109.1 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
599.5	MODESTO		DARK GRAY SHALE	71.6	12.5
528.0	CARBONDALE	DANVILLE	COAL	5.2	84.0
522.8	CARBONDALE		BONE COAL	4.0	89.2
518.7	CARBONDALE	LAWSON	CALCAREOUS SHALE	14.8	93.3
504.0	CARBONDALE	HERRIN	COAL	1.1	108.0



MAPID: 18300361000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 28 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.718527 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.161741 DATE COLLECTED: 11 / 0 / 1910

SURFACE ELEVATION (FT.): 691.0 LOGGED (FT.): 210.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
691.0			UNCONSOLIDATED	150.0	0.0	
541.0	CARBONDALE	DANVILLE	COAL	0.3	150.0	
540.7	CARBONDALE		BLUE SHALE	17.8	150.3	
523.0	CARBONDALE	HERRIN	COAL	2.8	168.0	
520.2	CARBONDALE		GRAY SHALE	39.3	170.8	

MAPID: 18300362000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 28 QUARTERS/FOOTAGES: SW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.723338 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.169043 DATE COLLECTED: 11 / 0 / 1910

SURFACE ELEVATION (FT.): 700.0 LOGGED (FT.): 212.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
700.0			UNCONSOLIDATED	146.0	0.0	
554.0	MODESTO		BLUE SHALE	4.5	146.0	
549.5	CARBONDALE	DANVILLE	COAL	0.1	150.5	
549.4	CARBONDALE	ENERGY	GRAY SHALE	18.0	150.6	
531.4	CARBONDALE	HERRIN	COAL	4.8	168.6	
526.6	CARBONDALE		GRAY SHALE	38.6	173.4	

MAPID: 18300363000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 28 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.723294 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.161744 DATE COLLECTED: 12 / 0 / 1910

SURFACE ELEVATION (FT.): 659.0 LOGGED (FT.): 147.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
659.0			UNCONSOLIDATED	90.0	0.0
569.0	MODESTO		BLUE SHALE	22.0	90.0
547.0	CARBONDALE	DANVILLE	COAL	5.7	112.0
541.3	CARBONDALE		SHALE	23.3	117.7
518.0	CARBONDALE	HERRIN	COAL	1.3	141.0
516.7	CARBONDALE		GRAY SHALE	4.8	142.3

MAPID: 18300364000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 28 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.72336 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.172689 DATE COLLECTED: 12 / 0 / 1910

SURFACE ELEVATION (FT.): 619.0 LOGGED (FT.): 109.3 LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
619.0			UNCONSOLIDATED	58.0	0.0
561.0	MODESTO		BLUE SHALE	11.0	58.0
550.0	MODESTO		BLACK SHALE	3.0	69.0
547.0	CARBONDALE	DANVILLE	COAL	5.2	72.0
541.8	CARBONDALE		GRAY SHALE	23.4	77.2
518.4	CARBONDALE		BLACK SHALE	3.4	100.6
515.0	CARBONDALE	HERRIN	COAL	1.3	104.0
513.7	CARBONDALE		GRAY SHALE	4.0	105.3

MAPID: 18300365000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 28 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.731625 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.173514 DATE COLLECTED:

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 79.7 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0			UNCONSOLIDATED	14.5	0.0	
565.5	MODESTO	FARMINGTON	SHALE	57.7	14.5	
507.8	CARBONDALE	DANVILLE	COAL	6.5	72.2	
501.3	CARBONDALE	DANVILLE	UNCLASSIFIED	0.3	78.7	
501.1	CARBONDALE	DANVILLE	COAL	0.4	78.9	
500.7	CARBONDALE		UNDERCLAY	0.3	79.3	

MAPID: 18390735000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 28 QUARTERS/FOOTAGES: SW SE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.729249 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.160843 DATE COLLECTED: 7 / 23 / 1958

SURFACE ELEVATION (FT.): 624.0 LOGGED (FT.): 94.2 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 211 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
624.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
618.0	PLEISTOCENE		SAND & GRAVEL	6.0	6.0	
612.0	PLEISTOCENE		CLAY	20.0	12.0	
592.0	PLEISTOCENE		SAND & GRAVEL	3.0	32.0	
589.0	SHELBURN		GRAY SHALE	51.0	35.0	SOFT
538.0	SHELBURN		BLACK SHALE	1.0	86.0	SOFT
537.0	SHELBURN	DANVILLE	COAL	6.2	87.0	GOOD
530.8	SHELBURN		UNDERCLAY	1.0	93.2	

MAPID: 18390742000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 28    QUARTERS/FOOTAGES: SW NW SE

QUADRANGLE: DANVILLE NW    LONGITUDE:    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE:    DATE COLLECTED: 7 / 30 / 1958

SURFACE ELEVATION (FT.): 699.1    LOGGED (FT.): 165.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    263    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
699.1	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
691.1	PLEISTOCENE		SAND & GRAVEL	5.0	8.0	
686.1	PLEISTOCENE		CLAY	57.0	13.0	
629.1	PLEISTOCENE		SAND & GRAVEL	8.0	70.0	
621.1	PLEISTOCENE		CLAY	55.0	78.0	
566.1	PLEISTOCENE			3.0	133.0	AND BOULDERS
563.1	SHELBURN		SHALE	22.0	136.0	SOFT
541.1	SHELBURN		COAL	5.8	158.0	GOOD
535.3	SHELBURN		UNKNOWN	1.2	163.8	HARD; LITH. NOT RECORDED

MAPID: 18390743000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 28    QUARTERS/FOOTAGES: SW NE SE

QUADRANGLE: DANVILLE NW    LONGITUDE:    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE:    DATE COLLECTED: 7 / 24 / 1958

SURFACE ELEVATION (FT.): 700.8    LOGGED (FT.): 177.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    265    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
700.8	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
690.8	PLEISTOCENE		SAND & GRAVEL	8.0	10.0	
682.8	PLEISTOCENE		CLAY	150.0	18.0	
532.8	SHELBURN		COAL	6.0	168.0	GOOD
526.8	SHELBURN		UNKNOWN	3.0	174.0	SOFT; LITH. NOT RECORDED

MAPID: 18390744000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 28 QUARTERS/FOOTAGES: SE NE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.717364 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.164493 DATE COLLECTED: 7 / 29 / 1958

SURFACE ELEVATION (FT.): 695.5 LOGGED (FT.): 157.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 267 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
695.5	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
688.5	PLEISTOCENE		CLAY	124.0	7.0	
564.5	PLEISTOCENE		CLAY	4.0	131.0	BOUL
560.5	SHELBURN		SHALE	10.0	135.0	MED. HARD
550.5	SHELBURN	DANVILLE	COAL	5.8	145.0	GOOD
544.7	SHELBURN		UNKNOWN	6.3	150.8	LITH. NOT RECORDED

MAPID: 18390748000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 28 QUARTERS/FOOTAGES: 660' S line, 1' W line of NW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.735191 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.16537 DATE COLLECTED: 7 / 31 / 1958

SURFACE ELEVATION (FT.): 678.3 LOGGED (FT.): 157.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 284 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
678.3	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
671.3	PLEISTOCENE		CLAY	71.0	7.0	
600.3	PLEISTOCENE			6.0	78.0	WITH BOULDERS
594.3	PLEISTOCENE		CLAY	12.0	84.0	
582.3	SHELBURN		SHALE	54.0	96.0	BLUE, MED. HARD
528.3	SHELBURN	DANVILLE	COAL	5.5	150.0	GOOD
522.8	SHELBURN		UNKNOWN	1.5	155.5	HARD, LITH. NOT RECORDED

MAPID: 18390749000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 28 QUARTERS/FOOTAGES: 660' S line, 1' W line of NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.730439 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.165375 DATE COLLECTED: 7 / 30 / 1958

SURFACE ELEVATION (FT.): 699.7 LOGGED (FT.): 181.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 286 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
699.7	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
690.7	PLEISTOCENE		CLAY	133.0	9.0	
557.7	SHELBURN		SHALE	32.0	142.0	SOFT
525.7	SHELBURN	DANVILLE	COAL	5.6	174.0	
520.1	SHELBURN		UNKNOWN	1.4	179.6	LITH. NOT RECORDED

MAPID: 18390798000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 28 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.729263 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.168098 DATE COLLECTED: 12 / 15 / 1953

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 62.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 311A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		SAND	10.0	0.0	
630.0	SHELBURN		SHALE	45.5	10.0	SAND
584.5	SHELBURN	DANVILLE	COAL	6.2	55.5	GOOD
578.3	SHELBURN		UNDERCLAY	1.0	61.7	

MAPID: 18390799000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 28 QUARTERS/FOOTAGES: 1' S line, 330' W line of SE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.729262 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.167194 DATE COLLECTED: 12 / 11 / 1953

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 311B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
643.0	SHELBURN		SHALE	42.0	7.0	
601.0	SHELBURN	DANVILLE	COAL	5.9	49.0	GOOD
595.1	SHELBURN		UNDERCLAY	1.1	54.9	

**MAPID:** 1839080000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 28    **QUARTERS/FOOTAGES:** 330' S line, 1' W line of SE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.73044    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.168092    **DATE COLLECTED:** 12 / 15 / 1953  
**SURFACE ELEVATION (FT.):** 630.0    **LOGGED (FT.):** 64.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    311C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	
627.0	PLEISTOCENE		SAND & GRAVEL	6.0	3.0	
621.0	SHELBURN		SHALE	48.5	9.0	HARD
572.5	SHELBURN	DANVILLE	COAL	6.0	57.5	GOOD
566.5	SHELBURN		UNDERCLAY	0.5	63.5	

**MAPID:** 18390801000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 28    **QUARTERS/FOOTAGES:** 330' S line, 660' W line of SE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.728082    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.168103    **DATE COLLECTED:** 12 / 14 / 1953  
**SURFACE ELEVATION (FT.):** 630.0    **LOGGED (FT.):** 60.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    312C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
621.0	SHELBURN		SHALE	43.0	9.0	AHRD
578.0	SHELBURN	DANVILLE	COAL	5.8	52.0	GOOD
572.2	SHELBURN		UNDERCLAY	2.2	57.8	

**MAPID:** 18300366000C    **VERSION:** 1    **PROJECT:** NCRDS88  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 29    **QUARTERS/FOOTAGES:** SE SE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.737582    **GEOLOGIST:** R. SMITH  
**CONFIDENTIAL:** N    **LATITUDE:** 40.161789    **DATE COLLECTED:** 1 / 0 / 1911  
**SURFACE ELEVATION (FT.):** 566.0    **LOGGED (FT.):** 105.0    **LOG TYPE:** Drillers Log  
**SOURCE:** BIG 4 RAILROAD    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
566.0			UNCONSOLIDATED	59.0	0.0	
507.0	MODESTO		BLUE SHALE	12.2	59.0	
494.8	MODESTO		BLACK SHALE	0.8	71.2	
494.0	CARBONDALE	HERRIN	COAL	1.8	72.0	UNCERTAIN CORRELATION
492.2	CARBONDALE		GRAY SHALE	31.2	73.8	

MAPID: 18300367000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 29 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.742334 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.165481 DATE COLLECTED:

SURFACE ELEVATION (FT.): 567.0 LOGGED (FT.): 105.1 LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
567.0			UNCONSOLIDATED	68.0	0.0	
499.0	MODESTO		BLUE SHALE	9.0	68.0	
490.0	MODESTO		BLACK SHALE	1.0	77.0	
489.0	CARBONDALE	HERRIN	COAL	2.1	78.0	
486.9	CARBONDALE		GRAY SHALE	25.0	80.1	

MAPID: 18300368000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 29 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.747119 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.172811 DATE COLLECTED: 6 / 0 / 1911

SURFACE ELEVATION (FT.): 629.0 LOGGED (FT.): 153.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
629.0			UNCONSOLIDATED	115.0	0.0	
514.0	CARBONDALE	DANVILLE	COAL	3.0	115.0	
511.0	CARBONDALE		GRAY SHALE	18.0	118.0	
493.0	CARBONDALE	HERRIN	COAL	2.5	136.0	
490.5	CARBONDALE		GRAY SHALE	14.5	138.5	



MAPID: 18300369000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 29 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.747092 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.16556 DATE COLLECTED:

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 163.3 LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0			UNCONSOLIDATED	94.0	0.0	
506.0	CARBONDALE	DANVILLE	COAL	0.0	94.0	
506.0	CARBONDALE		GRAY SHALE	20.0	94.0	
486.0	CARBONDALE		BLACK SHALE	2.0	114.0	
484.0	CARBONDALE	HERRIN	COAL	3.3	116.0	
480.7	CARBONDALE		GRAY SHALE	44.0	119.3	

MAPID: 18300370000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 29 QUARTERS/FOOTAGES: 2050' S line, 3200' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.746705 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.165775 DATE COLLECTED:

SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 62.0 LOG TYPE: Drillers Log

SOURCE: UNITED ELEC. COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0			UNCONSOLIDATED	44.0	0.0	
526.0	MODESTO	FARMINGTON	SHALE	7.0	44.0	
519.0	CARBONDALE	DANVILLE	COAL	5.0	51.0	
514.0	CARBONDALE		UNDERCLAY	6.0	56.0	

MAPID: 18300371000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 29 QUARTERS/FOOTAGES: SW NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.743522 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.164596 DATE COLLECTED:

SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 76.7 LOG TYPE: Drillers Log

SOURCE: UNITED ELEC. COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
565.0			UNCONSOLIDATED	57.0	0.0	
508.0	MODESTO	FARMINGTON	SHALE	15.5	57.0	
492.5	CARBONDALE	DANVILLE	COAL	1.5	72.5	
491.0	CARBONDALE		UNDERCLAY	2.7	74.0	

MAPID: 18300372000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 29 QUARTERS/FOOTAGES: 700' S line, 2475' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.744109 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.162013 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 73.4 LOG TYPE: Drillers Log

SOURCE: UNITED ELEC. COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			UNCONSOLIDATED	56.5	0.0
-	MODESTO		SHALE	14.4	56.5
-	CARBONDALE	DANVILLE	COAL	1.5	70.9
-	CARBONDALE		UNDERCLAY	1.0	72.4

MAPID: 18390740000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 29 QUARTERS/FOOTAGES: 660' S line, 1' W line of SE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.739951 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.161832 DATE COLLECTED: 1 / 7 / 1953

SURFACE ELEVATION (FT.): 566.2 LOGGED (FT.): 68.5 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 232 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
566.2	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0
560.2	PLEISTOCENE		SAND & GRAVEL	30.0	6.0
530.2	PLEISTOCENE		CLAY	28.0	36.0
502.2	CARBONDALE	HERRIN	COAL	2.5	64.0 TOP ERODED
499.7	CARBONDALE		UNDERCLAY	2.0	66.5

MAPID: 18390741000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 29    QUARTERS/FOOTAGES: NW SE SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.738767    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.162712    DATE COLLECTED: 1 / 9 / 1953

SURFACE ELEVATION (FT.): 568.0    LOGGED (FT.): 83.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    257    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
568.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
562.0	PLEISTOCENE		SAND & GRAVEL	12.0	6.0	
550.0	PLEISTOCENE		CLAY	20.0	18.0	
530.0	PLEISTOCENE		SAND & GRAVEL	21.0	38.0	
509.0	SHELBURN		SHALE	6.0	59.0	
503.0	SHELBURN		SHALE & SANDSTONE	12.0	65.0	HARD
491.0	CARBONDALE	ANNA	BLACK SHALE	0.7	77.0	
490.3	CARBONDALE	HERRIN	COAL	3.3	77.7	GOOD
487.0	CARBONDALE		UNDERCLAY	2.0	81.0	

MAPID: 18390745000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 29    QUARTERS/FOOTAGES: 660' N line, 660' E line of NW SE

QUADRANGLE: DANVILLE NW    LONGITUDE:    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE:    DATE COLLECTED: 1 / 13 / 1954

SURFACE ELEVATION (FT.): 570.0    LOGGED (FT.): 74.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    281    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
566.0	PLEISTOCENE		SAND & GRAVEL	59.0	4.0	
507.0			SHALE	4.0	63.0	HARD
503.0			SANDSTONE	1.0	67.0	HARD
502.0			SHALE & SANDSTONE	6.0	68.0	HARD

**MAPID:** 18390746000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 330' N line, 330' E line of NW SE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.741132    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.166363    **DATE COLLECTED:** 1 / 11 / 1954  
**SURFACE ELEVATION (FT.):** 570.0    **LOGGED (FT.):** 60.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    281A    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
564.0	PLEISTOCENE		SAND & GRAVEL	25.0	6.0	
539.0	PLEISTOCENE		CLAY	23.0	31.0	
516.0	SHELBURN	DANVILLE	COAL	5.3	54.0	TOP ERODED
510.7	SHELBURN		UNDERCLAY	0.7	59.3	

**MAPID:** 18390747000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 660' S line, 1' E line of NW SE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:**    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:**    **DATE COLLECTED:** 11 / 25 / 1953  
**SURFACE ELEVATION (FT.):** 580.0    **LOGGED (FT.):** 66.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    282    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
562.0	PLEISTOCENE		CLAY	8.0	18.0	
554.0	PLEISTOCENE		SAND & GRAVEL	35.0	26.0	
519.0			SHALE & SANDSTONE	5.0	61.0	HARD

**MAPID:** 18390750000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 1' N line, 330' W line of NW SE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.743534    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.167309    **DATE COLLECTED:** 1 / 13 / 1953  
**SURFACE ELEVATION (FT.):** 570.0    **LOGGED (FT.):** 58.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    305B    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0	PLEISTOCENE		UNCONSOLIDATED	44.0	0.0	
526.0	SHELBURN		SHALE	7.0	44.0	HARD
519.0	SHELBURN	DANVILLE	COAL	5.8	51.0	GOOD
513.2	SHELBURN		UNDERCLAY	1.3	56.8	

MAPID: 18390751000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 29    QUARTERS/FOOTAGES: 1' S line, 660' E line of SW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.742311    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.167293    DATE COLLECTED: 10 / 26 / 1953

SURFACE ELEVATION (FT.): 570.0    LOGGED (FT.): 61.7    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    306    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
566.0	PLEISTOCENE		SAND & GRAVEL	12.0	4.0	
554.0	PLEISTOCENE		CLAY	6.0	16.0	BOUL
548.0	PLEISTOCENE		CLAY	22.0	22.0	
526.0	SHELBURN		SHALE	10.5	44.0	
515.5	SHELBURN	DANVILLE	COAL	5.7	54.5	GOOD
509.8	SHELBURN		UNDERCLAY	1.5	60.2	

MAPID: 18390752000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 29    QUARTERS/FOOTAGES: 330' S line, 330' E line of SW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.741131    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.168175    DATE COLLECTED: 12 / 29 / 1953

SURFACE ELEVATION (FT.): 570.0    LOGGED (FT.): 57.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    306A    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
566.0	PLEISTOCENE		SAND & GRAVEL	46.0	4.0	
520.0	SHELBURN	DANVILLE	COAL	6.0	50.0	GOOD; TOP ERODED
514.0	SHELBURN		UNDERCLAY	1.0	56.0	

**MAPID:** 18390753000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 1' S line, 330' E line of SW NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.741131    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.167272    **DATE COLLECTED:** 12 / 30 / 1953  
**SURFACE ELEVATION (FT.):** 570.0    **LOGGED (FT.):** 62.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    306B    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
562.0	PLEISTOCENE		SAND & GRAVEL	37.0	8.0	
525.0	SHELBURN		SHALE	10.0	45.0	
515.0	SHELBURN	DANVILLE	COAL	5.8	55.0	GOOD
509.2	SHELBURN		UNDERCLAY	1.2	60.8	

**MAPID:** 18390754000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 330' S line, 660' E line of SW NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.742311    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.168196    **DATE COLLECTED:** 12 / 30 / 1953  
**SURFACE ELEVATION (FT.):** 570.0    **LOGGED (FT.):** 64.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    306C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
561.0	PLEISTOCENE		SAND & GRAVEL	30.0	9.0	
531.0			UNKNOWN	17.0	39.0	LITH. NOT RECORDED
514.0	SHELBURN	DANVILLE	COAL	6.0	56.0	GOOD
508.0	SHELBURN		UNDERCLAY	2.0	62.0	

**MAPID:** 18390755000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 990' N line, 165' E line of SW NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.740541    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.168156    **DATE COLLECTED:** 8 / 11 / 1967  
**SURFACE ELEVATION (FT.):** 570.0    **LOGGED (FT.):** 60.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    306I    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0	PLEISTOCENE		SAND & GRAVEL	45.0	0.0	
525.0	SHELBURN		SHALE	8.0	45.0	SOFT
517.0	SHELBURN	DANVILLE	COAL	6.4	53.0	MED. HARD
510.6	SHELBURN		UNDERCLAY	0.6	59.4	

MAPID: 18390791000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 29    QUARTERS/FOOTAGES: SE SW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.741142    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.168173    DATE COLLECTED: 10 / 29 / 1953

SURFACE ELEVATION (FT.): 571.5    LOGGED (FT.): 64.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    307    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
571.5	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	
568.5	PLEISTOCENE		SAND & GRAVEL	11.0	3.0	
557.5	PLEISTOCENE		CLAY	10.0	14.0	BOUL
547.5	SHELBURN		DARK SHALE	32.0	24.0	HARD
515.5	SHELBURN	DANVILLE	COAL	2.5	56.0	GOOD
513.0	SHELBURN	DANVILLE	UNCLASSIFIED	0.5	58.5	SOFT
512.5	SHELBURN	DANVILLE	COAL	3.5	59.0	GOOD
509.0	SHELBURN		UNDERCLAY	1.5	62.5	

MAPID: 18390792000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 29    QUARTERS/FOOTAGES: 330' S line, 330' W line of SE NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.738771    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.168134    DATE COLLECTED: 12 / 22 / 1953

SURFACE ELEVATION (FT.): 580.0    LOGGED (FT.): 56.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    307A    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
576.0	PLEISTOCENE		SAND & GRAVEL	7.0	4.0	
569.0	SHELBURN		SHALE	38.0	11.0	
531.0	SHELBURN	DANVILLE	COAL	6.0	49.0	GOOD
525.0	SHELBURN		UNDERCLAY	1.0	55.0	

**MAPID:** 18390793000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 1' S line, 330' W line of SE NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.738771    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.16723    **DATE COLLECTED:** 12 / 17 / 1953  
**SURFACE ELEVATION (FT.):** 590.0    **LOGGED (FT.):** 59.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    307B    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
571.0	SHELBURN		SHALE	33.0	19.0	HARD
538.0	SHELBURN	DANVILLE	COAL	6.0	52.0	GOOD
532.0	SHELBURN		UNDERCLAY	1.0	58.0	

**MAPID:** 18390794000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 330' S line, 1' W line of SE NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.739947    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.168154    **DATE COLLECTED:** 12 / 17 / 1953  
**SURFACE ELEVATION (FT.):** 600.0    **LOGGED (FT.):** 60.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    307C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
594.0	SHELBURN		SHALE	45.0	6.0	
549.0	SHELBURN	DANVILLE	COAL	5.7	51.0	GOOD
543.3	SHELBURN		UNDERCLAY	3.3	56.7	

**MAPID:** 18390795000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 330' S line, 330' E line of SE NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.736365    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.168091    **DATE COLLECTED:** 12 / 18 / 1953  
**SURFACE ELEVATION (FT.):** 590.0    **LOGGED (FT.):** 64.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    308A    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		SAND	16.0	0.0	
574.0	SHELBURN		SHALE	40.0	16.0	HARD
534.0	SHELBURN	DANVILLE	COAL	6.1	56.0	GOOD
527.9	SHELBURN		UNDERCLAY	1.9	62.1	



MAPID: 18390796000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 29 QUARTERS/FOOTAGES: 330' S line, 660' W line of SE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.737591 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.168113 DATE COLLECTED: 12 / 18 / 1953

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 308C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0	PLEISTOCENE		SAND	17.0	0.0	
563.0	SHELBURN		SHALE	35.5	17.0	HARD
527.5	SHELBURN	DANVILLE	COAL	6.0	52.5	GOOD
521.5	SHELBURN		UNDERCLAY	1.5	58.5	

MAPID: 18390797000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 29 QUARTERS/FOOTAGES: 330' S line, 1' E line of SE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.735188 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.168071 DATE COLLECTED: 12 / 22 / 1953

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 64.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 309C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		SAND	14.0	0.0	
576.0	SHELBURN		SHALE	42.5	14.0	HARD
533.5	SHELBURN	DANVILLE	COAL	5.8	56.5	GOOD
527.7	SHELBURN		UNDERCLAY	1.8	62.3	

MAPID: 18300373000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 30 QUARTERS/FOOTAGES: 2310' N line, 2310' W line

QUADRANGLE: COLLISON LONGITUDE: -87.760796 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.168315 DATE COLLECTED: 6 / 0 / 1911

SURFACE ELEVATION (FT.): 684.0 LOGGED (FT.): 243.1 LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
684.0			UNCONSOLIDATED	182.0	0.0	
502.0	MODESTO		BLUE SHALE	25.0	182.0	
477.0	CARBONDALE	DANVILLE	COAL	4.8	207.0	
472.2	CARBONDALE		GRAY SHALE	26.3	211.8	
446.0	CARBONDALE	HERRIN	COAL	2.1	238.0	
443.9	CARBONDALE		GRAY SHALE	3.0	240.1	

MAPID: 18300373000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 30 QUARTERS/FOOTAGES: 2310' N line, 2310' W line

QUADRANGLE: COLLISON LONGITUDE: -87.760796

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.168315

DATE COLLECTED:

SURFACE ELEVATION (FT.): 684.0

LOGGED (FT.): 240.1

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
501.0	MODESTO		GRAY SHALE	25.0	183.0
476.0	CARBONDALE	DANVILLE	COAL	4.8	208.0
471.2	CARBONDALE	ENERGY	GRAY SHALE	25.3	212.8
446.0	CARBONDALE	HERRIN	COAL	2.1	238.0

MAPID: 18300374000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 31 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: COLLISON LONGITUDE: -87.765942

GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.150924

DATE COLLECTED: 3 / 0 / 1911

SURFACE ELEVATION (FT.): 629.0

LOGGED (FT.): 197.5

LOG TYPE: Drillers Log

SOURCE: BIG 4 R.R.

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
629.0			UNCONSOLIDATED	110.0	0.0
519.0	MODESTO		BLUE SHALE	34.0	110.0
485.0	MODESTO		BLACK SHALE	3.0	144.0
482.0	CARBONDALE	DANVILLE	COAL	3.5	147.0
478.5	CARBONDALE		UNDERCLAY	3.1	150.5
475.4	CARBONDALE		GRAY SHALE	22.5	153.6
452.9	CARBONDALE		BLACK SHALE	3.2	176.1
449.7	CARBONDALE	HERRIN	COAL	0.3	179.3
449.5	CARBONDALE		GRAY SHALE	18.0	179.5

MAPID: 18300375000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 31 QUARTERS/FOOTAGES: 1980' N line, 1980' W line

QUADRANGLE: COLLISON LONGITUDE: -87.761874 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.154635 DATE COLLECTED: 4 / 0 / 1912

SURFACE ELEVATION (FT.): 664.0 LOGGED (FT.): 212.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
664.0			UNCONSOLIDATED	90.0	0.0
574.0	MODESTO		SANDSTONE	6.0	90.0
568.0	MODESTO	FARMINGTON	BLUE SHALE	77.0	96.0
491.0	CARBONDALE	DANVILLE	COAL	5.3	173.0
485.7	CARBONDALE		GRAY SHALE	21.0	178.3
464.7	CARBONDALE	HERRIN	COAL	2.7	199.3
462.0	CARBONDALE		GRAY SHALE	10.0	202.0

MAPID: 18300375000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 31 QUARTERS/FOOTAGES: 1980' N line, 1980' W line

QUADRANGLE: COLLISON LONGITUDE: -87.761874 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.154635 DATE COLLECTED:

SURFACE ELEVATION (FT.): 664.0 LOGGED (FT.): 201.7 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
574.3	MODESTO		SHALE & SANDSTONE	83.0	89.7
491.3	CARBONDALE	DANVILLE	COAL	5.3	172.7
486.0	CARBONDALE	ENERGY	GRAY SHALE	21.0	178.0
465.0	CARBONDALE	HERRIN	COAL	2.7	199.0

MAPID: 18300376000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 31 QUARTERS/FOOTAGES: SW NE

QUADRANGLE: COLLISON LONGITUDE: -87.761238 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.154612 DATE COLLECTED: 10 / 0 / 1911

SURFACE ELEVATION (FT.): 661.0 LOGGED (FT.): 222.7 LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
661.0			UNCONSOLIDATED	120.0	0.0
541.0	MODESTO	FARMINGTON	BLUE SHALE	56.0	120.0
485.0	CARBONDALE	DANVILLE	COAL	5.7	176.0
479.3	CARBONDALE		GRAY SHALE	22.0	181.7
457.3	CARBONDALE	HERRIN	COAL	1.0	203.7
456.3	CARBONDALE		GRAY SHALE	18.0	204.7

MAPID: 18300378000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 1980' N line, 660' W line

QUADRANGLE: COLLISON LONGITUDE: -87.751746 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.154726 DATE COLLECTED:

SURFACE ELEVATION (FT.): 655.0 LOGGED (FT.): 216.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
655.0			UNCONSOLIDATED	130.0	0.0
525.0	MODESTO		BLUE SHALE	40.0	130.0
485.0	CARBONDALE	DANVILLE	COAL	4.7	170.0
480.3	CARBONDALE		GRAY SHALE	18.3	174.7
462.0	CARBONDALE		BLACK SHALE	2.0	193.0
460.0	CARBONDALE	HERRIN	COAL	1.5	195.0
458.5	CARBONDALE		SANDY SHALE	19.5	196.5

MAPID: 18300378000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 1980' N line, 660' W line

QUADRANGLE: COLLISON LONGITUDE: -87.751746

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.154726

DATE COLLECTED:

SURFACE ELEVATION (FT.): 655.0

LOGGED (FT.): 196.5

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
523.8	MODESTO		GRAY SHALE	40.0	131.2
483.8	CARBONDALE	DANVILLE	COAL	4.7	171.2
479.2	CARBONDALE	LAWSON	GRAY SHALE	17.2	175.8
462.0	CARBONDALE	ANNA	BLACK SHALE	2.0	193.0
460.0	CARBONDALE	HERRIN	COAL	1.5	195.0

MAPID: 18300379000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: COLLISON LONGITUDE: -87.751792

GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.158348

DATE COLLECTED: 5 / 0 / 1911

SURFACE ELEVATION (FT.): 689.0

LOGGED (FT.): 235.0

LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
689.0			UNCONSOLIDATED	146.0	0.0
543.0	MODESTO		BLUE SHALE	44.0	146.0
499.0	CARBONDALE	DANVILLE	COAL	5.1	190.0
493.9	CARBONDALE		GRAY SHALE	7.0	195.1
486.9	CARBONDALE		SANDSTONE	1.0	202.1
485.9	CARBONDALE		GRAY SHALE	4.0	203.1
482.0	CARBONDALE		SANDSTONE/SHALE	1.0	207.0
481.0	CARBONDALE		GRAY SHALE	7.0	208.0
474.0	CARBONDALE		BLACK SHALE	1.3	215.0
472.7	CARBONDALE	HERRIN	COAL	2.4	216.3
470.2	CARBONDALE		GRAY SHALE	16.3	218.8

MAPID: 18300380000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 4750' S line, 2150' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.742942 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.158521 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 74.0 LOG TYPE: Drillers Log

SOURCE: UNITED ELEC. COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			UNCONSOLIDATED	61.5	0.0
-	MODESTO		SHALE	8.8	61.5
-	CARBONDALE	DANVILLE	COAL	2.8	70.3
-	CARBONDALE		UNDERCLAY	1.0	73.0

MAPID: 18300381000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 3500' S line, 3650' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.74832 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.155087 DATE COLLECTED:

SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 62.1 LOG TYPE: Drillers Log

SOURCE: UNITED ELEC. COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
570.0			UNCONSOLIDATED	47.0	0.0
523.0	MODESTO		SHALE	9.8	47.0
513.2	CARBONDALE	DANVILLE	COAL	5.3	56.8

MAPID: 18300382000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 3250' S line, 2150' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.742924 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.154383 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 47.8 LOG TYPE: Drillers Log

SOURCE: UNITED ELEC. COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			UNCONSOLIDATED	11.0	0.0
-	MODESTO		SHALE	31.8	11.0
-	CARBONDALE	DANVILLE	COAL	5.0	42.8

MAPID: 18300384000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 2200' S line, 150' E line of SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.735717 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.151463 DATE COLLECTED: 10 / 0 / 1910

SURFACE ELEVATION (FT.): 558.0 LOGGED (FT.): 89.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
558.0			UNCONSOLIDATED	14.0	0.0
544.0	MODESTO		BLUE SHALE	10.1	14.0
533.9	CARBONDALE	DANVILLE	COAL	5.7	24.1
528.2	CARBONDALE		UNDERCLAY	0.3	29.8
527.9	CARBONDALE	DANVILLE SUMP	COAL	0.3	30.1
527.7	CARBONDALE		BLUE SHALE	1.4	30.3
526.2	CARBONDALE		COAL	0.4	31.8
525.8	CARBONDALE		BLUE SHALE	4.4	32.2
521.4	CARBONDALE		LIMESTONE	2.6	36.6
518.8	CARBONDALE		SANDY SHALE	8.8	39.2
510.0	CARBONDALE	ANNA	BLACK SHALE	1.2	48.0
508.8	CARBONDALE	HERRIN	COAL	0.8	49.2
508.0	CARBONDALE		SANDY SHALE	39.0	50.0

MAPID: 18390006000C VERSION: 1

PROJECT: ISGS97

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 1690' N line, 1584' W line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.748432 GEOLOGIST: MMCracken

CONFIDENTIAL: N LATITUDE: 40.155477 DATE COLLECTED: 6 / 3 / 1965

SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 56.8 LOG TYPE: Company map

SOURCE: PEABODY COAL CO. 381 WELL TYPE: Coal Test

COMMENT: DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
570.0			UNKNOWN	54.3	0.0
515.7	CARBONDALE	DANVILLE	COAL	2.4	54.3

MAPID: 18390677000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 0' S line, 660' E line of SW NE

QUADRANGLE: DANVILLE NW

LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE:

DATE COLLECTED: 12 / 4 / 1952

SURFACE ELEVATION (FT.): 562.4

LOGGED (FT.): 60.0

LOG TYPE: Drillers Log

SOURCE: AMAX 106

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
562.4	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
557.4	PLEISTOCENE		SAND & GRAVEL	46.0	5.0	
511.4	SHELBURN		SHALE	2.0	51.0	SOFT
509.4	SHELBURN	DANVILLE	COAL	4.7	53.0	GOOD
504.7	SHELBURN		UNDERCLAY	2.3	57.7	

MAPID: 18390678000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 660' E line of SW NE

QUADRANGLE: DANVILLE NW

LONGITUDE: -87.742277

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE: 40.15364

DATE COLLECTED: 1 / 21 / 1953

SURFACE ELEVATION (FT.): 562.4

LOGGED (FT.): 57.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 106C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
562.4	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
554.4	PLEISTOCENE		SAND & GRAVEL	32.0	8.0	
522.4	SHELBURN		SHALE	11.0	40.0	
511.4	SHELBURN	DANVILLE	COAL	5.6	51.0	GOOD
505.8	SHELBURN		UNDERCLAY	0.4	56.6	



MAPID: 18390679000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 32    QUARTERS/FOOTAGES: SE SW NE

QUADRANGLE: DANVILLE NW

LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE:

DATE COLLECTED: 12 / 4 / 1952

SURFACE ELEVATION (FT.): 560.7

LOGGED (FT.): 56.0

LOG TYPE: Drillers Log

SOURCE: AMAX    107

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.7	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
554.7	PLEISTOCENE		SAND & GRAVEL	42.0	6.0	
512.7	SHELBURN	DANVILLE	COAL	3.0	48.0	GOOD; TOP ERODED
509.7	SHELBURN	DANVILLE	UNCLASSIFIED	0.3	51.0	SULPHUR ROCK
509.4	SHELBURN	DANVILLE	COAL	0.2	51.3	
509.2	SHELBURN	DANVILLE	UNCLASSIFIED	0.5	51.5	SULPHUR ROCK
508.7	SHELBURN	DANVILLE	COAL	1.7	52.0	GOOD
507.0	SHELBURN		UNDERCLAY	2.3	53.7	

MAPID: 18390680000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 32    QUARTERS/FOOTAGES: 330' S line, 330' W line of SE NE

QUADRANGLE: DANVILLE NW

LONGITUDE: -87.738736

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE: 40.153609

DATE COLLECTED: 12 / 11 / 1952

SURFACE ELEVATION (FT.): 560.6

LOGGED (FT.): 67.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    107A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.6	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
552.6	PLEISTOCENE		SAND & GRAVEL	46.0	8.0	
506.6	SHELBURN	DANVILLE	COAL	0.5	54.0	BLOOM; TOP ERODED
506.1	SHELBURN		SHALE	12.5	54.5	HARD

MAPID: 18390681000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 1' S line, 330' W line of SE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.73873 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.152706 DATE COLLECTED: 12 / 11 / 1952

SURFACE ELEVATION (FT.): 560.6 LOGGED (FT.): 69.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 107B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
560.6	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
548.6	PLEISTOCENE		SAND & GRAVEL	3.0	12.0
545.6	PLEISTOCENE		CLAY	35.0	15.0
510.6	SHELBURN		SANDY SHALE	14.5	50.0
496.1	CARBONDALE	HERRIN	COAL	2.5	64.5
493.6	SHELBURN		UNDERCLAY	2.0	67.0

MAPID: 18390682000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 0' W line of SE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.739916 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.153619 DATE COLLECTED: 1 / 13 / 1953

SURFACE ELEVATION (FT.): 563.3 LOGGED (FT.): 56.5 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 107C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
563.3	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
555.3	PLEISTOCENE		SAND & GRAVEL	7.0	8.0
548.3	PLEISTOCENE		CLAY	30.0	15.0
518.3	SHELBURN		SHALE	4.7	45.0
513.6	SHELBURN	DANVILLE	COAL	5.8	49.7 GOOD
507.8	SHELBURN		UNDERCLAY	1.0	55.5

**MAPID:** 18390683000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 32    **QUARTERS/FOOTAGES:** 330' S line, 82' W line of SE NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.739623    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.153617    **DATE COLLECTED:** 5 / 14 / 1953  
**SURFACE ELEVATION (FT.):** 563.1    **LOGGED (FT.):** 56.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    107CZ    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
563.1	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
554.1	PLEISTOCENE		SAND & GRAVEL	12.0	9.0	
542.1	PLEISTOCENE		CLAY	28.5	21.0	
513.6	SHELBURN	DANVILLE	COAL	4.0	49.5	GOOD; TOP ERODED
509.6	SHELBURN		UNKNOWN	2.5	53.5	NOT RECORDED

**MAPID:** 18390684000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 32    **QUARTERS/FOOTAGES:** 495' S line, 82' W line of SE NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.739626    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.15407    **DATE COLLECTED:** 5 / 14 / 1953  
**SURFACE ELEVATION (FT.):** 563.1    **LOGGED (FT.):** 54.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    107DZ    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
563.1	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
555.1	PLEISTOCENE		SAND & GRAVEL	25.0	8.0	
530.1	PLEISTOCENE		UNCONSOLIDATED	16.0	33.0	
514.1	SHELBURN	DANVILLE	COAL	2.1	49.0	CROP, WILL LOAD; TOP ERODED
512.0	SHELBURN		UNDERCLAY	2.9	51.1	

**MAPID:** 18390685000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 32    **QUARTERS/FOOTAGES:** 165' S line, 82' W line of SE NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.73962    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.153164    **DATE COLLECTED:** 5 / 14 / 1953  
**SURFACE ELEVATION (FT.):** 562.1    **LOGGED (FT.):** 56.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    107JZ    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
562.1	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
557.1	PLEISTOCENE		SAND & GRAVEL	15.0	5.0	
542.1	PLEISTOCENE		UNCONSOLIDATED	29.0	20.0	
513.1	SHELBURN	DANVILLE	COAL	5.2	49.0	GOOD; TOP ERODED
507.9	SHELBURN		UNKNOWN	1.8	54.2	NOT RECORDED

MAPID: 18390686000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 0' S line, 660' E line of SE NE

QUADRANGLE: DANVILLE NW

LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE:

DATE COLLECTED: 12 / 5 / 1952

SURFACE ELEVATION (FT.): 563.0

LOGGED (FT.): 75.0

LOG TYPE: Drillers Log

SOURCE: AMAX 108

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
563.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
558.0	PLEISTOCENE		SAND & GRAVEL	50.0	5.0	
508.0	SHELBURN		SHALE	8.0	55.0	SOFT
500.0	CARBONDALE	HERRIN	COAL	0.5	63.0	BLOOM
499.5	CARBONDALE		UNDERCLAY	2.5	63.5	
497.0	CARBONDALE		SHALE & SANDSTONE	9.0	66.0	HARD

MAPID: 18390687000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 1' S line, 330' E line of SE NE

QUADRANGLE: DANVILLE NW

LONGITUDE: -87.736363

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE: 40.152685

DATE COLLECTED: 12 / 12 / 1952

SURFACE ELEVATION (FT.): 566.5

LOGGED (FT.): 100.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 108B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
566.5	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
557.5	PLEISTOCENE		SAND & GRAVEL	47.0	9.0	
510.5	SHELBURN		GRAY SHALE	10.0	56.0	
500.5	CARBONDALE	ANNA	BLACK SHALE	2.0	66.0	HARD
498.5	CARBONDALE	HERRIN	COAL	0.3	68.0	
498.2	CARBONDALE		UNDERCLAY	4.0	68.3	
494.2	CARBONDALE		SHALE & SANDSTONE	7.3	72.3	HARD
487.0	CARBONDALE		LIMESTONE	4.0	79.5	HARD
483.0	CARBONDALE		SHALE & SANDSTONE	16.5	83.5	HARD

MAPID: 18390696000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 32    QUARTERS/FOOTAGES: 660' S line, 0' W line of SE NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.749384    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.154608    DATE COLLECTED: 12 / 27 / 1952

SURFACE ELEVATION (FT.): 569.6    LOGGED (FT.): 84.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    128    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
569.6	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
561.6	PLEISTOCENE		SAND & GRAVEL	28.0	8.0	
533.6	SHELBURN		SHALE	39.0	36.0	HARD
494.6	SHELBURN	DANVILLE	COAL	5.5	75.0	GOOD
489.1	SHELBURN		UNDERCLAY	3.5	80.5	

MAPID: 18390697000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 32    QUARTERS/FOOTAGES: SW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.742288    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.154564    DATE COLLECTED: 12 / 5 / 1952

SURFACE ELEVATION (FT.): 564.1    LOGGED (FT.): 86.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    130    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
564.1	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
560.1	PLEISTOCENE		SAND & GRAVEL	28.0	4.0	
532.1	PLEISTOCENE		CLAY	37.5	32.0	
494.6	CARBONDALE	HERRIN	COAL	2.8	69.5	GOOD; TOP ERODED
491.8	CARBONDALE		UNDERCLAY	2.7	72.3	
489.1	CARBONDALE		SHALE & SANDSTONE	11.0	75.0	

**MAPID:** 18390698000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 32    **QUARTERS/FOOTAGES:** 660' S line, 330' W line of SW NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.743473    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.154556    **DATE COLLECTED:** 12 / 10 / 1952  
**SURFACE ELEVATION (FT.):** 560.7    **LOGGED (FT.):** 65.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    130B    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.7	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
552.7	SHELBURN		GRAY SHALE	47.0	8.0	HARD
505.7	SHELBURN		DARK SHALE	3.5	55.0	HARD
502.2	SHELBURN	DANVILLE	COAL	5.7	58.5	FAIR, WILL LOAD
496.5	SHELBURN		UNKNOWN	0.8	64.2	NOT RECORDED

**MAPID:** 18390699000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 32    **QUARTERS/FOOTAGES:** 660' S line, 660' E line of SW NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.742282    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.154546    **DATE COLLECTED:** 12 / 4 / 1952  
**SURFACE ELEVATION (FT.):** 560.5    **LOGGED (FT.):** 55.5    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    131    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.5	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	
557.5	PLEISTOCENE		SAND & GRAVEL	12.0	3.0	
545.5	SHELBURN		GRAY SHALE	31.5	15.0	SOFT
514.0	SHELBURN	DANVILLE	COAL	5.5	46.5	GOOD
508.5	SHELBURN		UNDERCLAY	3.5	52.0	

**MAPID:** 18390700000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 32    **QUARTERS/FOOTAGES:** 248' N line, 371' E line of SW NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.741256    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.155702    **DATE COLLECTED:** 5 / 21 / 1953  
**SURFACE ELEVATION (FT.):** 560.0    **LOGGED (FT.):** 51.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
555.0	PLEISTOCENE		SAND & GRAVEL	19.0	5.0	
536.0	SHELBURN		SHALE	20.0	24.0	
516.0	SHELBURN	DANVILLE	COAL	5.3	44.0	GOOD
510.7	SHELBURN		UNDERCLAY	1.8	49.3	

MAPID: 18390701000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 124' N line, 372' E line of SW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.741262 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.156042 DATE COLLECTED: 5 / 22 / 1953

SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
550.0	PLEISTOCENE		SAND & GRAVEL	15.0	10.0	
535.0	PLEISTOCENE		CLAY	10.0	25.0	
525.0	SHELBURN		SHALE	8.0	35.0	HARD
517.0	SHELBURN	DANVILLE	COAL	5.3	43.0	GOOD
511.7	SHELBURN		UNDERCLAY	1.7	48.3	

MAPID: 18390702000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 660' S line, 0' E line of SW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.739922 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.154525 DATE COLLECTED: 12 / 8 / 1952

SURFACE ELEVATION (FT.): 563.3 LOGGED (FT.): 55.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 132 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
563.3	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
553.3	PLEISTOCENE		SAND & GRAVEL	4.0	10.0	
549.3	PLEISTOCENE		CLAY	33.0	14.0	
516.3	SHELBURN	DANVILLE	COAL	4.0	47.0	GOOD; TOP ERODED
512.3	SHELBURN		UNDERCLAY	4.0	51.0	

MAPID: 18390705000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: NE SW NW

QUADRANGLE: DANVILLE NW LONGITUDE: GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: DATE COLLECTED: 12 / 29 / 1952

SURFACE ELEVATION (FT.): 575.1 LOGGED (FT.): 86.3 LOG TYPE: Drillers Log

SOURCE: AMAX 153 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.1	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
563.1	PLEISTOCENE		CLAY	38.0	12.0	
525.1	SHELBURN		SHALE	29.0	50.0	HARD
496.1	SHELBURN	DANVILLE	COAL	5.3	79.0	GOOD
490.8	SHELBURN		UNDERCLAY	2.0	84.3	

MAPID: 18390706000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 1' N line, 660' E line of SE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.747028 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.156447 DATE COLLECTED: 12 / 29 / 1952

SURFACE ELEVATION (FT.): 564.4 LOGGED (FT.): 64.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 154 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
564.4	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
558.4	PLEISTOCENE		SAND & GRAVEL	46.0	6.0	
512.4	SHELBURN		SHALE	5.0	52.0	
507.4	SHELBURN	DANVILLE	COAL	5.3	57.0	GOOD
502.1	SHELBURN		UNDERCLAY	1.7	62.3	



MAPID: 18390707000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 1' N line, 330' E line of SE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.745848

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.156433

DATE COLLECTED: 1 / 28 / 1953

SURFACE ELEVATION (FT.): 560.0

LOGGED (FT.): 56.9

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 154B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
550.0	PLEISTOCENE		SAND & GRAVEL	20.0	10.0	
530.0	PLEISTOCENE		CLAY	12.0	30.0	
518.0	SHELBURN		SHALE	8.0	42.0	
510.0	SHELBURN	DANVILLE	COAL	5.9	50.0	GOOD
504.1	SHELBURN		UNDERCLAY	1.0	55.9	

MAPID: 18390708000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: NE SE NW

QUADRANGLE: COLLISON LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE:

DATE COLLECTED: 12 / 22 / 1952

SURFACE ELEVATION (FT.): 560.0

LOGGED (FT.): 57.0

LOG TYPE: Drillers Log

SOURCE: AMAX 155

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
554.0	PLEISTOCENE		SAND & GRAVEL	9.0	6.0	
545.0	SHELBURN		SANDY SHALE	35.0	15.0	
510.0	SHELBURN	DANVILLE	COAL	5.7	50.0	GOOD
504.3	SHELBURN		UNDERCLAY	1.3	55.7	

MAPID: 18390709000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 32    QUARTERS/FOOTAGES: 1' N line, 330' W line of SW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.743488

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.156406

DATE COLLECTED: 12 / 10 / 1952

SURFACE ELEVATION (FT.): 563.0

LOGGED (FT.): 60.9

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    155B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
563.0	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	
560.0	PLEISTOCENE		SAND & GRAVEL	8.0	3.0	
552.0	SHELBURN		GRAY SHALE	14.0	11.0	HARD
538.0	SHELBURN		SANDY SHALE	15.0	25.0	
523.0	SHELBURN		DARK SHALE	13.0	40.0	HARD
510.0	SHELBURN	DANVILLE	COAL	5.9	53.0	GOOD
504.1	SHELBURN		UNDERCLAY	2.0	58.9	

MAPID: 18390710000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 32    QUARTERS/FOOTAGES: 1' N line, 660' E line of SW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.742294

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.156392

DATE COLLECTED: 12 / 8 / 1952

SURFACE ELEVATION (FT.): 565.3

LOGGED (FT.): 54.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    156

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
565.3	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
559.3	PLEISTOCENE		SAND & GRAVEL	5.0	6.0	
554.3	SHELBURN		GRAY SHALE	28.0	11.0	HARD
526.3	SHELBURN		DARK SHALE	7.5	39.0	SOFT
518.8	SHELBURN	DANVILLE	COAL	5.6	46.5	GOOD
513.2	SHELBURN		UNDERCLAY	1.9	52.1	

MAPID: 18390711000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW NE

QUADRANGLE: DANVILLE NW

LONGITUDE: -87.741119

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE: 40.157287

DATE COLLECTED: 12 / 11 / 1952

SURFACE ELEVATION (FT.): 566.1

LOGGED (FT.): 74.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 156A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
566.1	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
556.1	PLEISTOCENE		SAND & GRAVEL	10.0	10.0	
546.1	PLEISTOCENE		UNCONSOLIDATED	30.0	20.0	
516.1	SHELBURN		SHALE	16.5	50.0	HARD
499.6	CARBONDALE	HERRIN	COAL	2.5	66.5	GOOD
497.1	CARBONDALE		UNDERCLAY	5.0	69.0	

MAPID: 18390712000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 1' N line, 330' E line of SW NE

QUADRANGLE: DANVILLE NW

LONGITUDE: -87.741113

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE: 40.156378

DATE COLLECTED: 12 / 9 / 1952

SURFACE ELEVATION (FT.): 565.0

LOGGED (FT.): 70.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 156B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
565.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
559.0	PLEISTOCENE		SAND & GRAVEL	18.0	6.0	
541.0	PLEISTOCENE		CLAY	24.0	24.0	
517.0	SHELBURN		SHALE	18.5	48.0	HARD
498.5	CARBONDALE	HERRIN	COAL	2.3	66.5	GOOD
496.2	CARBONDALE		UNDERCLAY	1.2	68.8	

MAPID: 18390713000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 32    QUARTERS/FOOTAGES: 330' S line, 660' W line of NW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.742315

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.1573

DATE COLLECTED: 12 / 9 / 1952

SURFACE ELEVATION (FT.): 567.0    LOGGED (FT.): 56.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    156C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
567.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
561.0	PLEISTOCENE		SAND & GRAVEL	10.0	6.0	
551.0	PLEISTOCENE		CLAY	18.0	16.0	
533.0	SHELBURN		SHALE	14.5	34.0	
518.5	SHELBURN	DANVILLE	COAL	5.7	48.5	GOOD
512.8	SHELBURN		UNDERCLAY	1.8	54.2	

MAPID: 18390714000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 32    QUARTERS/FOOTAGES: NE SW NE

QUADRANGLE: DANVILLE NW    LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE:

DATE COLLECTED: 12 / 3 / 1952

SURFACE ELEVATION (FT.): 564.4    LOGGED (FT.): 100.0

LOG TYPE: Drillers Log

SOURCE: AMAX    157

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
564.4	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
558.4	PLEISTOCENE		SAND & GRAVEL	16.0	6.0	
542.4	PLEISTOCENE		CLAY	25.0	22.0	
517.4	SHELBURN		SHALE	17.0	47.0	HARD
500.4	CARBONDALE	HERRIN	COAL	0.5	64.0	BLOOM
499.9	CARBONDALE		UNDERCLAY	2.5	64.5	
497.4	CARBONDALE		SHALE & SANDSTONE	33.0	67.0	HARD

MAPID: 18390715000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 1' S line, 660' E line of NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.737559 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.156342 DATE COLLECTED: 12 / 5 / 1952

SURFACE ELEVATION (FT.): 572.7 LOGGED (FT.): 98.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 158 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
572.7	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
564.7	PLEISTOCENE		SAND & GRAVEL	55.0	8.0	
509.7	SHELBURN		SHALE	8.5	63.0	SOFT
501.2	CARBONDALE	HERRIN	COAL	1.7	71.5	GOOD
499.5	CARBONDALE		UNDERCLAY	2.0	73.2	
497.5	CARBONDALE		SHALE & SANDSTONE	22.8	75.2	HARD

MAPID: 18390718000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.736387 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.157236 DATE COLLECTED: 12 / 15 / 1952

SURFACE ELEVATION (FT.): 678.1 LOGGED (FT.): 157.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 161 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
678.1	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
666.1	PLEISTOCENE		UNCONSOLIDATED	72.0	12.0	
594.1	SHELBURN		SHALE	15.0	84.0	HARD
579.1	SHELBURN		SANDY SHALE	48.0	99.0	
531.1	SHELBURN		DARK SHALE	2.0	147.0	SOFT
529.1	SHELBURN	DANVILLE	COAL	6.1	149.0	GOOD
523.0	SHELBURN		UNDERCLAY	1.9	155.1	

MAPID: 18390721000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 660' S line, 660' E line of NE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.747043 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.158261 DATE COLLECTED: 1 / 9 / 1953

SURFACE ELEVATION (FT.): 576.5 LOGGED (FT.): 82.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 179 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
576.5	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
565.5	PLEISTOCENE		SAND & GRAVEL	10.0	11.0	
555.5	PLEISTOCENE		CLAY	44.0	21.0	
511.5	SHELBURN		SHALE	10.0	65.0	
501.5	SHELBURN	DANVILLE	COAL	5.3	75.0	GOOD
496.2	SHELBURN		UNDERCLAY	1.8	80.3	

MAPID: 18390722000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 660' S line, 0' E line of NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.739944 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.158179 DATE COLLECTED: 12 / 23 / 1952

SURFACE ELEVATION (FT.): 566.2 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 180 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
566.2	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
560.2	PLEISTOCENE		SAND & GRAVEL	15.0	6.0	
545.2	PLEISTOCENE		CLAY	20.0	21.0	
525.2	SHELBURN		SHALE	9.0	41.0	
516.2	SHELBURN	DANVILLE	COAL	5.5	50.0	GOOD
510.7	SHELBURN		UNDERCLAY	0.5	55.5	

MAPID: 18390723000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 660' S line, 660' E line of NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.742305 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.158206 DATE COLLECTED: 12 / 22 / 1952

SURFACE ELEVATION (FT.): 565.7 LOGGED (FT.): 55.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 181 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
565.7	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
559.7	PLEISTOCENE		SAND & GRAVEL	43.3	6.0	
516.4	SHELBURN	DANVILLE	COAL	3.6	49.3	SOFT, CROP; TOP ERODED
512.8	SHELBURN		UNDERCLAY	2.1	52.9	

MAPID: 18390724000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 600' S line, 1' W line of NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.73994 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.158014 DATE COLLECTED: 12 / 9 / 1952

SURFACE ELEVATION (FT.): 566.6 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 182 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
566.6	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
556.6	PLEISTOCENE		CLAY	41.0	10.0	
515.6	SHELBURN		GRAY SHALE	13.0	51.0	
502.6	CARBONDALE	HERRIN	COAL	1.8	64.0	
500.8	CARBONDALE		UNDERCLAY	4.3	65.8	

MAPID: 18390725000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 660' S line, 660' E line of NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.737567 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.158151 DATE COLLECTED: 12 / 18 / 1952

SURFACE ELEVATION (FT.): 634.4 LOGGED (FT.): 136.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 183 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
634.4	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
626.4	PLEISTOCENE		CLAY	107.0	8.0	
519.4	PLEISTOCENE		SAND & GRAVEL	8.0	115.0	
511.4	SHELBURN		SHALE	9.0	123.0	HARD
502.4	CARBONDALE	HERRIN	COAL	1.8	132.0	FAIR
500.6	CARBONDALE		UNDERCLAY	3.0	133.8	

MAPID: 18390726000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 32    QUARTERS/FOOTAGES: 660' S line, 1' E line of NE NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.73521    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.158124    DATE COLLECTED: 12 / 19 / 1952

SURFACE ELEVATION (FT.): 630.0    LOGGED (FT.): 126.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    184    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
622.0	PLEISTOCENE		SAND & GRAVEL	35.0	8.0	
587.0	PLEISTOCENE		UNCONSOLIDATED	59.0	43.0	
528.0	PLEISTOCENE		SAND	5.0	102.0	
523.0	SHELBURN		SHALE	10.0	107.0	HARD
513.0	SHELBURN	DANVILLE	COAL	5.2	117.0	GOOD
507.8	SHELBURN	DANVILLE	CLAYSTONE	0.3	122.2	
507.6	SHELBURN	DANVILLE	COAL	0.5	122.4	
507.1	SHELBURN		UNDERCLAY	3.1	122.9	

MAPID: 18390728000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 32    QUARTERS/FOOTAGES: NW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.742314    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.158225    DATE COLLECTED: 12 / 26 / 1952

SURFACE ELEVATION (FT.): 569.5    LOGGED (FT.): 66.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    205    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
569.5	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
563.5	PLEISTOCENE		SAND & GRAVEL	50.0	6.0	
513.5	SHELBURN	DANVILLE	COAL	5.3	56.0	GOOD; TOP ERODED
508.2	SHELBURN		UNDERCLAY	4.7	61.3	



MAPID: 18390729000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 1' N line, 330' W line of NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.743517 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.160069 DATE COLLECTED: 1 / 14 / 1953

SURFACE ELEVATION (FT.): 568.2 LOGGED (FT.): 59.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 205B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
568.2	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
560.2	PLEISTOCENE		SAND & GRAVEL	46.0	8.0	
514.2	SHELburn	DANVILLE	COAL	2.8	54.0	CROP, FAIR; TOP ERODED
511.4	SHELburn		UNDERCLAY	2.2	56.8	

MAPID: 18390730000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 1' N line, 165' W line of NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.744107 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.160078 DATE COLLECTED: 1 / 14 / 1953

SURFACE ELEVATION (FT.): 568.6 LOGGED (FT.): 62.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 205N WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
568.6	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
562.6	PLEISTOCENE		SAND & GRAVEL	49.0	6.0	
513.6	SHELburn	DANVILLE	COAL	5.3	55.0	GOOD; TOP ERODED
508.3	SHELburn		UNKNOWN	1.7	60.3	NOT RECORDED

MAPID: 18390731000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 1' N line, 660' E line of NW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.742316 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.160052 DATE COLLECTED: 12 / 29 / 1952

SURFACE ELEVATION (FT.): 566.9 LOGGED (FT.): 76.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 206 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
566.9	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
558.9	PLEISTOCENE		CLAY	32.0	8.0	
526.9	PLEISTOCENE		SAND & GRAVEL	14.0	40.0	
512.9	SHELburn		CLAYSTONE	6.0	54.0	
506.9	SHELburn		SHALE & SANDSTONE	11.0	60.0	HARD
495.9	CARBONDALE	HERRIN	COAL	2.4	71.0	
493.5	CARBONDALE		UNDERCLAY	2.6	73.4	

MAPID: 18390732000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: NW NE NE

QUADRANGLE: COLLISON LONGITUDE: -87.738765 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.159091 DATE COLLECTED: 12 / 16 / 1952

SURFACE ELEVATION (FT.): 564.0 LOGGED (FT.): 86.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 207 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
564.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
558.0	PLEISTOCENE		SAND & GRAVEL	18.0	6.0	
540.0	PLEISTOCENE		CLAY	25.0	24.0	
515.0	SHELBURN		SHALE	14.0	49.0	HARD
501.0	CARBONDALE	HERRIN	COAL	0.7	63.0	BLOOM
500.3	CARBONDALE		UNDERCLAY	4.0	63.7	
496.3	CARBONDALE		SHALE & SANDSTONE	18.3	67.7	HARD

MAPID: 18390733000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 1' N line, 660' E line of NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.737575 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.159983 DATE COLLECTED: 12 / 18 / 1952

SURFACE ELEVATION (FT.): 582.2 LOGGED (FT.): 80.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 208 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
582.2	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	
579.2	PLEISTOCENE		SAND & GRAVEL	35.0	3.0	
544.2	PLEISTOCENE		CLAY	22.0	38.0	
522.2	CARBONDALE	HERRIN	COAL	0.5	60.0	BLOOM; TOP ERODED
521.7	CARBONDALE		UNKNOWN	19.5	60.5	DRILLER REPORTS SOFTPAN

MAPID: 18390734000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.736395 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.159058 DATE COLLECTED: 12 / 15 / 1952

SURFACE ELEVATION (FT.): 620.9 LOGGED (FT.): 96.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 209 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.9	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	
617.9	PLEISTOCENE		SAND & GRAVEL	6.0	3.0	
611.9	PLEISTOCENE		CLAY	29.0	9.0	
582.9	SHELBURN		SHALE	50.0	38.0	MED. HARD
532.9	SHELBURN	DANVILLE	COAL	5.7	88.0	GOOD
527.2	SHELBURN		UNDERCLAY	2.3	93.7	

MAPID: 18390761000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: SE NW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.75052 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.150043 DATE COLLECTED: 1 / 15 / 1953

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 166.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 53 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
625.0	PLEISTOCENE		CLAY	121.0	15.0	
504.0	SHELBURN		SHALE & SANDSTONE	23.0	136.0	HARD
481.0	SHELBURN	DANVILLE	COAL	5.8	159.0	GOOD
475.2	SHELBURN		UNDERCLAY	1.2	164.8	

MAPID: 18390762000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: SE NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.745797 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.150012 DATE COLLECTED: 1 / 15 / 1953

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 174.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 55 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
592.0	PLEISTOCENE		SAND & GRAVEL	10.0	8.0	
582.0	PLEISTOCENE		CLAY	68.0	18.0	
514.0	PLEISTOCENE		CLAY	55.0	86.0	
459.0	SHELBURN		SHALE	26.0	141.0	HARD
433.0	SHELBURN	DANVILLE	COAL	5.8	167.0	GOOD
427.2	SHELBURN		UNDERCLAY	1.3	172.8	

MAPID: 18390769000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 830' S line, 1' E line of NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.744631 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.151366 DATE COLLECTED: 12 / 27 / 1952

SURFACE ELEVATION (FT.): 562.0 LOGGED (FT.): 74.5 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 80 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
562.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
552.0	PLEISTOCENE		CLAY	40.0	10.0	
512.0	SHELBURN		SHALE	15.0	50.0	
497.0	SHELBURN	DANVILLE	COAL	6.0	65.0	GOOD
491.0	SHELBURN		UNDERCLAY	3.5	71.0	

MAPID: 1839077000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 82' N line, 1320' W line of NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.739915

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.152489

DATE COLLECTED: 1 / 14 / 1953

SURFACE ELEVATION (FT.): 561.8

LOGGED (FT.): 56.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 82

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
561.8	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
553.8	PLEISTOCENE		SAND & GRAVEL	35.0	8.0	
518.8	PLEISTOCENE		CLAY	4.0	43.0	
514.8	SHELBURN		SHALE	2.5	47.0	
512.3	SHELBURN	DANVILLE	COAL	5.8	49.5	GOOD
506.5	SHELBURN		UNDERCLAY	0.7	55.3	

MAPID: 18390777000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: DANVILLE NW LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE:

DATE COLLECTED: 12 / 27 / 1952

SURFACE ELEVATION (FT.): 569.6

LOGGED (FT.): 86.5

LOG TYPE: Drillers Log

SOURCE: AMAX 103

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
569.6	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
556.6	PLEISTOCENE		SAND & GRAVEL	12.0	13.0	
544.6	PLEISTOCENE		CLAY	32.0	25.0	
512.6	SHELBURN		SHALE	22.8	57.0	
489.8	SHELBURN	DANVILLE	COAL	5.8	79.8	GOOD
484.1	SHELBURN		UNDERCLAY	1.0	85.5	

**MAPID:** 18390778000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 32    **QUARTERS/FOOTAGES:** 0' S line, 660' W line of SE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:**    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:**    **DATE COLLECTED:** 12 / 23 / 1952  
**SURFACE ELEVATION (FT.):** 562.2    **LOGGED (FT.):** 76.8    **LOG TYPE:** Drillers Log  
**SOURCE:** AMAX    104    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
562.2	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
552.2	PLEISTOCENE		SANDY CLAY	40.0	10.0	
512.2	SHELBURN		SHALE	19.5	50.0	
492.7	SHELBURN	DANVILLE	COAL	5.3	69.5	GOOD
487.4	SHELBURN		UNDERCLAY	2.0	74.8	

**MAPID:** 18390779000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 32    **QUARTERS/FOOTAGES:** SE SE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:**    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:**    **DATE COLLECTED:** 12 / 23 / 1952  
**SURFACE ELEVATION (FT.):** 562.9    **LOGGED (FT.):** 76.5    **LOG TYPE:** Drillers Log  
**SOURCE:** AMAX    105    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
562.9	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
556.9	PLEISTOCENE		SAND & GRAVEL	43.0	6.0	
513.9	SHELBURN		SHALE	18.0	49.0	
495.9	SHELBURN	DANVILLE	COAL	6.5	67.0	GOOD
489.4	SHELBURN		UNDERCLAY	3.0	73.5	

**MAPID:** 18390780000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 32    **QUARTERS/FOOTAGES:** 0' S line, 330' W line of SW NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.743458    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.152744    **DATE COLLECTED:** 1 / 19 / 1953  
**SURFACE ELEVATION (FT.):** 561.5    **LOGGED (FT.):** 66.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    105B    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
561.5	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
548.5	PLEISTOCENE		SAND & GRAVEL	36.0	13.0	
512.5	SHELBURN		SHALE	10.0	49.0	
502.5	SHELBURN	DANVILLE	COAL	5.4	59.0	GOOD
497.1	SHELBURN		UNDERCLAY	1.6	64.4	

MAPID: 18390781000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 0' W line of SW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.744646

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.153661

DATE COLLECTED: 12 / 30 / 1952

SURFACE ELEVATION (FT.): 563.9

LOGGED (FT.): 76.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 105C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
563.9	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
557.9	PLEISTOCENE		SAND & GRAVEL	20.0	6.0	
537.9	PLEISTOCENE		CLAY	20.0	26.0	
517.9	PLEISTOCENE		SAND & GRAVEL	8.0	46.0	
509.9	SHELBURN		SHALE	16.0	54.0	HARD
493.9	SHELBURN	DANVILLE	COAL	5.3	70.0	GOOD
488.6	SHELBURN		ROCK	0.7	75.3	

MAPID: 18300383000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.718545

GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.150764

DATE COLLECTED: 10 / 0 / 1910

SURFACE ELEVATION (FT.): 637.0

LOGGED (FT.): 146.0

LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
637.0			UNCONSOLIDATED	41.0	0.0	
596.0	MODESTO		BLUE SHALE	57.0	41.0	
539.0	CARBONDALE	DANVILLE	COAL	5.4	98.0	
533.6	CARBONDALE		BLUE SHALE	0.3	103.4	
533.3	CARBONDALE		BLACK SHALE	23.3	103.7	
510.0	CARBONDALE	HERRIN	COAL	3.3	127.0	
506.7	CARBONDALE		GRAY SHALE	15.8	130.3	

MAPID: 18301857000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.732801 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.15084 DATE COLLECTED:

SURFACE ELEVATION (FT.): 558.0 LOGGED (FT.): 89.0 LOG TYPE: Drillers Log

SOURCE: WILLIAMS WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
558.0			UNCONSOLIDATED	14.0	0.0
544.0			BLUE SHALE	10.1	14.0
533.9	CARBONDALE	DANVILLE	COAL	5.7	24.1
528.2	CARBONDALE		UNDERCLAY	0.3	29.8
527.9	CARBONDALE	DANVILLE SUMP	COAL	0.3	30.1
527.7	CARBONDALE		BLUE SHALE	1.4	30.3
526.2	CARBONDALE		COAL	0.4	31.8
525.8	CARBONDALE		BLUE SHALE	4.4	32.2
521.4	CARBONDALE		LIMESTONE	2.6	36.6
518.8	CARBONDALE		SANDY SHALE	8.8	39.2
510.0	CARBONDALE	ANNA	BLACK SHALE	1.2	48.0
508.8	CARBONDALE	HERRIN	COAL	0.8	49.2
508.0	CARBONDALE		SANDY SHALE	39.0	50.0

MAPID: 18390662000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.717342 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.153504 DATE COLLECTED: 7 / 18 / 1958

SURFACE ELEVATION (FT.): 670.5 LOGGED (FT.): 155.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 301 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.5	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0
659.5	PLEISTOCENE		CLAY	26.0	11.0
633.5	PLEISTOCENE		SAND & GRAVEL	36.0	37.0
597.5	SHELBURN		SANDSTONE	37.0	73.0
560.5	SHELBURN		GRAY SHALE	26.0	110.0
534.5	CARBONDALE	ANNA	SHALE	12.0	136.0
522.5	CARBONDALE	HERRIN	COAL	3.0	148.0
519.5	CARBONDALE		UNDERCLAY	4.0	151.0



MAPID: 18390688000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: SW SW NW

QUADRANGLE: DANVILLE NW LONGITUDE: GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: DATE COLLECTED: 12 / 17 / 1952

SURFACE ELEVATION (FT.): 640.8 LOGGED (FT.): 115.0 LOG TYPE: Drillers Log

SOURCE: AMAX 109 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.8	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
632.8	PLEISTOCENE		SAND & GRAVEL	107.0	8.0	HOLE DISCONTINUED, LOST CIRCULATION

MAPID: 18390689000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: 0' S line, 660' E line of SW NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.732787 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.152661 DATE COLLECTED: 1 / 28 / 1953

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 126.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 110 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
638.0	PLEISTOCENE		SAND & GRAVEL	14.0	12.0	
624.0	PLEISTOCENE		CLAY	53.0	26.0	
571.0	SHELBURN		SHALE & SANDSTONE	39.5	79.0	HARD
531.5	SHELBURN	DANVILLE	COAL	5.2	118.5	GOOD
526.3	SHELBURN	DANVILLE	UNCLASSIFIED	0.3	123.7	SOFT
526.2	SHELBURN	DANVILLE	COAL	0.4	123.8	
525.7	SHELBURN		UNDERCLAY	1.7	124.3	

MAPID: 1839069000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 33    QUARTERS/FOOTAGES: SW SE NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.729238    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.153556    DATE COLLECTED: 12 / 17 / 1952

SURFACE ELEVATION (FT.): 666.8    LOGGED (FT.): 140.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    111    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
666.8	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
652.8	PLEISTOCENE		CLAY	55.0	14.0	
597.8	SHELBURN		SHALE	41.0	69.0	
556.8	SHELBURN		SHALE & SANDSTONE	22.0	110.0	HARD
534.8	SHELBURN	DANVILLE	COAL	5.6	132.0	GOOD
529.2	SHELBURN	DANVILLE	CLAYSTONE	0.3	137.6	
529.0	SHELBURN	DANVILLE	COAL	0.4	137.8	
528.5	SHELBURN		UNDERCLAY	1.8	138.3	

MAPID: 18390691000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 33    QUARTERS/FOOTAGES: 0' S line, 660' E line of SE NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.72803    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.152639    DATE COLLECTED: 7 / 23 / 1963

SURFACE ELEVATION (FT.): 683.2    LOGGED (FT.): 162.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    112    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
683.2	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
672.2	PLEISTOCENE		CLAY	12.0	11.0	
660.2	PLEISTOCENE		UNCONSOLIDATED	72.0	23.0	
588.2	SHELBURN		SHALE	60.0	95.0	SOFT
528.2	SHELBURN	DANVILLE	COAL	4.7	155.0	GOOD
523.5	SHELBURN	DANVILLE	CLAYSTONE	0.3	159.7	
523.3	SHELBURN	DANVILLE	COAL	0.4	159.9	
522.9	SHELBURN		UNDERCLAY	1.7	160.3	

MAPID: 18390692000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 33    QUARTERS/FOOTAGES: 0' S line, 82' E line of SE NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.725963    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.152629    DATE COLLECTED: 7 / 22 / 1963

SURFACE ELEVATION (FT.): 693.7    LOGGED (FT.): 171.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    112PB    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
693.7	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
682.7	PLEISTOCENE		CLAY	14.0	11.0	
668.7	PLEISTOCENE		UNCONSOLIDATED	85.0	25.0	
583.7	SHELBURN		SHALE	53.0	110.0	SOFT
530.7	SHELBURN	DANVILLE	COAL	5.6	163.0	GOOD
525.1	SHELBURN	DANVILLE	CLAYSTONE	0.3	168.6	
524.8	SHELBURN	DANVILLE	COAL	0.4	168.9	
524.4	SHELBURN		UNDERCLAY	1.7	169.3	

MAPID: 18390693000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 33    QUARTERS/FOOTAGES: 0' S line, 742' W line of SW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.723016    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.152615    DATE COLLECTED: 10 / 8 / 1963

SURFACE ELEVATION (FT.): 673.4    LOGGED (FT.): 142.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    114Z    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
673.4	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
665.4	PLEISTOCENE		CLAY	12.0	8.0	
653.4	PLEISTOCENE		UNCONSOLIDATED	67.0	20.0	
586.4	SHELBURN		DARK SHALE	43.0	87.0	HARD
543.4	SHELBURN		BLACK SHALE	4.0	130.0	HARD, DARK GRAY
539.4	SHELBURN	DANVILLE	COAL	5.9	134.0	GOOD
533.5	SHELBURN		DARK SHALE	2.1	139.9	HARD

MAPID: 18390694000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: SW SE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.719721 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.153514 DATE COLLECTED: 7 / 21 / 1958

SURFACE ELEVATION (FT.): 678.5 LOGGED (FT.): 141.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 115 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
678.5	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
669.5	PLEISTOCENE		CLAY	66.0	9.0	
603.5	PLEISTOCENE		SAND & GRAVEL	9.0	75.0	
594.5	SHELBURN		SHALE	47.0	84.0	HARD
547.5	SHELBURN	DANVILLE	COAL	5.6	131.0	GOOD
541.9	SHELBURN		UNDERCLAY	4.4	136.6	

MAPID: 18390695000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: 0' S line, 660' E line of SE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.718517 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.152594 DATE COLLECTED: 10 / 8 / 1963

SURFACE ELEVATION (FT.): 663.0 LOGGED (FT.): 126.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 116 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
663.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
652.0	PLEISTOCENE		CLAY	7.0	11.0	
645.0	PLEISTOCENE		UNCONSOLIDATED	67.0	18.0	
578.0	SHELBURN		SHALE	33.0	85.0	SOFT
545.0	SHELBURN	DANVILLE	COAL	5.8	118.0	GOOD
539.2	SHELBURN	DANVILLE	CLAYSTONE	0.3	123.8	
538.9	SHELBURN	DANVILLE	COAL	0.4	124.1	
538.5	SHELBURN		DARK SHALE	1.5	124.5	

MAPID: 18390703000C VERSION: 1

PROJECT: OMM1

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: 660' S line, 1' W line of SW NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.735187 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.154484 DATE COLLECTED: 1 / 27 / 1953

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 136.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 134 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
634.0	PLEISTOCENE		SAND & GRAVEL	39.0	6.0	
595.0	PLEISTOCENE		CLAY	69.0	45.0	
526.0	SHELBURN		CLAYSTONE	2.0	114.0	HARD
524.0	SHELBURN		SHALE & SANDSTONE	15.5	116.0	HARD
508.5	CARBONDALE	HERRIN	COAL	3.0	131.5	
505.5	CARBONDALE		UNDERCLAY	1.5	134.5	

MAPID: 18390704000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: 660' S line, 660' E line of SW NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.73279 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.154473 DATE COLLECTED: 2 / 6 / 1953

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 133.3 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 135 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		CLAY	50.0	10.0	
580.0	SHELBURN		SHALE	66.0	60.0	HARD
514.0	CARBONDALE	HERRIN	COAL	5.3	126.0	GOOD
508.7	CARBONDALE		UNDERCLAY	2.0	131.3	

MAPID: 18390716000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 33    QUARTERS/FOOTAGES: NW SW NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.734004    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.155397    DATE COLLECTED: 12 / 16 / 1952

SURFACE ELEVATION (FT.): 640.7    LOGGED (FT.): 124.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    159    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.7	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
633.7	PLEISTOCENE		SAND & GRAVEL	31.0	7.0	
602.7	PLEISTOCENE		CLAY	58.0	38.0	
544.7	SHELBURN		SHALE	19.0	96.0	HARD
525.7	SHELBURN	DANVILLE	COAL	5.5	115.0	GOOD
520.2	SHELBURN		UNDERCLAY	3.5	120.5	

MAPID: 18390717000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 33    QUARTERS/FOOTAGES: 1' N line, 660' E line of SW NW

QUADRANGLE: DANVILLE NW    LONGITUDE:    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE:    DATE COLLECTED: 1 / 22 / 1953

SURFACE ELEVATION (FT.): 640.0    LOGGED (FT.): 107.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    160    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
625.0	PLEISTOCENE		CLAY	52.0	15.0	
573.0			SHALE	40.0	67.0	HARD: HOLE DISCONTINUED

MAPID: 18390719000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 33    QUARTERS/FOOTAGES: SW NW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.724476    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.157186    DATE COLLECTED: 8 / 1 / 1958

SURFACE ELEVATION (FT.): 686.7    LOGGED (FT.): 160.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    163    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
686.7	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
679.7	PLEISTOCENE		SAND & GRAVEL	5.0	7.0	
674.7	PLEISTOCENE		CLAY	49.0	12.0	
625.7	PLEISTOCENE		SAND & GRAVEL	6.0	61.0	
619.7	PLEISTOCENE		CLAY	45.0	67.0	
574.7	SHELBURN		SHALE	41.0	112.0	SOFT
533.7	SHELBURN	DANVILLE	COAL	5.8	153.0	GOOD
527.9	SHELBURN		UNKNOWN	1.2	158.8	HARD; NOT RECORDED

MAPID: 18390720000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 33    QUARTERS/FOOTAGES: NW SE NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.719715    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.155342    DATE COLLECTED: 8 / 1 / 1958

SURFACE ELEVATION (FT.): 702.2    LOGGED (FT.): 167.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    165    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
702.2	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
692.2	PLEISTOCENE		CLAY	53.0	10.0	
639.2	PLEISTOCENE		SAND & GRAVEL	7.0	63.0	
632.2	PLEISTOCENE		CLAY	49.0	70.0	
583.2	PLEISTOCENE		SAND & GRAVEL	4.0	119.0	
579.2	SHELBURN		SHALE	35.0	123.0	
544.2	SHELBURN	DANVILLE	COAL	6.1	158.0	GOOD
538.1	SHELBURN		UNDERCLAY	2.9	164.1	

MAPID: 18390727000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: 660' S line, 660' E line of NW NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.732798

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.158115

DATE COLLECTED: 2 / 2 / 1953

SURFACE ELEVATION (FT.): 640.0

LOGGED (FT.): 134.5

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 185

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
630.0	PLEISTOCENE		SAND & GRAVEL	20.0	10.0	
610.0	PLEISTOCENE		CLAY	30.0	30.0	
580.0	SHELBURN		SHALE	68.0	60.0	HARD
512.0	SHELBURN	DANVILLE	COAL	4.5	128.0	GOOD
507.5	SHELBURN		UNDERCLAY	2.0	132.5	

MAPID: 18390736000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: NW NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.719703

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.158998

DATE COLLECTED: 7 / 22 / 1958

SURFACE ELEVATION (FT.): 699.6

LOGGED (FT.): 166.7

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 215

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
699.6	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
693.6	PLEISTOCENE		CLAY	106.0	6.0	
587.6	SHELBURN		SANDY SHALE	14.0	112.0	
573.6	SHELBURN		SHALE	32.0	126.0	MED. HARD
541.6	SHELBURN	DANVILLE	COAL	3.0	158.0	GOOD
538.6	SHELBURN	DANVILLE	UNCLASSIFIED	0.1	161.0	SULPHUR
538.6	SHELBURN	DANVILLE	COAL	2.7	161.0	GOOD
535.9	SHELBURN		UNKNOWN	3.0	163.7	HARD, NOT RECORDED



MAPID: 18390737000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 33    QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.734018    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.159038    DATE COLLECTED: 10 / 5 / 1951

SURFACE ELEVATION (FT.): 610.0    LOGGED (FT.): 77.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    217    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
603.0	PLEISTOCENE		CLAY	57.0	7.0	
546.0	SHELBURN		SHALE	3.7	64.0	
542.3	SHELBURN	DANVILLE	COAL	6.2	67.7	GOOD
536.2	SHELBURN	DANVILLE	CLAYSTONE	0.3	73.8	
535.8	SHELBURN	DANVILLE	COAL	0.4	74.2	SUMP VEIN
535.4	SHELBURN		UNDERCLAY	2.4	74.6	

MAPID: 18390738000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 33    QUARTERS/FOOTAGES: NW NW NE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.724475    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.159011    DATE COLLECTED: 10 / 11 / 1951

SURFACE ELEVATION (FT.): 675.0    LOGGED (FT.): 138.2    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    221    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
675.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
670.0	PLEISTOCENE		CLAY	35.0	5.0	BLUE CLAY
635.0	PLEISTOCENE		CLAY	55.0	40.0	
580.0	SHELBURN		SHALE	35.0	95.0	
545.0	SHELBURN	DANVILLE	COAL	6.2	130.0	GOOD
538.8	SHELBURN		UNDERCLAY	2.0	136.2	

MAPID: 18390739000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.717318 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.158991 DATE COLLECTED: 10 / 11 / 1951

SURFACE ELEVATION (FT.): 700.0 LOGGED (FT.): 165.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 225 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
700.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
686.0	PLEISTOCENE		CLAY	131.0	14.0	
555.0	SHELBURN		SHALE	11.0	145.0	
544.0	SHELBURN	DANVILLE	COAL	6.3	156.0	GOOD
537.7	SHELBURN		UNDERCLAY	2.8	162.3	

MAPID: 18390756000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: 660' N line, 660' E line of SE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.728032 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.14718 DATE COLLECTED: 7 / 22 / 1963

SURFACE ELEVATION (FT.): 649.7 LOGGED (FT.): 126.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 37 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
649.7	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
645.7	PLEISTOCENE		UNCONSOLIDATED	12.0	4.0	
633.7	PLEISTOCENE		UNCONSOLIDATED	54.0	16.0	
579.7	SHELBURN		SANDY DARK SHALE	49.0	70.0	SEMI-HARD
530.7	SHELBURN	DANVILLE	COAL	5.8	119.0	GOOD
524.9	SHELBURN		UNDERCLAY	1.2	124.8	

MAPID: 18390757000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: 660' S line, 1' W line of SW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.725668 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.14714 DATE COLLECTED: 7 / 19 / 1963

SURFACE ELEVATION (FT.): 647.1 LOGGED (FT.): 134.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 38 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
647.1	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
638.1	PLEISTOCENE		CLAY	14.0	9.0	
624.1	PLEISTOCENE		UNCONSOLIDATED	44.0	23.0	
580.1	SHELBURN		SHALE	59.0	67.0	SEMI-HARD
521.1	SHELBURN	DANVILLE	COAL	6.1	126.0	GOOD
515.0	SHELBURN	DANVILLE	CLAYSTONE	0.3	132.1	
514.8	SHELBURN	DANVILLE	COAL	0.5	132.3	
514.3	SHELBURN		UNDERCLAY	1.2	132.8	

MAPID: 18390758000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: 660' S line, 660' W line of SW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.723311 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.147124 DATE COLLECTED: 9 / 4 / 1963

SURFACE ELEVATION (FT.): 645.4 LOGGED (FT.): 133.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 39 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
645.4	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
634.4	PLEISTOCENE		UNCONSOLIDATED	61.0	11.0	
573.4	SHELBURN		DARK SHALE	53.0	72.0	SEMI-HARD
520.4	SHELBURN	DANVILLE	COAL	5.9	125.0	GOOD
514.5	SHELBURN	DANVILLE	COAL	0.8	130.9	WITH SLATE
513.6	SHELBURN		UNDERCLAY	1.3	131.8	

MAPID: 18390759000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 33    QUARTERS/FOOTAGES: 660' S line, 1' E line of SW SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.720931    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.147108    DATE COLLECTED: 9 / 4 / 1963

SURFACE ELEVATION (FT.): 647.4    LOGGED (FT.): 129.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    40    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
647.4	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
643.4	PLEISTOCENE		CLAY	7.0	4.0	
636.4	PLEISTOCENE		UNCONSOLIDATED	90.0	11.0	
546.4	SHELBURN		SANDY SHALE	18.0	101.0	SEMI-HARD
528.4	SHELBURN		SANDY SHALE	2.0	119.0	SOFT
526.4	SHELBURN	DANVILLE	COAL	5.8	121.0	GOOD
520.6	SHELBURN		RASH	0.5	126.8	
520.1	SHELBURN		UNDERCLAY	1.8	127.3	

MAPID: 18390760000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 33    QUARTERS/FOOTAGES: 660' S line, 660' E line of SE SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.718544    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.147092    DATE COLLECTED: 9 / 4 / 1963

SURFACE ELEVATION (FT.): 646.9    LOGGED (FT.): 116.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    41    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
646.9	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
640.9	PLEISTOCENE		CLAY	8.0	6.0	
632.9	PLEISTOCENE		UNCONSOLIDATED	81.0	14.0	
551.9	SHELBURN		SANDY SHALE	13.0	95.0	SOFT
538.9	SHELBURN	DANVILLE	COAL	5.8	108.0	GOOD
533.1	SHELBURN	DANVILLE	RASH	0.4	113.8	
532.6	SHELBURN		UNDERCLAY	1.8	114.3	

MAPID: 18390763000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 33    QUARTERS/FOOTAGES: SE NW SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.731608    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.149923    DATE COLLECTED: 7 / 23 / 1963

SURFACE ELEVATION (FT.): 654.0    LOGGED (FT.): 135.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    61    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
654.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
646.0	PLEISTOCENE		CLAY	15.0	8.0	
631.0	PLEISTOCENE		UNCONSOLIDATED	84.0	23.0	
547.0	SHELBURN		DARK SHALE	21.0	107.0	SEMI-HARD
526.0	SHELBURN	DANVILLE	COAL	5.8	128.0	GOOD
520.2	SHELBURN		UNDERCLAY	1.2	133.8	

MAPID: 18390764000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 33    QUARTERS/FOOTAGES: 1' N line, 660' E line of SE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.728031    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.148989    DATE COLLECTED: 7 / 22 / 1963

SURFACE ELEVATION (FT.): 661.1    LOGGED (FT.): 141.4    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    62    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
661.1	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
652.1	PLEISTOCENE		CLAY	14.0	9.0	
638.1	PLEISTOCENE		UNCONSOLIDATED	52.0	23.0	
586.1	SHELBURN		SHALE	12.0	75.0	SOFT
574.1	SHELBURN		SHALE	47.0	87.0	SEMI-HARD
527.1	SHELBURN	DANVILLE	COAL	5.8	134.0	GOOD
521.3	SHELBURN	DANVILLE	CLAYSTONE	0.3	139.8	
521.1	SHELBURN	DANVILLE	COAL	0.4	140.0	
520.7	SHELBURN		UNDERCLAY	1.0	140.4	

MAPID: 18390765000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: SE NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.726858 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.149897 DATE COLLECTED: 7 / 19 / 1963

SURFACE ELEVATION (FT.): 654.2 LOGGED (FT.): 135.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 63 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
654.2	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
648.2	PLEISTOCENE		CLAY	14.0	6.0	
634.2	PLEISTOCENE		UNCONSOLIDATED	57.0	20.0	
577.2	SHELBURN		DARK SHALE	50.0	77.0	SEMI-HARD
527.2	SHELBURN	DANVILLE	COAL	6.1	127.0	GOOD
521.1	SHELBURN		UNDERCLAY	1.9	133.1	

MAPID: 18390766000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: 1' S line, 578' E line of NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.72299 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.148966 DATE COLLECTED: 10 / 7 / 1963

SURFACE ELEVATION (FT.): 655.9 LOGGED (FT.): 132.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 64Z WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
655.9	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
646.9	PLEISTOCENE		CLAY	13.0	9.0	
633.9	PLEISTOCENE		UNCONSOLIDATED	66.0	22.0	
567.9	SHELBURN		SHALE	35.0	88.0	HARD
532.9	SHELBURN	DANVILLE	COAL	6.1	123.0	GOOD
526.8	SHELBURN		DARK SHALE	2.9	129.1	HARD

MAPID: 18390767000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.722108 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.149871 DATE COLLECTED: 9 / 4 / 1963

SURFACE ELEVATION (FT.): 655.3 LOGGED (FT.): 133.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 65 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
655.3	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
649.3	PLEISTOCENE		CLAY	9.0	6.0	
640.3	PLEISTOCENE		UNCONSOLIDATED	85.0	15.0	
555.3	SHELBURN		DARK SHALE	26.0	100.0	SEMI-HARD
529.3	SHELBURN	DANVILLE	COAL	5.7	126.0	GOOD
523.6	SHELBURN		UNDERCLAY	1.3	131.7	

MAPID: 18390768000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: 1' N line, 660' W line of SE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.718562 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.148935 DATE COLLECTED: 9 / 4 / 1963

SURFACE ELEVATION (FT.): 651.7 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 66 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
651.7	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
642.7	PLEISTOCENE		CLAY	7.0	9.0	
635.7	PLEISTOCENE		UNCONSOLIDATED	91.0	16.0	
544.7	SHELBURN		SANDY SHALE	15.0	107.0	SOFT
529.7	SHELBURN	DANVILLE	COAL	6.3	122.0	GOOD
523.4	SHELBURN		UNDERCLAY	1.8	128.3	

MAPID: 18390771000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 33    QUARTERS/FOOTAGES: 660' N line, 1' E line of NW SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.730426    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.150838    DATE COLLECTED: 7 / 23 / 1963

SURFACE ELEVATION (FT.): 671.7    LOGGED (FT.): 148.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    86    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
671.7	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
659.7	PLEISTOCENE		CLAY	11.0	12.0	
648.7	PLEISTOCENE		UNCONSOLIDATED	60.0	23.0	
588.7	SHELBURN		SHALE	57.0	83.0	SOFT
531.7	SHELBURN	DANVILLE	COAL	6.0	140.0	GOOD
525.7	SHELBURN	DANVILLE	CLAYSTONE	0.3	146.0	
525.4	SHELBURN	DANVILLE	COAL	0.6	146.3	
524.9	SHELBURN		UNDERCLAY	1.2	146.8	

MAPID: 18390772000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 33    QUARTERS/FOOTAGES: 660' S line, 660' W line of NE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.728062    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.150804    DATE COLLECTED: 7 / 22 / 1963

SURFACE ELEVATION (FT.): 677.2    LOGGED (FT.): 155.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    87    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
677.2	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
671.2	PLEISTOCENE		CLAY	9.0	6.0	
662.2	PLEISTOCENE		UNCONSOLIDATED	76.0	15.0	
586.2	SHELBURN		DARK SHALE	56.0	91.0	SEMI-HARD
530.2	SHELBURN	DANVILLE	COAL	5.5	147.0	GOOD
524.7	SHELBURN	DANVILLE	CLAYSTONE	0.3	152.5	
524.4	SHELBURN	DANVILLE	COAL	0.5	152.8	
523.9	SHELBURN		UNDERCLAY	1.7	153.3	



MAPID: 18390773000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: 660' N line, 82' E line of NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.725964 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.150818 DATE COLLECTED: 7 / 23 / 1963

SURFACE ELEVATION (FT.): 677.0 LOGGED (FT.): 153.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 87PB WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
677.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
673.0	PLEISTOCENE		CLAY	11.0	4.0	
662.0	PLEISTOCENE		UNCONSOLIDATED	81.0	15.0	
581.0	SHELBURN		DARK SHALE	50.0	96.0	SEMI-HARD
531.0	SHELBURN	DANVILLE	COAL	5.9	146.0	GOOD
525.1	SHELBURN		UNDERCLAY	1.1	151.9	

MAPID: 18390774000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: 660' N line, 742' W line of NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.723017 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.150804 DATE COLLECTED: 10 / 8 / 1963

SURFACE ELEVATION (FT.): 665.4 LOGGED (FT.): 134.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 89Z WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
665.4	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
653.4	PLEISTOCENE		CLAY	5.0	12.0	
648.4	PLEISTOCENE		UNCONSOLIDATED	82.0	17.0	
566.4	SHELBURN		SHALE	27.0	99.0	SOFT
539.4	SHELBURN	DANVILLE	COAL	5.8	126.0	GOOD
533.6	SHELBURN		RASH	0.4	131.8	
533.2	SHELBURN		DARK SHALE	1.8	132.2	HARD

MAPID: 18390775000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: 660' N line, 1' E line of NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.720921 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.150794 DATE COLLECTED: 10 / 8 / 1963

SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 90 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
660.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
651.0	PLEISTOCENE		CLAY	8.0	9.0	
643.0	PLEISTOCENE		UNCONSOLIDATED	66.0	17.0	
577.0	SHELBURN		SHALE	39.0	83.0	SOFT
538.0	SHELBURN	DANVILLE	COAL	5.7	122.0	GOOD
532.3	SHELBURN	DANVILLE	CLAYSTONE	0.3	127.7	HARD
532.1	SHELBURN	DANVILLE	COAL	0.5	127.9	
531.6	SHELBURN		DARK SHALE	1.6	128.4	HARD

MAPID: 18390776000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 33 QUARTERS/FOOTAGES: 660' N line, 660' W line of NE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.718558 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.150783 DATE COLLECTED: 10 / 8 / 1963

SURFACE ELEVATION (FT.): 656.5 LOGGED (FT.): 127.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 91 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
656.5	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
645.5	PLEISTOCENE		CLAY	5.0	11.0	
640.5	PLEISTOCENE		UNCONSOLIDATED	87.0	16.0	
553.5	SHELBURN		SHALE	17.0	103.0	SOFT
536.5	SHELBURN	DANVILLE	COAL	5.3	120.0	GOOD
531.2	SHELBURN	DANVILLE	CLAYSTONE	0.3	125.3	
530.9	SHELBURN	DANVILLE	COAL	0.6	125.6	
530.3	SHELBURN		DARK SHALE	0.8	126.2	

MAPID: 18300385000C    VERSION: 1

PROJECT: NCRDS87

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 1980' S line, 1980' E line

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.704244    GEOLOGIST: WEIBEL

CONFIDENTIAL: N    LATITUDE: 40.15072    DATE COLLECTED: 5 / 0 / 1910

SURFACE ELEVATION (FT.): 643.0    LOGGED (FT.): 340.3    LOG TYPE: Drillers Log

SOURCE: NAWATNY    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
643.0			UNCONSOLIDATED	41.0	0.0	
602.0	MODESTO		SHALE	20.0	41.0	
582.0	MODESTO		SANDSTONE	27.5	61.0	
554.5	CARBONDALE	DANVILLE	COAL	5.7	88.5	
548.8	CARBONDALE		UNDERCLAY	0.8	94.2	
548.1	CARBONDALE		UNCLASSIFIED	0.3	94.9	
547.8	CARBONDALE		SHALE	2.2	95.2	
545.7	CARBONDALE		UNCLASSIFIED	0.3	97.3	
545.3	CARBONDALE		COAL	0.8	97.7	
544.5	CARBONDALE		GRAY SHALE	6.5	98.5	
538.0	CARBONDALE	BRERETON	LIMESTONE	7.0	105.0	
531.0	CARBONDALE	ANNA	DARK SHALE	10.0	112.0	UNCERTAIN CORRELATION
521.0	CARBONDALE	HERRIN	COAL	6.8	122.0	
514.2	CARBONDALE		UNDERCLAY	2.0	128.8	
512.2	CARBONDALE		UNCLASSIFIED	1.2	130.8	
511.0	CARBONDALE		GRAY SHALE	6.0	132.0	
505.0	CARBONDALE		SHALE	51.0	138.0	
454.0	CARBONDALE		UNCLASSIFIED	7.0	189.0	
447.0	CARBONDALE		BLACK SHALE	8.5	196.0	
438.5	CARBONDALE		SHALE	19.5	204.5	
419.0	CARBONDALE		UNCLASSIFIED	3.7	224.0	
415.3	CARBONDALE		LIMESTONE	5.3	227.7	
410.0	CARBONDALE		SHALE	40.0	233.0	
370.0	CARBONDALE	MECCA QUARRY	DARK SHALE	13.0	273.0	
357.0	CARBONDALE	COLCHESTER	COAL	1.7	286.0	
355.3	SPOON		GRAY SHALE	3.3	287.7	
352.0	SPOON		UNCLASSIFIED	0.3	291.0	
351.7	SPOON		GRAY SHALE	6.7	291.3	
345.0	SPOON		COAL	0.3	298.0	
344.7	SPOON		GRAY SHALE	10.0	298.3	
334.7	SPOON		SANDSTONE	16.0	308.3	
318.7	SPOON		BLACK SHALE	2.0	324.3	
316.7	SPOON		GRAY SHALE	14.0	326.3	

MAPID: 18300385000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 1980' S line, 1980' E line

QUADRANGLE: DANVILLE NW LONGITUDE: -87.704244

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.15072

DATE COLLECTED:

SURFACE ELEVATION (FT.): 643.0 LOGGED (FT.): 128.8

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
554.5	CARBONDALE	DANVILLE	COAL	5.7	88.5	
548.8	CARBONDALE		BONE COAL	4.3	94.2	
544.5	CARBONDALE		GRAY SHALE	6.5	98.5	
538.0	CARBONDALE	BANKSTON FORK	LIMESTONE	7.0	105.0	
531.0	CARBONDALE	LAWSON	GRAY SHALE	10.0	112.0	
521.0	CARBONDALE	HERRIN	COAL	6.8	122.0	

MAPID: 18390554000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.710225

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.149826

DATE COLLECTED: 10 / 2 / 1963

SURFACE ELEVATION (FT.): 655.7 LOGGED (FT.): 94.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 203A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
655.7	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
648.7	PLEISTOCENE		CLAY	6.0	7.0	
642.7	PLEISTOCENE		UNCONSOLIDATED	67.0	13.0	
575.7	SHELBURN		SHALE	7.0	80.0	
568.7	SHELBURN	DANVILLE	COAL	5.3	87.0	GOOD
563.4	SHELBURN		MICACEOUS SHALE	1.7	92.3	

MAPID: 18390555000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 990' N line, 330' E line of SE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.707804    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.146201    DATE COLLECTED: 10 / 1 / 1963

SURFACE ELEVATION (FT.): 655.7    LOGGED (FT.): 106.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    204A    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
655.7	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
646.7	PLEISTOCENE		CLAY	10.0	9.0	
636.7	PLEISTOCENE		UNCONSOLIDATED	72.0	19.0	
564.7	SHELBURN	DANVILLE	COAL	1.0	91.0	SOFT; TOP ERODED
563.7	SHELBURN		DARK SHALE	2.0	92.0	
561.7	SHELBURN		MICACEOUS SHALE	9.0	94.0	HARD
552.7	SHELBURN		MICACEOUS SHALE	2.0	103.0	SOFT
550.7	SHELBURN		LIMESTONE	1.0	105.0	

MAPID: 18390556000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.707864    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.14526    DATE COLLECTED: 9 / 25 / 1963

SURFACE ELEVATION (FT.): 655.1    LOGGED (FT.): 91.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    204B    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
655.1	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
649.1	PLEISTOCENE		CLAY	7.0	6.0	
642.1	PLEISTOCENE		UNCONSOLIDATED	67.0	13.0	
575.1	SHELBURN		SHALE	6.0	80.0	
569.1	SHELBURN	DANVILLE	COAL	2.5	86.0	GOOD
566.6	SHELBURN	DANVILLE	COAL	0.9	88.5	FAIR
565.7	SHELBURN		DARK SHALE	1.6	89.4	

MAPID: 18390557000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 330' S line, 660' E line of SE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.708984

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.146167

DATE COLLECTED: 10 / 2 / 1963

SURFACE ELEVATION (FT.): 653.3 LOGGED (FT.): 90.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 204C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
653.3	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
646.3	PLEISTOCENE		CLAY	6.0	7.0	
640.3	PLEISTOCENE		UNCONSOLIDATED	57.0	13.0	
583.3	SHELBURN		SHALE	12.0	70.0	
571.3	SHELBURN	DANVILLE	COAL	5.9	82.0	GOOD
565.4	SHELBURN		COAL	0.6	87.9	WITH SLATE
564.8	SHELBURN		MICACEOUS SHALE	1.5	88.5	

MAPID: 18390559000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.705528

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.145259

DATE COLLECTED: 9 / 25 / 1963

SURFACE ELEVATION (FT.): 657.0 LOGGED (FT.): 109.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 205B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
657.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
651.0	PLEISTOCENE		CLAY	7.0	6.0	
644.0	PLEISTOCENE		UNCONSOLIDATED	90.0	13.0	
554.0	SHELBURN	DANVILLE	COAL	2.0	103.0	SOFT; TOP ERODED
552.0	SHELBURN		MICACEOUS SHALE	4.0	105.0	

MAPID: 1839056000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 330' S line, 0' line of SE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.706623

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.146166

DATE COLLECTED: 9 / 25 / 1963

SURFACE ELEVATION (FT.): 663.2 LOGGED (FT.): 102.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 205C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
663.2	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0
656.2	PLEISTOCENE		CLAY	11.0	7.0
645.2	PLEISTOCENE		UNCONSOLIDATED	68.0	18.0
577.2	SHELBURN		SHALE	9.0	86.0
568.2	SHELBURN	DANVILLE	COAL	5.5	95.0
562.7	SHELBURN		RASH	1.0	100.5
561.7	SHELBURN		DARK SHALE	0.5	101.5

MAPID: 18390566000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 660' S line, 0' line of SW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.711406

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.147074

DATE COLLECTED: 7 / 17 / 1963

SURFACE ELEVATION (FT.): 657.5 LOGGED (FT.): 117.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 226

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
657.5	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0
646.5	PLEISTOCENE		CLAY	8.0	11.0
638.5	PLEISTOCENE		UNCONSOLIDATED	56.0	19.0
582.5	SHELBURN		SHALE	34.0	75.0
548.5	SHELBURN	DANVILLE	COAL	5.6	109.0 GOOD
542.9	SHELBURN	DANVILLE	CLAYSTONE	0.3	114.6
542.7	SHELBURN	DANVILLE	COAL	0.7	114.8
542.0	SHELBURN		UNDERCLAY	1.5	115.5

MAPID: 18390567000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 660' S line, 660' W line of SW SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.713823    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.147075    DATE COLLECTED: 7 / 17 / 1963

SURFACE ELEVATION (FT.): 668.6    LOGGED (FT.): 122.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    227    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
668.6	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
661.6	PLEISTOCENE		CLAY	12.0	7.0	
649.6	PLEISTOCENE		UNCONSOLIDATED	82.0	19.0	
567.6			UNKNOWN	13.0	101.0	DRILLER DID NOT RECORD
554.6	SHELBURN	DANVILLE	COAL	5.8	114.0	GOOD
548.8	SHELBURN	DANVILLE	CLAYSTONE	0.2	119.8	
548.6	SHELBURN	DANVILLE	COAL	0.3	120.0	
548.3	SHELBURN		UNDERCLAY	1.8	120.3	

MAPID: 18390568000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: SE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.709017    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.14709    DATE COLLECTED: 7 / 16 / 1963

SURFACE ELEVATION (FT.): 667.6    LOGGED (FT.): 115.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    228    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
667.6	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
662.6	PLEISTOCENE		CLAY	11.0	5.0	
651.6	PLEISTOCENE		UNCONSOLIDATED	78.0	16.0	
573.6	SHELBURN		SANDY DARK SHALE	11.0	94.0	
562.6	SHELBURN		DARK SHALE	3.0	105.0	
559.6	SHELBURN	DANVILLE	COAL	6.2	108.0	GOOD
553.4	SHELBURN		UNDERCLAY	0.8	114.2	



MAPID: 18390569000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 330' N line, 990' E line of SE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.710174

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.148014

DATE COLLECTED: 10 / 2 / 1963

SURFACE ELEVATION (FT.): 664.0

LOGGED (FT.): 111.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 228A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
664.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
657.0	PLEISTOCENE		CLAY	9.0	7.0	
648.0	PLEISTOCENE		UNCONSOLIDATED	75.0	16.0	
573.0	SHELBURN		SHALE	12.0	91.0	
561.0	SHELBURN	DANVILLE	COAL	3.0	103.0	GOOD
558.0	SHELBURN	DANVILLE	COAL	2.3	106.0	FAIR
555.7	SHELBURN		DARK SHALE	2.7	108.3	

MAPID: 18390570000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 660' N line, 990' E line of SE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.710169

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.147108

DATE COLLECTED: 9 / 27 / 1963

SURFACE ELEVATION (FT.): 662.4

LOGGED (FT.): 102.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 228B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
662.4	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
655.4	PLEISTOCENE		CLAY	9.0	7.0	
646.4	PLEISTOCENE		UNCONSOLIDATED	66.0	16.0	
580.4	SHELBURN		SHALE	13.0	82.0	
567.4	SHELBURN	DANVILLE	COAL	5.8	95.0	GOOD
561.6	SHELBURN		SANDY DARK SHALE	1.3	100.8	

MAPID: 18390571000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 330' N line, 0' line of SE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.706632    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.148012    DATE COLLECTED: 10 / 4 / 1963

SURFACE ELEVATION (FT.): 672.3    LOGGED (FT.): 120.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    228C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
672.3	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
663.3	PLEISTOCENE		CLAY	8.0	9.0	
655.3	PLEISTOCENE		UNCONSOLIDATED	83.0	17.0	
572.3	SHELBURN		SHALE	13.0	100.0	
559.3	SHELBURN	DANVILLE	COAL	5.2	113.0	
554.1	SHELBURN	DANVILLE	CLAYSTONE	0.2	118.2	
554.0	SHELBURN	DANVILLE	COAL	0.6	118.3	
553.4	SHELBURN		DARK SHALE	1.1	118.9	

MAPID: 18390572000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 660' N line, 660' E line of SE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.708989    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.147107    DATE COLLECTED: 9 / 26 / 1963

SURFACE ELEVATION (FT.): 655.0    LOGGED (FT.): 107.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    229    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
655.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
651.0	PLEISTOCENE		CLAY	6.0	4.0	
645.0	PLEISTOCENE		SAND	6.0	10.0	
639.0	PLEISTOCENE		UNCONSOLIDATED	75.0	16.0	
564.0	SHELBURN		SHALE	2.0	91.0	
562.0	SHELBURN	DANVILLE	COAL	1.0	93.0	SOFT
561.0	SHELBURN		MICACEOUS SHALE	5.0	94.0	SOFT
556.0	SHELBURN		MICACEOUS SHALE	8.0	99.0	HARD

MAPID: 18390573000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 660' N line, 330' E line of SE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.707808    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.147107    DATE COLLECTED: 9 / 26 / 1963

SURFACE ELEVATION (FT.): 658.5    LOGGED (FT.): 95.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    229B    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
658.5	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
651.5	PLEISTOCENE		CLAY	6.0	7.0	
645.5	PLEISTOCENE		UNCONSOLIDATED	63.0	13.0	
582.5	SHELBURN		SHALE	12.0	76.0	
570.5	SHELBURN	DANVILLE	COAL	5.3	88.0	GOOD
565.2	SHELBURN		SHALE	1.7	93.3	SOFT

MAPID: 18390574000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 330' N line, 660' E line of SE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.708993    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.148013    DATE COLLECTED: 10 / 2 / 1963

SURFACE ELEVATION (FT.): 657.3    LOGGED (FT.): 101.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    229C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
657.3	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
653.3	PLEISTOCENE		CLAY	7.0	4.0	
646.3	PLEISTOCENE		UNCONSOLIDATED	85.0	11.0	
561.3	SHELBURN	DANVILLE	COAL	2.0	96.0	SOFT, NO GOOD; TOP ERODED
559.3	SHELBURN	DANVILLE	COAL	1.4	98.0	WITH SLATE
557.9	SHELBURN		MICACEOUS SHALE	1.6	99.4	

MAPID: 18390575000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 165' N line, 500' E line of SE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.708423 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.148466 DATE COLLECTED: 5 / 19 / 1969

SURFACE ELEVATION (FT.): 661.7 LOGGED (FT.): 103.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 229E WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
661.7	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
644.7	PLEISTOCENE		UNCONSOLIDATED	69.0	17.0	
575.7	SHELBURN		GRAY SHALE	9.5	86.0	
566.2	SHELBURN	DANVILLE	COAL	5.8	95.5	
560.4	SHELBURN		UNDERCLAY	1.8	101.3	

MAPID: 18390576000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 660' N line, 0' line of SE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.706628 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.147106 DATE COLLECTED: 9 / 25 / 1963

SURFACE ELEVATION (FT.): 665.7 LOGGED (FT.): 107.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 230 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
665.7	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
659.7	PLEISTOCENE		CLAY	7.0	6.0	
652.7	PLEISTOCENE		UNCONSOLIDATED	77.0	13.0	
575.7	SHELBURN		SHALE	10.0	90.0	
565.7	SHELBURN	DANVILLE	COAL	3.4	100.0	GOOD
562.3	SHELBURN	DANVILLE	COAL	2.3	103.4	FAIR
560.0	SHELBURN		DARK SHALE	1.3	105.7	

MAPID: 18390577000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 1237' S line, 660' W line of SW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.704275 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.148655 DATE COLLECTED: 9 / 25 / 1963

SURFACE ELEVATION (FT.): 654.9 LOGGED (FT.): 106.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 231DC WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
654.9	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
648.9	PLEISTOCENE		UNCONSOLIDATED	8.0	6.0	
640.9	PLEISTOCENE		UNCONSOLIDATED	64.0	14.0	
576.9	SHELBURN		SHALE	20.0	78.0	
556.9	SHELBURN	DANVILLE	COAL	5.6	98.0	GOOD
551.3	SHELBURN		DARK SHALE	2.4	103.6	

MAPID: 18390578000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 247' N line, 100' W line of SE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.701503 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.148237 DATE COLLECTED: 8 / 3 / 1958

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 102.2 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 232HC WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
632.0	PLEISTOCENE		SAND & GRAVEL	23.0	8.0	
609.0	PLEISTOCENE		CLAY	27.0	31.0	
582.0	PLEISTOCENE		SAND	14.0	58.0	
568.0	PLEISTOCENE		CLAY	15.0	72.0	
553.0	SHELBURN		SHALE	5.0	87.0	
548.0	SHELBURN	DANVILLE	COAL	6.2	92.0	
541.8	SHELBURN		UNDERCLAY	4.0	98.2	

MAPID: 18390579000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 660' N line, 660' W line of SE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.699489

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.147102

DATE COLLECTED: 9 / 27 / 1953

SURFACE ELEVATION (FT.): 649.8

LOGGED (FT.): 104.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 233

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
649.8	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
640.8	PLEISTOCENE		CLAY	9.0	9.0	
631.8	PLEISTOCENE		UNCONSOLIDATED	52.0	18.0	
579.8	SHELBURN		SANDY SHALE	27.0	70.0	
552.8	SHELBURN	DANVILLE	COAL	6.1	97.0	GOOD
546.7	SHELBURN		SANDY DARK SHALE	0.9	103.1	

MAPID: 18390580000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 660' N line, 0' line of SE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.697072

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.147101

DATE COLLECTED: 9 / 26 / 1963

SURFACE ELEVATION (FT.): 652.2

LOGGED (FT.): 106.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 234

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
652.2	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
646.2	PLEISTOCENE		UNCONSOLIDATED	28.0	6.0	
618.2	PLEISTOCENE		UNCONSOLIDATED	44.0	34.0	
574.2	SHELBURN		DARK SHALE	18.0	78.0	
556.2	SHELBURN		DARK SHALE	2.0	96.0	
554.2	SHELBURN	DANVILLE	COAL	5.8	98.0	GOOD
548.4	SHELBURN		DARK SHALE	2.3	103.8	

MAPID: 18390581000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.713786 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.150752 DATE COLLECTED: 11 / 20 / 1950

SURFACE ELEVATION (FT.): 649.5 LOGGED (FT.): 109.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 251 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
649.5	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
639.5	PLEISTOCENE		SAND & GRAVEL	62.0	10.0	
577.5	SHELBURN		SHALE	29.5	72.0	
548.0	SHELBURN	DANVILLE	COAL	5.7	101.5	
542.3	SHELBURN	DANVILLE	CLAYSTONE	0.2	107.2	
542.2	SHELBURN	DANVILLE	COAL	0.4	107.3	
541.7	SHELBURN		UNDERCLAY	1.3	107.8	

MAPID: 18390582000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: SW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.713832 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.145263 DATE COLLECTED: 7 / 17 / 1963

SURFACE ELEVATION (FT.): 660.2 LOGGED (FT.): 117.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 252 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
660.2	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
653.2	PLEISTOCENE		CLAY	14.0	7.0	
639.2	PLEISTOCENE		UNCONSOLIDATED	58.0	21.0	
581.2	SHELBURN		GRAY SHALE	22.0	79.0	
559.2	SHELBURN		DARK SHALE	8.0	101.0	
551.2	SHELBURN	DANVILLE	COAL	6.1	109.0	GOOD
545.1	SHELBURN	DANVILLE	CLAYSTONE	0.3	115.1	
544.9	SHELBURN	DANVILLE	COAL	0.4	115.3	
544.4	SHELBURN		UNDERCLAY	1.3	115.8	

MAPID: 18390583000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: SE NW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.712597 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.149836 DATE COLLECTED: 7 / 16 / 1963

SURFACE ELEVATION (FT.): 673.0 LOGGED (FT.): 125.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 253 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
673.0	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
664.0	PLEISTOCENE		UNKNOWN	12.0	9.0	DRILLER REPORTS SOFT SHALE
652.0	PLEISTOCENE		UNCONSOLIDATED	95.0	21.0	
557.0	SHELBURN		ROCK	0.5	116.0	
556.5	SHELBURN		SHALE	1.0	116.5	
555.5	SHELBURN	DANVILLE	COAL	5.5	117.5	GOOD
550.0	SHELBURN	DANVILLE	CLAYSTONE	0.3	123.0	
549.7	SHELBURN	DANVILLE	COAL	0.6	123.3	
549.2	SHELBURN		UNDERCLAY	1.2	123.8	

MAPID: 18390584000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.710225 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.149826 DATE COLLECTED: 10 / 2 / 1963

SURFACE ELEVATION (FT.): 668.2 LOGGED (FT.): 119.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 253A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
668.2	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
661.2	PLEISTOCENE		CLAY	11.0	7.0	
650.2	PLEISTOCENE		UNCONSOLIDATED	97.0	18.0	
553.2	SHELBURN	DANVILLE	COAL	1.0	115.0	SOFT; TOP ERODED
552.2	SHELBURN	DANVILLE	COAL	1.3	116.0	GOOD
550.9	SHELBURN		DARK SHALE	1.7	117.3	



MAPID: 18390585000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.710225

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.14892

DATE COLLECTED: 9 / 27 / 1963

SURFACE ELEVATION (FT.): 670.0    LOGGED (FT.): 123.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    253B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
670.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
663.0	PLEISTOCENE		CLAY	8.0	7.0	
655.0	PLEISTOCENE		UNCONSOLIDATED	88.0	15.0	
567.0	SHELBURN		SHALE	12.0	103.0	
555.0	SHELBURN	DANVILLE	COAL	5.4	115.0	GOOD
549.6	SHELBURN	DANVILLE	CLAYSTONE	0.2	120.4	
549.4	SHELBURN	DANVILLE	COAL	0.7	120.6	
548.7	SHELBURN		DARK SHALE	1.8	121.3	

MAPID: 18390586000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 330' S line, 0' line of NE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.706641

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.149824

DATE COLLECTED: 10 / 3 / 1963

SURFACE ELEVATION (FT.): 675.0    LOGGED (FT.): 126.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    253C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
675.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
667.0	PLEISTOCENE		CLAY	7.0	8.0	
660.0	PLEISTOCENE		UNCONSOLIDATED	90.0	15.0	
570.0	SHELBURN		SHALE	13.0	105.0	
557.0	SHELBURN	DANVILLE	COAL	6.1	118.0	GOOD
550.9	SHELBURN	DANVILLE	COAL	0.5	124.1	WITH SLATE
550.4	SHELBURN		MICACEOUS SHALE	1.4	124.6	

MAPID: 18390587000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 515' S line, 1025' E line of NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.710311 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.150334 DATE COLLECTED: 5 / 15 / 1969

SURFACE ELEVATION (FT.): 673.1 LOGGED (FT.): 118.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 253F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
673.1	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
661.1	PLEISTOCENE		CLAY	30.0	12.0
631.1	PLEISTOCENE		SAND & GRAVEL	30.0	42.0
601.1	PLEISTOCENE		UNCONSOLIDATED	30.0	72.0
571.1	SHELBURN		SHALE	7.0	102.0
564.1	SHELBURN	DANVILLE	COAL	5.9	109.0
558.2	SHELBURN	DANVILLE	CLAYSTONE	0.3	114.9
557.8	SHELBURN	DANVILLE	COAL	0.5	115.3
557.3	SHELBURN		SHALE	2.3	115.8

MAPID: 18390588000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 515' S line, 855' E line of NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.709702 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.150334 DATE COLLECTED: 5 / 15 / 1969

SURFACE ELEVATION (FT.): 659.2 LOGGED (FT.): 112.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 253G WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
659.2	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
644.2	PLEISTOCENE		CLAY	21.0	15.0
623.2	PLEISTOCENE		SAND & GRAVEL	45.0	36.0
578.2	PLEISTOCENE		UNCONSOLIDATED	22.0	81.0
556.2	SHELBURN	DANVILLE	COAL	5.3	103.0 TOP ERODED
550.9	SHELBURN	DANVILLE	CLAYSTONE	0.3	108.3
550.6	SHELBURN	DANVILLE	COAL	0.5	108.6
550.1	SHELBURN		SHALE	2.9	109.1

**MAPID:** 18390589000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 335' S line, 1165' E line of NE SW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.710809    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.14984    **DATE COLLECTED:** 5 / 16 / 1969  
**SURFACE ELEVATION (FT.):** 668.2    **LOGGED (FT.):** 118.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    253H    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
668.2	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0
646.2	PLEISTOCENE		UNCONSOLIDATED	80.0	22.0
566.2	SHELBURN		GRAY SHALE	9.0	102.0
557.2	SHELBURN	DANVILLE	COAL	5.8	111.0
551.4	SHELBURN		UNDERCLAY	1.2	116.8

**MAPID:** 18390590000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 165' S line, 1160' E line of NE SW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.710789    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.149374    **DATE COLLECTED:** 5 / 19 / 1969  
**SURFACE ELEVATION (FT.):** 674.9    **LOGGED (FT.):** 124.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    253K    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
674.9	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0
653.9	PLEISTOCENE		UNCONSOLIDATED	96.0	21.0
557.9	SHELBURN	DANVILLE	COAL	5.1	117.0 TOP ERODED
552.8	SHELBURN		UNDERCLAY	1.9	122.1

**MAPID:** 18390591000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 168' S line, 995' E line of NE SW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.710198    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.149382    **DATE COLLECTED:** 5 / 19 / 1969  
**SURFACE ELEVATION (FT.):** 672.4    **LOGGED (FT.):** 121.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    253L    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
672.4	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0
656.4	PLEISTOCENE		UNCONSOLIDATED	83.0	16.0
573.4	SHELBURN		GRAY SHALE	14.0	99.0
559.4	SHELBURN	DANVILLE	COAL	6.2	113.0
553.2	SHELBURN		UNDERCLAY	1.8	119.2

MAPID: 18390592000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 165' S line, 830' E line of NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.709608 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.149373 DATE COLLECTED: 5 / 16 / 1969

SURFACE ELEVATION (FT.): 658.9 LOGGED (FT.): 112.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 253M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
658.9	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0
639.9	PLEISTOCENE		UNCONSOLIDATED	83.0	19.0
556.9	SHELBURN		GRAY SHALE	3.0	102.0
553.9	SHELBURN	DANVILLE	COAL	5.8	105.0
548.1	SHELBURN		UNDERCLAY	1.2	110.8

MAPID: 18390593000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.709606 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.14892 DATE COLLECTED: 5 / 19 / 1969

SURFACE ELEVATION (FT.): 669.1 LOGGED (FT.): 112.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 253P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
669.1	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
659.1	PLEISTOCENE		CLAY	15.0	10.0
644.1	PLEISTOCENE		SAND & GRAVEL	30.0	25.0
614.1	PLEISTOCENE		UNCONSOLIDATED	45.0	55.0
569.1	SHELBURN		SHALE	4.0	100.0
565.1	SHELBURN	DANVILLE	COAL	5.6	104.0
559.5	SHELBURN	DANVILLE	CLAYSTONE	0.3	109.6
559.2	SHELBURN	DANVILLE	COAL	0.5	109.9
558.7	SHELBURN		SHALE	1.6	110.4

MAPID: 18390594000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.708998

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.14892

DATE COLLECTED: 9 / 26 / 1963

SURFACE ELEVATION (FT.): 661.6 LOGGED (FT.): 117.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 254

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
661.6	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
656.6	PLEISTOCENE		CLAY	11.0	5.0	
645.6	PLEISTOCENE		UNCONSOLIDATED	91.0	16.0	
554.6	SHELBURN		SHALE	2.5	107.0	
552.1	SHELBURN	DANVILLE	COAL	1.0	109.5	
551.1	SHELBURN		SANDY SHALE	6.5	110.5	

MAPID: 18390595000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 990' N line, 330' E line of NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.707822

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.149859

DATE COLLECTED: 10 / 1 / 1963

SURFACE ELEVATION (FT.): 665.1 LOGGED (FT.): 117.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 254A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
665.1	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
659.1	PLEISTOCENE		CLAY	8.0	6.0	
651.1	PLEISTOCENE		UNCONSOLIDATED	93.0	14.0	
558.1	SHELBURN	DANVILLE	COAL	1.0	107.0	SOFT; TOP ERODED
557.1	SHELBURN		DARK SHALE	3.0	108.0	
554.1	SHELBURN		GRAY SHALE	6.0	111.0	

MAPID: 18390596000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.707817 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.148919 DATE COLLECTED: 9 / 26 / 1963

SURFACE ELEVATION (FT.): 660.9 LOGGED (FT.): 110.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 254B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
660.9	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
651.9	PLEISTOCENE		UNCONSOLIDATED	17.0	9.0	
634.9	PLEISTOCENE		UNCONSOLIDATED	59.0	26.0	
575.9	SHELBURN		DARK SHALE	17.0	85.0	
558.9	SHELBURN	DANVILLE	COAL	5.3	102.0	GOOD
553.6	SHELBURN		DARK SHALE	2.8	107.3	

MAPID: 18390597000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 330' S line, 660' E line of NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: DATE COLLECTED: 10 / 1 / 1963

SURFACE ELEVATION (FT.): 663.1 LOGGED (FT.): 122.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 254C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
663.1	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
654.1	PLEISTOCENE		CLAY	10.0	9.0	
644.1	PLEISTOCENE		UNCONSOLIDATED	93.0	19.0	
551.1			MICACEOUS SHALE	10.0	112.0	HARD

MAPID: 18390598000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 510' S line, 685' E line of NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: GEOLOGIST: PHILLIPS

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

SURFACE ELEVATION (FT.): 666.0 LOGGED (FT.): 117.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 254D WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
666.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
651.0	PLEISTOCENE		CLAY	21.0	15.0	
630.0	PLEISTOCENE		SAND & GRAVEL	35.0	36.0	
595.0	PLEISTOCENE		UNCONSOLIDATED	46.0	71.0	

MAPID: 18390599000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 520' S line, 520' E line of NE SW

QUADRANGLE: DANVILLE NW

LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE:

DATE COLLECTED: 5 / 15 / 1969

SURFACE ELEVATION (FT.): 670.8

LOGGED (FT.): 117.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    254E

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.8	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
658.8	PLEISTOCENE		UNCONSOLIDATED	105.0	12.0

MAPID: 18390600000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 515' S line, 355' E line of NE SW

QUADRANGLE: DANVILLE NW

LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE:

DATE COLLECTED: 5 / 15 / 1969

SURFACE ELEVATION (FT.): 667.8

LOGGED (FT.): 127.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    254F

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
667.8	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
652.8	PLEISTOCENE		UNCONSOLIDATED	102.0	15.0
550.8			MICACEOUS SHALE	10.0	117.0    HARD

MAPID: 18390601000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 530' S line, 215' E line of NE SW

QUADRANGLE: DANVILLE NW

LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE:

DATE COLLECTED: 5 / 15 / 1969

SURFACE ELEVATION (FT.): 666.6

LOGGED (FT.): 117.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    254G

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
666.6	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
651.6	PLEISTOCENE		UNCONSOLIDATED	98.0	15.0
553.6			BLACK SHALE	1.0	113.0
552.6			MICACEOUS SHALE	3.0	114.0

MAPID: 18390602000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 330' S line, 82' E line of NE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.706935

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.149824

DATE COLLECTED: 10 / 3 / 1963

SURFACE ELEVATION (FT.): 664.9    LOGGED (FT.): 115.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    254IB

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
664.9	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
660.9	PLEISTOCENE		CLAY	8.0	4.0	
652.9	PLEISTOCENE		UNCONSOLIDATED	75.0	12.0	
577.9	SHELBURN		SHALE	18.0	87.0	SOFT
559.9	SHELBURN	DANVILLE	COAL	2.0	105.0	SOFT
557.9	SHELBURN	DANVILLE	COAL	3.0	107.0	GOOD
554.9	SHELBURN		DARK SHALE	5.0	110.0	

MAPID: 18390603000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 165' S line, 500' E line

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.69884

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.145709

DATE COLLECTED: 5 / 16 / 1969

SURFACE ELEVATION (FT.): 663.5    LOGGED (FT.): 108.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    254K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
663.5	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
647.5	PLEISTOCENE		UNCONSOLIDATED	80.0	16.0	
567.5	SHELBURN		GRAY SHALE	5.0	96.0	
562.5	SHELBURN	DANVILLE	COAL	5.2	101.0	
557.3	SHELBURN	DANVILLE	UNCLASSIFIED	0.3	106.2	
557.0	SHELBURN	DANVILLE	COAL	0.4	106.5	
556.6	SHELBURN		UNDERCLAY	1.1	106.9	



MAPID: 18390604000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 165' S line, 335' E line of NE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.707837    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.149372    DATE COLLECTED:

SURFACE ELEVATION (FT.): 666.4    LOGGED (FT.): 111.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    254L    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
666.4	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0
652.4	PLEISTOCENE		UNCONSOLIDATED	87.0	14.0
565.4	SHELBURN		GRAY SHALE	2.0	101.0
563.4	SHELBURN	DANVILLE	COAL	5.6	103.0
557.8	SHELBURN	DANVILLE	UNCLASSIFIED	0.3	108.6
557.6	SHELBURN	DANVILLE	COAL	0.3	108.8
557.2	SHELBURN		UNDERCLAY	1.8	109.2

MAPID: 18390605000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 165' S line, 165' E line of NE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.707229    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.149372    DATE COLLECTED:

SURFACE ELEVATION (FT.): 664.9    LOGGED (FT.): 112.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    254M    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
664.9	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
652.9	PLEISTOCENE		CLAY	21.0	12.0
631.9	PLEISTOCENE		SAND & GRAVEL	21.0	33.0
610.9	PLEISTOCENE		UNCONSOLIDATED	51.0	54.0
559.9	SHELBURN	DANVILLE	COAL	4.5	105.0
555.4	SHELBURN	DANVILLE	CLAYSTONE	0.3	109.5
555.1	SHELBURN	DANVILLE	COAL	0.5	109.8
554.6	SHELBURN		UNKNOWN	1.7	110.3    NOT RECORDED

MAPID: 18390606000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: NE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.709026    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.150749    DATE COLLECTED:

SURFACE ELEVATION (FT.): 662.9    LOGGED (FT.): 108.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    254N    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
662.9	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
655.9	PLEISTOCENE		CLAY	15.0	7.0	
640.9	PLEISTOCENE		SAND & GRAVEL	25.0	22.0	
615.9	PLEISTOCENE		UNCONSOLIDATED	50.0	47.0	
565.9	SHELBURN		SHALE	3.0	97.0	SOFT
562.9	SHELBURN	DANVILLE	COAL	6.0	100.0	
556.9	SHELBURN	DANVILLE	CLAYSTONE	0.3	106.0	
556.6	SHELBURN	DANVILLE	COAL	0.3	106.3	
556.2	SHELBURN		UNKNOWN	1.3	106.7	NOT RECORDED

MAPID: 18390607000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: SE NE NW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.70786    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.157151    DATE COLLECTED: 9 / 24 / 1963

SURFACE ELEVATION (FT.): 670.5    LOGGED (FT.): 116.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    255    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
670.5	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
659.5	PLEISTOCENE		UNCONSOLIDATED	85.0	11.0	
574.5	SHELBURN		SHALE	12.0	96.0	SOFT
562.5	SHELBURN	DANVILLE	COAL	6.3	108.0	GOOD
556.2	SHELBURN		RASH	0.8	114.3	
555.5	SHELBURN		DARK SHALE	1.0	115.0	

MAPID: 18390608000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 190' S line, 270' W line of NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.705674 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.149439 DATE COLLECTED: 5 / 12 / 1969

SURFACE ELEVATION (FT.): 664.3 LOGGED (FT.): 110.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 255A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
664.3	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0
641.3	PLEISTOCENE		UNCONSOLIDATED	69.0	23.0
572.3	SHELBURN		GRAY SHALE	11.0	92.0
561.3	SHELBURN	DANVILLE	COAL	5.7	103.0
555.6	SHELBURN		UNDERCLAY	1.3	108.7

MAPID: 18390609000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 130' N line, 305' W line of SW SE

QUADRANGLE: COLLISON LONGITUDE: -87.705544 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.148561 DATE COLLECTED: 5 / 12 / 1969

SURFACE ELEVATION (FT.): 664.3 LOGGED (FT.): 114.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 255B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
664.3	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0
645.3	PLEISTOCENE		CLAY	19.0	19.0
626.3	PLEISTOCENE		SAND & GRAVEL	30.0	38.0
596.3	SHELBURN		GRAY SHALE	38.0	68.0 MED HARD
558.3	SHELBURN	DANVILLE	COAL	5.5	106.0
552.8	SHELBURN	DANVILLE	CLAYSTONE	0.4	111.5
552.4	SHELBURN	DANVILLE	COAL	0.5	111.9
551.9	SHELBURN		UNDERCLAY	1.6	112.4

MAPID: 1839061000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 530' S line, 48' E line of NE SW

QUADRANGLE: DANVILLE NW

LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE:

DATE COLLECTED:

SURFACE ELEVATION (FT.): 655.2

LOGGED (FT.): 107.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 225D

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
655.2	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
642.2	PLEISTOCENE		UNKNOWN	90.0	13.0	
552.2			BLACK SHALE	1.0	103.0	
551.2			GRAY SHALE	3.0	104.0	HARD

MAPID: 18390611000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 570' S line, 212' W line of NW SE

QUADRANGLE: DANVILLE NW

LONGITUDE: -87.705886

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE: 40.150483

DATE COLLECTED: 5 / 13 / 1969

SURFACE ELEVATION (FT.): 667.1

LOGGED (FT.): 119.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 255EA

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
667.1	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0	
642.1	PLEISTOCENE		UNCONSOLIDATED	88.0	25.0	
554.1	SHELBURN		SHALE	2.0	113.0	SOFT
552.1	SHELBURN	DANVILLE	COAL	2.0	115.0	SOFT
550.1	SHELBURN		MICACEOUS SHALE	2.0	117.0	

MAPID: 18390612000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW SE

QUADRANGLE: DANVILLE NW

LONGITUDE: -87.703057

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE: 40.149822

DATE COLLECTED: 10 / 3 / 1963

SURFACE ELEVATION (FT.): 645.8

LOGGED (FT.): 101.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 256A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
645.8	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
636.8	PLEISTOCENE		CLAY	6.0	9.0	
630.8	PLEISTOCENE		UNCONSOLIDATED	79.0	15.0	
551.8	SHELBURN	DANVILLE	COAL	5.3	94.0	GOOD
546.5	SHELBURN		RASH	0.7	99.3	
545.8	SHELBURN		DARK SHALE	1.0	100.0	

MAPID: 18390613000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 330' S line, 540' E line of NW SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.703809    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.149823    DATE COLLECTED: 10 / 3 / 1963

SURFACE ELEVATION (FT.): 647.5    LOGGED (FT.): 104.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    256H    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
647.5	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
640.5	PLEISTOCENE		CLAY	9.0	7.0	
631.5	PLEISTOCENE		UNCONSOLIDATED	70.0	16.0	
561.5	SHELBURN		SHALE	10.0	86.0	SOFT
551.5	SHELBURN	DANVILLE	COAL	5.5	96.0	GOOD
546.0	SHELBURN		RASH	0.7	101.5	
545.3	SHELBURN		DARK SHALE	1.8	102.2	

MAPID: 18390614000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.703068    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.149831    DATE COLLECTED: 9 / 24 / 1963

SURFACE ELEVATION (FT.): 644.4    LOGGED (FT.): 98.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    257    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
644.4	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	
641.4	PLEISTOCENE		SAND & GRAVEL	10.0	3.0	
631.4	PLEISTOCENE		CLAY	67.0	13.0	
564.4	SHELBURN		SHALE	11.0	80.0	SOFT
553.4	SHELBURN	DANVILLE	COAL	5.7	91.0	GOOD
547.7	SHELBURN		DARK SHALE	1.3	96.7	

MAPID: 18390615000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.703068    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.149831    DATE COLLECTED: 9 / 24 / 1963

SURFACE ELEVATION (FT.): 644.4    LOGGED (FT.): 98.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    257C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
644.4	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	
641.4	PLEISTOCENE		SAND & GRAVEL	10.0	3.0	
631.4	PLEISTOCENE		CLAY	67.0	13.0	
564.4	SHELBURN		SHALE	11.0	80.0	SOFT
553.4	SHELBURN	DANVILLE	COAL	5.7	91.0	GOOD
547.7	SHELBURN		DARK SHALE	1.3	96.7	

MAPID: 18390616000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 330' S line, 0' line of NW SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.701877    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.149822    DATE COLLECTED: 10 / 4 / 1963

SURFACE ELEVATION (FT.): 648.2    LOGGED (FT.): 99.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    257C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
648.2	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
642.2	PLEISTOCENE		UNCONSOLIDATED	12.0	6.0	
630.2	PLEISTOCENE		UNCONSOLIDATED	73.0	18.0	
557.2	SHELBURN	DANVILLE	COAL	1.0	91.0	SOFT; TOP ERODED
556.2	SHELBURN	DANVILLE	COAL	4.4	92.0	GOOD
551.8	SHELBURN		DARK SHALE	2.6	96.4	

MAPID: 18390617000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.69946    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.148914    DATE COLLECTED: 9 / 27 / 1963

SURFACE ELEVATION (FT.): 663.4    LOGGED (FT.): 120.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    258    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
663.4	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
655.4	PLEISTOCENE		CLAY	11.0	8.0	
644.4	PLEISTOCENE		UNCONSOLIDATED	67.0	19.0	
577.4	SHELBURN		DARK SHALE	26.0	86.0	HARD
551.4	SHELBURN	DANVILLE	COAL	6.0	112.0	GOOD
545.4	SHELBURN		DARK SHALE	2.0	118.0	

MAPID: 18390618000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 330' S line, 330' E line of NE SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.698293    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.14982    DATE COLLECTED: 10 / 7 / 1963

SURFACE ELEVATION (FT.): 667.6    LOGGED (FT.): 114.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    258A    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
667.6	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
659.6	PLEISTOCENE		CLAY	9.0	8.0	
650.6	PLEISTOCENE		UNCONSOLIDATED	66.0	17.0	
584.6	SHELBURN		SHALE	23.0	83.0	SOFT
561.6	SHELBURN	DANVILLE	COAL	5.8	106.0	GOOD
555.8	SHELBURN		RASH	0.5	111.8	
555.3	SHELBURN		DARK SHALE	1.8	112.3	

MAPID: 18390619000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 330' S line, 660' W line of NE SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.699516

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.14982

DATE COLLECTED: 10 / 7 / 1963

SURFACE ELEVATION (FT.): 665.2    LOGGED (FT.): 112.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    258C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
665.2	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
656.2	PLEISTOCENE		CLAY	8.0	9.0	
648.2	PLEISTOCENE		UNCONSOLIDATED	75.0	17.0	
573.2	SHELBURN		SHALE	13.0	92.0	SOFT
560.2	SHELBURN	DANVILLE	COAL	5.3	105.0	GOOD
554.9	SHELBURN	DANVILLE	CLAYSTONE	0.2	110.3	
554.8	SHELBURN	DANVILLE	COAL	0.5	110.4	
554.3	SHELBURN		SHALE	1.1	110.9	

MAPID: 18390620000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: NE SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.699506

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.150743

DATE COLLECTED: 11 / 20 / 1950

SURFACE ELEVATION (FT.): 655.5    LOGGED (FT.): 116.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    259

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
655.5	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
643.5	PLEISTOCENE		CLAY	36.0	12.0	
607.5	PLEISTOCENE		SAND & GRAVEL	26.0	48.0	
581.5	PLEISTOCENE		CLAY	21.0	74.0	
560.5	SHELBURN		SHALE	14.0	95.0	HARD
546.5	SHELBURN	DANVILLE	COAL	5.6	109.0	GOOD
540.9	SHELBURN	DANVILLE	CLAYSTONE	0.2	114.6	
540.7	SHELBURN	DANVILLE	COAL	0.3	114.8	
540.4	SHELBURN		UNDERCLAY	0.9	115.1	



MAPID: 18390621000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 330' S line, 0' line of NE SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.697113    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.149819    DATE COLLECTED: 10 / 7 / 1963

SURFACE ELEVATION (FT.): 671.6    LOGGED (FT.): 119.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    259C    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
671.6	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
660.6	PLEISTOCENE		CLAY	12.0	11.0	
648.6	PLEISTOCENE		UNCONSOLIDATED	70.0	23.0	
578.6	SHELBURN		SHALE	18.0	93.0	SOFT
560.6	SHELBURN	DANVILLE	COAL	5.6	111.0	GOOD
555.0	SHELBURN	DANVILLE	CLAYSTONE	0.3	116.6	
554.8	SHELBURN	DANVILLE	COAL	0.4	116.8	
554.3	SHELBURN		DARK SHALE	1.8	117.3	

MAPID: 18390622000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 660' S line, 0' W line of NW SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.716166    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.150736    DATE COLLECTED: 7 / 17 / 1963

SURFACE ELEVATION (FT.): 660.3    LOGGED (FT.): 131.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    276    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
660.3	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
656.3	PLEISTOCENE		CLAY	12.0	4.0	
644.3	PLEISTOCENE		UNCONSOLIDATED	100.0	16.0	
544.3	SHELBURN		DARK SHALE	7.0	116.0	SEMI-HARD
537.3	SHELBURN	DANVILLE	COAL	5.2	123.0	GOOD
532.1	SHELBURN	DANVILLE	CLAYSTONE	0.3	128.2	
531.8	SHELBURN	DANVILLE	COAL	0.7	128.5	
531.1	SHELBURN		UNKNOWN	1.8	129.2	NOT RECORDED

MAPID: 18390623000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 330' N line, 0' W line of NW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.716161 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.151677 DATE COLLECTED: 7 / 18 / 1963

SURFACE ELEVATION (FT.): 663.8 LOGGED (FT.): 131.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 276C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
663.8	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
652.8	PLEISTOCENE		CLAY	8.0	11.0	
644.8	PLEISTOCENE		UNCONSOLIDATED	102.0	19.0	
542.8	SHELBURN		ROCK	1.0	121.0	
541.8	SHELBURN		SHALE	1.0	122.0	
540.8	SHELBURN	DANVILLE	COAL	5.7	123.0	
535.1	SHELBURN	DANVILLE	CLAYSTONE	0.3	128.7	
534.9	SHELBURN	DANVILLE	COAL	0.6	128.9	
534.3	SHELBURN		UNDERCLAY	1.5	129.5	

MAPID: 18390624000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 660' N line, 660' E line of NW SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.713767 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.150769 DATE COLLECTED: 7 / 24 / 1963

SURFACE ELEVATION (FT.): 662.4 LOGGED (FT.): 122.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 277 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
662.4	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
651.4	PLEISTOCENE		CLAY	12.0	11.0	
639.4	PLEISTOCENE		UNCONSOLIDATED	75.0	23.0	
564.4	SHELBURN		SHALE	16.0	98.0	SOFT
548.4	SHELBURN	DANVILLE	COAL	5.5	114.0	GOOD
542.9	SHELBURN	DANVILLE	CLAYSTONE	0.3	119.5	
542.6	SHELBURN	DANVILLE	COAL	0.5	119.8	
542.1	SHELBURN		UNDERCLAY	1.8	120.3	

MAPID: 18390625000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 164' N line, 854' W line of NW SW

QUADRANGLE: DANVILLE NW LONGITUDE: GEOLOGIST: PHILLIPS

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

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 155.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 277E WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0
657.0	PLEISTOCENE		CLAY	32.0	13.0
625.0	PLEISTOCENE		SAND	7.0	45.0
618.0	PLEISTOCENE		CLAY	39.0	52.0
579.0	PLEISTOCENE		SAND	50.0	91.0
529.0			SHALE	13.0	141.0
516.0			SANDSTONE	1.0	154.0

MAPID: 18390626000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 152' N line, 920' W line of NW SW

QUADRANGLE: DANVILLE NW LONGITUDE: GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: DATE COLLECTED: 12 / 19 / 1969

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 277EB WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.0	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0
654.0	PLEISTOCENE		CLAY	74.0	16.0
580.0	PLEISTOCENE		SAND	45.0	90.0
535.0			SHALE	13.0	135.0
522.0			SANDSTONE	2.0	148.0

MAPID: 18390627000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: NW SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.711406    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.148921    DATE COLLECTED: 7 / 16 / 1963

SURFACE ELEVATION (FT.): 676.2    LOGGED (FT.): 130.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    278    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
676.2	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
667.2	PLEISTOCENE		CLAY	18.0	9.0	
649.2	PLEISTOCENE		UNCONSOLIDATED	79.0	27.0	
570.2	SHELBURN		SANDY DARK SHALE	16.0	106.0	SEMI-HARD
554.2	SHELBURN	DANVILLE	COAL	5.3	122.0	GOOD
548.9	SHELBURN	DANVILLE	CLAYSTONE	0.3	127.3	
548.5	SHELBURN	DANVILLE	COAL	0.4	127.7	
548.1	SHELBURN		UNDERCLAY	1.9	128.1	

MAPID: 18390628000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 330' N line, 990' E line of NE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.710192    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.151673    DATE COLLECTED: 9 / 30 / 1963

SURFACE ELEVATION (FT.): 675.1    LOGGED (FT.): 127.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    278A    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
675.1	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
664.1	PLEISTOCENE		UNCONSOLIDATED	99.0	11.0	
565.1	SHELBURN		SHALE	9.0	110.0	SOFT
556.1	SHELBURN	DANVILLE	COAL	5.3	119.0	GOOD
550.8	SHELBURN		RASH	1.0	124.3	
549.8	SHELBURN		SANDY DARK SHALE	1.8	125.3	

MAPID: 18390629000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 660' N line, 990' E line of NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.710187 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.150767 DATE COLLECTED: 9 / 27 / 1963

SURFACE ELEVATION (FT.): 669.0 LOGGED (FT.): 115.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 278B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
669.0	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
664.0	PLEISTOCENE		CLAY	8.0	5.0	
656.0	PLEISTOCENE		UNCONSOLIDATED	92.0	13.0	
564.0	SHELBURN		DARK SHALE	3.0	105.0	SOFT
561.0	SHELBURN	DANVILLE	COAL	5.3	108.0	GOOD
555.7	SHELBURN		DARK SHALE	1.8	113.3	HARD

MAPID: 18390630000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 330' N line, 0' W line of NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.711406 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.151674 DATE COLLECTED: 7 / 18 / 1963

SURFACE ELEVATION (FT.): 679.7 LOGGED (FT.): 134.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 278C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
679.7	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
673.7	PLEISTOCENE		CLAY	15.0	6.0	
658.7	PLEISTOCENE		UNCONSOLIDATED	82.0	21.0	
576.7	SHELBURN		DARK SHALE	24.0	103.0	SOFT
552.7	SHELBURN	DANVILLE	COAL	4.8	127.0	GOOD
547.9	SHELBURN	DANVILLE	CLAYSTONE	0.2	131.8	
547.7	SHELBURN	DANVILLE	COAL	0.5	132.0	GOOD
547.2	SHELBURN		UNDERCLAY	1.5	132.5	

MAPID: 18390631000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 320' N line, 860' E line of NE SW

QUADRANGLE: DANVILLE NW

LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE:

DATE COLLECTED: 5 / 14 / 1969

SURFACE ELEVATION (FT.): 678.6

LOGGED (FT.): 127.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 278I

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
678.6	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	
657.6	PLEISTOCENE		UNCONSOLIDATED	98.0	21.0	
559.6			MICACEOUS SHALE	8.0	119.0	HARD

MAPID: 18390632000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 490' N line, 1030' E line of NE SW

QUADRANGLE: DANVILLE NW

LONGITUDE: -87.710333

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE: 40.151234

DATE COLLECTED: 5 / 15 / 1969

SURFACE ELEVATION (FT.): 673.8

LOGGED (FT.): 117.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 278L

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
673.8	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	
652.8	PLEISTOCENE		UNCONSOLIDATED	73.0	21.0	
579.8	SHELBURN		GRAY SHALE	14.0	94.0	
565.8	SHELBURN	DANVILLE	COAL	6.3	108.0	
559.5	SHELBURN		UNDERCLAY	2.7	114.3	

MAPID: 18390633000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 490' N line, 860' E line of NE SW

QUADRANGLE: DANVILLE NW

LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE:

DATE COLLECTED: 5 / 15 / 1969

SURFACE ELEVATION (FT.): 674.1

LOGGED (FT.): 124.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 278M

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
674.1	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
654.1	PLEISTOCENE		UNCONSOLIDATED	99.0	20.0	
555.1			MICACEOUS SHALE	5.0	119.0	

**MAPID:** 18390634000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 655' N line, 860' E line of NE SW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:**    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:**    **DATE COLLECTED:** 5 / 15 / 1969  
**SURFACE ELEVATION (FT.):** 673.1    **LOGGED (FT.):** 127.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    278P    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
673.1	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
653.1	PLEISTOCENE		UNCONSOLIDATED	100.0	20.0	
553.1			MICACEOUS SHALE	7.0	120.0	

**MAPID:** 18390635000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 660' N line, 660' E line of NE SW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:**    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:**    **DATE COLLECTED:** 9 / 26 / 1963  
**SURFACE ELEVATION (FT.):** 668.9    **LOGGED (FT.):** 126.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    279    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
668.9	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
658.9	PLEISTOCENE		UNCONSOLIDATED	108.0	10.0	
550.9			MICACEOUS SHALE	7.0	118.0	HARD
543.9			LIMESTONE	1.0	125.0	

**MAPID:** 18390636000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 330' N line, 330' E line of NE SW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.707831    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.151672    **DATE COLLECTED:** 10 / 1 / 1963  
**SURFACE ELEVATION (FT.):** 677.7    **LOGGED (FT.):** 128.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    279A    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
677.7	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
668.7	PLEISTOCENE		CLAY	8.0	9.0	
660.7	PLEISTOCENE		UNCONSOLIDATED	83.0	17.0	
577.7	SHELburn		SHALE	20.0	100.0	SOFT
557.7	SHELburn	DANVILLE	COAL	5.9	120.0	GOOD
551.8	SHELburn	DANVILLE	COAL	0.5	125.9	WITH SLATE
551.3	SHELburn		MICACEOUS SHALE	1.6	126.4	

MAPID: 18390637000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 660' N line, 330' E line of NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.707827 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.150765 DATE COLLECTED: 9 / 26 / 1963

SURFACE ELEVATION (FT.): 668.7 LOGGED (FT.): 117.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 279B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
668.7	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
663.7	PLEISTOCENE		CLAY	11.0	5.0	
652.7	PLEISTOCENE		UNCONSOLIDATED	89.0	16.0	
563.7	SHELBURN		SHALE	5.0	105.0	SOFT
558.7	SHELBURN	DANVILLE	COAL	5.6	110.0	GOOD
553.1	SHELBURN		SANDY DARK SHALE	1.4	115.6	

MAPID: 18390638000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 330' N line, 660' E line of NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.709012 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.151672 DATE COLLECTED: 9 / 30 / 1963

SURFACE ELEVATION (FT.): 676.9 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 279C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
676.9	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
667.9	PLEISTOCENE		CLAY	8.0	9.0	
659.9	PLEISTOCENE		UNCONSOLIDATED	109.0	17.0	
550.9	SHELBURN	DANVILLE	COAL	2.0	126.0	SOFT, NO GOOD; TOP ERODED
548.9	SHELBURN		MICACEOUS SHALE	2.0	128.0	HARD



MAPID: 18390639000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 330' N line, 530' E line of NE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.708547    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.151672    DATE COLLECTED: 5 / 14 / 1969

SURFACE ELEVATION (FT.): 680.9    LOGGED (FT.): 130.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    279H    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
680.9	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
671.9	PLEISTOCENE		CLAY	15.0	9.0	
656.9	PLEISTOCENE		SAND & GRAVEL	70.0	24.0	
586.9	SHELBURN		GRAY SHALE	28.0	94.0	SOFT
558.9	SHELBURN	DANVILLE	COAL	5.7	122.0	
553.2	SHELBURN	DANVILLE	CLAYSTONE	0.5	127.7	
552.7	SHELBURN	DANVILLE	COAL	0.5	128.2	
552.2	SHELBURN		MICACEOUS SHALE	1.3	128.7	

MAPID: 18390640000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 330' N line, 82' E line of NE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.706944    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.151671    DATE COLLECTED: 10 / 2 / 1963

SURFACE ELEVATION (FT.): 676.1    LOGGED (FT.): 130.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    279IB    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
676.1	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
669.1	PLEISTOCENE		CLAY	8.0	7.0	
661.1	PLEISTOCENE		UNCONSOLIDATED	97.0	15.0	
564.1	SHELBURN		SHALE	9.0	112.0	SOFT
555.1	SHELBURN	DANVILLE	COAL	6.2	121.0	GOOD
548.9	SHELBURN		DARK SHALE	2.8	127.2	

MAPID: 18390641000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 485' N line, 590' E line of NE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.708759    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.151247    DATE COLLECTED: 5 / 15 / 1969

SURFACE ELEVATION (FT.): 677.6    LOGGED (FT.): 129.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    279J    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
677.6	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
665.6	PLEISTOCENE		CLAY	25.0	12.0	
640.6	PLEISTOCENE		SAND & GRAVEL	35.0	37.0	
605.6	PLEISTOCENE		CLAY	52.0	72.0	
553.6	SHELBURN	DANVILLE	COAL	1.5	124.0	TOP ERODED
552.1	SHELBURN		SHALE	3.5	125.5	SOFT

MAPID: 18390642000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 485' N line, 420' E line of NE SW

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.708151    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.151246    DATE COLLECTED: 5 / 14 / 1969

SURFACE ELEVATION (FT.): 675.8    LOGGED (FT.): 124.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    279K    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
675.8	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
665.8	PLEISTOCENE		CLAY	21.0	10.0	
644.8	PLEISTOCENE		SAND & GRAVEL	30.0	31.0	
614.8	PLEISTOCENE		CLAY	52.0	61.0	
562.8	SHELBURN		SHALE	3.0	113.0	SOFT
559.8	SHELBURN	DANVILLE	COAL	5.8	116.0	
554.0	SHELBURN		UNKNOWN	0.3	121.8	NOT RECORDED
553.6	SHELBURN		UNKNOWN	0.7	122.2	NOT RECORDED
553.0	SHELBURN		SHALE	1.2	122.8	SOFT

MAPID: 18390643000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 655' N line, 525' E line of NE SW

QUADRANGLE: DANVILLE NW

LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE:

DATE COLLECTED: 5 / 14 / 1969

SURFACE ELEVATION (FT.): 675.5

LOGGED (FT.): 127.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 279N

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
675.5	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0
661.5	PLEISTOCENE		UNCONSOLIDATED	110.0	14.0
551.5			MICACEOUS SHALE	3.0	124.0

MAPID: 18390644000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 660' N line, 82' E line of NE SW

QUADRANGLE: DANVILLE NW

LONGITUDE: -87.706939

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE: 40.150765

DATE COLLECTED: 10 / 3 / 1963

SURFACE ELEVATION (FT.): 665.8

LOGGED (FT.): 119.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 279PB

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
665.8	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0
656.8	PLEISTOCENE		CLAY	5.0	9.0
651.8	PLEISTOCENE		UNCONSOLIDATED	81.0	14.0
570.8	SHELBURN		SHALE	17.0	95.0 SOFT
553.8	SHELBURN	DANVILLE	COAL	5.5	112.0
548.3	SHELBURN	DANVILLE	CLAYSTONE	0.2	117.5
548.1	SHELBURN	DANVILLE	COAL	0.3	117.7
547.8	SHELBURN		DARK SHALE	1.0	118.0

MAPID: 18390645000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 660' N line, 60' W line of NW SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.706431    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.150764    DATE COLLECTED: 5 / 13 / 1969

SURFACE ELEVATION (FT.): 670.3    LOGGED (FT.): 123.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    280    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
670.3	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
650.3	PLEISTOCENE		CLAY	20.0	20.0	
630.3	PLEISTOCENE		SAND & GRAVEL	40.0	40.0	
590.3	PLEISTOCENE		CLAY	37.0	80.0	
553.3	SHELBURN	DANVILLE	COAL	4.0	117.0	TOP ERODED
549.3	SHELBURN	DANVILLE	CLAYSTONE	0.3	121.0	
549.0	SHELBURN	DANVILLE	COAL	0.3	121.3	
548.7	SHELBURN		MICACEOUS SHALE	1.4	121.6	

MAPID: 18390646000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 320' N line, 325' W line of NW SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.705488    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.151697    DATE COLLECTED: 5 / 12 / 1969

SURFACE ELEVATION (FT.): 659.1    LOGGED (FT.): 103.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    280A    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
659.1	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
643.1	PLEISTOCENE		UNCONSOLIDATED	80.0	16.0	
563.1	SHELBURN	DANVILLE	COAL	4.5	96.0	TOP ERODED
558.6	SHELBURN	DANVILLE	CLAYSTONE	0.5	100.5	
558.1	SHELBURN	DANVILLE	COAL	0.7	101.0	SUMP VEIN
557.4	SHELBURN		UNDERCLAY	1.3	101.7	

MAPID: 18390647000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 660' N line, 345' W line of NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.705412

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.150764

DATE COLLECTED: 5 / 12 / 1969

SURFACE ELEVATION (FT.): 654.7

LOGGED (FT.): 113.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 280B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
654.7	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
634.7	PLEISTOCENE		UNCONSOLIDATED	85.0	20.0	
549.7	SHELburn	DANVILLE	COAL	2.0	105.0	SOFT; TOP ERODED
547.7	SHELburn		MICACEOUS SHALE	6.0	107.0	

MAPID: 18390648000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 330' N line, 115' W line of NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.706239

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.15167

DATE COLLECTED: 5 / 13 / 1969

SURFACE ELEVATION (FT.): 665.2

LOGGED (FT.): 111.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 280H

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
665.2	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0	
635.2	PLEISTOCENE		SAND & GRAVEL	30.0	30.0	
605.2	PLEISTOCENE		CLAY	44.0	60.0	
561.2	SHELburn	DANVILLE	COAL	5.5	104.0	TOP ERODED
555.7	SHELburn		UNDERCLAY	1.5	109.5	

MAPID: 18390649000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 485' N line, 165' W line of NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.706058

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.151245

DATE COLLECTED: 5 / 13 / 1969

SURFACE ELEVATION (FT.): 663.3

LOGGED (FT.): 113.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 280K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
663.3	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	
642.3	PLEISTOCENE		UNCONSOLIDATED	85.0	21.0	
557.3	SHELburn	DANVILLE	COAL	5.6	106.0	TOP ERODED
551.7	SHELburn		UNDERCLAY	1.4	111.6	

**MAPID:** 1839065000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 490' N line, 335' W line of NW SE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:**    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:**    **DATE COLLECTED:** 5 / 12 / 1969  
**SURFACE ELEVATION (FT.):** 658.1    **LOGGED (FT.):** 107.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    280L    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
658.1	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
641.1	PLEISTOCENE		UNCONSOLIDATED	90.0	17.0	

**MAPID:** 18390651000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 660' N line, 150' W line of NW SE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.70611    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.150764    **DATE COLLECTED:** 5 / 12 / 1969  
**SURFACE ELEVATION (FT.):** 669.0    **LOGGED (FT.):** 127.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    280N    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
669.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
661.0	PLEISTOCENE		CLAY	20.0	8.0	
641.0	PLEISTOCENE		UNCONSOLIDATED	93.0	28.0	
548.0	SHELBURN	DANVILLE	COAL	1.5	121.0	SOFT; TOP ERODED
546.5	SHELBURN		MICACEOUS SHALE	4.5	122.5	

**MAPID:** 18390652000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 650' N line, 500' W line of NW SE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.704858    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.150791    **DATE COLLECTED:** 5 / 12 / 1969  
**SURFACE ELEVATION (FT.):** 652.4    **LOGGED (FT.):** 103.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    280P    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
652.4	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
635.4	PLEISTOCENE		UNCONSOLIDATED	80.0	17.0	
555.4	SHELBURN		BLACK SHALE	1.0	97.0	BLACK
554.4	SHELBURN	DANVILLE	COAL	4.0	98.0	SOFT
550.4	SHELBURN		UNDERCLAY	1.0	102.0	

MAPID: 18390653000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.703076

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.151668

DATE COLLECTED: 10 / 7 / 1963

SURFACE ELEVATION (FT.): 645.7 LOGGED (FT.): 107.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 281A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
645.7	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
641.7	PLEISTOCENE		CLAY	5.0	4.0	
636.7	PLEISTOCENE		UNCONSOLIDATED	79.0	9.0	
557.7	SHELBURN		SHALE	11.0	88.0	SOFT
546.7	SHELBURN	DANVILLE	COAL	3.7	99.0	GOOD
543.0	SHELBURN	DANVILLE	COAL	1.2	102.7	WITH SLATE
541.9	SHELBURN		MICACEOUS SHALE	3.2	103.8	HARD

MAPID: 18390654000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 660' N line, 330' E line of NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.703067

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.150762

DATE COLLECTED: 10 / 4 / 1963

SURFACE ELEVATION (FT.): 644.8 LOGGED (FT.): 87.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 281B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
644.8	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
639.8	PLEISTOCENE		CLAY	6.0	5.0	
633.8	PLEISTOCENE		UNCONSOLIDATED	66.0	11.0	
567.8	SHELBURN		SHALE	3.0	77.0	SOFT
564.8	SHELBURN	DANVILLE	COAL	5.3	80.0	GOOD
559.5	SHELBURN		SANDY DARK SHALE	1.7	85.3	

MAPID: 18390655000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 330' N line, 742' W line of NW SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.703996    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.151669    DATE COLLECTED: 10 / 4 / 1963

SURFACE ELEVATION (FT.): 646.6    LOGGED (FT.): 117.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    281CB    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
646.6	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
640.6	PLEISTOCENE		CLAY	11.0	6.0	
629.6	PLEISTOCENE		UNCONSOLIDATED	81.0	17.0	
548.6	SHELBURN		SANDY SHALE	7.0	98.0	HARD
541.6	SHELBURN		BLACK SHALE	1.0	105.0	SOFT
540.6	SHELBURN	DANVILLE	COAL	2.5	106.0	GOOD
538.1	SHELBURN		MICACEOUS SHALE	5.5	108.5	SOFT
532.6	SHELBURN		SANDY SHALE	3.0	114.0	HARD

MAPID: 18390656000C    VERSION: 1

PROJECT: OMM

COUNTY: VERMILION    TWP/RNG: 20N 12W    SECTION: 34    QUARTERS/FOOTAGES: 660' N line, 495' E line of NW SE

QUADRANGLE: DANVILLE NW    LONGITUDE: -87.703657    GEOLOGIST: PHILLIPS

CONFIDENTIAL: N    LATITUDE: 40.150763    DATE COLLECTED: 9 / 25 / 1963

SURFACE ELEVATION (FT.): 647.9    LOGGED (FT.): 98.0    LOG TYPE: Drillers Log

SOURCE: AYRSHIRE    281N    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
647.9	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
643.9	PLEISTOCENE		UNCONSOLIDATED	9.0	4.0	
634.9	PLEISTOCENE		UNCONSOLIDATED	77.0	13.0	
557.9	SHELBURN		SHALE	3.0	90.0	SOFT
554.9	SHELBURN	DANVILLE	COAL	2.0	93.0	SOFT
552.9	SHELBURN	DANVILLE	COAL	1.3	95.0	FAIR
551.6	SHELBURN		DARK SHALE	1.8	96.3	



MAPID: 18390657000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 660' N line, 0' E line of NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.701886

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.150761

DATE COLLECTED: 9 / 24 / 1963

SURFACE ELEVATION (FT.): 652.0

LOGGED (FT.): 118.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 282

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
652.0	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
645.0	PLEISTOCENE		CLAY	9.0	7.0	
636.0	PLEISTOCENE		UNCONSOLIDATED	80.0	16.0	
556.0	SHELBURN	DANVILLE	COAL	1.0	96.0	GOOD; TOP ERODED HARD
555.0	SHELBURN		SHALE	20.0	97.0	
535.0	SHELBURN		LIMESTONE	1.0	117.0	

MAPID: 18390658000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 330' N line, 0' E line of NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.701895

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.151667

DATE COLLECTED: 10 / 7 / 1963

SURFACE ELEVATION (FT.): 651.4

LOGGED (FT.): 113.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 282C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
651.4	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
645.4	PLEISTOCENE		CLAY	7.0	6.0	
638.4	PLEISTOCENE		UNCONSOLIDATED	93.0	13.0	
545.4	SHELBURN	DANVILLE	COAL	1.7	106.0	FAIR; TOP ERODED HARD
543.7	SHELBURN		MICACEOUS SHALE	5.3	107.7	

MAPID: 18390659000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 660' N line, 660' W line of NE SE

QUADRANGLE: DANVILLE NW LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE:

DATE COLLECTED: 9 / 27 / 1963

SURFACE ELEVATION (FT.): 666.1

LOGGED (FT.): 122.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 283

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
666.1	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
659.1	PLEISTOCENE		UNCONSOLIDATED	89.0	7.0	
570.1	PLEISTOCENE		SAND & GRAVEL	26.0	96.0	

MAPID: 1839066000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 660' N line, 330' E line of NE SE

QUADRANGLE: DANVILLE NW

LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE:

DATE COLLECTED: 10 / 7 / 1963

SURFACE ELEVATION (FT.): 674.1

LOGGED (FT.): 127.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 283B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
674.1	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
667.1	PLEISTOCENE		CLAY	9.0	7.0	
658.1	PLEISTOCENE		UNCONSOLIDATED	106.0	16.0	
552.1			MICACEOUS SHALE	5.0	122.0	HARD

MAPID: 18390661000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 660' N line, 0' E line of NE SE

QUADRANGLE: DANVILLE NW

LONGITUDE:

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE:

DATE COLLECTED: 9 / 26 / 1963

SURFACE ELEVATION (FT.): 680.3

LOGGED (FT.): 137.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 284

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
680.3	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
672.3	PLEISTOCENE		CLAY	9.0	8.0	
663.3	PLEISTOCENE		UNCONSOLIDATED	108.0	17.0	
555.3			MICACEOUS SHALE	8.0	125.0	SOFT
547.3			MICACEOUS SHALE	4.0	133.0	HARD

MAPID: 18390663000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: DANVILLE NW

LONGITUDE: -87.712592

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N

LATITUDE: 40.153496

DATE COLLECTED: 7 / 24 / 1958

SURFACE ELEVATION (FT.): 685.3

LOGGED (FT.): 147.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 303

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
685.3	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
674.3	PLEISTOCENE		UNCONSOLIDATED	108.0	11.0	
566.3	PLEISTOCENE		SAND & GRAVEL	11.0	119.0	
555.3	SHELBURN		SHALE	10.0	130.0	
545.3	CARBONDALE	HERRIN	COAL	1.5	140.0	SOFT
543.8	CARBONDALE		UNKNOWN	5.5	141.5	SOFT; NOT RECORDED

MAPID: 18390664000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 0' S line, 330' W line of SE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.710225

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.152579

DATE COLLECTED: 10 / 1 / 1963

SURFACE ELEVATION (FT.): 683.7 LOGGED (FT.): 147.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 303B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
683.7	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
675.7	PLEISTOCENE		UNCONSOLIDATED	14.0	8.0	
661.7	PLEISTOCENE		UNCONSOLIDATED	110.0	22.0	
551.7	SHELBURN		SHALE	7.0	132.0	SOFT
544.7	SHELBURN	DANVILLE	COAL	3.2	139.0	SOFT
541.5	SHELBURN		MICACEOUS SHALE	4.8	142.2	HARD

MAPID: 18390665000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 0' N line, 660' W line of NE SW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.709045

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.152578

DATE COLLECTED: 9 / 26 / 1963

SURFACE ELEVATION (FT.): 684.2 LOGGED (FT.): 136.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 304

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
684.2	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
678.2	PLEISTOCENE		CLAY	11.0	6.0	
667.2	PLEISTOCENE		UNCONSOLIDATED	90.0	17.0	
577.2	SHELBURN		SHALE	22.0	107.0	SOFT
555.2	SHELBURN	DANVILLE	COAL	5.7	129.0	GOOD
549.5	SHELBURN		DARK SHALE	1.3	134.7	

MAPID: 18390666000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 0' S line, 990' W line of SE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.707864 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.152578 DATE COLLECTED: 10 / 3 / 1963

SURFACE ELEVATION (FT.): 674.8 LOGGED (FT.): 125.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 304B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
674.8	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
667.8	PLEISTOCENE		CLAY	12.0	7.0	
655.8	PLEISTOCENE		UNCONSOLIDATED	85.0	19.0	
570.8	SHELBURN		SHALE	13.0	104.0	SOFT
557.8	SHELBURN	DANVILLE	COAL	4.8	117.0	GOOD
553.0	SHELBURN	DANVILLE	COAL	1.7	121.8	WITH SLATE
551.3	SHELBURN		DARK SHALE	1.5	123.5	

MAPID: 18390667000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 0' S line, 1240' W line of SE NW

QUADRANGLE: DANVILLE NW LONGITUDE: -87.70697 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.152577 DATE COLLECTED: 10 / 2 / 1963

SURFACE ELEVATION (FT.): 672.3 LOGGED (FT.): 121.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 304PB WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
672.3	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
667.3	PLEISTOCENE		CLAY	8.0	5.0	
659.3	PLEISTOCENE		UNCONSOLIDATED	86.0	13.0	
573.3	SHELBURN		SHALE	14.0	99.0	SOFT
559.3	SHELBURN	DANVILLE	COAL	5.8	113.0	GOOD
553.5	SHELBURN		DARK SHALE	2.2	118.8	

MAPID: 18390668000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 0' S line, 660' E line of SW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.704265

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.152575

DATE COLLECTED: 9 / 24 / 1963

SURFACE ELEVATION (FT.): 647.9 LOGGED (FT.): 106.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 306

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
647.9	PLEISTOCENE		UNCONSOLIDATED	3.0	0.0	
644.9	PLEISTOCENE		CLAY	4.0	3.0	
640.9	PLEISTOCENE		UNCONSOLIDATED	90.0	7.0	
550.9	SHELBURN		SHALE	2.0	97.0	SOFT
548.9	SHELBURN	DANVILLE	COAL	1.6	99.0	SOFT
547.3	SHELBURN	DANVILLE	COAL	3.5	100.6	FAIR
543.8	SHELBURN		MICACEOUS SHALE	1.9	104.1	

MAPID: 18390669000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 0' S line, 330' E line of SW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.703085

GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.152574

DATE COLLECTED: 10 / 4 / 1963

SURFACE ELEVATION (FT.): 649.1 LOGGED (FT.): 107.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 306B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
649.1	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
644.1	PLEISTOCENE		UNCONSOLIDATED	7.0	5.0	
637.1	PLEISTOCENE		UNCONSOLIDATED	68.0	12.0	
569.1	SHELBURN		SHALE	16.0	80.0	SOFT
553.1	SHELBURN	DANVILLE	COAL	2.0	96.0	SOFT
551.1	SHELBURN		MICACEOUS SHALE	9.0	98.0	HARD

MAPID: 1839067000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: SE SW NE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.7031 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 40.153489 DATE COLLECTED: 9 / 24 / 1963

SURFACE ELEVATION (FT.): 652.1 LOGGED (FT.): 114.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 307 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
652.1	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
641.1	PLEISTOCENE		UNCONSOLIDATED	91.0	11.0	
550.1	SHELBURN		DARK SHALE	3.0	102.0	SOFT
547.1	SHELBURN	DANVILLE	COAL	1.0	105.0	SOFT
546.1	SHELBURN	DANVILLE	COAL	1.5	106.0	FAIR
544.6	SHELBURN		DARK SHALE	0.5	107.5	SOFT
544.1	SHELBURN		MICACEOUS SHALE	5.0	108.0	HARD
539.1	SHELBURN		LIMESTONE	1.0	113.0	

MAPID: 18390671000C VERSION: 1

PROJECT: OMM

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 34 QUARTERS/FOOTAGES: 0' N line, 330' W line of NE SE

QUADRANGLE: DANVILLE NW LONGITUDE: GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: DATE COLLECTED: 8 / 1 / 1958

SURFACE ELEVATION (FT.): 656.6 LOGGED (FT.): 167.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 307B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
656.6	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
645.6	PLEISTOCENE		CLAY	3.0	11.0	
642.6	PLEISTOCENE		SAND & GRAVEL	18.0	14.0	
624.6	PLEISTOCENE		CLAY	89.0	32.0	
535.6			SHALE	11.0	121.0	
524.6			LIMESTONE	6.0	132.0	
518.6			GRAY SHALE	29.0	138.0	

**MAPID:** 18390672000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 34    **QUARTERS/FOOTAGES:** SE NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:**    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:**    **DATE COLLECTED:** 10 / 3 / 1951  
**SURFACE ELEVATION (FT.):** 675.0    **LOGGED (FT.):** 167.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    309    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
675.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
669.0	PLEISTOCENE		SAND & GRAVEL	10.0	6.0	
659.0	PLEISTOCENE		CLAY	122.0	16.0	
537.0			SANDY SHALE	29.0	138.0	

**MAPID:** 18390673000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 34    **QUARTERS/FOOTAGES:** NW SW NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.714959    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.155327    **DATE COLLECTED:** 7 / 23 / 1958  
**SURFACE ELEVATION (FT.):** 687.9    **LOGGED (FT.):** 137.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    351    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
687.9	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
678.9	PLEISTOCENE		CLAY	8.0	9.0	
670.9	PLEISTOCENE		CLAY	79.0	17.0	
591.9	SHELBURN		SANDY SHALE	27.0	96.0	MED. HARD
564.9	SHELBURN		DARK SHALE	6.0	123.0	
558.9	SHELBURN	DANVILLE	COAL	6.1	129.0	GOOD
552.8	SHELBURN		UNDERCLAY	1.9	135.1	

**MAPID:** 18390674000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 34    **QUARTERS/FOOTAGES:** NW SE NW  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:** -87.710222    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:** 40.155324    **DATE COLLECTED:** 7 / 24 / 1956  
**SURFACE ELEVATION (FT.):** 693.2    **LOGGED (FT.):** 147.6    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    353    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
693.2	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0	
686.2	PLEISTOCENE		UNCONSOLIDATED	137.0	7.0	
549.2	CARBONDALE	HERRIN	COAL	1.6	144.0	SOFT
547.6	CARBONDALE		UNKNOWN	2.0	145.6	SOFT, NOT RECORDED

**MAPID:** 18390675000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 34    **QUARTERS/FOOTAGES:** SE NE NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:**    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:**    **DATE COLLECTED:** 10 / 4 / 1951  
**SURFACE ELEVATION (FT.):** 665.6    **LOGGED (FT.):** 87.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    359    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
665.6	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
654.6	PLEISTOCENE		CLAY	76.0	11.0	

**MAPID:** 18390676000C    **VERSION:** 1    **PROJECT:** OMM  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 12W    **SECTION:** 34    **QUARTERS/FOOTAGES:** NE NE NE  
**QUADRANGLE:** DANVILLE NW    **LONGITUDE:**    **GEOLOGIST:** PHILLIPS  
**CONFIDENTIAL:** N    **LATITUDE:**    **DATE COLLECTED:** 9 / 21 / 1950  
**SURFACE ELEVATION (FT.):** 667.0    **LOGGED (FT.):** 216.0    **LOG TYPE:** Drillers Log  
**SOURCE:** AYRSHIRE    409    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
667.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
657.0	PLEISTOCENE		SAND & GRAVEL	97.0	10.0	BOULDERS
560.0			SHALE & SANDSTONE	109.0	107.0	



MAPID: 18300386000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 35 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.680322 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.147092 DATE COLLECTED: 5 / 0 / 1910

SURFACE ELEVATION (FT.): 633.0 LOGGED (FT.): 266.0 LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
633.0			UNCONSOLIDATED	79.0	0.0	
554.0	CARBONDALE		SHALE	14.0	79.0	
540.0	CARBONDALE		SANDSTONE	1.0	93.0	
539.0	CARBONDALE		BLUE SHALE	40.0	94.0	
499.0	CARBONDALE		SANDY SHALE	22.0	134.0	
477.0	CARBONDALE		BLACK SHALE	6.0	156.0	
471.0	CARBONDALE		BLUE SHALE	16.0	162.0	
455.0	CARBONDALE		SANDY SHALE	20.7	178.0	
434.3	CARBONDALE		COAL	0.7	198.7	
433.7	CARBONDALE		BLUE SHALE	4.7	199.3	
429.0	CARBONDALE		SHALE/COAL	0.8	204.0	
428.2	CARBONDALE		BLUE SHALE	22.0	204.8	
406.2	CARBONDALE		COAL	2.3	226.8	
403.9	CARBONDALE		SHALE	2.9	229.1	
401.0	CARBONDALE		SHALE/COAL	1.0	232.0	
400.0	CARBONDALE		BLUE SHALE	4.0	233.0	
396.0	CARBONDALE		BLACK SHALE	0.5	237.0	
395.5	CARBONDALE		COAL	0.7	237.5	
394.8	CARBONDALE		SHALE	27.8	238.2	

MAPID: 18300388000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 12W SECTION: 36 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: DANVILLE NW LONGITUDE: -87.66612 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.150715 DATE COLLECTED: 4 / 0 / 1910

SURFACE ELEVATION (FT.): 661.0 LOGGED (FT.): 256.2 LOG TYPE: Drillers Log

SOURCE: BIG 4 RAILROAD WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
661.0			UNCONSOLIDATED	45.0	0.0
616.0	CARBONDALE		BLUE SHALE	7.0	45.0
609.0	CARBONDALE		COAL	1.0	52.0
608.0	CARBONDALE		LIMESTONE	5.0	53.0
603.0	CARBONDALE		COAL WITH SHALE	2.0	58.0
601.0	CARBONDALE		SHALE	26.0	60.0
575.0	CARBONDALE		SANDSTONE	5.0	86.0
570.0	CARBONDALE		SHALE	17.0	91.0
553.0	CARBONDALE		SANDSTONE	3.0	108.0
550.0	CARBONDALE		SHALE	4.0	111.0
546.0	CARBONDALE		SANDSTONE	2.0	115.0
544.0	CARBONDALE		SHALE	18.0	117.0
526.0	CARBONDALE		BLUE SHALE	23.0	135.0
503.0	CARBONDALE		BLACK SHALE	5.0	158.0
498.0	CARBONDALE		BLUE SHALE	12.0	163.0
486.0	CARBONDALE		LIMESTONE	5.0	175.0
481.0	CARBONDALE		SANDY SHALE	19.0	180.0
462.0	CARBONDALE		BLUE SHALE	20.0	199.0
442.0	CARBONDALE		BLACK SHALE	0.3	219.0
441.7	CARBONDALE		COAL	0.8	219.3
440.9	CARBONDALE		GRAY SHALE	8.0	220.1
433.0	CARBONDALE		SANDY SHALE	16.0	228.0
417.0	CARBONDALE		COAL	2.2	244.0
414.8	CARBONDALE		BLUE SHALE	0.3	246.2
414.5	CARBONDALE		COAL	0.2	246.5
414.3	CARBONDALE		UNDERCLAY	0.1	246.7
414.2	CARBONDALE		LIMESTONE	1.2	246.8
413.1	CARBONDALE		BLUE SHALE	0.7	247.9
412.4	CARBONDALE		COAL	1.6	248.6
410.8	CARBONDALE		GRAY SHALE	6.0	250.2

**MAPID:** 18300392000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 1    **QUARTERS/FOOTAGES:** 600' N line, 2550' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.778881    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.225053    **DATE COLLECTED:** 0 / 0 / 1953  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 207.1    **LOG TYPE:** Drillers Log  
**SOURCE:** MORGAN COAL CO.    14    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	203.0	0.0	
-	MODESTO		SHALE	1.0	203.0	
-	CARBONDALE	DANVILLE	COAL	1.0	204.0	
-	CARBONDALE		UNCLASSIFIED	1.0	205.0	
-	CARBONDALE	HERRIN	COAL	1.1	206.0	

**MAPID:** 18300393000C    **VERSION:** 1    **PROJECT:** NCRDS88  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 1    **QUARTERS/FOOTAGES:** SW SE SW  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.782782    **GEOLOGIST:** R. SMITH  
**CONFIDENTIAL:** N    **LATITUDE:** 40.219132    **DATE COLLECTED:** 12 / 9 / 1922  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 220.0    **LOG TYPE:** Drillers Log  
**SOURCE:** JAMES T. CARPENTER    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	188.0	0.0	
-	CARBONDALE		BLUE SHALE	8.0	188.0	
-	CARBONDALE		GRAY SHALE	12.0	196.0	
-	CARBONDALE		BLACK SHALE	2.3	208.0	
-	CARBONDALE	HERRIN	COAL	7.6	210.3	
-	CARBONDALE		UNDERCLAY	2.2	217.8	

**MAPID:** 18390003000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 1    **QUARTERS/FOOTAGES:** 2112' S line, 1408' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.783735    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.223995    **DATE COLLECTED:** 5 / 9 / 1918  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 126.0    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    **WELL TYPE:** Coal Test  
**COMMENT:** VERM. COUNTY MAP INDEX# 7-C-7

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNKNOWN	120.0	0.0	
-	CARBONDALE	DANVILLE	COAL	6.0	120.0	

**MAPID:** 18390019000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 1    **QUARTERS/FOOTAGES:** 423' N line, 4013' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.774378    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.225573    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 684.0    **LOGGED (FT.):** 146.0    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
684.0			UNKNOWN	144.0	0.0
540.0	CARBONDALE	HERRIN	COAL	2.0	144.0

**MAPID:** 18390020000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 1    **QUARTERS/FOOTAGES:** 475' N line, 1373' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.783878    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.225363    **DATE COLLECTED:** 6 / 3 / 1965  
**SURFACE ELEVATION (FT.):** 687.0    **LOGGED (FT.):** 207.0    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    #392    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
687.0			UNKNOWN	204.0	0.0
483.0	CARBONDALE	HERRIN	COAL	1.0	204.0
482.0	CARBONDALE	HERRIN	ROCK	1.0	205.0
481.0	CARBONDALE	HERRIN	COAL	1.0	206.0

**MAPID:** 18390069000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 1    **QUARTERS/FOOTAGES:** 1850' N line, 2575' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.778948    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.221604    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 688.0    **LOGGED (FT.):** 218.0    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #16    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
688.0			UNKNOWN	210.3	0.0
477.7	CARBONDALE	HERRIN	COAL	7.6	210.3

MAPID: 18390070000C VERSION: 1

PROJECT: ISGS97

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 1 QUARTERS/FOOTAGES: 594' N line, 2500' E line

QUADRANGLE: COLLISON LONGITUDE: -87.7787 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 40.225073 DATE COLLECTED:

SURFACE ELEVATION (FT.): 687.0 LOGGED (FT.): 207.1 LOG TYPE: Company map

SOURCE: MORGAN COAL CO. #14 WELL TYPE: Coal Test

COMMENT: COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
687.0			UNKNOWN	206.0	0.0	
481.0	CARBONDALE	HERRIN	COAL	1.1	206.0	

MAPID: 18300394000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 2 QUARTERS/FOOTAGES: 2310' S line, 2310' E line

QUADRANGLE: COLLISON LONGITUDE: -87.797117 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.224075 DATE COLLECTED: 10 / 14 / 1922

SURFACE ELEVATION (FT.): 663.9 LOGGED (FT.): 221.0 LOG TYPE: Drillers Log

SOURCE: JAMES T. CARPENTER, DRILLER WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
663.9			UNCONSOLIDATED	101.0	0.0	
562.9	MODESTO	FARMINGTON	BLUE SHALE	71.5	101.0	UNCERTAIN CORRELATION
491.4	CARBONDALE	DANVILLE	COAL	0.5	172.5	
490.9	CARBONDALE		BROWN SHALE	2.0	173.0	
488.9	CARBONDALE	DANVILLE SUMP	COAL	0.7	175.0	
488.2	CARBONDALE	DANVILLE SUMP	UNCLASSIFIED	2.0	175.7	
486.2	CARBONDALE	DANVILLE SUMP	COAL	1.3	177.7	
484.9	CARBONDALE		BLACK SHALE	1.3	179.0	
483.6	CARBONDALE		COAL	0.3	180.3	
483.4	CARBONDALE		UNDERCLAY	1.3	180.5	
482.1	CARBONDALE		COAL	0.5	181.8	
481.6	CARBONDALE		GRAY SHALE	7.5	182.3	
474.1	CARBONDALE		SANDY SHALE	3.0	189.8	
471.1	CARBONDALE		GRAY SHALE	6.0	192.8	
465.1	CARBONDALE		DARK SHALE	4.3	198.8	
460.9	CARBONDALE		BLACK SHALE	9.7	203.0	
451.2	CARBONDALE	HERRIN	COAL	8.2	212.7	
443.1	CARBONDALE		UNDERCLAY	0.2	220.8	

MAPID: 18300394000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 2 QUARTERS/FOOTAGES: 2310' S line, 2310' E line

QUADRANGLE: COLLISON LONGITUDE: -87.797117

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.224075

DATE COLLECTED:

SURFACE ELEVATION (FT.): 664.0

LOGGED (FT.): 221.2

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
562.2	MODESTO		SHALE	71.5	101.8
490.7	CARBONDALE	DANVILLE	COAL WITH SHALE PARTINGS	9.3	173.3
481.4	CARBONDALE		GRAY SHALE	7.5	182.6
473.9	CARBONDALE	LAWSON	SHALE	13.3	190.1
460.7	CARBONDALE	ANNA	BLACK SHALE	9.7	203.3
451.0	CARBONDALE	HERRIN	COAL	8.2	213.0

MAPID: 18322096000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 2 QUARTERS/FOOTAGES:

QUADRANGLE: COLLISON LONGITUDE: -87.798389

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.222119

DATE COLLECTED: 5 / 11 / 1976

SURFACE ELEVATION (FT.): LOGGED (FT.): 244.0

LOG TYPE: Drillers Log

SOURCE: KERR-MCGEE COAL CO. 20-13-2-1

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	SHELBURN	DANVILLE	COAL	5.8	186.5
-	CARBONDALE	HERRIN	COAL	3.5	220.0

MAPID: 18390067000C VERSION: 1

PROJECT: ISGS97

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 2 QUARTERS/FOOTAGES: 30' S line, 2575' E line

QUADRANGLE: COLLISON LONGITUDE: -87.797995

GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 40.217767

DATE COLLECTED:

SURFACE ELEVATION (FT.): 696.0 LOGGED (FT.): 245.6

LOG TYPE: Company map

SOURCE: MORGAN COAL CO. #1

WELL TYPE: Coal Test

COMMENT: COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
696.0			UNKNOWN	236.8	0.0
459.2	CARBONDALE	HERRIN	COAL	8.8	236.8

**MAPID:** 18390068000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 2    **QUARTERS/FOOTAGES:** 790' N line, 2440' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.797589    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.224391    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 664.0    **LOGGED (FT.):** 221.0    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #12    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
664.0			UNKNOWN	212.7	0.0	
451.3	CARBONDALE	HERRIN	COAL	8.2	212.7	

**MAPID:** 18322517000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 3    **QUARTERS/FOOTAGES:** 2300' S line, 550' W line of NW SW  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.82483    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.225664    **DATE COLLECTED:** 0 / 0 / 1980  
**SURFACE ELEVATION (FT.):** 708.0    **LOGGED (FT.):** 506.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    K20-13-3-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
473.3	SHELBURN	DANVILLE	COAL	5.9	234.7	THICKNESS ESTIMATED/ REMOVED BY CO.
441.2	CARBONDALE	HERRIN	COAL	5.6	266.8	REMOVED BY CO.

**MAPID:** 18322073000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 5    **QUARTERS/FOOTAGES:** SW SE  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.853021    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.218022    **DATE COLLECTED:** 6 / 1 / 1976  
**SURFACE ELEVATION (FT.):** 750.0    **LOGGED (FT.):** 362.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    20-13-5-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	SHELBURN	DANVILLE	COAL	7.0	300.0	SPLIT
410.0	CARBONDALE	HERRIN	COAL	2.5	340.0	

**MAPID:** 18323021000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 5    **QUARTERS/FOOTAGES:** 804' S line, 40' E line of SW SE  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.8508    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.218491    **DATE COLLECTED:** 7 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 752.0    **LOGGED (FT.):** 405.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PC-60    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-	-	NO COAL PICKS

**MAPID:** 18322526000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 7    **QUARTERS/FOOTAGES:** 2575' N line, 20' E line of SE NE  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.864699    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.205076    **DATE COLLECTED:** 0 / 0 / 1981  
**SURFACE ELEVATION (FT.):** 760.0    **LOGGED (FT.):** 376.0    **LOG TYPE:** Drillers Log  
**SOURCE:** KERR-MCGEE COAL CO.    2013-7-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
433.0	SHELBURN	DANVILLE	COAL	3.0	327.0	
395.0	CARBONDALE	HERRIN	COAL	6.5	365.0	REMOVED BY CO.

**MAPID:** 18323022000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 7    **QUARTERS/FOOTAGES:** 600' N line, 35' W line  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.885294    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.214017    **DATE COLLECTED:** 7 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 746.0    **LOGGED (FT.):** 398.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PD-50    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-	-	NO COAL PICKS



MAPID: 18322527000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 9 QUARTERS/FOOTAGES: 1375' S line, 70' W line of NW SW  
 QUADRANGLE: COLLISON LONGITUDE: -87.845495 GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N LATITUDE: 40.209281 DATE COLLECTED: 1 / 29 / 1981  
 SURFACE ELEVATION (FT.): 760.0 LOGGED (FT.): 350.0 LOG TYPE: Drillers Log  
 SOURCE: KERR-MCGEE COAL CO. 2013-9-1 WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
457.0	SHELburn	DANVILLE	COAL	4.0	303.0	
420.5	CARBONDALE	HERRIN	COAL	5.0	339.5	REMOVED BY CO.

MAPID: 18300397000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 10 QUARTERS/FOOTAGES: 1170' N line, 30' E line  
 QUADRANGLE: COLLISON LONGITUDE: -87.807936 GEOLOGIST: R. SMITH  
 CONFIDENTIAL: N LATITUDE: 40.214194 DATE COLLECTED: 9 / 19 / 1922  
 SURFACE ELEVATION (FT.): 709.2 LOGGED (FT.): 252.0 LOG TYPE: Drillers Log  
 SOURCE: J.T. CARPENTER WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
709.2			UNCONSOLIDATED	126.0	0.0	
583.2	MODESTO		BLUE SHALE	82.0	126.0	
501.2	MODESTO		BLACK SHALE	1.0	208.0	
500.2	MODESTO		BLUE SHALE	4.2	209.0	
496.0	CARBONDALE	DANVILLE	COAL	6.7	213.2	
489.4	CARBONDALE		UNDERCLAY	1.1	219.8	
488.3	CARBONDALE	DANVILLE SUMP	COAL	1.0	220.9	
487.3	CARBONDALE		SANDY SHALE	23.8	221.9	
463.5	CARBONDALE	HERRIN	COAL	3.3	245.7	
460.2	CARBONDALE		UNDERCLAY	3.0	249.0	

MAPID: 18300397000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 10 QUARTERS/FOOTAGES: 1170' N line, 30' E line

QUADRANGLE: COLLISON LONGITUDE: -87.807936

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.214194

DATE COLLECTED:

SURFACE ELEVATION (FT.): 709.0 LOGGED (FT.): 249.3

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
582.7	MODESTO		GRAY SHALE	87.2	126.3	
495.5	CARBONDALE	DANVILLE	COAL	6.7	213.5	
488.8	CARBONDALE		BONE COAL	2.1	220.2	
486.7	CARBONDALE		SHALE	8.0	222.3	
478.7	CARBONDALE	LAWSON	SILTY SHALE	1.1	230.3	
477.7	CARBONDALE	LAWSON	SHALE	1.5	231.3	
476.2	CARBONDALE	LAWSON	SILTY SHALE	5.3	232.8	
470.8	CARBONDALE	LAWSON	SHALE	7.8	238.2	
463.0	CARBONDALE	HERRIN	COAL	3.3	246.0	

MAPID: 18322523000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 10 QUARTERS/FOOTAGES: 30' S line, 1425' W line of SE SW

QUADRANGLE: COLLISON LONGITUDE: -87.816714

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.202699

DATE COLLECTED: 1 / 0 / 1981

SURFACE ELEVATION (FT.): LOGGED (FT.): 334.0

LOG TYPE: Survey Core Study

SOURCE: KERR-MCGEE COAL CO. 2013-10-1

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	SHELBURN	DANVILLE	COAL	5.7	285.0	REMOVED BY CO.
-	CARBONDALE	HERRIN	COAL	9.0	323.0	REMOVED/MAY NOT ALL BE COAL

MAPID: 18390018000C VERSION: 1

PROJECT: ISGS97

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 10 QUARTERS/FOOTAGES: 50' S line, 1320' W line

QUADRANGLE: COLLISON LONGITUDE: -87.821817

GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 40.202633

DATE COLLECTED: 6 / 3 / 1965

SURFACE ELEVATION (FT.): 734.0 LOGGED (FT.): 336.0

LOG TYPE: Company map

SOURCE: PEABODY COAL CO.

WELL TYPE: Coal Test

COMMENT: DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
734.0			UNKNOWN	331.4	0.0	
402.6	CARBONDALE	HERRIN	COAL	4.6	331.4	

**MAPID:** 18390065000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 10    **QUARTERS/FOOTAGES:** 1190' N line, 132' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.808302    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.21413    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 719.0    **LOGGED (FT.):** 248.3    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #11    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
719.0			UNKNOWN	245.0	0.0	
474.0	CARBONDALE	HERRIN	COAL	3.3	245.0	

**MAPID:** 18390066000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 10    **QUARTERS/FOOTAGES:** 5180' S line, 4060' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.812077    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.21701    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 700.0    **LOGGED (FT.):** 264.0    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #11    **WELL TYPE:** Coal Test  
**COMMENT:** 1(L)

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
700.0			UNKNOWN	260.6	0.0	
439.4	CARBONDALE	HERRIN	COAL	3.3	260.6	

**MAPID:** 18390073000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 10    **QUARTERS/FOOTAGES:** 132' S line, 1250' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.812166    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.203087    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 720.0    **LOGGED (FT.):** 272.0    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #2    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
720.0			UNKNOWN	267.5	0.0	
452.5	CARBONDALE	HERRIN	COAL	4.8	267.5	

MAPID: 18300395000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 11 QUARTERS/FOOTAGES: NE SW SW

QUADRANGLE: COLLISON LONGITUDE: -87.804119 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.205652 DATE COLLECTED: 5 / 11 / 1922

SURFACE ELEVATION (FT.): 699.1 LOGGED (FT.): 233.0 LOG TYPE: Drillers Log

SOURCE: JAMES T. CARPENTER, DRILLER WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
699.1			UNCONSOLIDATED	125.0	0.0
574.1	MODESTO	FARMINGTON	BLUE SHALE	67.5	125.0
506.6	MODESTO		BLACK SHALE	3.0	192.5
503.6	CARBONDALE	DANVILLE	COAL	5.8	195.5
497.8	CARBONDALE		SHALE	2.2	201.3
495.6	CARBONDALE	DANVILLE SUMP	COAL	1.3	203.5
494.3	CARBONDALE		SHALE	18.7	204.8
475.7	CARBONDALE		SANDY SHALE	1.0	223.4
474.7	CARBONDALE		SHALE	1.5	224.4
473.2	CARBONDALE	HERRIN	COAL	3.5	225.9
469.7	CARBONDALE		UNDERCLAY	3.6	229.4

MAPID: 18300396000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 11 QUARTERS/FOOTAGES: NE NE NW

QUADRANGLE: COLLISON LONGITUDE: -87.799486 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.216731 DATE COLLECTED:

SURFACE ELEVATION (FT.): 685.2 LOGGED (FT.): 228.2 LOG TYPE: Drillers Log

SOURCE: J.T. CARPENTER WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
685.2			UNCONSOLIDATED	108.0	0.0
577.2	MODESTO	FARMINGTON	BLUE SHALE	72.5	108.0
504.7	MODESTO	FARMINGTON	BLACK SHALE	0.2	180.5
504.5	CARBONDALE	DANVILLE	COAL	5.8	180.7
498.7	CARBONDALE		SHALE	1.0	186.5
497.7	CARBONDALE	DANVILLE SUMP	COAL	0.9	187.5
496.8	CARBONDALE	DANVILLE SUMP	SHALE	0.4	188.4
496.4	CARBONDALE	DANVILLE SUMP	COAL	0.5	188.8
495.9	CARBONDALE		SHALE	32.0	189.3
463.9	CARBONDALE		BLACK SHALE	1.1	221.3
462.8	CARBONDALE	HERRIN	COAL	1.3	222.4
461.5	CARBONDALE	HERRIN	UNCLASSIFIED	0.3	223.7
461.3	CARBONDALE	HERRIN	COAL	1.0	223.9
460.3	CARBONDALE		UNDERCLAY	3.3	224.9

MAPID: 18300398000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 11 QUARTERS/FOOTAGES: SW NW NW

QUADRANGLE: COLLISON LONGITUDE: -87.806638 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.214716 DATE COLLECTED: 2 / 16 / 1923

SURFACE ELEVATION (FT.): 687.1 LOGGED (FT.): 230.0 LOG TYPE: Drillers Log

SOURCE: J.T. CARPENTER WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
687.1			UNCONSOLIDATED	106.0	0.0
581.1	MODESTO		BLUE SHALE	81.3	106.0
499.8	CARBONDALE	DANVILLE	COAL	5.9	187.3
493.9	CARBONDALE		UNDERCLAY	1.3	193.2
492.7	CARBONDALE	DANVILLE SUMP	COAL	0.9	194.4
491.8	CARBONDALE		GRAY SHALE	6.0	195.3
485.8	CARBONDALE		SANDY SHALE	2.0	201.3
483.8	CARBONDALE		GRAY SHALE	8.0	203.3
475.8	CARBONDALE		SANDY SHALE	4.0	211.3
471.8	CARBONDALE		GRAY SHALE	5.0	215.3
466.8	CARBONDALE		DARK SHALE	1.7	220.3
465.1	CARBONDALE	HERRIN	COAL	5.5	222.0
459.6	CARBONDALE		UNDERCLAY	2.5	227.5

MAPID: 18300399000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 11 QUARTERS/FOOTAGES: 2200' S line, 2400' W line

QUADRANGLE: COLLISON LONGITUDE: -87.799118 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.209097 DATE COLLECTED: 0 / 0 / 1953

SURFACE ELEVATION (FT.): LOGGED (FT.): 207.0 LOG TYPE: Drillers Log

SOURCE: MORGAN COAL CO. 19 WELL TYPE: Coal Test

COMMENT: DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	104.0	0.0
-	MODESTO		SHALE	72.0	104.0
-	CARBONDALE	DANVILLE	COAL	6.6	176.0
-	CARBONDALE		UNCLASSIFIED	20.4	182.6
-	CARBONDALE	HERRIN	COAL	4.0	203.0

**MAPID:** 18300400000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 1300' S line, 2600' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.797947    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.206643    **DATE COLLECTED:** 0 / 0 / 1953  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 217.0    **LOG TYPE:** Drillers Log  
**SOURCE:** MORGAN COAL CO.    21    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	123.0	0.0	
-	MODESTO		SHALE	62.0	123.0	
-	CARBONDALE	DANVILLE	COAL	5.0	185.0	
-	CARBONDALE		UNCLASSIFIED	23.0	190.0	
-	CARBONDALE	HERRIN	COAL	4.0	213.0	

**MAPID:** 18300401000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 100' S line, 2600' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.797905    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.203336    **DATE COLLECTED:** 0 / 0 / 1953  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 214.0    **LOG TYPE:** Drillers Log  
**SOURCE:** MORGAN COAL CO.    23    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	126.0	0.0	
-	MODESTO		SHALE	53.0	126.0	
-	CARBONDALE	DANVILLE	COAL	6.0	179.0	
-	CARBONDALE		UNCLASSIFIED	24.0	185.0	
-	CARBONDALE	HERRIN	COAL	5.0	209.0	

**MAPID:** 18300402000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 100' S line, 1300' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.79323    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.203445    **DATE COLLECTED:** 0 / 0 / 1953  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 247.8    **LOG TYPE:** Drillers Log  
**SOURCE:** MORGAN COAL CO.    28    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	118.0	0.0	
-	MODESTO		SHALE	85.0	118.0	
-	CARBONDALE	DANVILLE	COAL	8.0	203.0	
-	CARBONDALE		UNCLASSIFIED	35.0	211.0	
-	CARBONDALE	HERRIN	COAL	1.8	246.0	

**MAPID:** 18300403000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 1450' S line, 1350' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.793456    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.207161    **DATE COLLECTED:** 0 / 0 / 1953  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 220.0    **LOG TYPE:** Drillers Log  
**SOURCE:** MORGAN COAL CO.    38    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	103.5	0.0	
-	MODESTO		SHALE	81.0	103.5	
-	CARBONDALE	DANVILLE	COAL	5.5	184.5	
-	CARBONDALE		UNCLASSIFIED	26.0	190.0	
-	CARBONDALE	HERRIN	COAL	4.0	216.0	

**MAPID:** 18300404000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 2600' N line, 1350' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.793497    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.210634    **DATE COLLECTED:** 0 / 0 / 1953  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 219.1    **LOG TYPE:** Drillers Log  
**SOURCE:** MORGAN COAL CO.    39    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	104.0	0.0	
-	MODESTO		SHALE	80.0	104.0	
-	CARBONDALE	DANVILLE	COAL	2.0	184.0	
-	CARBONDALE		UNCLASSIFIED	27.0	186.0	
-	CARBONDALE	HERRIN	COAL	6.1	213.0	

**MAPID:** 18300405000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 1350' N line, 1400' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.793719    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.214073    **DATE COLLECTED:** 0 / 0 / 1953  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 234.3    **LOG TYPE:** Drillers Log  
**SOURCE:** MORGAN COAL CO.    40    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	114.0	0.0	
-	MODESTO		SHALE	78.0	114.0	
-	CARBONDALE	DANVILLE	COAL	6.1	192.0	
-	CARBONDALE		UNCLASSIFIED	32.0	198.1	
-	CARBONDALE	HERRIN	COAL	4.3	230.1	

MAPID: 18300406000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 11 QUARTERS/FOOTAGES: 1350' N line, 1350' W line

QUADRANGLE: COLLISON LONGITUDE: -87.802966 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.21383 DATE COLLECTED: 0 / 0 / 1953

SURFACE ELEVATION (FT.): LOGGED (FT.): 238.8 LOG TYPE: Drillers Log

SOURCE: MORGAN COAL CO. 41 WELL TYPE: Coal Test

COMMENT: DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	148.0	0.0	
-	MODESTO		SHALE	51.0	148.0	
-	CARBONDALE	DANVILLE	COAL	6.2	199.0	
-	CARBONDALE		UNCLASSIFIED	27.8	205.2	
-	CARBONDALE	HERRIN	COAL	5.8	233.0	

MAPID: 18300407000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 11 QUARTERS/FOOTAGES: SE SW SW

QUADRANGLE: COLLISON LONGITUDE: -87.804092 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.203827 DATE COLLECTED: 7 / 3 / 1923

SURFACE ELEVATION (FT.): 700.7 LOGGED (FT.): 233.0 LOG TYPE: Drillers Log

SOURCE: J.T. CARPENTER WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
700.7			UNCONSOLIDATED	124.0	0.0	
576.7	MODESTO		SANDSTONE	14.0	124.0	
562.7	MODESTO	FARMINGTON	BLUE SHALE	48.0	138.0	
514.7	MODESTO	FARMINGTON	GRAY SHALE	13.0	186.0	
501.7	CARBONDALE	DANVILLE	COAL	5.3	199.0	
496.4	CARBONDALE		GRAY SHALE	22.8	204.3	
473.7	CARBONDALE	HERRIN	COAL	4.5	227.0	
469.2	CARBONDALE		GRAY SHALE	1.5	231.5	



MAPID: 18300408000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 11 QUARTERS/FOOTAGES: SW SE NW

QUADRANGLE: COLLISON LONGITUDE: -87.801803 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.211189 DATE COLLECTED: 8 / 3 / 1932

SURFACE ELEVATION (FT.): 690.2 LOGGED (FT.): 225.0 LOG TYPE: Drillers Log

SOURCE: J.T. CARPENTER WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
690.2			UNCONSOLIDATED	112.0	0.0
578.2	MODESTO	FARMINGTON	BLUE SHALE	64.0	112.0
514.2	MODESTO	FARMINGTON	BLACK SHALE	1.0	176.0
513.2	MODESTO	FARMINGTON	GRAY SHALE	3.0	177.0
510.2	MODESTO	FARMINGTON	BLACK SHALE	6.0	180.0
504.2	CARBONDALE	DANVILLE	COAL	5.3	186.0
498.9	CARBONDALE		BLACK SHALE	1.8	191.3
497.2	CARBONDALE	DANVILLE SUMP	COAL	1.4	193.0
495.8	CARBONDALE		GRAY SHALE	21.6	194.4
474.2	CARBONDALE	HERRIN	COAL	4.0	216.0
470.2	CARBONDALE		GRAY SHALE	5.0	220.0

MAPID: 18300415000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 11 QUARTERS/FOOTAGES: 2' S line, 2' E line

QUADRANGLE: COLLISON LONGITUDE: -87.788558 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.203284 DATE COLLECTED: 0 / 0 / 1953

SURFACE ELEVATION (FT.): 705.7 LOGGED (FT.): 233.2 LOG TYPE: Drillers Log

SOURCE: MORGAN COAL CO. 31 WELL TYPE: Coal Test

COMMENT: DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
705.7	PLEISTOCENE		UNCONSOLIDATED	117.0	0.0
588.7	MODESTO		SHALE	80.0	117.0
508.7	CARBONDALE	DANVILLE	COAL	5.3	197.0
503.4	CARBONDALE		UNCLASSIFIED	25.0	202.3
478.4	CARBONDALE	HERRIN	COAL	5.9	227.3

**MAPID:** 18300419000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 1450' S line, 5' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.788618    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.207276    **DATE COLLECTED:** 0 / 0 / 1953  
**SURFACE ELEVATION (FT.):** 691.7    **LOGGED (FT.):** 225.2    **LOG TYPE:** Drillers Log  
**SOURCE:** MORGAN COAL CO.    36    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
691.7	PLEISTOCENE		UNCONSOLIDATED	103.0	0.0	
588.7	MODESTO		SHALE	83.0	103.0	
505.7	CARBONDALE	DANVILLE	COAL	4.9	186.0	
500.9	CARBONDALE		UNCLASSIFIED	29.1	190.8	
471.7	CARBONDALE	HERRIN	COAL	5.3	220.0	

**MAPID:** 18301417000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 1850' S line, 860' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.798205    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.210365    **DATE COLLECTED:** 12 / 15 / 1966  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 218.7    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    22    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	COAL	1.7	215.5	

**MAPID:** 18301418000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 5' S line, 990' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.798205    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.210365    **DATE COLLECTED:** 11 / 30 / 1966  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 233.0    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    20    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	COAL	3.8	224.5	

**MAPID:** 18390001000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 1214' N line, 1373' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.793627    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.21445    **DATE COLLECTED:** 6 / 3 / 1965  
**SURFACE ELEVATION (FT.):** 687.1    **LOGGED (FT.):** 227.6    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    #398    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA & VRM CO

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
687.1			UNKNOWN	187.0	0.0
500.1	CARBONDALE	DANVILLE	COAL	5.8	187.0
494.3	CARBONDALE		UNKNOWN	29.3	192.8
465.0	CARBONDALE	HERRIN	COAL	5.5	222.1

**MAPID:** 18390002000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 350' S line, 1760' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.801346    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.203943    **DATE COLLECTED:** 5 / 9 / 1918  
**SURFACE ELEVATION (FT.):** 699.1    **LOGGED (FT.):** 230.5    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.  
**COMMENT:** VERM. CO, MAP INDEX #7-C-7

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
699.1			UNKNOWN	195.5	0.0
503.6	CARBONDALE	DANVILLE	COAL	5.8	195.5
497.8	CARBONDALE		UNKNOWN	24.7	201.3
473.1	CARBONDALE	HERRIN	COAL	4.5	226.0

**MAPID:** 18390011000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 2534' N line, 50' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.788824    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.210939    **DATE COLLECTED:** 6 / 3 / 1965  
**SURFACE ELEVATION (FT.):** 695.0    **LOGGED (FT.):** 235.3    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    #409    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
695.0			UNKNOWN	232.0	0.0
463.0	CARBONDALE	HERRIN	COAL	3.3	232.0

**MAPID:** 18390014000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 211' S line, 211' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.789318    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.203842    **DATE COLLECTED:** 6 / 3 / 1965  
**SURFACE ELEVATION (FT.):** 691.0    **LOGGED (FT.):** 236.6    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    M7    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
691.0			UNKNOWN	229.2	0.0	
461.8	CARBONDALE	HERRIN	COAL	7.4	229.2	

**MAPID:** 18390015000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 2534' N line, 1214' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.79301    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.210828    **DATE COLLECTED:** 6 / 3 / 1965  
**SURFACE ELEVATION (FT.):** 695.0    **LOGGED (FT.):** 240.0    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    418    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
695.0			UNKNOWN	237.0	0.0	
458.0	CARBONDALE	HERRIN	COAL	3.0	237.0	

**MAPID:** 18390016000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 2112' S line, 2429' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.799012    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.208858    **DATE COLLECTED:** 6 / 3 / 1965  
**SURFACE ELEVATION (FT.):** 695.0    **LOGGED (FT.):** 207.0    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
695.0			UNKNOWN	203.0	0.0	
492.0	CARBONDALE	HERRIN	COAL	4.0	203.0	

**MAPID:** 18390017000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 1267' N line, 50' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.807644    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.213936    **DATE COLLECTED:** 6 / 3 / 1965  
**SURFACE ELEVATION (FT.):** 711.0    **LOGGED (FT.):** 248.3    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
711.0			UNKNOWN	245.0	0.0	
466.0	CARBONDALE	HERRIN	COAL	3.3	245.0	

**MAPID:** 18390026000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 84' S line, 1160' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.792727    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.203413    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 709.0    **LOGGED (FT.):** 203.0    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    #28    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
709.0			UNKNOWN	195.0	0.0	
514.0	CARBONDALE	HERRIN	COAL	8.0	195.0	

**MAPID:** 18390057000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 363' S line, 1255' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.793075    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.204174    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 705.0    **LOGGED (FT.):** 244.0    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #7    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
705.0			UNKNOWN	236.6	0.0	
468.4	CARBONDALE	HERRIN	COAL	7.4	236.6	

**MAPID:** 18390058000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 1155' S line, 925' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.804382    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.206092    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 699.1    **LOGGED (FT.):** 230.0    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #4    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
699.1			UNKNOWN	225.9	0.0
473.2	CARBONDALE	HERRIN	COAL	4.5	225.9

**MAPID:** 18390059000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 1650' S line, 2' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.807724    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.207379    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 705.0    **LOGGED (FT.):** 230.0    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #11    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
705.0			UNKNOWN	227.3	0.0
477.7	CARBONDALE	HERRIN	COAL	2.5	227.3

**MAPID:** 18390060000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 1782' S line, 2375' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.797154    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.20799    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 700.0    **LOGGED (FT.):** 217.5    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
700.0			UNKNOWN	183.0	0.0
517.0	CARBONDALE	DANVILLE	COAL	7.0	183.0
510.0	CARBONDALE		SHALE	24.0	190.0
486.0	CARBONDALE	HERRIN	COAL	3.5	214.0

**MAPID:** 18390061000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 1980' S line, 2575' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.797879    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.208519    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 695.0    **LOGGED (FT.):** 205.6    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #8    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
695.0			UNKNOWN	203.2	0.0	
491.8	CARBONDALE	HERRIN	COAL	2.4	203.2	

**MAPID:** 18390062000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 2244' S line, 1255' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.793139    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.209359    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 715.0    **LOGGED (FT.):** 216.5    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #6    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
715.0			UNKNOWN	213.0	0.0	
502.0	CARBONDALE	HERRIN	COAL	3.5	213.0	

**MAPID:** 18390063000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 860' N line, 2740' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.798556    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.215296    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 685.2    **LOGGED (FT.):** 225.0    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #10    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
685.2			UNKNOWN	222.5	0.0	
462.7	CARBONDALE	HERRIN	COAL	2.5	222.5	

MAPID: 18390064000C VERSION: 1

PROJECT: ISGS97

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 11 QUARTERS/FOOTAGES: 132' N line, 2440' E line

QUADRANGLE: COLLISON LONGITUDE: -87.797502 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 40.217332 DATE COLLECTED:

SURFACE ELEVATION (FT.): 720.0 LOGGED (FT.): 246.3 LOG TYPE: Company map

SOURCE: MORGAN COAL CO. #4 WELL TYPE: Coal Test

COMMENT: COLLISON PROPERTY MAP#1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
720.0			UNKNOWN	237.5	0.0
482.5	CARBONDALE	HERRIN	COAL	8.8	237.5

MAPID: 18300409000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 12 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: COLLISON LONGITUDE: -87.775483 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.20477 DATE COLLECTED: 3 / 3 / 1922

SURFACE ELEVATION (FT.): 656.8 LOGGED (FT.): 208.0 LOG TYPE: Drillers Log

SOURCE: J.T. CARPENTER WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
656.8			UNCONSOLIDATED	66.0	0.0
590.8	MODESTO	FARMINGTON	BLUE SHALE	92.3	66.0
498.5	CARBONDALE	DANVILLE	COAL	6.0	158.3
492.5	CARBONDALE	DANVILLE	COAL	0.9	164.3
491.6	CARBONDALE		UNDERCLAY	0.3	165.2
491.3	CARBONDALE	DANVILLE SUMP	COAL	1.5	165.5
489.8	CARBONDALE		SHALE	30.5	167.0
459.3	CARBONDALE	HERRIN	COAL	8.3	197.5
451.0	CARBONDALE		UNDERCLAY	2.2	205.8



MAPID: 1830041000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 12 QUARTERS/FOOTAGES: SE SW SW

QUADRANGLE: COLLISON LONGITUDE: -87.784997 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.20435 DATE COLLECTED: 4 / 0 / 1922

SURFACE ELEVATION (FT.): 689.1 LOGGED (FT.): 221.0 LOG TYPE: Drillers Log

SOURCE: J.T. CARPENTER WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
689.1			UNCONSOLIDATED	107.0	0.0
582.1	MODESTO	FARMINGTON	BLUE SHALE	70.2	107.0
511.9	CARBONDALE	DANVILLE	COAL	6.1	177.2
505.8	CARBONDALE		UNDERCLAY	1.5	183.3
504.3	CARBONDALE	DANVILLE SUMP	COAL	1.3	184.8
503.1	CARBONDALE		UNDERCLAY	3.0	186.0
500.1	CARBONDALE		GRAY SHALE	16.0	189.0
484.1	CARBONDALE		BLACK SHALE	0.3	205.0
483.8	CARBONDALE		COAL	0.2	205.3
483.6	CARBONDALE		SHALE	1.5	205.5
482.1	CARBONDALE		SANDY SHALE	1.5	207.0
480.6	CARBONDALE		BLACK SHALE	4.0	208.5
476.6	CARBONDALE	HERRIN	COAL	7.5	212.5
469.1	CARBONDALE		UNDERCLAY	1.0	220.0

MAPID: 18300411000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 12 QUARTERS/FOOTAGES: SW NW NE

QUADRANGLE: COLLISON LONGITUDE: -87.777978 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.215697 DATE COLLECTED: 7 / 0 / 1922

SURFACE ELEVATION (FT.): 675.4 LOGGED (FT.): 217.0 LOG TYPE: Drillers Log

SOURCE: J.T. CARPENTER WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
675.4			UNCONSOLIDATED	156.5	0.0
518.9	MODESTO		SHALE	19.4	156.5
499.5	CARBONDALE	DANVILLE	COAL	6.1	175.9
493.4	CARBONDALE		SHALE	1.3	182.0
492.1	CARBONDALE	DANVILLE SUMP	COAL	0.8	183.3
491.4	CARBONDALE		SHALE	21.0	184.0
470.4	CARBONDALE	HERRIN	COAL	8.0	205.0
462.4	CARBONDALE		UNKNOWN	2.0	213.0
460.4	CARBONDALE		UNDERCLAY	2.0	215.0

MAPID: 18300412000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 12 QUARTERS/FOOTAGES: NW NW SW NW  
 QUADRANGLE: COLLISON LONGITUDE: -87.788083 GEOLOGIST: R. SMITH  
 CONFIDENTIAL: N LATITUDE: 40.213834 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 698.2 LOGGED (FT.): 251.0 LOG TYPE: Drillers Log  
 SOURCE: J.T. CARPENTER WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
698.2			UNCONSOLIDATED	120.0	0.0	
578.2	MODESTO	FARMINGTON	BLUE SHALE	82.5	120.0	
495.7	CARBONDALE	DANVILLE	COAL	6.5	202.5	
489.2	CARBONDALE		UNDERCLAY	2.0	209.0	
487.2	CARBONDALE	DANVILLE SUMP	COAL	1.0	211.0	
486.2	CARBONDALE		SHALE	24.0	212.0	
462.2	CARBONDALE		BLACK SHALE	4.0	236.0	
458.2	CARBONDALE	HERRIN	COAL	4.0	240.0	
454.2	CARBONDALE	HERRIN	UNCLASSIFIED	1.5	244.0	
452.7	CARBONDALE	HERRIN	COAL	3.6	245.5	
449.2	CARBONDALE		UNDERCLAY	2.0	249.0	

MAPID: 18300413000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 12 QUARTERS/FOOTAGES: 2442' S line, 2500' E line  
 QUADRANGLE: COLLISON LONGITUDE: -87.789681 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 40.214732 DATE COLLECTED: 0 / 0 / 1953  
 SURFACE ELEVATION (FT.): 674.2 LOGGED (FT.): 214.7 LOG TYPE: Drillers Log  
 SOURCE: MORGAN COAL CO. 18 WELL TYPE: Coal Test  
 COMMENT: DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
674.2	PLEISTOCENE		UNCONSOLIDATED	116.5	0.0	
557.7	MODESTO		SHALE	58.0	116.5	
499.7	CARBONDALE	DANVILLE	COAL	4.8	174.5	
494.9	CARBONDALE		UNCLASSIFIED	28.8	179.3	
466.2	CARBONDALE	HERRIN	COAL	6.7	208.0	

**MAPID:** 18300414000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 1650' S line, 750' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.772269    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.208538    **DATE COLLECTED:** 0 / 0 / 1953  
**SURFACE ELEVATION (FT.):** 647.3    **LOGGED (FT.):** 157.2    **LOG TYPE:** Drillers Log  
**SOURCE:** MORGAN COAL CO.    20    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
647.3	PLEISTOCENE		UNCONSOLIDATED	60.0	0.0	
587.3	MODESTO		SHALE	69.0	60.0	
518.3	CARBONDALE	DANVILLE	COAL	1.5	129.0	
516.8	CARBONDALE		UNCLASSIFIED	20.0	130.5	
496.8	CARBONDALE	HERRIN	COAL	6.7	150.5	

**MAPID:** 18300416000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 1300' S line, 2550' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.778736    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.20729    **DATE COLLECTED:** 0 / 0 / 1953  
**SURFACE ELEVATION (FT.):** 685.0    **LOGGED (FT.):** 236.1    **LOG TYPE:** Drillers Log  
**SOURCE:** MORGAN COAL CO.    32    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
685.0	PLEISTOCENE		UNCONSOLIDATED	115.0	0.0	
570.0	MODESTO		SHALE	82.0	115.0	
488.0	CARBONDALE	DANVILLE	COAL	5.0	197.0	
483.0	CARBONDALE		UNCLASSIFIED	27.0	202.0	
456.0	CARBONDALE	HERRIN	COAL	7.1	229.0	

**MAPID:** 18300417000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 2640' S line, 2' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.778736    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.20729    **DATE COLLECTED:** 0 / 0 / 1953  
**SURFACE ELEVATION (FT.):** 695.0    **LOGGED (FT.):** 235.3    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    34    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
695.0	PLEISTOCENE		UNCONSOLIDATED	123.0	0.0	
572.0	MODESTO		SHALE	71.0	123.0	
501.0	CARBONDALE	DANVILLE	COAL	7.8	194.0	
493.2	CARBONDALE		UNCLASSIFIED	30.2	201.8	
463.0	CARBONDALE	HERRIN	COAL	3.3	232.0	

**MAPID:** 18300418000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 2700' S line, 1400' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.783607    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.210935    **DATE COLLECTED:** 0 / 0 / 1953  
**SURFACE ELEVATION (FT.):** 695.4    **LOGGED (FT.):** 230.0    **LOG TYPE:** Drillers Log  
**SOURCE:** MORGAN COAL CO.    35    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
695.4	PLEISTOCENE		UNCONSOLIDATED	127.0	0.0	
568.4			SHALE	61.0	127.0	
507.4	CARBONDALE	DANVILLE	COAL	3.1	188.0	
504.3	CARBONDALE		UNCLASSIFIED	35.8	191.1	
468.4	CARBONDALE	HERRIN	COAL	3.0	227.0	

**MAPID:** 18300420000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 1400' N line, 1300' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.784007    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.214303    **DATE COLLECTED:** 0 / 0 / 1953  
**SURFACE ELEVATION (FT.):** 692.0    **LOGGED (FT.):** 230.5    **LOG TYPE:** Drillers Log  
**SOURCE:** MORGAN COAL CO.    37    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
692.0	PLEISTOCENE		UNCONSOLIDATED	148.0	0.0	
544.0	MODESTO		SHALE	47.0	148.0	
497.0	CARBONDALE	DANVILLE	COAL	6.0	195.0	
491.0	CARBONDALE		UNCLASSIFIED	24.0	201.0	
467.0	CARBONDALE	HERRIN	COAL	5.5	225.0	

**MAPID:** 18390012000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 1795' N line, 1214' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.784304    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.2132    **DATE COLLECTED:** 6 / 3 / 1965  
**SURFACE ELEVATION (FT.):** 688.0    **LOGGED (FT.):** 226.5    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    M-9    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
688.0			UNKNOWN	217.8	0.0	
470.2	CARBONDALE	HERRIN	COAL	8.8	217.8	

**MAPID:** 18390013000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 10' N line, 1320' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.783981    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.218133    **DATE COLLECTED:** 6 / 3 / 1965  
**SURFACE ELEVATION (FT.):** 688.0    **LOGGED (FT.):** 217.8    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    393    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
688.0			UNKNOWN	210.3	0.0	
477.7	CARBONDALE	HERRIN	COAL	7.6	210.3	

**MAPID:** 18390025000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 190' S line, 53' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.769727    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.204625    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 665.0    **LOGGED (FT.):** 208.5    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    M-14    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
665.0			UNKNOWN	203.5	0.0	
461.5	CARBONDALE	HERRIN	COAL	5.0	203.5	

**MAPID:** 18390052000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 620' S line, 1254' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.774058    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.205621    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 681.0    **LOGGED (FT.):** 232.1    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #23    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
681.0			UNKNOWN	223.1	0.0	
457.9	CARBONDALE	HERRIN	COAL	9.0	223.1	

**MAPID:** 18390053000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 760' S line, 2540' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.779443    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.205771    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 706.0    **LOGGED (FT.):** 223.9    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #10    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
706.0			UNKNOWN	214.6	0.0
491.4	CARBONDALE	HERRIN	COAL	9.3	214.6

**MAPID:** 18390054000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 1220' S line, 430' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.771109    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.207403    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 674.0    **LOGGED (FT.):** 185.2    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #D3    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
674.0			UNKNOWN	177.0	0.0
497.0	CARBONDALE	HERRIN	COAL	8.2	177.0

**MAPID:** 18390055000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 2250' S line, 1320' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.783879    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.209683    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 683.0    **LOGGED (FT.):** 235.3    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #9    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
683.0			UNKNOWN	226.5	0.0
456.5	CARBONDALE	HERRIN	COAL	8.8	226.5

**MAPID:** 18390056000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 1683' N line, 2310' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.777931    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.213823    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 677.0    **LOGGED (FT.):** 221.6    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #2    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
677.0			UNKNOWN	212.7	0.0
464.3	CARBONDALE	HERRIN	COAL	8.9	212.7

**MAPID:** 18300422000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 1450' N line, 1250' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.773961    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.199942    **DATE COLLECTED:** 0 / 0 / 1953  
**SURFACE ELEVATION (FT.):** 680.0    **LOGGED (FT.):** 220.1    **LOG TYPE:** Drillers Log  
**SOURCE:** MORGAN COAL CO.    29    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
680.0	PLEISTOCENE		UNCONSOLIDATED	90.0	0.0
590.0	MODESTO		SHALE	87.0	90.0
503.0	CARBONDALE	DANVILLE	COAL	7.1	177.0
495.9	CARBONDALE		UNCLASSIFIED	25.8	184.1
470.0	CARBONDALE	HERRIN	COAL	10.1	210.0

**MAPID:** 18300423000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 1400' N line, 2550' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.778639    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.19987    **DATE COLLECTED:** 0 / 0 / 1953  
**SURFACE ELEVATION (FT.):** 685.0    **LOGGED (FT.):** 224.2    **LOG TYPE:** Drillers Log  
**SOURCE:** MORGAN COAL CO.    30    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
685.0	PLEISTOCENE		UNCONSOLIDATED	105.0	0.0
580.0	MODESTO		SHALE	74.0	105.0
506.0	CARBONDALE	DANVILLE	COAL	7.1	179.0
498.8	CARBONDALE		UNCLASSIFIED	28.8	186.2
470.0	CARBONDALE	HERRIN	COAL	9.1	215.0

**MAPID:** 18300424000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 650' N line, 1400' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.783496    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.201715    **DATE COLLECTED:** 0 / 0 / 1953  
**SURFACE ELEVATION (FT.):** 690.0    **LOGGED (FT.):** 217.0    **LOG TYPE:** Drillers Log  
**SOURCE:** MORGAN COAL CO.    33    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
690.0	PLEISTOCENE		UNCONSOLIDATED	118.0	0.0	
572.0	MODESTO		SHALE	59.0	118.0	
513.0	CARBONDALE	DANVILLE	COAL	5.6	177.0	
507.4	CARBONDALE		UNCLASSIFIED	26.4	182.6	
481.0	CARBONDALE	HERRIN	COAL	8.0	209.0	

**MAPID:** 18301413000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** NW  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.783751    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.199858    **DATE COLLECTED:** 11 / 21 / 1966  
**SURFACE ELEVATION (FT.):** 717.0    **LOGGED (FT.):** 237.8    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    16    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
485.8	CARBONDALE	HERRIN	COAL	2.6	231.2	

**MAPID:** 18301416000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** NW  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.783751    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.199858    **DATE COLLECTED:** 12 / 8 / 1966  
**SURFACE ELEVATION (FT.):** 710.0    **LOGGED (FT.):** 220.8    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    24    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
494.8	CARBONDALE	HERRIN	COAL	4.6	215.2	ESTIMATED THICKNESS



**MAPID:** 18301419000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 1320' S line, 0' line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.778962    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.196424    **DATE COLLECTED:** 12 / 30 / 1966  
**SURFACE ELEVATION (FT.):** 720.0    **LOGGED (FT.):** 266.0    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    13    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
495.5	SHELburn	DANVILLE	COAL	5.6	224.5	
462.9	CARBONDALE	HERRIN	COAL	6.7	257.1	

**MAPID:** 18301423000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:**  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.778962    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.196424    **DATE COLLECTED:** 1 / 19 / 1967  
**SURFACE ELEVATION (FT.):** 690.0    **LOGGED (FT.):** 228.5    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    15    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
498.9	SHELburn	DANVILLE	COAL	5.0	191.1	
469.5	CARBONDALE	HERRIN	COAL	4.5	220.5	

**MAPID:** 18301424000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** SW SE  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.776539    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.191054    **DATE COLLECTED:** 1 / 10 / 1967  
**SURFACE ELEVATION (FT.):** 715.0    **LOGGED (FT.):** 260.6    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    14    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
495.5	SHELburn	DANVILLE	COAL	5.7	219.5	
463.6	CARBONDALE	HERRIN	COAL	4.3	251.4	

**MAPID:** 18322074000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** SE NW  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.781356    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.198143    **DATE COLLECTED:** 5 / 15 / 1976  
**SURFACE ELEVATION (FT.):** 700.0    **LOGGED (FT.):** 254.0    **LOG TYPE:** Drillers Log  
**SOURCE:** KERR-MCGEE COAL CO.    20,13-13-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
509.0	SHELburn	DANVILLE	COAL	4.9	191.0	
476.1	CARBONDALE	HERRIN	COAL	4.6	223.9	

**MAPID:** 18390009000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 1214' S line, 50' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.788253    **GEOLOGIST:** MCCrackEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.19211    **DATE COLLECTED:** 6 / 3 / 1965  
**SURFACE ELEVATION (FT.):** 728.0    **LOGGED (FT.):** 257.2    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    #M-8    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA & VRM CO

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
728.0			UNKNOWN	219.5	0.0	
508.5	CARBONDALE	DANVILLE	COAL	5.4	219.5	
503.1	CARBONDALE		UNKNOWN	26.6	224.9	
476.5	CARBONDALE	HERRIN	COAL	5.7	251.5	

**MAPID:** 18390010000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 2520' S line, 50' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.769624    **GEOLOGIST:** MCCrackEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.196451    **DATE COLLECTED:** 6 / 3 / 1965  
**SURFACE ELEVATION (FT.):** 717.5    **LOGGED (FT.):** 212.0    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    #421    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
717.5			UNKNOWN	207.5	0.0	
510.0	CARBONDALE	HERRIN	COAL	4.5	207.5	

**MAPID:** 18390024000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 1286' N line, 2510' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.778498    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.200191    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 685.0    **LOGGED (FT.):** 179.2    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    M-11    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
685.0			UNKNOWN	172.0	0.0	
513.0	CARBONDALE	HERRIN	COAL	7.2	172.0	

**MAPID:** 18390045000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 1452' S line, 165' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.787844    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.19278    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 728.0    **LOGGED (FT.):** 256.7    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    A8    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
728.0			UNKNOWN	251.0	0.0	
477.0	CARBONDALE	HERRIN	COAL	5.7	251.0	

**MAPID:** 18390046000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 1350' S line, 1320' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.78369    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.192665    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 727.0    **LOGGED (FT.):** 257.3    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    6    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
727.0			UNKNOWN	254.1	0.0	
472.9	CARBONDALE	HERRIN	COAL	3.3	254.1	

**MAPID:** 18390047000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 2079' S line, 792' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.772285    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.195129    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 710.0    **LOGGED (FT.):** 237.2    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    D2    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
710.0			UNKNOWN	233.0	0.0
477.0	CARBONDALE	HERRIN	COAL	4.2	233.0

**MAPID:** 18390048000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 2409' S line, 2409' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.779806    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.195738    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 710.0    **LOGGED (FT.):** 236.8    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    12    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
710.0			UNKNOWN	232.3	0.0
477.7	CARBONDALE	HERRIN	COAL	4.6	232.3

**MAPID:** 18390049000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 2475' N line, 2178' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.777282    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.196968    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 695.0    **LOGGED (FT.):** 213.6    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    5    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
695.0			UNKNOWN	210.5	0.0
484.5	CARBONDALE	HERRIN	COAL	3.1	210.5

**MAPID:** 18390050000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 2211' N line, 2475' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.779588    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.19759    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 697.0    **LOGGED (FT.):** 219.1    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #11    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
697.0			UNKNOWN	211.2	0.0	
485.8	CARBONDALE	HERRIN	COAL	7.9	211.2	

**MAPID:** 18390051000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 660' N line, 1320' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.774228    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.202108    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 685.0    **LOGGED (FT.):** 224.9    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #4    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
685.0			UNKNOWN	219.6	0.0	
465.4	CARBONDALE	HERRIN	COAL	5.4	219.6	

**MAPID:** 18300421000C    **VERSION:** 1    **PROJECT:** NCRDS88  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 14    **QUARTERS/FOOTAGES:** NE NE SE  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.789659    **GEOLOGIST:** R. SMITH  
**CONFIDENTIAL:** N    **LATITUDE:** 40.19508    **DATE COLLECTED:** 6 / 28 / 1922  
**SURFACE ELEVATION (FT.):** 717.0    **LOGGED (FT.):** 242.0    **LOG TYPE:** Drillers Log  
**SOURCE:** J.T. CARPENTER    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
717.0			UNCONSOLIDATED	136.0	0.0	
581.0	MODESTO	FARMINGTON	BLUE SHALE	70.3	136.0	
510.7	CARBONDALE	DANVILLE	COAL	5.8	206.3	
505.0	CARBONDALE		SHALE	23.2	212.0	
481.8	CARBONDALE	HERRIN	COAL	4.5	235.2	
477.3	CARBONDALE		UNDERCLAY	2.3	239.7	

MAPID: 18300425000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 14 QUARTERS/FOOTAGES: SE NE NW

QUADRANGLE: COLLISON LONGITUDE: -87.799272 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.200297 DATE COLLECTED: 5 / 30 / 1922

SURFACE ELEVATION (FT.): 699.3 LOGGED (FT.): 227.0 LOG TYPE: Drillers Log

SOURCE: JAMES T. CARPENTER, DRILLER WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
699.3			UNCONSOLIDATED	118.0	0.0
581.3	MODESTO	FARMINGTON	BLUE SHALE	67.0	118.0
514.3	CARBONDALE	DANVILLE	COAL	6.1	185.0
508.2	CARBONDALE		GRAY SHALE	20.8	191.1
487.4	CARBONDALE		SANDY SHALE	2.1	211.9
485.3	CARBONDALE		GRAY SHALE	1.5	214.0
483.8	CARBONDALE		DARK SHALE	2.5	215.5
481.3	CARBONDALE		GRAY SHALE	1.3	218.0
480.0	CARBONDALE	HERRIN	COAL	6.3	219.3
473.8	CARBONDALE		UNDERCLAY	1.5	225.5

MAPID: 18300426000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 14 QUARTERS/FOOTAGES: 2700' S line, 2600' E line

QUADRANGLE: COLLISON LONGITUDE: -87.797826 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.195949 DATE COLLECTED: 0 / 0 / 1953

SURFACE ELEVATION (FT.): 702.3 LOGGED (FT.): 243.9 LOG TYPE: Drillers Log

SOURCE: MORGAN COAL CO. 24 WELL TYPE: Coal Test

COMMENT: DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
702.3	PLEISTOCENE		UNCONSOLIDATED	119.0	0.0
583.3	MODESTO		SHALE	81.0	119.0
502.3	CARBONDALE	DANVILLE	COAL	7.8	200.0
494.5	CARBONDALE		UNCLASSIFIED	28.1	207.8
466.3	CARBONDALE	HERRIN	COAL	7.9	236.0

MAPID: 18300427000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 14 QUARTERS/FOOTAGES: 2650' S line, 1300' E line

QUADRANGLE: COLLISON LONGITUDE: -87.793151 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.195937 DATE COLLECTED: 0 / 0 / 1953

SURFACE ELEVATION (FT.): 713.0 LOGGED (FT.): 248.0 LOG TYPE: Drillers Log

SOURCE: MORGAN COAL CO. 26 WELL TYPE: Coal Test

COMMENT: DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
713.0	PLEISTOCENE		UNCONSOLIDATED	146.0	0.0	
567.0	MODESTO		SHALE	67.0	146.0	
500.0	CARBONDALE	DANVILLE	COAL	7.0	213.0	
493.0	CARBONDALE		UNCLASSIFIED	22.0	220.0	
471.0	CARBONDALE	HERRIN	COAL	6.0	242.0	

MAPID: 18300428000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 14 QUARTERS/FOOTAGES: 1350' N line, 1300' E line

QUADRANGLE: COLLISON LONGITUDE: -87.793188 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 40.199448 DATE COLLECTED: 0 / 0 / 1953

SURFACE ELEVATION (FT.): 705.0 LOGGED (FT.): 221.0 LOG TYPE: Drillers Log

SOURCE: MORGAN COAL CO. 27 WELL TYPE: Coal Test

COMMENT: DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
705.0	PLEISTOCENE		UNCONSOLIDATED	114.0	0.0	
591.0	MODESTO		SHALE	71.0	114.0	
520.0	CARBONDALE	DANVILLE	COAL	7.0	185.0	
513.0	CARBONDALE		UNCLASSIFIED	23.0	192.0	
490.0	CARBONDALE	HERRIN	COAL	6.0	215.0	

MAPID: 18300429000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 14 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: COLLISON LONGITUDE: -87.80401 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.196537 DATE COLLECTED: 8 / 11 / 1923

SURFACE ELEVATION (FT.): 700.0 LOGGED (FT.): 241.0 LOG TYPE: Drillers Log

SOURCE: J.T. CARPENTER WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
700.0			UNCONSOLIDATED	112.0	0.0	
588.0	MODESTO	FARMINGTON	BLUE SHALE	61.0	112.0	
527.0	MODESTO	FARMINGTON	GRAY SHALE	30.0	173.0	
497.0	CARBONDALE	DANVILLE	COAL	5.4	203.0	
491.6	CARBONDALE		GRAY SHALE	24.6	208.4	
467.0	CARBONDALE	HERRIN	COAL	5.3	233.0	
461.7	CARBONDALE		GRAY SHALE	2.8	238.3	

MAPID: 18322590000C VERSION: 1

PROJECT: NCRDS99

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 14 QUARTERS/FOOTAGES: 2614' S line, 590' E line

QUADRANGLE: COLLISON LONGITUDE: -87.790597 GEOLOGIST: MC CRACKEN

CONFIDENTIAL: N LATITUDE: 40.195905 DATE COLLECTED: 9 / 22 / 1977

SURFACE ELEVATION (FT.): 730.0 LOGGED (FT.): 262.0 LOG TYPE: Drillers Log

SOURCE: GULF OIL CORPORATION A-14-2C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
730.0	PLEISTOCENE		UNCONSOLIDATED	131.0	0.0	
599.0	MODESTO		SHALE	70.3	131.0	
528.7	MODESTO		BLACK SHALE	0.2	201.3	
528.5	CARBONDALE	DANVILLE	COAL	4.9	201.5	
523.6	CARBONDALE	DANVILLE	COAL	0.6	206.4	WITH BLACK SHALE
523.0	CARBONDALE	DANVILLE	SHALE	0.3	207.0	
522.7	CARBONDALE	DANVILLE	COAL	0.1	207.3	
522.6	CARBONDALE		SHALE	11.1	207.4	
511.5	CARBONDALE		LIMESTONE	3.0	218.5	
508.5	CARBONDALE		SHALE	2.5	221.5	
506.0	CARBONDALE		LIMESTONE	0.5	224.0	
505.5	CARBONDALE	ENERGY	SHALE	5.3	224.5	
500.2	CARBONDALE	HERRIN	COAL	5.5	229.8	BLACK SHALE PARTINGS
494.7	CARBONDALE		PYRITE	0.2	235.3	COAL AT BASE
494.5	CARBONDALE		UNDERCLAY	4.4	235.5	
490.1	CARBONDALE		SHALE	21.6	239.9	



**MAPID:** 18322590000C    **VERSION:** 2    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 2614' S line, 590' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.790597    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.195905    **DATE COLLECTED:** 9 / 20 / 1977  
**SURFACE ELEVATION (FT.):** 730.0    **LOGGED (FT.):** 261.5    **LOG TYPE:** Electric Log  
**SOURCE:** GULF OIL CORPORATION    A-14-2C    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
528.7	SHELburn	DANVILLE	COAL	5.5	201.3
500.5	CARBONDALE	HERRIN	COAL	5.6	229.5

**MAPID:** 18390008000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 211' S line, 2587' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.797706    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.189088    **DATE COLLECTED:** 6 / 3 / 1965  
**SURFACE ELEVATION (FT.):** 706.0    **LOGGED (FT.):** 241.3    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    M-5    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
706.0			UNKNOWN	237.5	0.0
468.5	CARBONDALE	HERRIN	COAL	3.8	237.5

**MAPID:** 18390042000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 132' S line, 2462' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.797254    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.188883    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 711.0    **LOGGED (FT.):** 244.6    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    A5    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
711.0			UNKNOWN	240.8	0.0
470.2	CARBONDALE	HERRIN	COAL	3.8	240.8

**MAPID:** 18390043000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 2475' S line, 1254' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.792979    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.195459    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 718.0    **LOGGED (FT.):** 229.6    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    7    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
718.0			UNKNOWN	224.5	0.0
493.5	CARBONDALE	HERRIN	COAL	5.1	224.5

**MAPID:** 18390044000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 2600' S line, 25' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.788563    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.19592    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 719.0    **LOGGED (FT.):** 233.8    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    16    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
719.0			UNKNOWN	230.4	0.0
488.6	CARBONDALE	HERRIN	COAL	3.4	230.4

**MAPID:** 18301414000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 15    **QUARTERS/FOOTAGES:** 1320' S line, 1320' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.812292    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.191781    **DATE COLLECTED:** 11 / 16 / 1966  
**SURFACE ELEVATION (FT.):** 716.0    **LOGGED (FT.):** 273.2    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    9    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
450.7	CARBONDALE	HERRIN	COAL	4.5	265.3

**MAPID:** 18322591000C    **VERSION:** 1    **PROJECT:** NCRDS99  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 15    **QUARTERS/FOOTAGES:** 34' N line, 2829' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.816387    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.202532    **DATE COLLECTED:** 9 / 9 / 1977  
**SURFACE ELEVATION (FT.):** 720.0    **LOGGED (FT.):** 324.2    **LOG TYPE:** Drillers Log  
**SOURCE:** GULF OIL CORPORATION    A-15-2C    **WELL TYPE:** Coal Test  
**COMMENT:** DRILLER'S LOG FOR A-15-1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
720.0	PLEISTOCENE		UNCONSOLIDATED	150.4	0.0
569.6			SHALE	116.7	150.4
452.9	CARBONDALE	DANVILLE	COAL	5.2	267.1
447.7	CARBONDALE		SHALE	27.9	272.3
419.8	CARBONDALE	HERRIN	COAL	6.8	300.2
413.0	CARBONDALE		SHALE	17.2	307.0

**MAPID:** 18322591000C    **VERSION:** 2    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 15    **QUARTERS/FOOTAGES:** 34' N line, 2829' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.816387    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.202532    **DATE COLLECTED:** 9 / 9 / 1977  
**SURFACE ELEVATION (FT.):** 720.0    **LOGGED (FT.):** 324.2    **LOG TYPE:** Electric Log  
**SOURCE:** GULF OIL CORPORATION    A-15-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
457.4	SHELBURN	DANVILLE	COAL	6.4	262.6
425.1	CARBONDALE	HERRIN	COAL	5.9	294.9

**MAPID:** 18390038000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 15    **QUARTERS/FOOTAGES:** 2310' N line, 2696' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.817292    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.196232    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 730.0    **LOGGED (FT.):** 336.6    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    \D    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
730.0			UNKNOWN	332.0	0.0
398.0	CARBONDALE	HERRIN	COAL	4.6	332.0

**MAPID:** 18390039000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 15    **QUARTERS/FOOTAGES:** 132' S line, 2574' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.816768    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.188411    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 721.0    **LOGGED (FT.):** 295.3    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    B    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
721.0			UNKNOWN	291.0	0.0	
430.0	CARBONDALE	HERRIN	COAL	4.3	291.0	

**MAPID:** 18390040000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 15    **QUARTERS/FOOTAGES:** 1122' N line, 1254' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.812142    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.199631    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 713.0    **LOGGED (FT.):** 264.1    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #18    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
713.0			UNKNOWN	258.8	0.0	
454.2	CARBONDALE	HERRIN	COAL	5.3	258.8	

**MAPID:** 18390041000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 15    **QUARTERS/FOOTAGES:** 1386' S line, 132' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.808024    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.192057    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 709.0    **LOGGED (FT.):** 246.4    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    C    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
709.0			UNKNOWN	242.0	0.0	
467.0	CARBONDALE	HERRIN	COAL	4.4	242.0	

**MAPID:** 18322592000C    **VERSION:** 1    **PROJECT:** NCRDS99  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 16    **QUARTERS/FOOTAGES:** 234' N line, 497' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.843804    **GEOLOGIST:** MC CRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.201242    **DATE COLLECTED:** 9 / 15 / 1977  
**SURFACE ELEVATION (FT.):** 755.0    **LOGGED (FT.):** 348.5    **LOG TYPE:** Drillers Log  
**SOURCE:** GULF OIL CORPORATION    A-16-2C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
755.0	PLEISTOCENE		UNCONSOLIDATED	194.5	0.0	
560.5	MODESTO		SANDSTONE	3.5	194.5	
557.0	MODESTO		SHALE	94.9	198.0	
462.1	CARBONDALE	DANVILLE	COAL	5.6	292.9	
456.6	CARBONDALE		SHALE	28.1	298.4	
428.5	CARBONDALE	HERRIN	COAL	4.3	326.5	
424.2	CARBONDALE		SHALE	17.7	330.8	

**MAPID:** 18322592000C    **VERSION:** 2    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 16    **QUARTERS/FOOTAGES:** 234' N line, 497' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.843804    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.201242    **DATE COLLECTED:** 9 / 15 / 1977  
**SURFACE ELEVATION (FT.):** 755.0    **LOGGED (FT.):** 348.5    **LOG TYPE:** Electric Log  
**SOURCE:** GULF OIL CORPORATION    A-16-2C    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
462.2	SHELBURN	DANVILLE	COAL	5.3	292.8	
429.2	CARBONDALE	HERRIN	COAL	4.3	325.8	

**MAPID:** 18322518000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 17    **QUARTERS/FOOTAGES:** 1220' S line, 1190' W line of SW SW  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.860041    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.190218    **DATE COLLECTED:** 0 / 0 / 1980  
**SURFACE ELEVATION (FT.):** 685.0    **LOGGED (FT.):** 293.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    2013-17-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
434.5	SHELBURN	DANVILLE	COAL	3.8	250.5	
402.5	CARBONDALE	HERRIN	COAL	4.0	282.5	DEP./THICK. EST./REMOVED BY CO.

MAPID: 18322593000C VERSION: 1

PROJECT: NCRDS99

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 17 QUARTERS/FOOTAGES: 1363' N line, 2579' E line

QUADRANGLE: COLLISON LONGITUDE: -87.854824 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 40.197811 DATE COLLECTED: 10 / 1 / 1977

SURFACE ELEVATION (FT.): 690.0 LOGGED (FT.): 318.5 LOG TYPE: Drillers Log

SOURCE: GULF OIL CORPORATION A-20-3C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
690.0	PLEISTOCENE		UNCONSOLIDATED	80.0	0.0	
610.0			COAL	1.0	80.0	
609.0			CLAYSTONE & SILTSTONE	13.1	81.0	
595.9			LIMESTONE	0.9	94.1	
595.0			SHALE	25.2	95.0	
569.8			LIMESTONE	5.6	120.2	
564.2			SHALE	0.9	125.8	
563.3			BLACK SHALE	3.7	126.7	
559.6			SHALE	8.0	130.4	CLAY SHALE
551.6			COAL	1.3	138.4	
550.3			LIMESTONE	0.9	139.7	
549.4			SHALE	10.8	140.6	
538.6			LIMESTONE	1.9	151.4	
536.7			SHALE	60.7	153.3	
476.0			LIMESTONE	0.5	214.0	
475.5			SHALE	43.7	214.5	
431.8	CARBONDALE	DANVILLE	COAL	5.7	258.2	
426.1	CARBONDALE		LIMESTONE & SHALE	28.3	263.9	LIMESTONE WITH SHALE
397.8	CARBONDALE	HERRIN	COAL	5.3	292.2	
392.6	CARBONDALE		LIMESTONE & SHALE	21.1	297.4	LIMESTONE WITH SHALE

MAPID: 18322593000C VERSION: 2

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 17 QUARTERS/FOOTAGES: 1363' N line, 2579' E line

QUADRANGLE: COLLISON LONGITUDE: -87.854824 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.197811 DATE COLLECTED: 10 / 1 / 1977

SURFACE ELEVATION (FT.): 690.0 LOGGED (FT.): 318.5 LOG TYPE: Electric Log

SOURCE: GULF OIL CORPORATION A-20-3C WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
428.8	SHELBURN	DANVILLE	COAL	4.9	261.2	
396.1	CARBONDALE	HERRIN	COAL	4.6	293.9	

**MAPID:** 18323023000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 17    **QUARTERS/FOOTAGES:** 300' S line, 50' E line of NE SE  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.845646    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.191699    **DATE COLLECTED:** 7 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 707.0    **LOGGED (FT.):** 348.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PD-51    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-				-		NO COAL PICKS

**MAPID:** 18323024000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 18    **QUARTERS/FOOTAGES:** 90' S line, 600' E line of SW SW  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.881915    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.18684    **DATE COLLECTED:** 7 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 338.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PD-47    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-				-		NO COAL PICKS

**MAPID:** 18322172000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 19    **QUARTERS/FOOTAGES:** 575' S line, 2040' W line of SE SW  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.872134    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.173714    **DATE COLLECTED:** 9 / 29 / 1978  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 314.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    2013-19-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-	SHELBURN	DANVILLE	COAL	5.0	260.0	REMOVED BY CO.
-	CARBONDALE	HERRIN	COAL	6.3	293.5	REMOVED BY CO.

MAPID: 18322528000C    VERSION: 1

PROJECT: CONF

COUNTY: VERMILION    TWP/RNG: 20N 13W    SECTION: 21    QUARTERS/FOOTAGES: 1360' S line, 150' W line of SW SW  
 QUADRANGLE: COLLISON    LONGITUDE: -87.844678    GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N    LATITUDE: 40.176428    DATE COLLECTED: 0 / 0 / 1981  
 SURFACE ELEVATION (FT.): 665.0    LOGGED (FT.): 300.0    LOG TYPE: Drillers Log  
 SOURCE: KERR-MCGEE COAL CO.    2013-21-1    WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
383.0	SHELburn	DANVILLE	COAL	4.0	282.0	

MAPID: 18321917000C    VERSION: 1

PROJECT: CONF

COUNTY: VERMILION    TWP/RNG: 20N 13W    SECTION: 22    QUARTERS/FOOTAGES: 1295' N line, 1160' W line  
 QUADRANGLE: COLLISON    LONGITUDE: -87.822152    GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N    LATITUDE: 40.184358    DATE COLLECTED: 5 / 23 / 1974  
 SURFACE ELEVATION (FT.): 725.0    LOGGED (FT.): 292.5    LOG TYPE: Electric Log  
 SOURCE: PHILLIPS PETROLEUM CO.    E-(11)    WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
444.4	SHELburn	DANVILLE	COAL	6.0	280.6	
-	CARBONDALE	HERRIN	COAL	-		HOLE NOT DEEP ENOUGH

MAPID: 18322075000C    VERSION: 1

PROJECT: CONF

COUNTY: VERMILION    TWP/RNG: 20N 13W    SECTION: 22    QUARTERS/FOOTAGES: SW NW  
 QUADRANGLE: COLLISON    LONGITUDE: -87.823941    GEOLOGIST: LOG BOOK  
 CONFIDENTIAL: N    LATITUDE: 40.182424    DATE COLLECTED: 5 / 15 / 1976  
 SURFACE ELEVATION (FT.): 724.0    LOGGED (FT.): 339.0    LOG TYPE: Drillers Log  
 SOURCE: KERR-MCGEE COAL CO.    20,13-22-1    WELL TYPE: Coal Test  
 COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
441.7	SHELburn	DANVILLE	COAL	5.9	282.3	
409.8	CARBONDALE	HERRIN	COAL	2.4	314.2	



MAPID: 18390037000C VERSION: 1

PROJECT: ISGS97

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 22 QUARTERS/FOOTAGES: 2640' S line, 132' E line

QUADRANGLE: COLLISON LONGITUDE: -87.807836 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 40.180969 DATE COLLECTED:

SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 246.3 LOG TYPE: Company map

SOURCE: MORGAN COAL CO. A WELL TYPE: Coal Test

COMMENT: COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
680.0			UNKNOWN	242.0	0.0
438.0	CARBONDALE	HERRIN	COAL	4.3	242.0

MAPID: 18300430000C VERSION: 1

PROJECT: NCRDS88

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 23 QUARTERS/FOOTAGES: NW SE NW

QUADRANGLE: COLLISON LONGITUDE: -87.80145 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 40.183862 DATE COLLECTED:

SURFACE ELEVATION (FT.): 690.0 LOGGED (FT.): 237.0 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
690.0			UNCONSOLIDATED	87.0	0.0
603.0	MODESTO		SANDSTONE	3.0	87.0
600.0	MODESTO		BLUE SHALE	25.0	90.0
575.0	MODESTO		SANDSTONE	24.0	115.0
551.0	MODESTO	FARMINGTON	BLUE SHALE	60.0	139.0
491.0	CARBONDALE	DANVILLE	COAL	5.7	199.0
485.3	CARBONDALE		SHALE	25.1	204.7
460.2	CARBONDALE	HERRIN	COAL	4.3	229.8
456.0	CARBONDALE		UNDERCLAY	3.0	234.0

MAPID: 18300431000C VERSION: 1

PROJECT: NCRDS95

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 23 QUARTERS/FOOTAGES: 2500' N line, 2500' E line

QUADRANGLE: COLLISON LONGITUDE: -87.79728 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 40.181627 DATE COLLECTED: 0 / 0 / 1953

SURFACE ELEVATION (FT.): 731.3 LOGGED (FT.): 0.0 LOG TYPE: Drillers Log

SOURCE: MORGAN COAL CO. 45 WELL TYPE: Coal Test

COMMENT: DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
731.3			UNCLASSIFIED	0.0	0.0	NO MEASUREMENTS GIVEN

**MAPID:** 18300432000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 23    **QUARTERS/FOOTAGES:** 1300' N line, 1250' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.792838    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.185055    **DATE COLLECTED:** 0 / 0 / 1953  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 0.0    **LOG TYPE:** Drillers Log  
**SOURCE:** MORGAN COAL CO.    46    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCLASSIFIED	0.0	0.0	NO MEASUREMENTS GIVEN

**MAPID:** 18390023000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 24    **QUARTERS/FOOTAGES:** 2582' N line, 1423' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.783176    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.181849    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 733.0    **LOGGED (FT.):** 242.5    **LOG TYPE:** Company map  
**SOURCE:** PEABODY COAL CO.    433    **WELL TYPE:** Coal Test  
**COMMENT:** DRILL HOLE MAP OF COLLISON AREA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
733.0			UNKNOWN	236.9	0.0	
496.1	CARBONDALE	HERRIN	COAL	5.6	236.9	

**MAPID:** 18390036000C    **VERSION:** 1    **PROJECT:** ISGS97  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 24    **QUARTERS/FOOTAGES:** 2475' N line, 1155' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.784141    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 40.182105    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 733.0    **LOGGED (FT.):** 271.1    **LOG TYPE:** Company map  
**SOURCE:** MORGAN COAL CO.    #47    **WELL TYPE:** Coal Test  
**COMMENT:** COLLISON PROPERTY MAP #1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
733.0			UNKNOWN	267.8	0.0	
465.2	CARBONDALE	HERRIN	COAL	3.3	267.8	

MAPID: 18322076000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 26 QUARTERS/FOOTAGES: SW NE

QUADRANGLE: COLLISON LONGITUDE: -87.795254 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.168542 DATE COLLECTED: 5 / 13 / 1976

SURFACE ELEVATION (FT.): LOGGED (FT.): 263.0 LOG TYPE: Drillers Log

SOURCE: KERR-MCGEE COAL CO. 20,13-26-1 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	SHELburn	DANVILLE	COAL	5.6	211.1
-	CARBONDALE	HERRIN	COAL	3.5	239.0

MAPID: 18322594000C VERSION: 1

PROJECT: NCRDS99

COUNTY: VERMILION TWP/RNG: 20N 13W SECTION: 31 QUARTERS/FOOTAGES: 1347' S line, 2575' E line

QUADRANGLE: COLLISON LONGITUDE: -87.873049 GEOLOGIST: MCCrackEN

CONFIDENTIAL: N LATITUDE: 40.146531 DATE COLLECTED: 9 / 27 / 1977

SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 321.0 LOG TYPE: Drillers Log

SOURCE: GULF OIL CORPORATION A-31-2C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
660.0	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0
620.0			COAL	9.0	40.0
611.0			SHALE	78.0	49.0 SANDY
533.0			LIMESTONE	7.3	127.0
525.7			SHALE	1.7	134.3
524.0			LIMESTONE	4.3	136.0
519.7			SHALE	3.3	140.3
516.4			BLACK SHALE	9.2	143.6 COAL SEAMS
507.2			SHALE	13.2	152.8
494.0			LIMESTONE	2.0	166.0
492.0			SHALE	11.0	168.0
481.0			BLACK SHALE	4.1	179.0
476.9			SHALE	55.4	183.1
421.5			LIMESTONE	8.8	238.5
412.7			SHALE	19.2	247.3
393.5	CARBONDALE	DANVILLE	COAL	5.0	266.5
388.5	CARBONDALE		CLAYSTONE & SILTSTONE	24.3	271.5
364.3	CARBONDALE	HERRIN	COAL	5.0	295.7
359.3	CARBONDALE		SHALE	20.3	300.7 CORE LOSS (305.5-306.0)

**MAPID:** 18322594000C    **VERSION:** 2    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 31    **QUARTERS/FOOTAGES:** 1347' S line, 2575' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.873049    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.146531    **DATE COLLECTED:** 9 / 27 / 1977  
**SURFACE ELEVATION (FT.):** 660.0    **LOGGED (FT.):** 321.0    **LOG TYPE:** Electric Log  
**SOURCE:** GULF OIL CORPORATION    A-31-2C    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
394.4	SHELburn	DANVILLE	COAL	4.5	265.6	
365.2	CARBONDALE	HERRIN	COAL	5.1	294.8	

**MAPID:** 18322077000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 32    **QUARTERS/FOOTAGES:** NE NE  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.847358    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.156256    **DATE COLLECTED:** 5 / 25 / 1976  
**SURFACE ELEVATION (FT.):** 665.0    **LOGGED (FT.):** 308.5    **LOG TYPE:** Drillers Log  
**SOURCE:** KERR-MCGEE COAL CO.    20,13-32-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
414.3	SHELburn	DANVILLE	COAL	4.0	250.7	
386.0	CARBONDALE	HERRIN	COAL	4.0	279.0	

**MAPID:** 18323025000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 32    **QUARTERS/FOOTAGES:** 57' N line, 60' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.845223    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.157979    **DATE COLLECTED:** 7 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 655.0    **LOGGED (FT.):** 317.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PD-57    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-		NO COAL PICKS

MAPID: 18322519000C    VERSION: 1

PROJECT: CONF

COUNTY: VERMILION    TWP/RNG: 20N 13W    SECTION: 35    QUARTERS/FOOTAGES: 1305' N line, 55' W line of NW NW

QUADRANGLE: COLLISON    LONGITUDE: -87.806789    GEOLOGIST: LOG BOOK

CONFIDENTIAL: N    LATITUDE: 40.155514    DATE COLLECTED: 0 / 0 / 1980

SURFACE ELEVATION (FT.): 659.0    LOGGED (FT.): 278.0    LOG TYPE: Survey Core Study

SOURCE: KERR-MCGEE COAL CO.    2013-35-1    WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
415.9	SHELBURN	DANVILLE	COAL	5.9	243.1	REMOVED BY CO.

MAPID: 18322595000C    VERSION: 1

PROJECT: NCRDS99

COUNTY: VERMILION    TWP/RNG: 20N 13W    SECTION: 35    QUARTERS/FOOTAGES: 1331' N line, 54' W line

QUADRANGLE: COLLISON    LONGITUDE: -87.80679    GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N    LATITUDE: 40.155443    DATE COLLECTED: 8 / 25 / 1977

SURFACE ELEVATION (FT.): 656.0    LOGGED (FT.): 310.0    LOG TYPE: Drillers Log

SOURCE: GULF OIL CORPORATION    A-35-2C    WELL TYPE: Coal Test

COMMENT: DRILLER'S LOG FOR A-35-1

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
656.0	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0	
632.0			SANDSTONE	38.0	24.0	
594.0			SHALE	31.0	62.0	
563.0			LIMESTONE	3.0	93.0	
560.0			BLACK SHALE	5.0	96.0	
555.0			SHALE	20.0	101.0	
535.0			LIMESTONE	3.0	121.0	
532.0			SHALE	121.5	124.0	
410.5	CARBONDALE	DANVILLE	COAL	4.0	245.5	
406.5	CARBONDALE		SHALE	23.5	249.5	
383.0	CARBONDALE		BLACK SHALE	1.5	273.0	
381.5	CARBONDALE	HERRIN	COAL	4.3	274.5	
377.2	CARBONDALE		LIMESTONE	2.7	278.8	CONGOMERATIC WITH SHALE
374.5	CARBONDALE		SHALE	28.5	281.5	

**MAPID:** 18322595000C    **VERSION:** 2    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 35    **QUARTERS/FOOTAGES:** 1331' N line, 54' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.80679    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.155443    **DATE COLLECTED:** 8 / 27 / 1977  
**SURFACE ELEVATION (FT.):** 656.0    **LOGGED (FT.):** 310.0    **LOG TYPE:** Electric Log  
**SOURCE:** GULF OIL CORPORATION    A-32-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
413.8	SHELburn	DANVILLE	COAL	5.5	242.2	
384.5	CARBONDALE	HERRIN	COAL	4.5	271.5	

**MAPID:** 18322520000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 13W    **SECTION:** 36    **QUARTERS/FOOTAGES:** 2095' N line, 1550' W line of SE NW  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.777564    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.150442    **DATE COLLECTED:** 0 / 0 / 1980  
**SURFACE ELEVATION (FT.):** 648.0    **LOGGED (FT.):** 231.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    K2013-36-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
453.5	SHELburn	DANVILLE	COAL	5.7	194.5	THICKNESS ESTIMATED/REMOVED BY
427.0	CARBONDALE	HERRIN	COAL	3.5	221.0	THICKNESS ESTIMATED/REMOVED BY

**MAPID:** 18322173000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 1    **QUARTERS/FOOTAGES:** 638' N line, 1202' E line of NE NE  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.889979    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.224094    **DATE COLLECTED:** 9 / 26 / 1978  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 430.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    2014-1-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			COAL	0.3	357.9	

**MAPID:** 18323026000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 2    **QUARTERS/FOOTAGES:** 50' S line, 33' W line  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.922949    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.214631    **DATE COLLECTED:** 7 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 744.0    **LOGGED (FT.):** 418.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PC-59    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-				-		NO COAL PICKS

**MAPID:** 18322174000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 10    **QUARTERS/FOOTAGES:** 1140' S line, 1360' W line of SE SW  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.932137    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.203078    **DATE COLLECTED:** 9 / 22 / 1978  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 378.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    2014-10-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-	SHELBURN	DANVILLE	COAL	4.0	306.0	REMOVED BY CO.
-	CARBONDALE	HERRIN	COAL	7.6	355.2	THICKNESS ESTIMATED/REMOVED BY

**MAPID:** 18322525000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 11    **QUARTERS/FOOTAGES:** 308' N line, 5' W line of NW NW  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.923032    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.213644    **DATE COLLECTED:** 1 / 0 / 1981  
**SURFACE ELEVATION (FT.):** 745.0    **LOGGED (FT.):** 399.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    2014-11-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
396.0			COAL	-	349.0	NO THICKNESS GIVEN
360.5	CARBONDALE	HERRIN	COAL	7.5	384.5	THICKNESS ESTIMATED/REMOVED BY

**MAPID:** 18322175000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 2540' N line, 100' W line of SW NW  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.90367    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.20425    **DATE COLLECTED:** 5 / 10 / 1978  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 398.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    2014-12-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-	CARBONDALE	HERRIN	COAL	6.3	372.0	REMOVED BY CO.

**MAPID:** 18322529000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 2320' S line, 35' E line of NE SE  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.885482    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.210752    **DATE COLLECTED:** 0 / 0 / 1981  
**SURFACE ELEVATION (FT.):** 700.0    **LOGGED (FT.):** 345.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    2014-12-2    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
413.5	SHELburn	DANVILLE	COAL	5.5	286.5	REMOVED BY CO.
369.0	CARBONDALE	HERRIN	COAL	7.0	331.0	REMOVED BY CO.

**MAPID:** 18322078000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 13    **QUARTERS/FOOTAGES:** SE NW  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.896833    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.195074    **DATE COLLECTED:** 6 / 1 / 1976  
**SURFACE ELEVATION (FT.):** 682.0    **LOGGED (FT.):** 349.7    **LOG TYPE:** Drillers Log  
**SOURCE:** KERR-MCGEE COAL CO.    2014-13-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
387.6	SHELburn	DANVILLE	COAL	3.9	294.4	
345.3	CARBONDALE	HERRIN	COAL	5.3	336.7	



**MAPID:** 18321920000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 2280' S line, 115' E line  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.90425    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.192133    **DATE COLLECTED:** 5 / 16 / 1974  
**SURFACE ELEVATION (FT.):** 684.0    **LOGGED (FT.):** 340.0    **LOG TYPE:** Drillers Log  
**SOURCE:** PHILLIPS PETROLEUM CO.    A-8    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
400.7	SHELburn	DANVILLE	COAL	5.7	283.3
358.5	CARBONDALE	HERRIN	COAL	6.9	325.5

**MAPID:** 18321920000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 2280' S line, 115' E line  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.90425    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 40.192133    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 684.0    **LOGGED (FT.):** 331.9    **LOG TYPE:** Survey Core Study  
**SOURCE:** PHILLIPS PETROLEUM CO.    A-8    **WELL TYPE:** Coal Test  
**COMMENT:** GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
488.9	MODESTO		DARK GRAY SHALE	90.0	195.1
398.9	CARBONDALE	DANVILLE	COAL	5.4	285.1
393.6	CARBONDALE		CLAYSTONE	7.4	290.4
386.2	CARBONDALE	BANKSTON FORK	LIMESTONE	8.0	297.8    UPPER BENCH
378.2	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	6.8	305.8    SHALE PARTING
371.4	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	3.9	312.6    LOWER BENCH
367.5	CARBONDALE	ANNA	BLACK SHALE	8.5	316.5
359.0	CARBONDALE	HERRIN	COAL	6.9	325.0

**MAPID:** 18322079000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 14    **QUARTERS/FOOTAGES:** SW SW  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.920268    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.187429    **DATE COLLECTED:** 6 / 7 / 1976  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 414.5    **LOG TYPE:** Drillers Log  
**SOURCE:** KERR-MCGEE COAL CO.    20,14-14-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
364.6	SHELburn	DANVILLE	COAL	4.6	305.4
314.9	CARBONDALE	HERRIN	COAL	5.9	355.1
269.0	CARBONDALE	SPRINGFIELD	COAL	1.5	401.0

**MAPID:** 18323027000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 52' S line, 34' W line  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.92248    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.18573    **DATE COLLECTED:** 6 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 368.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PD-40    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		UNIT OVERBURDEN COMMENT
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-    -    NO COAL PICKS

**MAPID:** 18322177000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 25    **QUARTERS/FOOTAGES:** 100' S line, 1220' E line of SE SE  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.888708    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.157322    **DATE COLLECTED:** 5 / 23 / 1978  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 310.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    2014-25-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		UNIT OVERBURDEN COMMENT
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-	SHELburn	DANVILLE	COAL	4.8	273.1	REMOVED BY CO.
-	CARBONDALE	HERRIN	COAL	3.1	305.1	REMOVED BY CO.

**MAPID:** 18323028000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 25    **QUARTERS/FOOTAGES:** 42' S line, 23' E line  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.884405    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.157208    **DATE COLLECTED:** 7 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 654.0    **LOGGED (FT.):** 330.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PD-56    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		UNIT OVERBURDEN COMMENT
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-    -    NO COAL PICKS

**MAPID:** 18322178000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 26    **QUARTERS/FOOTAGES:** 25' N line, 2590' W line of NE NW  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.908397    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.171273    **DATE COLLECTED:** 5 / 17 / 1978  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 311.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    2014-26-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-	SHELburn	DANVILLE	COAL	-	264.4	NO THICKNESS GIVEN
-	CARBONDALE	HERRIN	COAL	-	296.1	NO THICKNESS GIVEN

**MAPID:** 18322530000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 27    **QUARTERS/FOOTAGES:** 2375' N line, 100' W line of SW NW  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.940774    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.160713    **DATE COLLECTED:** 0 / 0 / 1981  
**SURFACE ELEVATION (FT.):** 670.0    **LOGGED (FT.):** 304.0    **LOG TYPE:** Drillers Log  
**SOURCE:** KERR-MCGEE COAL CO.    2014-27-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
409.5	SHELburn	DANVILLE	COAL	4.5	260.5	
378.0	CARBONDALE	HERRIN	COAL	7.3	292.0	REMOVED BY CO.

**MAPID:** 18323029000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 27    **QUARTERS/FOOTAGES:** 66' N line, 75' W line  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.940978    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.170709    **DATE COLLECTED:** 7 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 671.0    **LOGGED (FT.):** 298.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PC-58    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-				-		NO COAL PICKS

**MAPID:** 1832208000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 35    **QUARTERS/FOOTAGES:** SW SE  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.91013    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.144048    **DATE COLLECTED:** 6 / 9 / 1976  
**SURFACE ELEVATION (FT.):** 664.0    **LOGGED (FT.):** 287.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    20,14-35-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
437.5	SHELburn	DANVILLE	COAL	4.8	226.5	
405.6	CARBONDALE	HERRIN	COAL	3.8	258.4	

**MAPID:** 18323030000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 35    **QUARTERS/FOOTAGES:** 33' N line, 36' W line  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.922026    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.156512    **DATE COLLECTED:** 7 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 668.0    **LOGGED (FT.):** 298.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PD-48    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-		NO COAL PICKS

**MAPID:** 18323031000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 20N 14W    **SECTION:** 36    **QUARTERS/FOOTAGES:** 246' S line, 192' W line  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.90227    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.142996    **DATE COLLECTED:** 8 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 668.0    **LOGGED (FT.):** 309.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PD-59    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-		NO COAL PICKS

**MAPID:** 18323032000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 13W    **SECTION:** 6    **QUARTERS/FOOTAGES:** 850' S line, 1250' W line  
**QUADRANGLE:** POTOMAC    **LONGITUDE:** -87.868404    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.301732    **DATE COLLECTED:** 10 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 686.0    **LOGGED (FT.):** 339.5    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PF-27    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

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

-    -    NO COAL PICKS

**MAPID:** 18322540000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 13W    **SECTION:** 7    **QUARTERS/FOOTAGES:** 2500' S line, 1450' E line of NW SE  
**QUADRANGLE:** POTOMAC    **LONGITUDE:** -87.863594    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.295345    **DATE COLLECTED:** 0 / 0 / 1981  
**SURFACE ELEVATION (FT.):** 683.0    **LOGGED (FT.):** 330.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    2113-7-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

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

428.0	SHELBURN	DANVILLE	COAL	9.5	255.0	REMOVED BY CO.
396.5	CARBONDALE	HERRIN	COAL	3.5	286.5	REMOVED BY CO.

**MAPID:** 18322541000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 13W    **SECTION:** 10    **QUARTERS/FOOTAGES:** 2630' N line, 2425' E line of SW NE  
**QUADRANGLE:** POTOMAC    **LONGITUDE:** -87.808963    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.288616    **DATE COLLECTED:** 0 / 0 / 1981  
**SURFACE ELEVATION (FT.):** 692.0    **LOGGED (FT.):** 280.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    2113-10-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

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

439.5	CARBONDALE	HERRIN	COAL	5.8	252.5	REMOVED BY CO.
419.4	CARBONDALE	SPRINGFIELD	COAL	6.0	272.6	REMOVED BY CO./MAY NOT ALL BE COAL

**MAPID:** 18300453000C    **VERSION:** 1    **PROJECT:** NCRDS95  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 13W    **SECTION:** 15    **QUARTERS/FOOTAGES:** 2800' S line, 2600' E line  
**QUADRANGLE:** POTOMAC    **LONGITUDE:** -87.804622    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 40.278069    **DATE COLLECTED:** 0 / 0 / 1953  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 0.0    **LOG TYPE:** Drillers Log  
**SOURCE:** MORGAN COAL CO.    15    **WELL TYPE:** Coal Test  
**COMMENT:** DATA FRM COAL SECT. MAP FILE 6-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-			UNCLASSIFIED	0.0	0.0	NO INFORMATION GIVEN

**MAPID:** 18323033000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 13W    **SECTION:** 15    **QUARTERS/FOOTAGES:** 40' S line, 660' E line  
**QUADRANGLE:** POTOMAC    **LONGITUDE:** -87.797554    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.270457    **DATE COLLECTED:** 8 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 638.0    **LOGGED (FT.):** 330.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PE-12    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-				-	-	NO COAL PICKS

**MAPID:** 18322531000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 13W    **SECTION:** 16    **QUARTERS/FOOTAGES:** 975' N line, 2600' W line of NE NW  
**QUADRANGLE:** POTOMAC    **LONGITUDE:** -87.819654    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.282323    **DATE COLLECTED:** 0 / 0 / 1981  
**SURFACE ELEVATION (FT.):** 695.0    **LOGGED (FT.):** 284.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    2113-16-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
449.0	SHELburn	DANVILLE	COAL	8.5	246.0	REMOVED BY CO.
421.0	CARBONDALE	HERRIN	COAL	5.0	274.0	REMOVED BY CO.

**MAPID:** 18322532000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 13W    **SECTION:** 18    **QUARTERS/FOOTAGES:** 250' S line, 50' W line of SW SW  
**QUADRANGLE:** POTOMAC    **LONGITUDE:** -87.872047    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.270655    **DATE COLLECTED:** 0 / 0 / 1981  
**SURFACE ELEVATION (FT.):** 707.0    **LOGGED (FT.):** 335.0    **LOG TYPE:** Drillers Log  
**SOURCE:** KERR-MCGEE COAL CO.    2113-18-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
432.0	SHELburn	DANVILLE	COAL	8.0	275.0	
397.0	CARBONDALE	HERRIN	COAL	7.0	310.0	
382.0	CARBONDALE	SPRINGFIELD	COAL	4.0	325.0	

**MAPID:** 18323034000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 13W    **SECTION:** 18    **QUARTERS/FOOTAGES:** 315' S line, 200' W line  
**QUADRANGLE:** POTOMAC    **LONGITUDE:** -87.871513    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.270841    **DATE COLLECTED:** 8 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 703.0    **LOGGED (FT.):** 360.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PE-10    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-		NO COAL PICKS

**MAPID:** 18323035000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 13W    **SECTION:** 20    **QUARTERS/FOOTAGES:** 40' N line, 1370' E line  
**QUADRANGLE:** POTOMAC    **LONGITUDE:** -87.83864    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.270157    **DATE COLLECTED:** 8 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 702.0    **LOGGED (FT.):** 360.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PE-11    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-		NO COAL PICKS

**MAPID:** 18322533000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 13W    **SECTION:** 21    **QUARTERS/FOOTAGES:** 1300' S line, 2550' E line of SW SE  
**QUADRANGLE:** POTOMAC    **LONGITUDE:** -87.828302    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.25925    **DATE COLLECTED:** 0 / 0 / 1981  
**SURFACE ELEVATION (FT.):** 680.0    **LOGGED (FT.):** 250.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    2113-21-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
469.5	SHELburn	DANVILLE	COAL	9.5	210.5	REMOVED BY CO./MAY BE SOME FLOOR & ROOF
441.0	CARBONDALE	HERRIN	COAL	4.0	239.0	REMOVED BY CO.

**MAPID:** 18322542000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 13W    **SECTION:** 28    **QUARTERS/FOOTAGES:** 100' S line, 1150' E line of SE SE  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.818203    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.241386    **DATE COLLECTED:** 0 / 0 / 1981  
**SURFACE ELEVATION (FT.):** 698.0    **LOGGED (FT.):** 280.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    2113-28-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
458.5	SHELburn	DANVILLE	COAL	10.0	239.5	REMOVED BY CO./THICK. CLOSE TO INTERV.
428.6	CARBONDALE	HERRIN	COAL	5.5	269.4	REMOVED BY CO.

**MAPID:** 18322534000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 13W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 70' S line, 2465' W line of SE SW  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.838867    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.241188    **DATE COLLECTED:** 0 / 0 / 1981  
**SURFACE ELEVATION (FT.):** 706.0    **LOGGED (FT.):** 291.0    **LOG TYPE:** Drillers Log  
**SOURCE:** KERR-MCGEE COAL CO.    2113-29-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
459.0	SHELburn	DANVILLE	COAL	5.0	247.0	THICKNESS ESTIMATED
425.2	CARBONDALE	HERRIN	COAL	4.3	280.8	REMOVED BY CO.



**MAPID:** 18322524000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 13W    **SECTION:** 30    **QUARTERS/FOOTAGES:** 72' S line, 1790' W line of SE SW  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.860408    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.241016    **DATE COLLECTED:** 1 / 0 / 1981  
**SURFACE ELEVATION (FT.):** 724.0    **LOGGED (FT.):** 322.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    2113-30-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
454.0	SHELburn	DANVILLE	COAL	4.0	270.0	REMOVED BY CO.
418.0	CARBONDALE	HERRIN	COAL	8.0	306.0	REMOVED BY CO./MAY NOT ALL BE COAL

**MAPID:** 18322535000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 13W    **SECTION:** 30    **QUARTERS/FOOTAGES:** 100' N line, 2100' W line of NE NW  
**QUADRANGLE:** POTOMAC    **LONGITUDE:** -87.859605    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.255222    **DATE COLLECTED:** 0 / 0 / 1981  
**SURFACE ELEVATION (FT.):** 718.0    **LOGGED (FT.):** 316.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    2113-30-2    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
455.5	SHELburn	DANVILLE	COAL	8.3	262.5	REMOVED BY CO.
422.2	CARBONDALE	HERRIN	COAL	4.2	295.8	REMOVED BY CO.

**MAPID:** 18323036000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 13W    **SECTION:** 33    **QUARTERS/FOOTAGES:** 90' N line, 117' W line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.832826    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.240778    **DATE COLLECTED:** 8 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 706.0    **LOGGED (FT.):** 348.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PF-9    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-				-		NO COAL PICKS

MAPID: 18300454000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: VERMILION TWP/RNG: 21N 13W SECTION: 35 QUARTERS/FOOTAGES: 2475' S line, 2475' E line

QUADRANGLE: COLLISON LONGITUDE: -87.784293

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 40.233503

DATE COLLECTED:

SURFACE ELEVATION (FT.): 665.0

LOGGED (FT.): 199.3

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
494.7	CARBONDALE	DANVILLE	COAL	4.5	170.3	
490.2	CARBONDALE		BONE COAL	1.0	174.8	
489.2	CARBONDALE	LAWSON	GRAY SHALE	19.2	175.8	
470.1	CARBONDALE	LAWSON	LIMESTONE	0.3	194.9	
469.8	CARBONDALE	LAWSON	GRAY SHALE	0.8	195.2	
469.0	CARBONDALE	ANNA	BLACK SHALE	1.0	196.0	
468.0	CARBONDALE	HERRIN	COAL	2.3	197.0	

MAPID: 18322543000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 21N 14W SECTION: 24 QUARTERS/FOOTAGES: 150' S line, 1450' W line of SE SW

QUADRANGLE: PENFIELD LONGITUDE: -87.881171

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.255601

DATE COLLECTED: 0 / 0 / 1981

SURFACE ELEVATION (FT.): 725.0

LOGGED (FT.): 380.0

LOG TYPE: Survey Core Study

SOURCE: KERR-MCGEE COAL CO. 2114-24-1

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
427.0	SHELBURN	DANVILLE	COAL	6.0	298.0	REMOVED BY CO.
418.7			COAL	0.7	306.3	
390.0	CARBONDALE	HERRIN	COAL	6.0	335.0	REMOVED BY CO.

MAPID: 18322521000C VERSION: 1

PROJECT: CONF

COUNTY: VERMILION TWP/RNG: 21N 14W SECTION: 26 QUARTERS/FOOTAGES: 28' S line, 2570' E line of SW SE

QUADRANGLE: ROYAL LONGITUDE: -87.904777

GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 40.24047

DATE COLLECTED: 0 / 0 / 1980

SURFACE ELEVATION (FT.): 710.0

LOGGED (FT.): 364.0

LOG TYPE: Survey Core Study

SOURCE: KERR-MCGEE COAL CO. K2114-26-1

WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
358.5	SHELBURN	DANVILLE	COAL	5.0	351.5	REMOVED BY CO.

**MAPID:** 18322538000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 14W    **SECTION:** 26    **QUARTERS/FOOTAGES:** 60' S line, 1305' E line of SE SE  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.895467    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.240643    **DATE COLLECTED:** 0 / 0 / 1981  
**SURFACE ELEVATION (FT.):** 765.0    **LOGGED (FT.):** 405.0    **LOG TYPE:** Drillers Log  
**SOURCE:** KERR-MCGEE COAL CO.    2114-26-2    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
421.0	SHELburn	DANVILLE	COAL	5.0	344.0	
378.0	CARBONDALE	HERRIN	COAL	6.0	387.0	

**MAPID:** 18323037000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 14W    **SECTION:** 26    **QUARTERS/FOOTAGES:** 30' S line, 81' W line  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.909521    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.240432    **DATE COLLECTED:** 8 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 778.0    **LOGGED (FT.):** 417.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PF-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-				-		NO COAL PICKS

**MAPID:** 18322179000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 14W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 180' N line, 68' W line of NW NW  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.928643    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.239743    **DATE COLLECTED:** 9 / 25 / 1978  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 388.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    2114-34-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	COAL	5.1	366.3	REMOVED BY CO.

**MAPID:** 18322536000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 14W    **SECTION:** 35    **QUARTERS/FOOTAGES:** 750' S line, 100' W line of SW SW  
**QUADRANGLE:** ROYAL    **LONGITUDE:** -87.90922    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.227748    **DATE COLLECTED:** 0 / 0 / 1981  
**SURFACE ELEVATION (FT.):** 755.0    **LOGGED (FT.):** 390.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** KERR-MCGEE COAL CO.    2114-35-1    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
424.0	SHELburn	DANVILLE	COAL	5.5	331.0	REMOVED BY CO.
378.0	CARBONDALE	HERRIN	COAL	6.0	377.0	REMOVED BY CO.

**MAPID:** 18323038000C    **VERSION:** 1    **PROJECT:** CONF  
**COUNTY:** VERMILION    **TWP/RNG:** 21N 14W    **SECTION:** 36    **QUARTERS/FOOTAGES:** 75' N line, 33' E line  
**QUADRANGLE:** COLLISON    **LONGITUDE:** -87.871723    **GEOLOGIST:** LOG BOOK  
**CONFIDENTIAL:** N    **LATITUDE:** 40.240465    **DATE COLLECTED:** 8 / 0 / 1971  
**SURFACE ELEVATION (FT.):** 734.0    **LOGGED (FT.):** 345.0    **LOG TYPE:** Electric Log  
**SOURCE:** HYDROCARBON SURVEY    PF-10    **WELL TYPE:** Coal Test  
**COMMENT:** TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-				-		NO COAL PICKS