



Mine originally operated by: (1)

Date

Zeigler Coal Co. #1

1903

Zeigler

Original name or number:

Illinois Coal Report 1903 + 1954 p. 75

LATER OPERATORS

Date

Operator

Name or No.

2 1909

Bell & Zoller Mining Co.

3 1916

Bell & Zoller Coal & Mining Co. #1

(1911)

5

6

7

8

9

10

11

12

13

14

800' E 370' ~~W~~ (1948)

* Also owners

#See ownership sheet

1946
oc

Railroad, Wagon, Idle, Abandoned Shaft 401'

Mo. Pac., C.B.&Q., I.C.

IDENTIFICATION

County No. 272

Coal No. 6

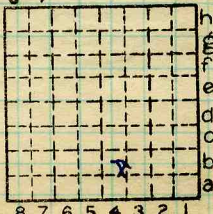
S-1

Herrin

Quad. 264

Part

(1948) 9'6"



Sec. 13

T. 7 S.

R. 1 E.

Index No.

County Franklin

8 7 6 5 4 3 2 1

1213 b4

COAL MINE OPERATOR

Company _____

No. _____

Farm _____

No. _____

Elev. _____ of _____

Year drilled _____

For _____

Kind of records _____

Remarks _____

Bloomington PANTAGRAPH
FRANKLIN Cty.

Fuel plant will help clean mine

By Linda Sickler 8-10-89
Of The Southern Illinoisan

A fuel-blending facility in Zeigler will not only provide jobs, it will clean up an old mine site.

International Recovery Services Inc. of Culver City, Calif., plans to develop the facility on 25 acres of the old Bell & Zoeller Coal Mine.

The land is within 100 acres that Zeigler will develop into an industrial park.

Liquid sludge and solid industrial byproducts will be blended with coal slurry to make fuel for an alternative energy source in cement manufacturing.

The byproducts will be delivered by truck and rail to the plant, where they will be evaluated.

About 100,000 tons of fuel and 50,000 tons of coal will be processed each year. The fuel will also be shipped by rail and truck.

The Zeigler City Council has been working with International Recovery Services, which is expected to begin operations in late fall 1990. Mayor Raymond Owens said that no danger exists to the community from blending the fuel.

"There will be no nuclear wastes of any sort," Owens said. "There will be no liquid runoff from the plant."

The process will remove hazardous wastes already at the mine site, which will reduce the discharge of contaminants into the Big Muddy River.

The fuel will be shipped out almost immediately after it is made.

"There will be no large storage area," Owens said. "There will be no wastes of any sort stored locally on the site."

The company anticipates the plant will operate about 25 years. About 40 full-time employees will work at the plant, and about 20 part-time truck drivers will be hired to haul fuel.

"To me, there's no real risk," Owens said. "We're in complete control of this project."

A public hearing will be held Nov. 6 at city hall to give residents an opportunity to ask questions about the plant. Residents can comment for 30 days after the hearing.

Several Illinois Environmental Protection Agency permits and approvals are necessary before construction can begin.

Strata

Remarks

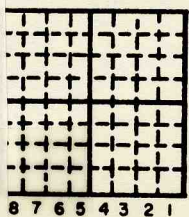
Location _____

Correlations by _____

Basis _____

County _____

Data sheet by _____



h	Sec.	
f		N.
e	T.	S.
d		E.
c	R.	W.
b		
a		

8 7 6 5 4 3 2 1

Date



Bell & Zeller #1

(Sheets) COAL PRODUCTION (Sheet)

Period			Tons		
Mo.	Day	Year	Mo.	Day	Year
		1915		653	490
		1926		8	000
		1927	1	071	508
		1931		936	785
		1932		698	870
		1933		559	357
		1934		887	197
		1935	1	209	929
		1936	1	024	007
		1937	1	054	860
		1938		933	474
		1939	1	010	502
		1940	1	044	802
		1941	1	016	124
		1942	1	418	032
		1943	1	570	933
		1944	1	702	326
		1945	1	589	269
		1946	1	277	695
		1947	1	156	888
		1948		561	159

SUMMARIES

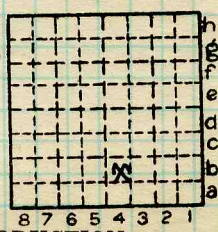
No. to No.

Railroad, Wagon, Strip, Idle, Abandoned

IDENTIFICATION

County No. 272
 Coal Report No. S-1
 Quad. 264
 County Franklin

Coal No. 6



Sec. 13

T. 7 S.
 R. 1 E.
 Index No.

1213 64

COAL MINE—PRODUCTION

ILLINOIS GEOLOGICAL SURVEY, URBANA





LOCATION AND ELEVATION

Location: **SE** side **Missouri Pacific** R. R.
W side **Illinois Central** R. R.
E side Highway No. **148** $\frac{3}{4}$ mile
 on top. map Location sheet **5-28-19**

Elevation: Method, 1. Est. () _____ ft.
 2. Inst. (kind **Plane table**) **407.5** ft.
 By _____ Data sheet _____

DEPTH

Authority **Erwin Ganimeter M.E.** To coal 392 ft.
 Authority _____ Rail to rail 401.07 ft.
 Top of coal above rail. (Est. Rule) 10 ft.
 To coal 391.07 ft.

ALTITUDE OF TOP OF COAL

By estimated data _____
 By instrumental data _____ 16.5 ft.

Thickness
 Max. 3300 in. Min. 84 in. Aver. 144 in. 114

See hoisting shaft GEOLOGICAL DATA

Mine notes, date 1906 _____

 Coop No. 53 Pyr. inv. _____ Coal Ash inv. _____

See hoisting shaft CHEMICAL DATA

Analyses Face	U. I. <u>4785-6+7-9</u>	B. M. <u>Bull. 22 (10)</u>	Others <u>419-25</u>
Car	U. I.	B. M.	Others <u>463-4</u>
Org. Sulf	U. I.	B. M.	Others <u>471, 536</u>
Ash fusion	U. I.	B. M.	Others _____
Ash anal.	U. I.	B. M.	Others _____
<u>#53</u>	U. I.	B. M.	Others _____

Classification R.I. 128 U.C.I. 144

Misc. tests: Coking. _____ Cleaning _____ Boiler _____

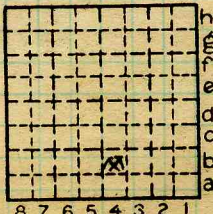
Published descriptions:—

Railroad, Wagon, Idle, Abandoned

Materials shaft

IDENTIFICATION

S-(County No. 272 Coal No. 6
 Quad. Herrin Part
 County Franklin



Sec. 13
 T. 7 S. *
 R. 1 E. *
 Index No. _____

COAL MINE LOCATION AND DATA



Location: **SE** side **Missouri Pacific** R. R.
W side **Illinois Central** R. R.
E side Highway No. **148** $\frac{3}{4}$ mile

on top. map Location sheet **(5-28-19)** mine map

Elevation: Method, 1. Est. () _____ ft.
 2. Inst. (kind **Plane table**) **414.8** ft.

By **W.B.Roe** **(5-28-28)** Data sheet

See materials sh. DEPTH

Authority	To coal	_____	ft.
Authority	Rail to rail	_____	ft.
	Top of coal above rail. (Est. Rule)	_____	ft.
	To coal	_____	ft.

ALTITUDE OF TOP OF COAL

By estimated data _____

By instrumental data _____

Thickness

Max.	in.	Min.	in.	Aver.	in.
------	-----	------	-----	-------	-----

See hoisting shaft GEOLOGICAL DATA

Mine notes, date _____

Coop No. _____ Pyr. inv. _____ Coal Ash inv. _____

CHEMICAL DATA

Analyses Face	U. I.	B. M.	Others
Car	U. I.	B. M.	Others
Org. Sulf	U. I.	B. M.	Others
Ash fusion	U. I.	B. M.	Others
Ash anal.	U. I.	B. M.	Others
	U. I.	B. M.	Others

Classification

Misc. tests: Coking. _____ Cleaning _____ Boiler _____

Published descriptions:—

Railroad, Wagon, Idle, Abandoned

Air shaft.

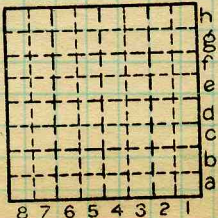
IDENTIFICATION

County No. **272**

Coal No. **6**

Part

Quad. **Herrin**
 County **Franklin**



Sec. **13**

T. **7** N. S.

R. **1** E. W.

Index No.

1213 A-3

COAL MINE LOCATION AND DATA



Location and Elevation Data

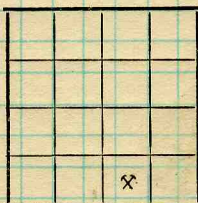
Location: Exact Approximate
 (Approximate only if no trace or record of original exists)

Location by W. B. Roe
 Date July 29, 1932 Notebook No. 614 Page 17(2119)
 Looseleaf ref. _____
 Map files No. 5-28-28

Description of location

Position in sec., 1/4 sec., 40 acres

_____ feet from North line
1960 feet from East line
600 feet from South line
 _____ feet from West line



Sec. 13
 T. 7 S.
 R. 1 E.

Other description: _____
MN 1912 - 1927

Farm _____
 No. _____
 Company _____
Dell & Zoller Mining Co.
 No. 1 Ziegler mine
 County No. 236

Elevation 411.8 ft.

By W. B. Roe

Method: Level, transit, alidade, hand level

Plane table and alidade

Elevation of Air shaft curb - NE corner

Height of point above ground _____

Date July 29, 1932 Notebook 614 P. 17(2119)

Looseleaf ref. _____

Map files No. 5-28-28

Description of item: (drill hole, mine, etc.) Air shaft - Active shipping mine

County Franklin Quadrangle Herrin Index No. 1213.3a
 (45576-1M-10-30)



COAL MINING INVESTIGATIONS
COOPERATIVE AGREEMENT

Mine Name or No., *Leiter*

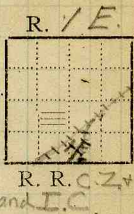
1 mile from *Zeigler*

Operator, 1912 *Bell & Zoller Mining Co.*

75 T.

Operator, 191

Entrance, *shaft* Elev., *411* ft. { above,
Depth to bottom coal, *429* ft. Alt. *-18*



SURFACE DATA.

A. Topography *Flat to Rolling.* See

B. Surficial materials. (1) Character

(2) Thickness, (3) Effect on mining and shaft-sinking, of former drainage lines, underground water strata, etc.

C. Outcrops, (1) Character, See

(2) Structure, See

(3) Fossil horizons See

Collection No.,

(4) Evidences of subsidence, See

D. Note collection of mine maps, drill records and shaft logs.



See drill record sheet.

E. Notes on surrounding area,

See

Coal bed name: Local, # *6*

Survey # *6*

Collector, *KD White*

State No. *1213*

Mine, *Leiter #1*

Co. *Franklin*

Co-op. No. # *53*



UNDERGROUND DATA

F. Thickness of rock above bed worked,
 (1) Important variations,
 See

G. Note presence of strata having important effect on mining.

Hard Gray Shale, Roof of coal See Sheet 4
 (1) Position, Above coal
 (2) Character, Sandy, little bedding
 (3) Persistence, Over entire mine
 (4) Other workable coal beds, 25' below 5' coal
 See

H. Cap rock,
 (1) Thickness,
 (2) Height above coal,
 See

I. Immediate roof Top coal
 (1) Thickness, 4' (2) Contact with coal,
 (3) Horizontal variation,
 See

J. Draw slate. (1) Thickness, (2) Contacts
 None
 (3) Persistence

K. Coal bed: Max. 25'-0" Min. 7'-0" Av. 12'-0" inches
 (1) Benches, 3
 (a) Position, Top coal 4', Middle 5', Bottom 2'
 (b) Persistence, Overmine
 See
 (2) Bedded impurities, kind, position in benches, persistence, ease of separation.

Blue band 1/2" to 1 1/2"

(3) Irregularities in continuity of bed (due to deposition, erosion, or movement).
 See
 Some Rolls See Sheet #4
 (a) Effect on mining,
 Requires timbering See

SECTION			
Ft.	In.	Name	Index Sym.



UNDERGROUND DATA (cont'd.)

K. (5) Physical character of coal in benches,

- (a) Relative hardness, *Bottom bench hardest, then top bench Middle bench softest.*
- (b) Lustre, *Bright.*
- (c) Fracture, *Blocky.*
- (d) Texture, *Banded*

See Sheet 2,3

(6) Impurities in coal, other than bedded,

- (a) Kind, *Sulphur balls.*
- (b) Position and persistence, *Very irregular*

(c) Rejected, *Yes* Ease of separation, *Hand picked*
See

L. Floor: (1) Material *Fire Clay, Ls. below*

- (2) Thickness *2' to 4'*
- (3) Variation *Over Mine*

(4) Note character, condition, tendency to heave, relation to undercutting, commercial value.

Below fire clay bastard Ls. Ls. a dove colored, mottled stone weather nodular. A hard smooth surface on fresh fracture Fire clay 2', Ls. vis. 6'. Contact between Ls. and fire clay not sharp. Lime nodules are scattered thru lower 6" of clay. Clay does not heave,

See

(5) Clay sample No. 1

Location, *Entry A South 500' to shaft.*
Section

Fire Clay bottom #6 Coal

M. Stratigraphy

(1) Fossiliferous horizons underground,

Clay with nodules of lime 6"
Coal 2"
(Sampled) Clay containing coal stringers 14"
Clay & Ls. nodules
Location, *Ls* †

Collection No.

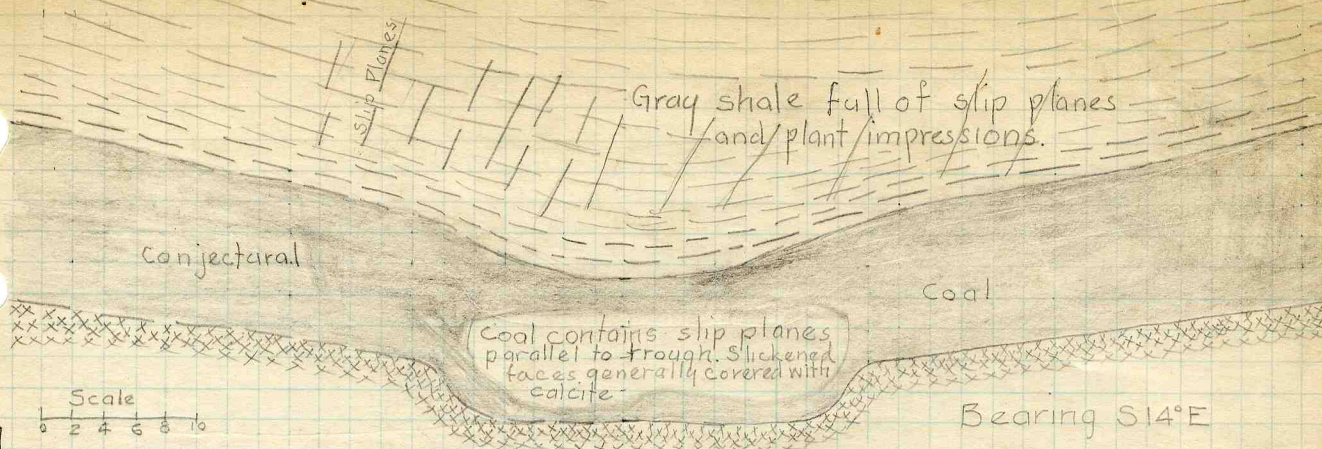
N. Notes on effect of deep drilling in coal mine areas.

See

Collector, *KDwhite*
Mine, *Leiter #1*

Coal # *6*
Co. *Franklin*

State No. **1213**
Co-op. No. *#53*

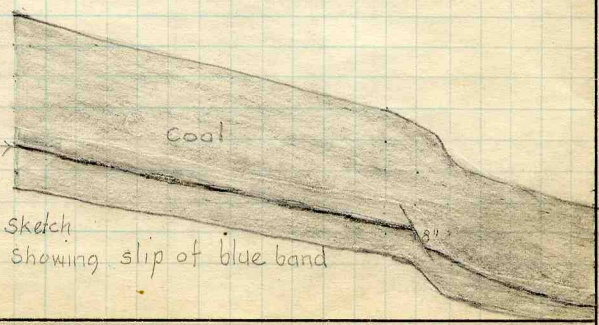


Location 2 R. 4 E South Room 13

Roll cuts out some of the top and bottom coal, and at times all of the top.

These swags are very prevalent and maintain a general SE, NW direction. Occurance is rather frequent.

Coal along slip planes covered with gouge.



INDEX

K₃

State No. 1213
Co-op No. 53

Coal #6
Co. Franklin

Collector K. A. White
Mine Letter #1
X-EXTRA SHEET No. 1

70' d
collected
d
collected



INDEX

K5

Section 1st E. North, 1st R, Room #1 Face

1. Top Coal up (reported) 4'
2. Middle bench, a hard bright coal. Large lenses of glance coal, up to 2" thick scattered thru the matrix of dull coal. Lenses and bands generally $\frac{1}{4}$ " thick. Amount of glance coal about 30%. Coal blocky, very brittle. Bands of mother coal scattered thru bed, some lenses $\frac{1}{2}$ " thick bands mostly $\frac{1}{4}$ " to a knife edge. Some calcite scattered bench 5'-7"
3. Blue Band. a blackish shale 1" to 2" thick 0'-1"
4. Bottom bench generally similar to middle bench except, it has less glance, is harder, and contain masses of mother of coal and sulphur that render it troublesome to mine. 4'-0"

Cleat Face N 25° E Cleat not regular
 " Butt N 85° E

Jack occurs in bottom bench, position irregular varies from 2" to 2' thick, makes mining troublesome.

Top coal very hard bright, clean, brittle; contains a considerable number of calcite seams. A large amount of glance coal, rings under the hammer, and is the best coal in the bed.

Section Face 2nd R Entry 4th East.

1. Top coal up (reported) 2'-6"
2. Middle bench generally similar to previous section except. It contains more mother coal with lenses generally 1" thick. Glance coal in smaller amount, and in smaller masses bands up to $\frac{1}{2}$ " thick. Lenses of bone coal also occur 5'-0"
3. Blue band a very carbonaceous shale nearly a bone coal, stringers of glance coal cont. sheet #3

Collector K. White
 Mine #1 Zeiter

Coal #6
 Co. Franklin

State No. 1213
 Co-op No. #53

X.—EXTRA SHEET No. #2



INDEX

- K5 Section Cont Sheet #2.
- 3 cont. scattered thru band 0'-2"
 4. Bottom bench clean and bright, mother coal bands scattered thru bench. 2'-9"
- Section Room 12, C, S, 8W, 1L. vicinity.
1. Top coal reported 5'-0"
 2. Middle Bench generally similar to other sections only contain sulphur balls of very irregular and occurrence 7'-0"
 3. Blue Band almost a clay, bluish gray to brown. 0'-1 1/2"
 4. Bottom coal containing sulphur balls 3'-10"

Calcite fine grained, and a cream color occurs on the glance coal, never on the dull coal.

Coal under the gray shale always cleaner and brighter and generally thicker.

No black slate or Ls occur as roof; this may account for the greater thickness of the bed in this mine.

Top coal has the characteristic bright and dull appearance.

C.S. 8W. 1st L. Room 7

Bottom coal very clean, solid, with considerable glance coal; practically same as top coal
Blue band a grayish shale 1/2" thick, 21" from bottom.

Coal pops off rib in certain parts of mine when struck with a hammer

Collector K.D. White
Mine Leifer #1

X.—EXTRA SHEET No. 3

Coal #6
Co. Franklin

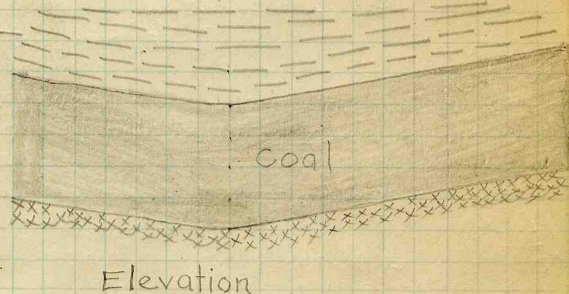
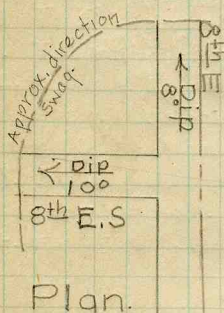
State No. 1213
Co-op No. #53



INDEX

G Shale falls in slabby pieces.
 No Black slate or ls. occurs as a roof.
 Gray shale contains a few sulphur and Lime concretions.

The coal bed contains a number of flexures which introduces serious problems in haulage.



Sample Description	Phos.	Moisture	Vol. Matter	Fix. Carbon	Ash	Sulph.	BTU Wet	B.T.U. Dry.
#5 Wet	8.22	8.26	31.46	50.49	9.79	.51		14,042
#5 Dry			34.29	55.04	10.67		12,786	
#5 Wet		5.46	33.32	50.88	10.38	Trace		
2.5 cars 6" lump	.005	8.74	33.97	51.96	5.33	.66	12,652	13,864
2 cars 6"		8.74			5.80		12,652	13,864
6" Egg		8.93			7.90		12,159	13,351
#1 Nut		8.35			7.30		12,419	13,351
#2 Nut		8.86			6.90		12,405	13,612
#3 Nut		8.72			7.50		12,321	13,499
#4 Nut		9.31			9.70		11,985	13,216

Analysis of grab sample obtained from Lewin Supt.

Collector K.O. White
 Mine Leiter #1

Coal #6
 Co. Franklin

State No. 1213
 Co-op No. #53

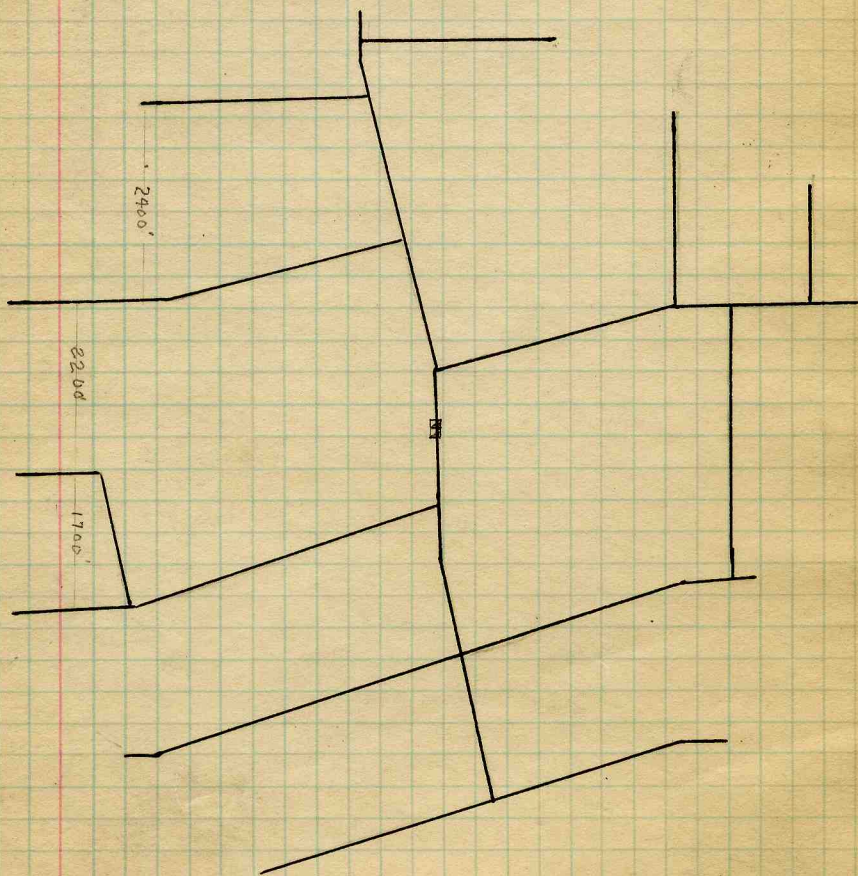
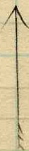
X.—EXTRA SHEET No. 4

Copy



Franklin
1213

Bell and Zolter, No 1 Mine Plan
Blk Dia Jan 17 1925



Franklin

1213.



Operator, *Zeigler* Date *July 6, 1906*
 Mine, *Zeigler* Sec. *T.* R. *R.*
 Located, *Zeigler* miles from *Zeigler*
 Location in mine, *R. 6 W. 3, 1500 ft S W 1/4 shaft*

GRAPHIC SECTION DESCRIPTION OF SECTION (AT POINT SAMPLED)

In.	No.	No.	(Note character and thickness of roof)	Inches
			<i>Roof shale</i>	
0	1		<i>Top coal</i>	
	2		<i>Coal</i>	<i>38</i>
12	3		<i>Blue band</i>	<i>1</i>
	4		<i>mother coal & shale</i>	
24	5		<i>Coal</i>	<i>63</i>
	6		<i>mother coal</i>	<i>63 1/2</i>
36	7		<i>Shale</i>	
	8	3	<i>Coal</i>	<i>87 1/2</i>
48	9		<i>Blue band</i>	<i>88</i>
	10		<i>Coal</i>	<i>134</i>
60	6			
72				
84	9			
96				
108			<i>7 loam, shale</i>	
120			(Note character and thickness of floor)	
			Total thickness of coal.	<i>134</i>

Condition, Time, hr. min.
 Wt. Gross, lbs. Net, lbs.
 What Nos. shipped by Co.?
 Excluded from sample: No. *8 9*
 Sample represents *134* in. *9* tons.
 Impurities? How do they occur?
Bulletin 22, p494

Sample No. Can No. Lab. No. *Box 3408*
 Collector, *J. H. Jones* Coal: Survey No.
 Mine, *J. H. Jones* Co. *Franklin* Index No. *1213*
R.—COAL SAMPLE SHEET.



Operator, *Zeigler* Date *July 20, 1905*
 Mine, *Zeigler* Sec. *T.* R. *R.*
 Located, *Zeigler* miles from *Zeigler on L.C.P.P.*
 Location in mine, *R5 - W3. S side, 7 miles, 1050 ft S of Zeigler*

GRAPHIC SECTION		DESCRIPTION OF SECTION (AT POINT SAMPLED)		
In.	No.	No.	(Note character and thickness of roof)	Inches
			<i>Roof, shale</i>	
0	1		<i>Top coal</i>	<i>48</i>
	2		<i>Coal</i>	<i>56</i>
12	3		<i>Blue band</i>	
	4		<i>Mother coal & shale</i>	<i>56 1/2</i>
24	5		<i>Coal</i>	<i>67 1/2</i>
	6		<i>Mother coal</i>	
36	7		<i>Shale</i>	<i>67 3/16</i>
	8		<i>Coal</i>	<i>111 3/16</i>
48	9		<i>Blue band</i>	<i>112 2/16</i>
	10		<i>Coal</i>	<i>142 3/16</i>
60	4			
72	7			
84				
96				
108	9		<i>2 foot, Shale</i>	
120			(Note character and thickness of floor)	
			Total thickness of coal.	<i>142 3/16</i>
132			Condition, Time, hr. min.	
			Wt. Gross, lbs. Net, lbs.	
144			What Nos. shipped by Co.?	
			Excluded from sample: No. <i>3 9</i>	
			Sample represents <i>94 3/16</i> in. tons.	
			Impurities? How do they occur?	

Sample No. _____ Can No. _____ Lab. No. *BM 1872*

Collector, *J. N. Gross* Coal: Survey No. _____
 Mine, *W. J. van Buren* Co. *Franklin* Index No. *1213*



Operator, *Zeigler* Date *July 20, '05*
 Mine, *Zeigler* Sec. *L. C. R. R.*
 Located, *Zeigler* miles from *Zeigler* T. *L. C. R. R.*
 Location in mine, *R. 5 - W. 1, north side - 680 ft. N. W. 1/4*

GRAPHIC SECTION		DESCRIPTION OF SECTION (AT POINT SAMPLED)		
In.	No.	No.	(Note character and thickness of roof)	Inches
			<i>Roof, shale</i>	
0	1		<i>Top coal</i>	<i>48</i>
	2		<i>Coal</i>	<i>56</i>
12	3		<i>Blue band</i>	
	4		<i>mother coal and shale</i>	<i>6 1/8</i>
24	5		<i>Coal</i>	<i>67 1/8</i>
	6		<i>mother coal</i>	
36	7		<i>shale</i>	<i>67 3/16</i>
	8		<i>Coal</i>	<i>111 3/16</i>
48	9		<i>Blue band</i>	<i>112 3/16</i>
	10		<i>Coal</i>	<i>142 3/16</i>
60				
72				
84				
96				
108				
120				
132				
144				
			<i>Flow, shale</i>	
			(Note character and thickness of floor)	
			Total thickness of coal.	<i>142 3/16</i>
			Condition, Time, hr. min.	
			Wt. Gross, lbs. Net, lbs.	
			What Nos. shipped by Co.?	
			Excluded from sample: No. <i>3 9</i>	
			Sample represents <i>943</i> in. tons.	
			Impurities? How do they occur?	
			<i>Bulletin 22 p 494</i>	

Sample No. _____ Can No. _____ Lab. No. *Bm 1871*
 Collector, *W. J. von Borries* Coal: Survey No. _____
 Mine, *Franklin* Co. *Franklin* Index No. *1213*
R.—COAL SAMPLE SHEET.



COAL MINING INVESTIGATION

COOPERATIVE AGREEMENT

Operator, *Bell & Goller* Date, *3/28*, 191*2*
 Mine, *Geigley* Located at *5* miles* from † *Geigley*
 Location in mine, *A South entry*
 Total (vertical) depth from surface at point of sampling, *417* ft.

In describing the beds and character of the members, note any member that is rejected by the miner. Note all clay and sulphur partings, whatever their thickness. Exclude from sample all clay and sulphur partings $\frac{3}{8}$ inch thick or over (and even those of less thickness if they are rejected at mine or tippel).

SECTION OF BED AT POINT SAMPLED.

No.	DESCRIPTION.	FEET.	INCHES.
1	<i>Drill hole sample.</i>		
2			
3			
4			
5			
6			
7			
8			
9	<i>Drill hole sample</i> ✓ <i>taken six feet on</i> <i>in solid.</i>		
10			
11			
12			
13			
14			
15			
16			
17			
	TOTAL,		

Is coal wet or dry? *0*

Time exposed, *0* hours, minutes.
 Weight, gross, net.

What are the impurities, and how do they occur?

What are shipped?

What are excluded from the sample?

*Direction (N., NE, etc.).

Coal bed, *Sto.* †Nearest railway station

Town, *Geigley* Mine, *Geigley No. 1* Co. *Franklin*
SAMPLE NO. X **COAL NO.** *53* No. *53*

I.—COAL SAMPLE SHEET. Sampler. *J.M.W.*

#4782



COAL MINING INVESTIGATION

COOPERATIVE AGREEMENT

Operator, *Bell & Zoller* Date, *3/28* 191*2*
 Mine, *Zoller* Located at miles* from † *Zoller*
 Location in mine, *at South entry*
 Total (vertical) depth from surface at point of sampling, *417* ft.

In describing the beds and character of the members, note any member that is rejected by the miner. Note all clay and sulphur partings, whatever their thickness. Exclude from sample all clay and sulphur partings $\frac{3}{8}$ inch thick or over (and even those of less thickness if they are rejected at mine or tippel).

SECTION OF BED AT POINT SAMPLED.

No.	DESCRIPTION.	FEET.	INCHES.
1	<i>Coal</i>	<i>7</i>	
2	<i>Dirt lorn</i>		<i>1 1/2</i>
3	<i>Coal clean & bright</i>	<i>1</i>	<i>10</i>
4	<i>Coal hard and dirty</i>	<i>2</i>	
5			
6	<i>Contains streaks</i>		
7	<i>of Pyrites of Fe and S.</i>		
8			
9			
10			
11	<i>Top of coal not included.</i>		
12			
13			
14			
15	<i>Coal</i>		
16			
17			
TOTAL,		<i>7</i>	<i>11 1/2</i>

Is coal wet or dry?
 Time exposed, _____ hours, _____ minutes.
 Weight, *84* gross, _____ net.

What are the impurities, and how do they occur?

What are shipped? *1, 3, 4*
 What are excluded from the sample? *2*

*Direction (N., NE., etc.). †Nearest railway station.

Town, *Zoller* Mine, *Zoller* Co., *Zoller*
 SAMPLE NO. *16* OAN NO. *41*
 No. *53*

I.—COAL SAMPLE SHEET. Sampler. *J.M.W.* **1213**

#4785



COAL MINING INVESTIGATION

COOPERATIVE AGREEMENT

Operator, *Zeigler*, Date, *3/28*, 191
 Mine, *Zeigler*, Located *at* miles* from † *Zeigler*
 Location in mine, *face main 4th East*
 Total (vertical) depth from surface at point of sampling, *417* ft.

In describing the beds and character of the members, note any member that is rejected by the miner. Note all clay and sulphur partings, whatever their thickness. Exclude from sample all clay and sulphur partings $\frac{3}{8}$ inch thick or over (and even those of less thickness if they are rejected at mine or tippel).

SECTION OF BED AT POINT SAMPLED.

No.	DESCRIPTION.	FEET.	INCHES.
X 1	Coal	2	33 9
X 2	Blue Band		1/2
X 3	Coal		5 1/2
X 4	Blue Band - Rock Bone		1 1/4
X 5	Coal	3	10
6	<i>Coal</i>		
7			
8			
9			
10			
11	<i>Top coal not included.</i>		
12			
13			
14			
15			
16			
17	<i>A5</i>		
	TOTAL,	7	2 1/4

Is coal wet or dry?
 Time exposed, ~~57~~ hours, 57 minutes.
 Weight, 62 gross, net.
 What are the impurities, and how do they occur?

What are shipped? *1, 3, 5*
 What are excluded from the sample? *2, 4*
 *Direction (N., NE., etc.). †Nearest railway station. Coal bed, *No 6*

Town, *Zeigler* Mine, *Zeigler No. 1* Co. *Franklin*
 SAMPLE NO. *15* CAN NO. *23* No. *53*
 I.—COAL SAMPLE SHEET. Sampler, *Jim Webb* 1213

#4786



COAL MINING INVESTIGATION

COOPERATIVE AGREEMENT

Operator, *Bell & Zeller Coal Co* Date, *3/27*, 191*2*
 Mine, *Zeigler* Located *2* miles* from *Zeigler*
 Location in mine, *Main South Entry*
 Total (vertical) depth from surface at point of sampling, *10* ft.

In describing the beds and character of the members, note any member that is rejected by the miner. Note all clay and sulphur partings, whatever their thickness. Exclude from sample all clay and sulphur partings $\frac{1}{2}$ inch thick or over (and even those of less thickness if they are rejected at mine or tippel).

SECTION OF BED AT POINT SAMPLED.

No.	DESCRIPTION.	FEET.	INCHES.
1	<i>Coal clean and bright</i>	<i>5</i>	<i>7 1/2</i>
2	<i>Dirt, lony</i>		<i>1 1/2</i>
3	<i>Coal bright</i>	<i>2</i>	<i>1</i>
4			
5			
6	<i>Coal</i>		
7			
8			
9			
10			<i>9 3/2</i>
11			
12			
13	<i>Top coal not included.</i>		<i>9 2</i>
14			
15			
16			
17			
TOTAL,		<i>7</i>	<i>9 1/2</i>

Is coal wet or dry? *1* ✓
 Time exposed, *1* hours, *13* minutes.
 Weight, *73* gross, net.

What are the impurities, and how do they occur?
 What are shipped? *1, 3*
 What are excluded from the sample? *2*

*Direction (N., NE., etc.). Coal bed, *1006*
 †Nearest railway station.

Town, *Zeigler* Mine, *Zeigler* Co. *Franklin*
SAMPLE NO. *214* **COAL NO.** *53*
I.—COAL SAMPLE SHEET. Sampler, *J.M.W.* *213*

#4787



COAL MINING INVESTIGATION

COOPERATIVE AGREEMENT

Operator, *Bell & Galloway Coal Co.* Date, *3/27*, 191*2*
 Mine, *Sargler* Located at *2.7* miles* from *Sargler*
 Location in mine, *Face first belt off 8 West of South*
 Total (vertical) depth from surface at point of sampling, _____ ft.

In describing the beds and character of the members, note any member that is rejected by the miner. Note all clay and sulphur partings, whatever their thickness. Exclude from sample all clay and sulphur partings $\frac{3}{8}$ inch thick or over (and even those of less thickness if they are rejected at mine or tippie).

SECTION OF BED AT POINT SAMPLED.

No.	DESCRIPTION.	FEET.	INCHES.
1	<i>Coal clean & bright</i>	<i>10</i>	<i>10</i>
2			
3			
4			
5	<i>Top Coal</i>		
6			
7			
8			
9			
10			
11			
12			
13	<i>Top coal sample</i>		
14	<i>Fresh sample</i>		
15			
16			
17	<i>A4</i>		
TOTAL,		<i>1</i>	<i>10</i>

Is coal wet or dry?
 Time exposed, _____ hours, *40* minutes.
 Weight, *54* gross, _____ net.
 What are the impurities, and how do they occur? *None*

What are shipped? *total*
 What are excluded from the sample? *nothing*

*Direction (N., NE., etc.). _____ †Nearest railway station. *S.D. 6*

Town, *Sargler* Mine, *Sargler* Co. *Franklin*
 SAMPLE NO. *48* CAN NO. *53*
 I.—COAL SAMPLE SHEET. Sampler. *J.H.M.* **1213**

Analysis # *4788*



COAL MINING INVESTIGATION

COOPERATIVE AGREEMENT

Operator, *Bell Goller C.C.* Date, *3/27*, 191*2*
 Mine, *Geigler* Located at miles* *1.5* from *Franklin*
 Location in mine, *North Room 3 left, 6 West entry*
 Total (vertical) depth from surface at point of sampling, *2* ft.

In describing the beds and character of the members, note any member that is rejected by the miner. Note all clay and sulphur partings, whatever their thickness. Exclude from sample all clay and sulphur partings $\frac{3}{8}$ inch thick or over (and even those of less thickness if they are rejected at mine or tippel).

SECTION OF BED AT POINT SAMPLED.

No.	DESCRIPTION.	FEET.	INCHES.
1	<i>Coal clean and bright</i>	<i>2</i>	
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16	<i>Hop coal sample</i>		
17	<i>A^{#2} Fresh</i>	<i>2</i>	
	TOTAL,		

Is coal **wet** or dry? wet
 Time exposed, _____ hours, _____ minutes.
 Weight, *18* gross, _____ net.
 What are the impurities, and how do they occur? *None*

What are shipped? *total*
 What are excluded from the sample? *Nothing*

Coal bed, *No. 6*
 *Direction (N., NE., etc.) _____ †Nearest railway station. _____

Town, *Geigler* Mine, *Geigler* Co. *Franklin*
SAMPLE NO. *10AN* **NO.** _____
 I.—COAL SAMPLE SHEET. Sampler, *J. M. Webb* **513** **1213**

Anal. # *4983*



COAL MINING INVESTIGATION

COOPERATIVE AGREEMENT

Operator, *Wellfeller Coal Co.* Date, *3/27*, 191 *2*
 Mine, *Zeigler* Located at miles* *1* from *Zeigler*
 Location in mine, *6th West entry*
 Total (vertical) depth from surface at point of sampling, _____ ft.

In describing the beds and character of the members, note any member that is rejected by the miner. Note all clay and sulphur partings, whatever their thickness. Exclude from sample all clay and sulphur partings $\frac{3}{8}$ inch thick or over (and even those of less thickness if they are rejected at mine or tippel).

SECTION OF BED AT POINT SAMPLED.

No.	DESCRIPTION.	FEET.	INCHES.
<i>X</i> 1	<i>Coal clean and bright</i>	<i>6</i>	
2	<i>Dirt lony</i>		<i>2 1/2</i>
3	<i>Coal clean and bright</i>	<i>2</i>	<i>10 1/2</i>
4			
5			
6			
7	<i>Coal</i>		
8			
9			
10			
11	<i>Top out.</i>		
12			
13			
14			
15			
16			
17	<i>A#1</i>	<i>9</i>	<i>1 1/2</i>
	TOTAL,		

Is coal **wet** or dry?
 Time exposed, _____ hours, _____ minutes.
 Weight, *90* gross, _____ net.

What are the impurities, and how do they occur?
 What are shipped? *1, 3.*
 What are excluded from the sample? *2.*

*Direction (N., NE., etc.). _____ †Nearest railway station. *No. 6*

Town, *Zeigler* Mine, *Zeigler* Co. *Franklin*
SAMPLE NO. *42* **CAN NO.** *42*
I.—COAL SAMPLE SHEET. Sampler. *mult.* No. *53*
1213

#4789



COAL MINING INVESTIGATION

COOPERATIVE AGREEMENT

Operator, *Geigler Bell & Goller* Date, *3/28*, 191*2*
 Mine, *Geigler* Located at miles* from † *Geigler*
 Location in mine, *face 4 East A South*
 Total (vertical) depth from surface at point of sampling, _____ ft.

In describing the beds and character of the members, note any member that is rejected by the miner. Note all clay and sulphur partings, whatever their thickness. Exclude from sample all clay and sulphur partings $\frac{3}{4}$ inch thick or over (and even those of less thickness if they are rejected at mine or tippel).

SECTION OF BED AT POINT SAMPLED.

No.	DESCRIPTION.	FEET.	INCHES.
1	<i>Drill hole sample.</i>		
2			
3			
4			
5			
6			
7			
8			
9	<i>Drill hole sample taken five feet in solid.</i>		
10			
11			
12			
13			
14	<i>No tag in saw.</i>		
15			
16			
17			
	TOTAL,		

Is coal wet or dry?
 Time exposed, _____ hours, _____ minutes.
 Weight, _____ gross, _____ net.

What are the impurities, and how do they occur?
 What are shipped?
 What are excluded from the sample?

Coal bed, _____
 *Direction (N., NE., etc.) _____ †Nearest railway station. _____
 Town, *Geigler* Mine, *Geigler No. 1* Co. *Franklin*
SAMPLE NO. ~~6~~ 53 OAN NO. _____
 I.—COAL SAMPLE SHEET. Sampler, *J.M.W.* No. **53**

1213

Analysis # 4790



Symbol	Description	Inches
(1 division=3 in.)	USBM Bull. 22, p 494-5	

ZEIGLER. ZEIGLER MINE.

Sample.—Bituminous coal; Illinois field; analyses Nos. 1871, 1872, and 3408 (Illinois No. 19), and analyses Nos. 5214, 5237 (p. 84).

Mine.—Zeigler; a shaft mine at Zeigler, on the Illinois Central Railroad.

Coal bed.—Herrin coal (No. 6) of the United States Geological Survey, locally called the Big Muddy. Carboniferous age, Carbondale formation. Thickness, fairly uniform, being in this mine from 10 to 12 feet, averaging 11 feet; roof, dark massive shale, which falls as rooms are worked out; floor, medium-hard light-gray shale, with fire clay in places. Shaft 420 feet deep.

The bed was measured and sampled at two points (sections A and B) by J. W. Groves and W. J. von Borries on July 20, 1905, and at another point (section C) by J. W. Groves and J. H. Robison on July 6, 1906. The sections were as follows:

Sections of coal bed in Zeigler mine at Zeigler.

Section	A	B	C
	1871	1872	3408
Laboratory No.			
Roof, shale.			
Top coal ^a	4 0	4 10	...
Coal	0 8	0 8	3 2
Blue band ^b			0 1
Mother coal and shale	0 ½	0 ½	0 0
Coal	0 11	0 11	2 0
Mother coal			0 0 ½
Shale	0 1 ½	0 1 ½	...
Coal	3 8 ½	3 8 ½	2 0
Blue band ^b	0 1	0 1	0 0 ½
Coal	2 6	2 6	3 10
Floor, shale.			
Thickness of bed	11 10 ½	11 10 ½	11 2
Thickness of coal sampled	7 10 ½	7 10 ½	11 2

^a Not included in sample.

^b The blue band was included in sampling, as it was loaded with the coal. It burns readily to ash. It is from ½ to 1 ½ inches thick.

Section A (sample 1871) was measured in room 5, off west entry 1, on the north side of the mine, 680 feet northwest of the shaft.

Section B (sample 1872) was measured in room 5, off west entry 3, on the south side of the mine, 1,050 feet southwest of the shaft.

Section C (sample 3408) was measured in room 6, on west entry 3, 1,500 feet southwest of the shaft.

The bed was also measured and sampled at two points by G. S. Pope in 1908.

Sample 5214 was taken 1,600 feet south and 475 feet east of opening, east entry 6, off right entry 1, south side, and represented 7 feet 7 ½ inches of coal.

Sample 5237 was taken 1,000 feet north and 550 feet west of opening, west entry 2, off right entry 1, north face, and represented a cut of 7 feet 5 inches.

Notes.—The coal from this mine, like that from many others in this field, is bright and brittle. In this mine the bed contains little shale or pyrite. In 1905 the tippel was equipped with 3-inch, 1 ½-inch, and ¾-inch screens with round perforations. The larger part of the product was shipped to Chicago.

For results of tests of this coal, see mention of specific tests as follows: steaming tests: U. S. Geol. Survey Bull. 290, p. 92; Bull. 332, p. 85; Bureau of Mines Bull. 23, pp. 60, 154; producer-gas tests: U. S. Geol. Survey Bull. 290, p. 93; Bull. 332, p. 86; Bureau of Mines Bull. 13, pp. 115, 273; coking tests: U. S. Geol. Survey Bull. 290, p. 94; Bull. 336, pp. 22, 37.



Ball & Zoller Mining Co - Ziegler, Illinois - July 15, 1932
 Information furnished by Erwin Hammer, M.E.

Mine data

Mine No. 1

No data on Elev. or Depth of first shaft or air shaft

Materials Shaft

Elev. TR = 407.66 Depth TR to TR 401.07

(Elev. run on tops of the west rail on south side)

Mine No. 2

No data on present elevations of top of air shaft and main shaft. Air shaft is divided into two compartments, one of which is used for air and the other for materials

Elev. of top of rail at bottom of mat. compartment = 79.07

Depth TR to TR = 310.3'

Elev. of top of rail at surface = 389.37

Two drill holes put down at sites of air shaft and main shaft before shafts were sunk

Surface of ground at drill hole at site of first shaft = 387.67

Surface of ground at drill hole at site of air shaft = 384.7

Used in G.C. Roof! Not present act.

#176

Drill hole No. 7 Ziegler Coal Co. (log in files but was not used in G.C.R)

Sec - center sec 26 - surface elevation 385.0 (Co.)

T7S, R1E

Bench marks near mine No. 1 which can be used to run levels of shafts, etc

NWC of Power house is U.S.G.S. BM 414.20

at NE^c of road corner at SW^c sec 18, T7S, R2E is U.S.G.S. BM about 15 feet offroad and near a culvert.

Holes checked by data in Ball & Zoller office

159 NW^c sec 8, T7S, R2E no elev. given

160 SW^c sec 8, T7S, R2E no elev. given

161 NE^c SW⁴ NE⁴ sec 8, T7S, R2E elev. 377.0 H.L.T.E.S

This hole also listed as #191 on data sheets. - True location is in sec 8, T7S, R2E

#172 no location found for this hole - elevation de

#174 SE^c SW⁴ NW⁴ sec 20, T7S, R2E elev. 381.7 (Co)



Bell & Zoller Coal & Mining Co. - (cont.)

- # 194 Center NE $\frac{1}{4}$ sec 13, T7S, R1E Elev. 423.8 (Co.)
- # 195 NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec 14, T7S, R1E Elev. 391.06 (Co.)
 also listed as # 173 but loc. in sec 14, T7S, R1E is correct.
 depth to top of coal 319'2" instead of 3'50' 6'6" coal is
 lower bench of split veins
- # 196 SEC sec 14, T7S, R1E Elev. given by Co. is
 781.1 whereas survey loc. is 413' ← fits location better
- # 202 NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec 22, T7S, R1E Elev. 399.7 (Co.)
- # 203 Center SE $\frac{1}{4}$ sec 24, T7S, R1E Elev. 402.2 (Co.)
- # 204 NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec 25, T7S, R1E Elev. 365.5 (Co.)
 survey loc. is center NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec 25, T7S, R1E
- # 207 SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec 27, T7S, R1E Elev. 385.76 (Co.)
- # 278 site of H.S. sec 26, T7S, R1E Elev. 387.67
- # 173 site of A.S. sec 26, T7S, R1E Elev. 384.7

Collected logs of two churn drill holes

- NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec 19, T7S, R2E top coal 356' thickness 6'
 used as hole for power lines to mine workings
 (Have Rec run elevation & loc.)
- NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec 18, T7S, R1E top coal 122' No thickness given
 (used as pump hole discharge)
 (Have Rec run loc. & elev.)

Three other holes drilled by Mr. Deer of Marion for which
 B+Z have no logs. See if logs can be collected
 from Deer and then run loc. & elev. of holes

See Mr. Johnston (C.E.) in about two or three weeks
 about getting copy of mine maps with elevations on
 them.

(Put in Bell & Zoller Mine Notes - Not mine)

Bell's Zoller Mining Co.
Ziegler, Ill.

Mr. Wier - Supt.

No actual faults in
either #1 or #2 mines.

In #2 mine there is a series
of N-S rolls or swags which
cause some steep grades. In
places 10-12' of material taken
out in grading. Got no maps
of #2 mine, as no levels have
ever been made on it. Also
Mr. Wier didn't ~~seem~~ seem inclined
to even let me see it. And I didn't
see it, not insisting at all.

Map of #1 mine was only
given me with understanding it
be kept confidential. Frank Hinds. - 1213a

Mr. Wier - Supt of Bell &
Zoller Min. Co. at Zeigler
says Mr. Mitchell, (71 yrs. old),
part owner of Franklin Coal
Co. at Royalton has drilled
holes N of " towards
Mulhewtown. 8? holes -
bad coal. Wants to get
vid of it - \$50 may not
tell about holes.



COAL MINE NOTES.

1213

COUNTY *Franklin*

TOWN

MAP No. *1043*

T. *75*

R. *1 E*

SW 1/4 Sec. 13

OPERATOR *Bell and Zoller Mining Co.*

OFFICE *Fisher Bldg. Chicago*

MINE

TIPPLE

ENGINES

BOILERS

DRUM

SHAFT

CAGE

HAULAGE

CARS

VENTILATION

DRAINAGE

SPRINKLING

WORKING SYSTEM

MINING METHODS

SIZE OF ENTRIES—MAIN

CROSS

ROOM

NECK

SIZE OF PILLARS—MAIN

CROSS

ROOM

SHAFT

CHAIN

BARRIER

AMOUNT OF TIMBERING

SIZE

PROPORTION OF COAL UTILIZED

AMOUNT AND CHARACTER OF WASTE

ACREAGE OF COAL MINED

ACREAGE OF COAL REMAINING

PROPORTION OF MINE RUN AND SCREENED COAL

METHOD OF SIZING

RESCREENED

SIZES

PER CENT

PROPORTION AND SIZE OF WASHED COAL

DAILY OUTPUT

UTILIZATION

MARKETS

FREIGHT RATES

SELLING PRICES AT MINE

**1043* 1213

COAL LAND OWNED

LEASED

HELD IN FEE

COST OF LAND OWNED

LEASED

HELD IN FEE

ADDITIONAL NOTES



COAL MINE NOTES.

CONTINUED

OPERATOR *Bell and Zoller Mining Co.* MINE **1213**
 ENTRANCE NAME OF COAL BED
 ELEVATION THICKNESS OF COAL
 DEPTH TO FLOOR MAX. MIN. AV.
 ALTITUDE OF COAL
 LOCATION OF SECTION

No. SECTION.

		In.
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
Tape		Total

SECTION

Feet

SAMPLE No.
 CAN No.
 CONDITION
 GROSS WEIGHT
 TIME EXPOSED
 NOT SHIPPED
 NOT INCLUDED

PHYSICAL PROPERTIES BY NUMBERS

ROOF
 FLOOR
 DIP
 FAULTS, ETC.
 GAS

COLLECTOR

REFERENCE

DATE

1213
1213