



Form 180

See active shipping book.

Ziegler Coal & Coke Co. "Spartan" Mine

Product Blitties -  
1803  
S17  
Mi. #701



Sec.	21
T.	4 N.
R.	5 S.
Index No.	W.

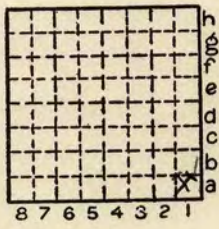
ILLINOIS STATE GEOLOGICAL SURVEY

Location and Elevation Data

Location \_\_\_\_\_ Exact \_\_\_\_\_ Approx. \_\_\_\_\_  
 Location by Mine Office  
 Date Aug. 1952 Notebook No. \_\_\_\_\_ Page \_\_\_\_\_ No. \_\_\_\_\_  
 Looseleaf ref. \_\_\_\_\_ Map files No. \_\_\_\_\_

Position in sec.

910 ft. from S line }  
400 ft. from W line } NE cor SE SE



Sec. 21  
 T. 4 S.  
 R. 5 W.

Other description \_\_\_\_\_

Materials Slope

Bed	Depth	Elev.	Thickness

Farm \_\_\_\_\_  
 No. \_\_\_\_\_

Company Midwest Utilities  
New SPARTA Mine -  
Materials Slope No. \_\_\_\_\_

Card by MEH Date Nov. 1952

Used in \_\_\_\_\_ County No. 1726

Elevation 515.26 ft.

Method: Level, transit, alidade, hand level, top. map.

Elev. of \_\_\_\_\_ Height of point above ground \_\_\_\_\_  
Company

Date \_\_\_\_\_ Notebook No. \_\_\_\_\_ Page \_\_\_\_\_ No. \_\_\_\_\_

Looseleaf ref. \_\_\_\_\_ Map files No. \_\_\_\_\_

Year drilled \_\_\_\_\_ Total depth \_\_\_\_\_ I. P. \_\_\_\_\_

Sample set No. \_\_\_\_\_ Electric log \_\_\_\_\_ S \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Description (drill hole, mine, etc.) Materials Slope

Time log \_\_\_\_\_

County Randolph Quad Coulterville Index No. \_\_\_\_\_

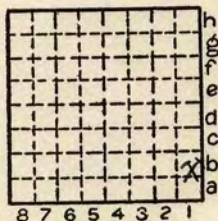
ILLINOIS STATE GEOLOGICAL SURVEY

Location and Elevation Data

Location \_\_\_\_\_ Exact \_\_\_\_\_ Approx. \_\_\_\_\_  
 Location by Mine Office  
 Date Aug. 1952 Notebook No. \_\_\_\_\_ Page \_\_\_\_\_ No. \_\_\_\_\_  
 Looseleaf ref. \_\_\_\_\_ Map files No. \_\_\_\_\_

Position in sec.

400 ft. from S line }  
150 ft. from W line } NE cor. SE SE



Sec. 21  
 T. 4 S.  
 R. 5 W.

Other description \_\_\_\_\_

HOIST SLOPE

Bed \_\_\_\_\_ Depth \_\_\_\_\_ Elev. \_\_\_\_\_ Thickness \_\_\_\_\_

Farm \_\_\_\_\_  
 No. \_\_\_\_\_

Company Midwest Utilities  
New SPARTA MINE -  
HOIST SLOPE No. \_\_\_\_\_

Card by MEH Date Nov. 1952

Used in \_\_\_\_\_ County No. 1727

Elevation 523.0 ft.

Method: Level, transit, alidade, hand level, top. map.

Elev. of \_\_\_\_\_ Height of point above ground \_\_\_\_\_  
 Date \_\_\_\_\_ Notebook No. \_\_\_\_\_ Page \_\_\_\_\_ No. \_\_\_\_\_

Looseleaf ref. \_\_\_\_\_ Map files No. \_\_\_\_\_

Year drilled \_\_\_\_\_ Total depth \_\_\_\_\_ I. P. \_\_\_\_\_

Sample set No. \_\_\_\_\_ Electric log \_\_\_\_\_ S \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Description (drill hole, mine, etc.) HOIST SLOPE

Time log \_\_\_\_\_

County Randolph Quad. Cullerville Index No. \_\_\_\_\_



Midwest Utilities Coal Corp. Bradbury Mine

Zeigler Coal & Coke Co. Bradbury Mine (1/9/57)

Zeigler Coal & Coke Co. Spartan Mine (1958)

Zeigler Coal Co. Spartan # 2 (7/71)

HERRIN

ZEIGLER COAL CO.  
SPARTAN # 2

Mine Index No. 701

County No. 1803

Coal Report No. S-17

RANDOLPH COUNTY

b a f e d c b a 8 7 6 5 4 3 2 1	Sec. 21
	T 4
	R 5
	Index No.



FORM 180 W



Dilapidated tippel of the Spartan Mine, Zeigler Coal Company. In the distance can be seen a coal-storage silo at the new central cleaning plant that serves both the Spartan Mine and Mine No. 11. Photo by John Nelson, March 1981.



Another view of the old tipple at the Spartan Mine.



Mine originally operated by: (1) **MIDWEST UTILITIES COAL CORP.**

Date \_\_\_\_\_

Original name or number:  
Illinois Coal Report **1852** p.

LATER OPERATORS

Date	Operator	Name or No.
		"Bradbury Mine"
2	<b>Zeigler C. &amp; C. Co.</b> (sold to them Jan. 9, 1957. operated by them since Nov. 1, 1956) J.D. 1957 - from News clipping.	
4	Jan. 1957 Zeigler Coal & Coke Co.	Bradbury Mine
5	1958 Zeigler Coal & Coke Co.	Spartan Mine
6	1965 Zeigler Coal & Coke Co.	"Spartan"
7	8/1971 Zeigler Coal Co.	Spartan No. 2
8		
9		
10		
11		
12		
13		
14		

\*Also owners

#See ownership sheet

Railroad, Wagon, Strip, Idle, Abandoned

*Slope*

IDENTIFICATION

County No. **1803**

Coal No. **6**

Coal Report No. **S-17**

Quad.

**HERRIN**

County **RANDOLPH**



Sec. **21**

T. **4** N. S.

R. **5** E. W.

Index No.

COAL MINE OPERATOR

*one loc is 81 (can w/8)  
another loc is 82 (SE corner)*

*McKel*

( Sheets )

COAL PRODUCTION

( Sheet )

Period			Tons		
Mo.	Day	Year	Mo.	Day	Year
		1952			642
		53	208		114
		1954	542		299
		1955	567		361
		1956	847		498
		1957	624		526
		1958	626		481
		1959	736		068
		1960	779		618
		1961	760		788
		1962	851		546
		1963	858		494
		1964	831		885
		1965	818		762
		1966	826		494
		1967	882		420
		1968	912		787
		1969	973		638
		1970	827		459
		1971	739		713
		1972	828		368
		1973	843		114
		1974	728		877

SUMMARIES

No.	to	No.			
1952	to	1974	16	616	952

Railroad, Wagon, Strip, Idle, Abandoned

Slope

Sec. 21

IDENTIFICATION

County No. 1003

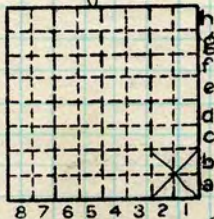
Coal No. 6

Coal Report No. S-17

Quad.

HERRIN

County Randolph



T. 4 N  
S.  
R. 5 E  
W.

Index No.

COAL MINE—PRODUCTION

ILLINOIS GEOLOGICAL SURVEY, URBANA *one loc - B2 (cont'd)  
another loc - B2 (cont'd)*



Period  
Mo. Day Year Mo. Day Year

Tons

				1975	876	046
				1976	807	813
				1977	610	318
				1978	498	310
				1979	277	264
				1980	431	321
				1981	390	825
ZEIGLER COAL CO.				1982	218	459
				1983		0
SPARTAN MINE				1984		0
				1985	565	284
				1986	1 109	539
				1987	1 227	320
				1988	1 310	404
				1989	1 281	691
				1990	1 290	521
				1991	1 364	181
				1992	1 482	821
				1994	1 654	000
				1995	1 390	000
				1996	2 090	000
				1997	1 925	000
				1998		

SUMMARIES

No. to No.

Railroad, Wagon, Strip, Idle, Abandoned

IDENTIFICATION

County No. \_\_\_\_\_

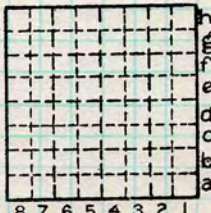
Coal No. \_\_\_\_\_

Coal Report No. S-17

Quad. \_\_\_\_\_

County \_\_\_\_\_

HERRIN



Sec. 21

T. 4  
S. \_\_\_\_\_  
R. 5  
W. \_\_\_\_\_

Index No. \_\_\_\_\_

COAL MINE—PRODUCTION

ILLINOIS GEOLOGICAL SURVEY, URBANA



Midwest Utilities Coal Corp.  
Bradbury Mine

Sample #1

2nd North Panel - 2nd Room off 3rd  
north entry

Face Description

3/9/51

G. M. Wilson

		Flaggy limestone
	1"	Leaf coal
	1"	Fossiliferous shale
		Top of coal
0-12	1/2	Coal, normally banded and bright with pyrite on faces
12	1/2-12	3/4 Pyrite
12	3/4-15	3/4 Coal, normally banded and bright
15	3/4-16	1/2 Bone
16	1/2-18	1/2 Coal, normally banded and bright
18	1/2-18	3/4 Mineral fusain
18	3/4-24	1/2 Coal, normally banded and bright with fusain bands
24	1/2-24	7/8 Brown shale
24	7/8-25	3/8 Coal, normally banded and bright
25	3/8-26	3/8 Fusain, partially mineralized
26	3/8-32	Coal, normally banded and bright
32	-32	1/4 Mineralized fusain
32	1/4-33	Coal, normally banded and bright
33	-33	1/4 Fusain
33	1/4-35	Coal, normally banded and bright
35	-35	1/2 Fusain
35	1/2-41	1/4 Coal, normally banded with thin shaly or bony bands
41	1/4-41	3/4 Mineralized fusain
41	3/4-53	1/4 Coal, normally banded and bright
53	1/4-54	Bone and mineralized fusain with a vitrain band
54	-58	Coal, normally banded and bright
58	-58	1/4 Pyrite and shale
59	1/4-63	1/4 Coal, normally banded and bright with fusain streaks

RANDOLPH COUNTY

COULTERVILLE  
QUADRANGLE

NESESE Sec. 21  
Twp. 4S.  
R.N. 5W



-2-

63 1/4-63 5/8  
63 5/8-73

Fusain

Coal, normally banded and bright  
with pyrite streaks

RANDOLPH

NESESE Sec. 21  
T. 4 S  
R. 5 W



## Midwest Utilities Coal Corp.

Bradbury Mine

1st South Panel - 4th Room off 1st  
south entry

Sample #2

## Face Description

3/9/51

G. M. Wilson

		Roof, black shale
	0 - 9	Coal, normally banded and bright
9	- 9 1/4	Pyrite
9	1/4-14 1/4	Coal, normally banded and bright
14	1/4-14 1/2	Shale and pyrite
14	1/2-17 3/4	Coal, normally banded and bright
17	3/4-18	Mineralized fusain
18	-21	Coal, normally banded and bright
21	-21 1/4	Bone
21	1/4-23	Coal, normally banded
23	-23 1/4	Fusain
23	1/4-26	Coal, normally banded and bright
26	-26 1/2	Shale, gray
26	1/2-27 1/8	Bone
27	1/8-31 3/4	Coal, normally banded and bright with fusain partings
31	3/4-32 1/4	Bone and durain
32	1/4-34	Coal, normally banded and bright
34	-34 1/2	Bone
34	1/2-35 1/2	Coal, normally banded and bright
35	1/2-35 3/4	Mineralized fusain
35	3/4-36 1/4	Coal, normally banded and bright
36	1/4-36 1/2	Mineralized fusain
36	1/2-40	Coal, normally banded and bright
40	-40 5/8	Vitrain, pyritized
40	5/8-43 1/2	Coal, normally banded and bright
43	1/2-43 3/4	Shale
43	3/4-53	Coal, normally banded, with thin bony coal interlamination
53	-53 3/8	Pyrite
53	3/8-56 1/4	Coal, normally banded and bright
56	1/4-56 3/4	Dark gray shale
56	3/4-61 1/4	Coal, normally banded and bright with thin fusain bands

RANDOLPH COUNTY

CONTERVILLE  
Quadrangle

NESESE Sec. 21  
TWP. 45., R. 5W

- 61 1/4-62 1/8 Shale, dark gray  
 62 1/8-63 Coal, normally banded and bright  
 63 -63 1/4 Fusain  
 63 -66 1/2 Coal, normally banded and bright  
 66 1/2-66 5/8 Pyritic shale  
 66 5/8-76 Coal, normally banded and bright  
 with thin bony bands

NESESE Sec. 21

TWP.

RN.

AS  
S-W

RANDOLPH

Page

## ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
<p style="text-align: center;"><i>ZIEGLER COAL &amp; COKE CO.</i></p> <p>Sample #1                      Bell &amp; Zoller, Spartan Mine  '9-4-63                              Gluskoter &amp; Baker  Location: 3rd N entry, 6th N panel, off main W(50 ft. in)  Total Thickness = 6'6"  Roof: Gray shale. about 1" coal left at top.  Bottom: Normal underclay.</p>			
<p>Coal normally bright banded. Calcite and pyrite on vertical fractures. Numerous 6-8, thin pyrite stringers, <i>omitted</i></p>		From	To
<p>Pyrite lenses. <u>Omitted from sample.</u></p>		0	1'5"
<p>Coal normally bright banded. With fusain bands at 2", 2'½", 2'2½".</p>		1'5"	1'5½"
<p>Shale band. Extremely variable in thickness. Coaley.</p>		2'5"	2'5½"
<p>Coal, normally bright banded.</p>		2'5½"	3'½"
<p>Pyrite band. Extremely variable in thickness.</p>		3'½"	3'8"
<p>Coal, normally bright banded. Many thin pyrite lenses (one prominent at 3'10").</p>		3'5"	5'1"
<p>Pyrite and calcite on vertical fractures.</p>		5'1"	5'2½"
<p>Bony coal lens.</p>			
<p>Coal normally bright banded. Pyrite on vertical fractures and thin lenses.</p>		5'2½"	6'6"
<p>Coal No. 6</p>			
<p>Geology location</p>			
<p>4250'W., 100'N., of SE corner of Section 20, T.4S., R.5W.</p> <p style="margin-top: 20px;"><i>78" = 6'6" =</i></p>			

COUNTY

RANDOLPH

Strata ZIEGLER COAL & COKE CO	Thickness	Top	Bottom
Sample #2 Bell & Zoller, Spartan Mine 9-4-63 Gluskoter & Baker Location: Crosscut between rm. 35 & 36. Off 7th entry in 5th N panel.			
Total thickness: 6'1"			
Roof: Gray shale.			
Bottom: Underclay bottom.			
Coal normally bright banded. Calcite and pyrite on vertical fractures, thin pyrite stringers at 3½", 11", 12"; thin fusain lense at 1'5"		<u>From</u>	<u>To</u>
Bony coal		0	1'8"
Coal, normally bright banded, as above.		1'8"	1'8½"
Pyrite lense. <u>Omitted from sample.</u>		1'8½"	2'1"
Coal, normally bright banded.		2'1"	2'1½"
Shale.		2'1½"	2'4½"
Coal, normally bright banded. Including thin fusain and pyrite beds. Pyrite on vertical fractures. Fusain increases in amount downward.		2'4½"	2'5"
Shale, gray. Including some pyrite. Blue band <u>Omitted from sample.</u>		2'5"	5'4"
Coal, normally bright banded. Many thin pyrite stringers increasing downward.		5'4"	5'4½"
Coal No. 6.		5'4½"	6'1"
Geographic location. 2300'W, 3600'N, SE/c Section 20, T.4S., R.5W.			
43"			

Strata	Thickness	Top	Bottom
<p>Sample # 3      <b>ZIEGLER COAL &amp; COKE CO.</b>            9-4-63      Bell &amp; Zoller, Spartan Mine            Gluskoter &amp; Baker            Location: 19 rm., 1st entry, 5th N, Main W.            Roof: Dark gray shale.            Bottom: Underclay            Total Thickness: 6'3"</p>			
		From	To
Coal, normally bright banded. Calcite and pyrite on vertical fractures. <u>Note</u> : Water on face. Thin fusain lenses at 10" and 11". Thin pyrite stringers. 1/8" bony coal at base.		0	1'4"
Coal, normally bright banded with occasional fusain and pyrite lenses.		1'4"	2'2"
Gray shale. Omitted from sample.		2'2"	2'2 <sup>3</sup> / <sub>8</sub> "
Coal, normally bright banded, Calcite and much pyrite on vertical fractures.		2'2 <sup>3</sup> / <sub>8</sub> "	3'8"
Bony coal and pyrite bed.		3'8 <sup>8</sup> / <sub>8</sub> "	3'8 <sup>1</sup> / <sub>2</sub> "
Coal, normally bright, calcite and pyrite <u>sparse</u>		3'8 <sup>1</sup> / <sub>2</sub> "	5'
Blue band, gray shale, omitted from sample.		5'	5'1"
Coal, 1/8" to 1" pyrite bands at 5'3" and 5'5". Attempted to omitt from sample, however, coal badly broken. Also a pyrite band at 5'10" as above.		5'1"	6'3"
Coal No. 6 <del>Geologic</del> location 1360'W, 2450'N, SE/c, Sec. 20, T. 4S., R. 5W.			
<i>Geographic</i>			
75"			





## Zeigler Coal &amp; Coke Co., Spartan Mine

Sample No. 1 - located in 3rd entry in Main North, 2000'  
 from S. line, 1600' from W. line, NE, Sec. 21-4S-5W,  
 Randolph County

Sampled by M. E. Hopkins and H. Hutchins, February 1, 1968

Roof - Shale, medium dary gray, becoming medium gray above  
 top 3 inches - 6 inches seen

Coal - total 6'11 $\frac{1}{2}$ "

- |                                       |   |
|---------------------------------------|---|
| 0 - 15"                               | Coal normally bright banded, calcite on<br>verticle fractures                                 |
| 15 - 15 $\frac{1}{4}$ "               | Pyrite band with some associates gray<br>shale  |
| 15 $\frac{1}{4}$ - 27 $\frac{1}{4}$ " | Coal, normally bright banded, some<br>calcite on verticle fractures                           |
| 27 $\frac{1}{4}$ - 27 3/4"            | Shale medium gray (excluded from sample)  |
| 27 3/4 - 38 $\frac{1}{2}$ "           | Coal, normally bright banded<br>Fusain, slightly mineralized with cal-<br>cite (not excluded) |
| 38 $\frac{1}{2}$ - 39"                | Coal, normally bright banded  |
| 39 - 51"                              | Bony coal with a few thin vitrain bands   |
| 51 - 52"                              | Coal, normally bright banded  |
| 52 - 58"                              | Pyrite lens (excluded)  |
| 58 - 59 $\frac{1}{2}$ "               | Coal, normally bright banded, some cal-<br>cite on verticle fractures                         |
| 59 - 62 $\frac{1}{2}$ "               | Shale, medium gray (Blue Band) (excluded)   |
| 62 $\frac{1}{2}$ - 63 $\frac{1}{2}$ " | Coal, normally bright banded, several<br>bony bands   |
| 63 $\frac{1}{2}$ - 83 $\frac{1}{2}$ " |   |

Floor is claystone (Seat rock) - 2" seen



## Zeigler Coal &amp; Coke Co., Spartan Mine

Sample No. 2 - located in last cross-cut between Rooms 34 and 25 - 1st. south, 5th panel south off main west.

1400'N, 750'E, center section 29-4S-5W, Randolph County

Sampled by M. E. Hopkins and H. Hutchins, February 1, 1968

Roof is black "slate"

Total thickness of No. 6 Coal is 6'3½"

0 - 6"	Coal normally bright banded, calcite and pyrite on verticle fractures
6 - 6½"	Fusante minerilized in pyrite; lenticular
6½ - 20"	Coal normally bright banded, occasional pyrite band; calcite and some fusante on vertical fractures
20 - 20 3/4"	Bony coal
20 3/4 - 25 3/4"	Coal normally bright banded, verticle fractures filled with pyrite
25 3/4 - 26"	Bony coal and pyrite
26 - 27"	Coal normally bright banded
27 - 27 3/4"	Shale, gray, lenticular (excluded)
27 3/4 - 41 3/4"	Coal normally bright banded, few thin pyrite bands, calcite on vertical fractures
41 3/4 - 42"	Shale and pyrite interbedded
42 - 42½"	Coal normally bright banded
42½ - 43"	Shale lenticular (excluded)
43 - 59½"	Coal normally bright banded, pyrite on vertical fractures, several thin pyrite bands
59½ - 60½"	Shale, gray, pyrite "Blue Band"
60½ - 75½"	Coal normally bright banded, calcite on vertical fractures contain shale lens up to ½" thick laterally from this point

1" Underclay noted at base.



Zeigler Coal & Coke Co., Spartan Mine

Sample No. 3 - located at 1600' from S line, 100' from E. line, NE Sec. 29-4S-5W, Randolph County

Sampled by M. E. Hopkins and H. Hutchins, February 1, 1968

Roof is shale, medium gray, 6" seen

Thickness of Coal No. 6 is 6'9"

0 - 15"	Coal normally bright banded calcite on vertical fractures
15 - 15 $\frac{1}{4}$ "	Pyrite band, some associated shale
15 $\frac{1}{4}$ - 20 $\frac{1}{4}$ "	Coal normally bright banded, occasional thin pyrite band
20 $\frac{1}{4}$ - 21"	Bony coal
21 - 35 $\frac{1}{2}$ "	Coal normally bright banded, few thin pyrite bands, several bony bands also
35 $\frac{1}{2}$ - 35 $\frac{3}{4}$ "	Pyrite band
35 $\frac{3}{4}$ - 44 $\frac{1}{2}$ "	Coal normally bright banded, several fusain bands up to $\frac{1}{2}$ "
44 $\frac{1}{2}$ - 45"	Pyrite (excluded)
45 - 59"	Coal normally bright banded, occasional fusain on vertical fractures
59 - 59 $\frac{1}{2}$ "	Pyrite and shale (excluded) (Blue Band?)
59 $\frac{1}{2}$ - 81"	Coal normally bright banded, several thin bony band

2" of Underclay seen in floor

ZEIGLER COAL CO. SPARTAN MINE, SPARTA, RANDOLPH  
COUNTY, ILLINOIS.

Visit by Heinz Damberger, H.-F. Krausse, and John  
Nelson; Aug. 8, 1974, as a reconnaissance for the  
Herrin (No. 6) Coal Roof Study.

---

All three of the above people took notes on the  
mine this day. Heinz Damberger held the notes after  
the visit and never had them typed or proofread.  
After both Damberger and Krausse had left the Survey  
to work elsewhere, John Nelson recovered the notes  
and had them typed (May 1976). The photos and the  
negatives from this visit apparently have been lost.

The Herrin (No. 6) Coal Roof Study was a con-  
tract sponsored and financed by the U.S. Bureau of  
Mines. All underground mines in Illinois in the  
No. 6 Coal were visited to select study sites for  
detailed mapping. These notes are from that recon-  
naissance visit. No further visits were made to  
Zeigler Spartan Mine in connection with the roof  
study.

ZEIGLER COAL CO. SPARTAN MINE, SPARTA, RANDOLPH  
COUNTY, ILL.

Notes by Heinz Damberger 8/8/74. Reconnaissance visit  
for Herrin (No. 6) Coal roof study.

---


 Photo 1: "Wurst" (sausage) of limestone found on  
moving belt (dropped out of roof)

Photo 2: Looking east. 3rd Panel South off Main East  
crosscut 620' off Main East. Black shale in fore-  
ground and "bastard limestone" lens on left side in  
foreground, hammer right below. In background, dis-  
turbed (slumped) gray shale with slips. "Bastard  
limestone" fits above Energy Shale!

Roof fall on belt in gray shale lens- thickens  
rapidly from a few inches to 4-5' plus. Bolts 5' and  
6' long barely reach black "slate". Not too many  
slips.

Photo 4: Limestone "sausage" above coal and below  
Anna Shale with "clod"-type shale sideways (sic).  
Looking SSW. This is 1370' in from panel entry.  
Squeeze starts about 1200' inby, causes pillars to  
crack. About 2' maximum squeeze here, but mine exam-  
iner says locally almost all the way up.

Roof fall on belt about 1220' in from panel entry  
Sample taken of "sausage". Tree trunk?

Dick Lemons has lots of experience in this and  
other mines in area as special assistant to mine  
manager and troubleshooter- calls gray shale "white  
top".

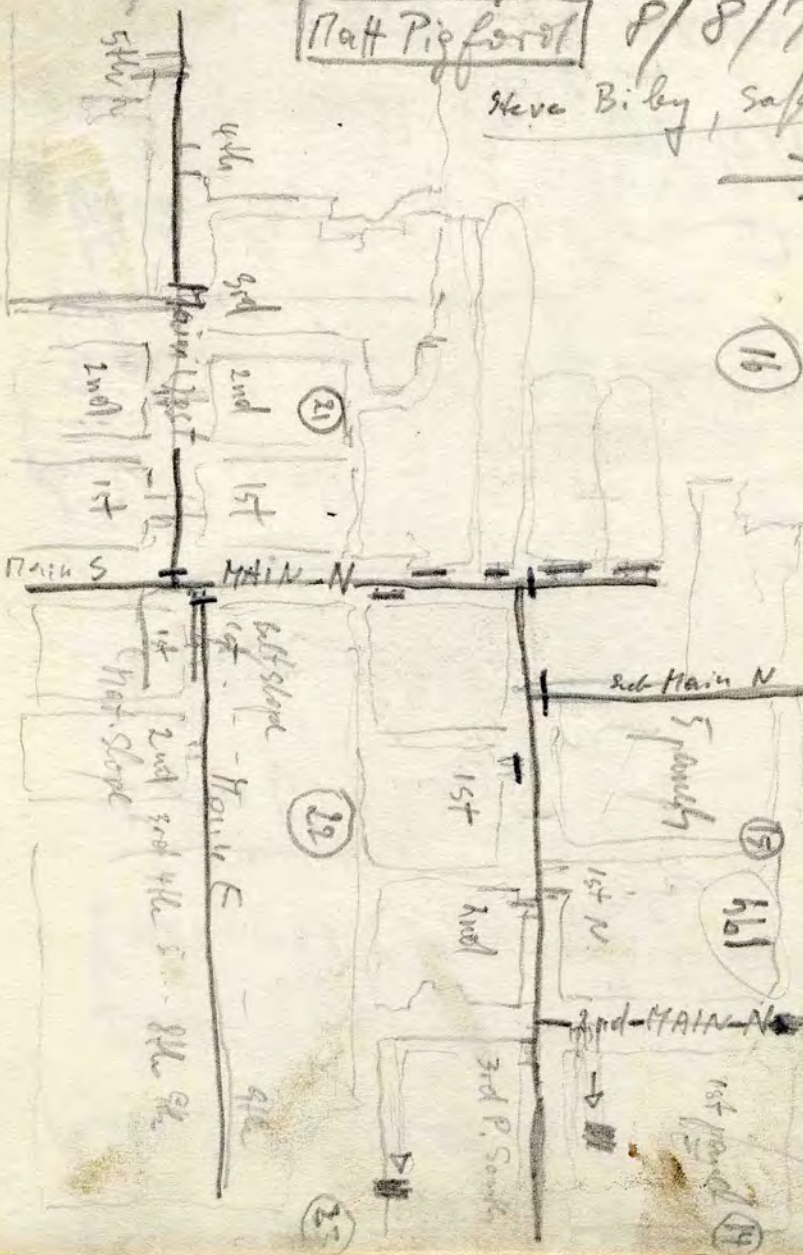
Photo of "sausage" in Main East. looking west.

Dejeus CC - Spasand

Matt Pigford

8/8/77

Steve Bily, safe



con

photo 1: "worst" of ls.

found on moving belt  
collected end of

Ervin Moor

Mine Navajo

ph. 2 looking east

3 panel south off main  
cross-cut 620' off main E.

black slate in foreground  
and "barrow ls." <sup>plum</sup> on left  
side in foreground, having

right below, in back pro  
distributed (lumpy) &  
shale with slips.

"bastard ls." fbs abo  
Energy shale!

Roof fall on belt is  
gray shale lens  
thickens rapidly from  
inches to plus 4-5'  
folds 5' and 6' long, be  
reach black slate



not too many steps  
pro




photo 4: ls "sausage"

Coal est below Am  
with clod type sh  
sideways

looking SSW

this is 1370' in for  
panel entry

squeeze tabs about  
in by, causes pi

do each, about 2' or  
square here. But miss  
mine examiner says loco  
almost all the way up

roof fall on belt about  
12 do in from panel  
sample take of "rains"  
see to mark?

# Diary Lemons

has lot of exp in the  
at other mines in  
special assist + I  
mine manager, found  
shoots - calls for  
shall "while top"

---

photo of "sausage" in  
Main East, looking

ZEIGLER COAL CO. SPARTAN MINE, SPARTA, RANDOLPH COUNTY, ILL.

Notes by H.-F. Krausse, 8/08/74. Reconnaissance visit for Herrin (No. 6) Coal Roof Study.

Note: These notes typed by C. J. Nelson 5/13/76 after Krausse had left the Survey. He did not believe in proofreading his field notes and getting them typed and filed. The symbol "SL" refers to orientation of slips, and "SJM" refers to direction of jointing.

SL 120/25-35 SW 3X SJM 20-25/85-90 NW (illegible)  
SL 70/30-40 NW 2X SJM 60-80/85-90 NW edging a  
Main joints small fall  
in Anna. in Anna Sh.

SL 60-70/40 NW

SL 20/30 NW "Coffin-cover" Roof fall trending  
SL 20/40 SE set. 160 from E pillar  
6780' east off panel edge to middle across  
entry to 3rd South. crosscut (sic)  
Small fall to it (?)  
SL 132/20-50, displ. 3' 20/40-50 SE  
steepens downward,  
clay involved. SNJ 60-70/85-90 SE  
in 2nd Main East.

Roof fall (small) where main entry  
detours small fall area with props.  
Fall about 2-3' high.

SNJ edge of fall a) 50-70/85-90 NW  
& SE

b) 20/85 SE

c) 160/85 NE

08/2/74  
spata  
Spartan time

SL 160°/25-35 SW 3x  
SL 70/30-40 NW 2x

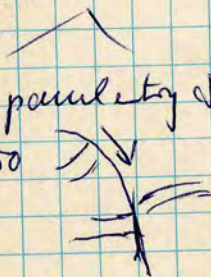
SL 60-70/40 NW

SL 20/30 NW } Axis  
SL 20/40 SE }

6780 feet east of panel entry No 3 panel South

SL ~~20~~ L=3' 132/20-50

drag marked.



S7N 20-25/85-90 → NW (zone with)

S7N 60-80/85-90 NW edging a small fault  
70°  
in Anna Shale

↗  
main fault  
in Anna

Roof Fall boundary 160° from  
E pillar edge to middle across  
cross cut

small fall due to 20°/40-50 SE

S7N 60-70°/85-90 SE in 2nd floor East

Roof fall (small) where main entry detours  
little fall area for with props. Fall about 2-3 feet  
high

S7N edging fall: a) 60-70/85-90 NW  
+ SE  
b) 20/85 SE  
c) 160/85 NE

Same day, same mine, notes by John Nelson. Map apparently has been lost, and several of the photos either lost or did not come out.

---

Generally black shale roof 0-48" thick topped by "clod" and limestone. Shale rotten in many places and mottled. Parallel fractures about  $070^{\circ}$  and a few slips along Main North and East entries, some with a foot or so offset through both coal and top.

Very bad spot on Main East where props are bent- black shale apparently breaking out on the parallel fractures (joints) main direction  $060-070^{\circ}$  but some cross-fractures.

1) Picture- Elongated limestone concretion that was found on the belt- original location unknown. Sample kept.

2) Just south of intersection Main East and 3rd Panel South. Medium-dark gray shale roof with coal splits and stringers, a couple slips. Channel (sic) cut in top of coal, cut by this shale. Slip planes often carbonaceous or coal splits. Edge of gray shale pod noted to south.

More such pods further south; more bad roof and slips. Pods only a few feet or tens of feet wide.

3) In 3rd Panel South, crosscut 620 (prob. 620' inby) one entry west of roadway.

Picture showing edge of a gray shale wedge between coal and black "slate". Looking east.

4) Big roof fall on belt about 1220 rooms (sic- prob. should be 1220 feet inby) east of 3rd Panel S. A very sharply defined, thick pod of gray shale several feet thick coming in under black shale. Coal balls in top of seam. Slips not noticeable. Floor heaving and rib cracking.

5) One crosscut farther east. Picture of large limestone concretion (pencil scale) in bottom of black shale. Sample taken (of) minerals at edge.

Roof and ribs are working and falling.

An elongated concretion of similar composition is hanging by a roof bolt across the crosscut and pointing at the one we photographed. It is possible that they were at one time continuous through 20 feet or more. Orientation about  $060^{\circ}$ .

Parallel joints  $060-070^{\circ}$  persistent throughout mine.

6) In Main East, two crosscuts outby overcast, 2nd S. belt line. Picture of elongate curving limestone boss, dark gray, traceable 20 feet. Sample taken.

ZEIGLER COAL COMPANY      SPARTAN MINE      RANDOLPH COUNTY

April 4, 1980

Notes by John Nelson on visit with Steve Danner.  
Accompanied by Allen Costello, geologist from Zeigler

Mine is now operating with four conventional units, two active on day shift and the other two on evening shift. Night shift is idle. Shooting is done with Airdox. No continuous miners have ever been employed at this mine. Zeigler is the only coal company in Illinois using exclusively conventional face equipment. They have experimented with continuous miners at their No. 4 Mine in Williamson County.

Purpose of visit was to collect three channel samples and to make general observations on the geology.

The coal dips steadily to the east along the entire length of the Main East off the Main North. (Elevation contours are shown on the field map). This turns out to be the southeast flank of an anticline in the coal. There is also an anticline in the Ste. Genevieve Limestone, according to maps in the Oil & Gas Section. The Tilden oil field, located over the anticline, is producing from Silurian reefs. The anticline may be the result of differential compaction over the Silurian reefs.

Channel Sample 1

Face of 1st Panel East off the Main East Middle (5th) of 9 rooms facing north-see field map. Location 1430' from south line, 220' from west line of Section 14, T. 4S-R. 5W, Randolph County.

Roof- Shale (Anna); black, hard, smooth, breaks unevenly near base; contains fine carbonaceous debris and streaks of pyrite; upper part is fissile with widely-spaced joints trending 065-070°. Slight seepage of water from one joint.



- 0.90' Coal, N.B.B., moderately hard, contains pyrite and a little calcite on cleats and in small fractures; also intermittent laminae of pyrite. This coal rather higher in vitrain than the rest of the seam.
- 0.01' Pyrite, discontinuous band.
- 0.45' Coal, sim. to above; fracture hackly, not blocky.
- 0.02' Pyrite, continuous band.
- 0.89' Coal, more finely banded and containing less vitrain than above, more durain, less pyrite; much calcite.
- 0.01' Pyrite, discontinuous.
- 1.59' Coal, sim. to above, with large lenses of pyrite in places, and calcite along cleats.
- 0.03' Shale, medium gray, moderately hard, smooth, contains pyritic streaks at base. Discontinuous layer.
- 1.11' Coal, sim. to above, with less vitrain. Thinly laminated.
- 0.04' Pyrite and durain, continuous band across face. Moderately hard.
- 1.51' Coal, sim. to above.
- 0.10' Shale, (Blue Band), medium gray, moderately hard, contains thin streaks of pyrite and a discontinuous layer of pyrite 0.03' thick, irregular contact at base. EXCLUDED FROM SAMPLE.
- 0.22' Coal, sim. to above.
- 0.01' Pyrite, fairly continuous band.
- 0.20' Coal, N.B.B., some streaks of durain and pyrite, disseminated clay and dirty coal. Calcite on cleats.
- 0.05' Shale and pyrite, light to medium gray, moderately hard, discontinuous band.
- 1.42' Coal, sim. to above; quite dirty with streaks of shale and durain throughout; thin streaks of pyrite.

Floor- claystone, medium gray, moderately soft, smooth, slickensided, contains streaks of bright coal.

Total thickness of seam 8.56'.

Anna Shale has fairly regular joints trending ENE, one to two per foot in most places. The shale slabs quite a bit along the joints. Locally the shale is smooth, without joints; or it breaks irregularly. Occasional large concretions are present.

Off to the east of the face are some older works mined in late 1978-early 1979. Several large roof falls have occurred and have not been cleaned. In one fall the immediate roof is a dark gray to black shale, poorly bedded, calcareous, and containing abundant fossil fragments. Above this is rather hard to see, but there is definitely no good limestone. Main roof appears to be dark gray shale possibly interbedded with argillaceous limestone.

Just south of this fall the immediate roof is Energy Shale; a dark gray mudstone containing occasional Pecten. This is overlain by the dark gray, calcareous shale, which may be "bastard limestone".

The largest fall covers two full intersections and is at least 15 feet high. No good view is available to the north. At the south edge of the fall the immediate roof is about 3 feet of Anna Shale without joints, and it is overlain by roughly 3 feet of very shaly, nodular-bedded limestone which breaks into beds about half a foot thick. Above the limestone appears to be a dark gray mudstone or shale without visible lamination or bedding.

I would attribute these falls to a local thin and shaly development of the Brereton Limestone. Thus the limestone is not competent enough to support the main roof.

In the eastern fresh faces adjacent to the fallen area the immediate roof is Energy Shale;

a typical dark gray mudstone with numerous slickensided slips. In places the shale has faint parallel laminations and finely disseminated plant debris and pyrite. Where the shale is fresh it makes a fairly good roof but with time it becomes weaker. Concretions similar to those of the Anna Shale are seen in the Energy Shale here.

Commonly the upper part of the coal contains more vitrain and is more thickly banded than the rest of the seam.

#### Channel Sample 2

Face of 1st Panel South off the Main  
East off the Main South (see map).  
2060' from north line, 2360' from  
west line, Sect. 27, T. 4S- R. 5W.

Roof- Limestone (Brereton), medium gray, fine-grained with fossil debris, hard; irregular lower surface. Basal 0.1-0.2' is shaly and contains thin streaks of coal. Contact to coal is irregular.

- 1.13' Coal, N.B.B., hard; calcite in fractures and on cleats; thin laminae of fusain.
- 0.03' Pyrite and shale, moderately hard to very hard, fairly continuous.
- 0.40' Coal, sim. to above.
- 0.04' Durain, fairly continuous.
- 0.39' Coal, sim. to above.
- 0.03' Pyrite and shale, medium gray, moderately hard, fairly continuous.
- 1.05' Coal, sim. to above, with pyrite in fractures.
- 0.02' Pyrite, discontinuous; with local nodules up to 0.06' thick (not included in sample)
- 0.34' Coal, sim. to above.
- 0.02' Durain, fairly continuous.
- 0.10' Coal, sim. to above.
- 0.02' Durain, fairly continuous.
- 0.40' Coal, sim. to above.
- 0.01' Pyrite, continuous band.

- 0.84' Coal, sim. to above, with discontinuous streaks of durain. Appears to have less pyrite and calcite than the coal above.
- 0.09' Shale (Blue Band); medium gray, moderately hard, very smooth, contains streaks of coal, irregular contacts above and below. EXCLUDED FROM SAMPLE.
- 0.34' Coal, sim. to above with thin streaks of shale near top.
- 0.01' Durain, with some pyrite, fairly continuous band.
- 1.10' Coal, sim. to above with occasional nodules and streaks of pyrite; calcite on bedding planes, fractures and cleats. Banding is much thinner than in the rest of the seam.
- Floor- Claystone, light to medium gray with carbonaceous debris, slickensided, soft, smooth.
- Total thickness of seam 6.36'.
- 

Near the eastern faces of this working section, the limestone forms the immediate roof and is very nodular. It slabs off in thicknesses of a foot or more along the shaly partings, and locally is little more than a calcareous shale. The limestone in places interfingers with the top of the coal, and the coal contains flattened burrows filled with limy material. Westward the limestone is generally more solid than to the east.

#### Channel Sample 3

One crosscut outby the face of the 4th entry from the east, at the southern extremity of the Main South. 2020' from north line, 1100' from east line, Sect. 28, T. 4S- R. 5W.

This is not a fresh face - it was mined late in 1976 or early in 1977. The coal is quite badly oxidized and there is some rock dust on the rib. We removed the rock dust and as much of the oxidized coal as possible, but could not remove all of it.

The main purpose of sampling here is that Mr. Costello wanted a sample since Zeigler intends to resume mining here in the near future.

- Roof- Limestone (Breton); brownish-gray, fine-grained, irregular nodular lower surface, with irregular lower contact and some inter-fingering with top of coal. Less than 0.1' of shaly, coaly "clod" at base.
- 0.80' Coal, N.B.B., hard, with calcite on cleats and in fracture fillings - this calcite is brownish, coal is slightly oxidized and contains discontinuous streaks of fusain near the base.
- 0.03' Fusain, moderately hard, fairly continuous, some disseminated pyrite.
- 0.23' Coal, sim. to above.
- 0.01' Pyrite, discontinuous.
- 0.04' Coal, sim. to above.
- 0.01' Pyrite, with shale in places, fairly continuous
- 0.29' Coal, sim. to above, much calcite on cleats.
- 0.01' Shale, light to medium gray, soft, continuous.
- 0.51' Coal, sim. to above, with oxidized pyrite on cleats.
- 0.01' Fusain, fairly continuous.
- 0.06' Coal, sim. to above.
- 0.08' Shale, and bony coal; contains bands of vitrain; oxidized, moderately hard, fairly continuous but becomes thinner to east and west. Whole band EXCLUDED FROM SAMPLE.
- 0.09' Coal, thinly interlaminated durain and vitrain, hard.
- 0.01' Fusain, hard, fairly continuous.
- 0.12' Coal, N.B.B., hard, calcite on cleats and fractures.

- 0.02' Fusain, fairly continuous, moderately hard.
- 1.21' Coal, alternating bands of vitrain, fusain and possibly some durain with streaks and small lenses of pyrite, much calcite and a little pyrite on cleats; content of fusain decreases downward; layers are not continuous.
- 0.03' Shale, light to medium gray, soft, contains streaks of vitrain; fairly continuous.
- 1.11' Coal, N.B.B. with much fusain in laminae and also some durain, much calcite and a little pyrite in cleats and fractures.
- 0.04' Shale, with some disseminated fusain and streaks of vitrain; medium gray, moderately hard; contains lens of fusain. Discontinuous.
- 0.33' Coal, sim. to above, with much calcite.
- 0.09' Shale (Blue Band); medium gray, moderately hard, smooth, contains finely disseminate pyrite. EXCLUDED FROM SAMPLE.
- 0.28' Coal, sim. to above, more thinly laminated than above Blue Band.
- 0.09' Fusain, soft, well oxidized with powdery bluish-white mineral. Fairly continuous layer that changes in thickness.
- 0.22' Coal, sim. to above, contains streaks of fusain.
- 0.03' Fusain, moderately soft, continuous.
- 0.57' Coal, N.B.B., much vitrain, hard, upper part very thinly laminated, becomes thicker-banded and contains less vitrain downward; much calcite on cleats, fractures, and bedding planes.
- Floor- Claystone, medium gray, smooth, slickensided, carbonaceous, very little oxidation.

Total thickness of seam 6.37'

After taking the samples we walked north from the bottom on the return-air escapeway of the Main North, as far as the junction of the Main East, where we turned south and returned to the bottom via the intake-air escapeway. The return-air entry was dusty and choked with fallen debris. The intake-air entry was much cleaner and has less fallen rock.

Right at the slope bottom the immediate roof is 3 to 4 feet of Anna Shale. The shale has been mined so that the top of the entry is the base of the Brereton Limestone. North of the bottom the shale thins to zero so that limestone forms the immediate roof.

In general the Anna Shale is weaker where it is thin, because it is commonly burrowed and full of phosphatic nodules. Thicker Anna Shale is fissile and more competent, but is subject to slabbing along the joint surfaces.

Gray shale occurs in pods or lenses a few tens of feet to a few hundred feet across, and two to about five feet thick. Large compactional slips invariably are found in and near the pods of gray shale. They contribute much to instability of the top. Most of these slips do not penetrate more than a foot or two into the coal. They contain no clay, and are not clay-dike faults. We saw no indications of any clay dikes either here or in Zeigler No. 11 Mine, adjacent to the east. Mr. Costello told us he has never seen a clay dike in either mine.

The contact of the Energy Shale to the overlying Anna Shale may be either sharp or gradational. In one pod where the contact is sharp the Energy Shale appears to grade upward into fossiliferous "bastard limestone" which is sharply overlain by Anna Shale. The Brereton Limestone apparently is continuous above the lenses of Energy Shale. We saw no falls in which the limestone was broken.

Near the junction of the Main North and the

Main East we saw a small pod of Energy Shale in which the shale interfingered slightly with the coal along the margins of the pod. A discontinuous "rider" of coal followed the sharp contact between the Energy Shale and the Anna Shale. No development of "bastard limestone" here.

In conclusion I would say that roof conditions in the Spartan Mine are fairly typical for the "pod-type transitional roof". Small pods of gray shale appear to be scattered throughout the mine. The gray shale generally makes poor top because it is weakly bedded, sensitive to the mine atmosphere, and generally contains large compactional slips. The Anna Shale above ranges up to about 4 feet thick and makes better roof than the gray shale. The Anna Shale seems to be strongest where it is thick and free of joints. Slabbing along joints is a problem, as is irregular breakage of the weakly-bedded thin Anna Shale. The Brereton Limestone ordinarily makes a solid roof but in some areas where it is shaly and nodular it does not hold well. This point is important to make because in most mines the limestone is always solid where it is more than two feet thick.

We had almost no opportunity to observe what overlies the Brereton Limestone but information from drill cores indicates calcareous shale with several thick beds of limestone, that should make a strong main roof.

Floor heaving is not known to be a problem in this mine. Only the immediate floor (claystone) was exposed for study.

Although the coal, especially in the northern part of the mine, has a definite dip it is not enough of a dip to interfere with mining. There are no indications of any kind of faults other than compactional slips which generally affect only the top layers of the seam.





FORM 180 W

Coal Week 3-18-85

### Midwestern coal markets

Zeigler Coal officials have confirmed reports that the Spartan mine in southern Illinois will be reopened after laying idle for more than two and a half years. Although no customers have yet been lined up, the new management of the company believes that the market for higher sulfur coal is beginning to improve.

Site preparation began earlier this year and United Mine Workers officials have said that they expected as many as 150 workers to be back on the job at Spartan by year's end (1/28 *Coal Week*). The company confirmed that last week, saying that 30 miners previously employed at the site have been called in for physicals prior to returning to work.

One future market that Zeigler and other producers of high-sulfur, midwestern coal might be able to turn to is **Wisconsin Electric Power**. The utility wants to put a fluidized bed combustor in one of its 80-mw units at the 35-year-old Port Washington plant.

Wisconsin Electric, like all utilities in that state, is under regulatory pressure to reduce sulfur dioxide emissions. The company is seeking federal assistance for the \$95-million project, which would be a boon to the utility now reviewing 41 contract proposals to replace some of its high-sulfur coal.

Officials say the system would reduce sulfur dioxide emissions by 90%. It would help Wisconsin Electric circumvent the new state regulations that require typical midwestern coal to have a sulfur content of 1.5% or less. The combustor would allow the utility to continue burning 2.5% to 4% sulfur coal, the sulfur content most prevalent in midwestern coal.

It will take about 40 months to complete construction of the system, if Wisconsin Electric goes ahead with the project. An additional three years of testing would follow.

The depressed coal market has caused **Zeigler Coal Holding** to cut back one production unit at its Zeigler No. 11 and Spartan mines in southern Illinois, idling about 50 miners in the process.

Joe Angleton, president of the United Mine Workers of America in Illinois, said the moves were made because "there's no spot market out there ... there's been anticipation of this coming." Zeigler officials could not be reached for comment.

Flooding on the Mississippi River also has caused transportation problems for Zeigler.

A dispute between **New England Electric Power Co.** and **Intracoastal Bulk Carriers** over whether the utility has a contractual right to purchase the *Energy Independence*, an

June 12, 1995 • COAL WEEK

Coal, March 1996:

In late Dec. '95 Zeigler idled Mine #11 laying off ~ 150 workers; blamed on lacking demand for high sulfur coal. Mine may be reopened when reserves run out at Spartan Mine in 1997

+	+	+	+	+	+	h	
+	+	+	+	+	+	f	
+	+	+	+	+	+	e	
+	+	+	+	+	+	d	
+	+	+	+	+	+	c	
+	+	+	+	+	+	b	
+	+	+	+	+	+	a	
8	7	6	5	4	3	2	1

By \_\_\_\_\_ Date \_\_\_\_\_

Quadrangle \_\_\_\_\_

County \_\_\_\_\_ Sec. \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_

Randolph Co.

## ZEIGLER WARNS AT SPARTAN, NO. 11; ONE MINE SEEN LIKELY TO CLOSE THIS YEAR

Zeigler Coal Holding Co. has issued WARN notices to employees of its Spartan and Zeigler No. 11 mines in southern Illinois, saying it's doubtful both mines can continue in operation.

Bill Patterson, general manager of Zeigler's Randolph County IL operations, said market conditions for coal from both Spartan and Zeigler 11 "have deteriorated severely in the past year." Patterson blamed the Jan. 1 start of Phase 1 of the 1990 Clean Air Act Amendments and "a cooler summer in 1994, coupled with a warm winter in 1995" for placing the two high-sulfur mines in a vulnerable position.

It is "clear," he added, that the market may not support both mines, which in recent years have had the bulk of their tonnage ~~un~~committed by long-term contracts. Over the next few weeks, Zeigler plans to evaluate the cost structures and other important elements of the mines in an effort to "best meet the market's demands while preserving the maximum number of jobs."

Sources told *Coal Week* they believe Zeigler will decide to close one of the mines while keeping the other open.

From Coal Week, v. 21, no. 29,  
July 17, 1995

over

Coal Week, Nov. 18, 1996: "Zigler <sup>Coal</sup> Holding reportedly is close to signing a Coal supply Contract that would keep Spartan H., scheduled to close before end of 1996, in production for another six months."

"If agreement is signed" Spartan would remain open for an additional six months to let it exhaust its reserves" UMW Dist. 12 President Joe Angleton said.

In meantime Zigler #11 is back in operation!

120

# Zeigler To Reopen Coulterville Mine

By Robert Steyer

Of the Post-Dispatch Staff

Zeigler Coal Holding Co. said Friday that it will reopen its Old Ben Mine No. 11 in Coulterville, Ill., in January.

The company, based in Fairview Heights, said it is recalling 70 employees Oct. 1 to help prepare the mine, which has been idled this year.

When full operations resume, the mine should have more than 200 workers, said Mark Cavinder, vice president and general manager of Old Ben. The mine has 10 years worth of reserves and should produce 2.5 million tons of coal annually.

The reopening of the Coulterville mine will coincide with the closing of the Spartan Mine at year's end.

That mine, in Sparta, Ill., has run out of reserves. It has about 190 employees.

"This mine had 45 years of production, which is quite an accomplishment," Cavinder said. "We regret having to close good mines, and we regret the effect it has on people who have given great service to the mining industry for many years."

The reopening of Old Ben No. 11 and the closing of the Spartan Mine had been forecast by Zeigler last year. The only surprise was Zeigler's decision to close the Spartan Mine six months earlier than it had predicted.

The Spartan Mine, which opened in 1951, is the oldest operating underground mine in Illinois, Zeigler said. It will produce 2.3 million tons of coal this year.

Zeigler Coal Holding Co. confirmed in late December that its Spartan underground mine in southern Illinois had gained at least a temporary reprieve from a seemingly inevitable shut-down. Thanks to an upturn in the spot market for Illinois Basin coal and an unspecified work-rule agreement with a United Mine Workers of America local union, Spartan will operate until this summer, but with a reduction of about 50 employees. The mine near Sparta in Randolph County IL had been scheduled to close at the end of 1996.

Spartan, the oldest operating underground mine in Illinois, opened in 1951. It employs about 190 people, most of whom are members of the UMWA. According to Mark Cavinder, vice president and general manager of Old Ben Coal Co., a Zeigler subsidiary, Spartan will have access to reserves even after the middle of this year. However, the mine may be prevented from developing the reserves because of acid-rain restrictions in the 1990 Clean Air Act Amendments.

Zeigler spokesperson Jeannie Riffe told *Coal Week* Spartan is still operating because the company believes the mine "has a good chance to make spot sales." She could not confirm whether any such sales have yet been secured. If there's still a market for Spartan's coal past mid-year, it's possible the mine might remain open. "If there's any way possible to keep it open, we would do so," Riffe said.

Coal Week, Jan. 13, 1997

Mine originally operated by: (1)

Date

Original name or number:

Illinois Coal Report p.

LATER OPERATORS

Operator

Date

Name or No.

**FIELD NOTES**  
**Illinois State Geological Survey**

Illinois' oldest operating underground mine, **Zeigler Coal Holding's Spartan mine** in Randolph County, will produce its last coal later this year after depleting its economic reserves. The 46-year-old mine actually has been operating on borrowed time since late last year. Plans had been to close Spartan in late December 1996, but an upturn in the spot market allowed Zeigler to find a market for the coal.

"We anticipated this extension of mining would only be until later this year," said Mark Cavinder, vice president and general manager for Zeigler's Old Ben Coal Co. subsidiary. "So this announcement comes as part of the planned reduction in operations of the mine."

A WARN notice has been issued to Spartan's remaining 100 employees, most of whom are members of the United Mine Workers of America. Layoffs are expected to begin in early September. According to the Fairview Heights IL-based company, the 1990 Clean Air Act Amendments have resulted in a poorer long-term outlook for high-sulfur Illinois Basin coal, rendering Spartan's remaining reserves uneconomical to mine. Zeigler No. 11, an underground mine located at Coulterville IL, will remain in production. The mine, which was reopened early this year, is projected to produce about 2.5 million tons of coal annually.

↑  
*Coal Week, July 14, 1997*

Depleted reserves and federal acid rain rules are causing two Illinois high-sulfur coal producers to close mines this fall.

Though neither shutdown—**Zeigler Coal Holding Co.'s Spartan mine** near Sparta and **Consolidation Coal Co.'s Burning Star No. 4 mine** near Cutler which are expected to close by the end of

By \_\_\_\_\_ September—is a surprise, miners and local officials had hoped to find ways to keep them open.

Quadra \_\_\_\_\_ But that will not happen, and the twin closings will throw another 270 miners out of work in a Midwestern state whose coal industry has been hammered harder than any other by the Clean Air Act Amendments of 1990. In less than seven years, Illinois will

			h
			g
			f
			e
			d
			c
			b
			a
3	2	1	

R \_\_\_\_\_

*over*

have gone from about 15,000 active coal miners to fewer than 5,000 once Spartan and Burning Star 4 close for good.

Zeigler, based in Fairview Heights IL, and CONSOL, headquartered in Pittsburgh PA, once were major players in the Illinois coal industry. With the demise of these two mines, each will have only one active mine remaining in the state: CONSOL's Rend Lake mine in Jefferson County and Zeigler's No. 11 mine in Randolph County.

Because of the Clean Air Act, both companies in recent years largely have withdrawn from the high-sulfur Illinois basin, with Zeigler focusing its efforts in the West and CONSOL in the East.

↑ Coal Week, Sept. 8 1997

### **SPARTAN AND WABASH FIGHT TO STAY OPEN**

Efforts to save two underground coal mines in Illinois from closing are meeting with mixed results.

In mid-July, Zeigler Coal Holding Co. issued a WARN notice to 100 employees at its Spartan mine near Sparta, Ill. The 46-year-old mine, the oldest operating underground mine in Illinois, is expected to cease production by late fall.

Spartan was slated to close last December, but an upturn in the spot market for high-sulfur Illinois Basin coal allowed Zeigler officials to find a buyer for its coal. Now, Zeigler said, the mine has almost depleted its economic reserves.

"We anticipated this extension of mining would only be until later this year," said Mark Cavinder, vice president and general manager of Zeigler's Old Ben Coal Co. subsidiary, which operates Spartan. "So this announcement comes as part of the planned reduction in operations of the mine. Spartan has had 46 years of production, which is quite an accomplishment."

*continued from page 10*

Officials with the United Mine Workers of America (UMWA) believe Spartan's life could be extended further. "(Zeigler) has an option for more coal reserves" held by Peabody Coal Co., a UMWA official said. "They just didn't pick up on it...they want people to believe they don't have any more coal."

A layoff was expected at Spartan in September, but another two or three months of mining should follow because Zeigler plans to split the pillars on the way out, the UMWA official said.

Zeigler No. 11, an underground mine near Coulterville, Ill., that was reopened at the start of this year to essentially replace Spartan's production, is projected to produce 2.5 million tons annually.

**COAL AGE / September 1997**





Mine Name or No.,  
 mile from  
 Operator, 19

**SPARTAN AND WABASH  
 FIGHT TO STAY OPEN**

Efforts to save two underground coal mines in Illinois from closing are meeting with mixed results.

In mid-July, Zeigler Coal Holding Co. issued a WARN notice to 100 employees at its Spartan mine near Sparta, Ill. The 46-year-old mine, the oldest operating underground mine in Illinois, is expected to cease production by late fall.

Spartan was slated to close last December, but an upturn in the spot market for high-sulfur Illinois Basin coal allowed Zeigler officials to find a buyer for its coal. Now, Zeigler said, the mine has almost depleted its economic reserves.

"We anticipated this extension of mining would only be until later this year," said Mark Cavinder, vice president and general manager of Zeigler's Old Ben Coal Co. subsidiary, which operates Spartan. "So this announcement comes as part of the planned reduction in operations of the mine. Spartan has had 46 years of production, which is quite an accomplishment."

*continued on page 12*

**COAL AGE / September 1997**

Sept. 1997 Coal Age  
**NEWS continued**

*continued from page 10*

Officials with the United Mine Workers of America (UMWA) believe Spartan's life could be extended further. "(Zeigler) has an option for more coal reserves" held by Peabody Coal Co., a UMWA official said. "They just didn't pick up on it...they want people to believe they don't have any more coal."

A layoff was expected at Spartan in September, but another two or three months of mining should follow because Zeigler plans to split the pillars on the way out, the UMWA official said.

Zeigler No. 11, an underground mine near Coulterville, Ill., that was reopened at the start of this year to essentially replace Spartan's production, is projected to produce 2.5 million tons annually.

Meanwhile, on the other side of the state near the Illinois-Indiana border, both company and union officials are cautiously optimistic about the future of Cyprus Amax's Wabash mine.

Cyprus Amax agreed to assign the 14 years remaining on its 3.6 million-tons-per-year PSI contract to another coal producer, Black Beauty Coal Co. Almost overnight, Wabash's work force plummeted from a total of more than 400 to about 125.

"Wabash is hanging on," the UMWA official said. "The work force is doing good and the company is trying to get more contracts." Wabash is still shipping coal to PSI's 3,145-megawatt Gibson Generating Station.

Cyprus Amax spokesman Mike Rounds said the Colorado-based company is "hopeful we can keep (Wabash) running through the end of the year. Our goal would be to keep it open indefinitely."

See  
 See  
 See

shaft logs.

See drill record sheet,

E. Notes on surrounding area,

Railroad, Wagon, Idle, Abandoned

**IDENTIFICATION**

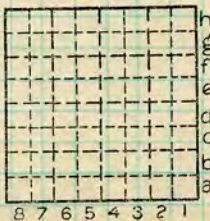
County No.

Coal No.

Quad.

Part

County



Sec.

T. N.  
 S. S.  
 E. E.  
 W. W.

Index No.

**L.—SURFACE SHEET (Geol.)**