

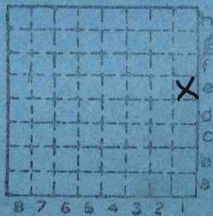


Form 180 Blue

Peabody #21
Centralia C.C. #5

Mi. #86 50

S-1



Sec. 25

T. 1

R. 1

Index No.

John C. Moore Corporation, Rochester, N. Y. Binder and holes in leaves, each Patented 1906.
 (35031-500-6-25)

Mine Name or No. 5 Mine Address Centralia

Operator Centralia Coal Co

Main Office Address Centralia Ill

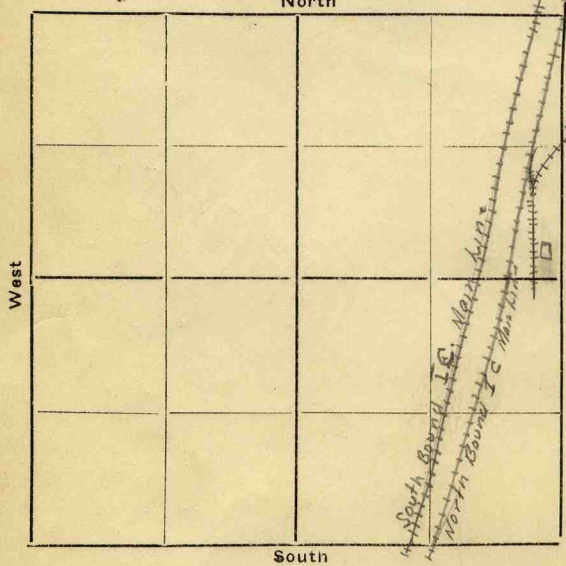
307 N Michigan Ave
Chicago Ill

Location of Mine:

Township Name _____ County Washington

Section No. 25 Township 1 N Range 1 W

Indicate location of mine and position of R. R.
 in plat of section below.
 North



B & O RR

Kindly state number of feet
 from quarter section lines:

_____ from N. line

150 from E. line

300 from S. line

_____ from W. line

Idle entire year 19____ Yes
 No

Abandoned (date) 19____

Surface landing is 505 feet above sea level or about _____ feet (above)
 (below) railroad station at _____ (nearest town).

Depth to top of coal is 538 feet.

Average thickness of coal is 6 feet 6 inches.

Do not fill in below this line.

Coal Bed Name Bellefonte Survey No. 6

County Washington Index No. _____

Operator, *Centralia Coal Co*

Date *Aug 4, 1931*

Mine, *No. 5*

Sec. *25* T. *1 N* R. *1 W*

Location in mine,

Room 13 off 13th South off 4th West. (over)

GRAPHIC SECTION

DESCRIPTION OF SECTION (AT POINT SAMPLED)

In.	No.	No.	(Note character and thickness of roof)	Inches
			<i>Top of Seam. Irregular slate roof.</i>	
	<i>12</i>		<i>12 Good Parting Pyrite 1/16"</i>	
	<i>11</i>		<i>(11) Very dull coal band 3/4"</i>	
	<i>10</i>		<i>(10) Good parting Pyrite lamina</i>	
	<i>9</i>		<i>(9) Pyrite parting 1/6"</i>	
	<i>8</i>		<i>(8) charcoal parting</i>	
	<i>7</i>		<i>(7) Pyrite</i>	
	<i>6</i>		<i>(6) Charcoal 1/32"</i>	
	<i>5</i>		<i>(5) Charcoal 1/4"</i>	
	<i>4</i>		<i>(4) " 1/4"</i>	
	<i>3</i>		<i>(3) Blue Band. Hard Pyrite</i>	
	<i>2</i>		<i>(2) Pyrite lense 1/4"</i>	
	<i>1</i>		<i>(1) Fire Clay med hard.</i>	
		(Note character and thickness of floor)		
		Total thickness of coal		
		Condition,	Time, hr. min.	
		Wt. Gross, lbs.	Net, lbs.	
		What Nos. shipped by Co.?		
		Excluded from sample: No.		
		Sample represents	in.	tons.
		Impurities? How do they occur?		

(1 division = 3 in.)

Sample No. *16*

Can No. *R-16*

Lab. No.

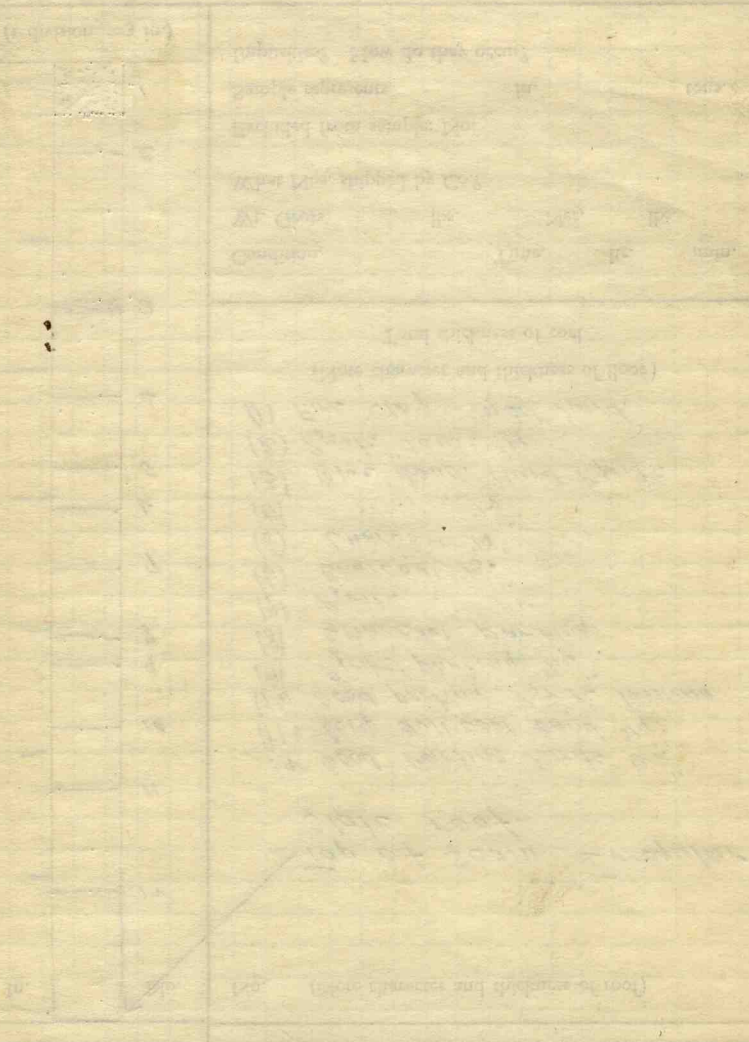
Collector, *H. M. Nelson*

Coal: Survey No. 6

Mine, *Centralia #5* Co. *Washington*

Index No.

4600' west and 4200' south of shaft.



SECTION OF SECTION (SEE PLAN FOR LOCATION)

Column 16

Much difficulty was encountered in cutting this column as it broke out on us and had to cut another. Everything is in the boxes in their correct order with the exception that a piece of roof slate was put in the bottom of Box #2. The columns may be cracked but the pieces are put together.

Aug 4 1931

H. Nicholson

There are two cans but the emulsions are not in the cans. Vaughan has them.

Operator, *Centralia Mining Co.* Date *Aug 5, 1931*
 Mine, *No 5* Sec. *25* T. *1N* R. *1W*
 Location in mine, *Room 4, 3rd south 6th West* *(0121)*

GRAPHIC SECTION		DESCRIPTION OF SECTION (AT POINT SAMPLED)	
In.	No.	No.	(Note character and thickness of roof)
			Inches
			<i>Limestone Roof.</i>
			<i>Top of Seam 85"</i>
			<i>Fairly Clean Coal</i>
			<i>(11) Charcoal and pyrite parting 1/16"</i>
			<i>(10) Dull cad band, Duller than usual.</i>
			<i>(9) charcoal parting</i>
			<i>(8) Charcoal 1/4"</i>
			<i>(7) Lcharcoal parting 1/4"</i>
			<i>(6) Pyrite lamina 1/16"</i>
			<i>(5) Very dull coal 1/4"</i>
			<i>(4) Good charcoal parting "</i>
			<i>(3) Steel band, "Pyrite lenses 1X6, occasionally "</i>
			<i>(2) Very Dull Boney Coal ("Blue Band") 1 1/4"</i>
			<i>(1) Fire clay.</i>
			(Note character and thickness of floor)
			Total thickness of coal
			Condition, Time, hr. min.
			Wt. Gross, lbs. Net, lbs.
			What Nos. shipped by Co.?
			Excluded from sample: No.
			Sample represents in. tons.
			Impurities? How do they occur?

(1 division = 3 in.)

#32

Sample No. *17* Can No. *R-17* Lab. No.

Collector, *H. M. Nicholson* Coal: Survey No. 6
 Mine, *Centralia #5* Co. *Washington* Index No.

5800' south and 1500' west of shift.

Top 500
Camp 500

Sheet No. 13 Section No. 13 Top No.

<p>1. 1000'</p>	<p>1000' to 1500'</p>
<p>2. 1500'</p>	<p>1500' to 2000'</p>
<p>3. 2000'</p>	<p>2000' to 2500'</p>
<p>4. 2500'</p>	<p>2500' to 3000'</p>
<p>5. 3000'</p>	<p>3000' to 3500'</p>
<p>6. 3500'</p>	<p>3500' to 4000'</p>
<p>7. 4000'</p>	<p>4000' to 4500'</p>
<p>8. 4500'</p>	<p>4500' to 5000'</p>
<p>9. 5000'</p>	<p>5000' to 5500'</p>
<p>10. 5500'</p>	<p>5500' to 6000'</p>
<p>11. 6000'</p>	<p>6000' to 6500'</p>
<p>12. 6500'</p>	<p>6500' to 7000'</p>
<p>13. 7000'</p>	<p>7000' to 7500'</p>
<p>14. 7500'</p>	<p>7500' to 8000'</p>
<p>15. 8000'</p>	<p>8000' to 8500'</p>
<p>16. 8500'</p>	<p>8500' to 9000'</p>
<p>17. 9000'</p>	<p>9000' to 9500'</p>
<p>18. 9500'</p>	<p>9500' to 10000'</p>
<p>19. 10000'</p>	<p>10000' to 10500'</p>
<p>20. 10500'</p>	<p>10500' to 11000'</p>
<p>21. 11000'</p>	<p>11000' to 11500'</p>
<p>22. 11500'</p>	<p>11500' to 12000'</p>
<p>23. 12000'</p>	<p>12000' to 12500'</p>
<p>24. 12500'</p>	<p>12500' to 13000'</p>



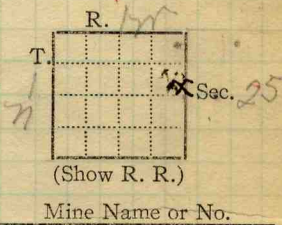
1000' 1500' 2000' 2500' 3000' 3500' 4000' 4500' 5000' 5500' 6000' 6500' 7000' 7500' 8000' 8500' 9000' 9500' 10000' 10500' 11000' 11500' 12000' 12500' 13000'



Town, **Centralia**
 Local Authority, **Mr. Harry Brown**
 Level: Auth., **Bull. 11**
 Method, **Cady's mine notes**

Surface alt., **497** ft.
 Depth to coal, **5205365** ft.
 Alt. top coal, **-23** ft.
 Thickness: Av. **78** in.
 Max. **108** in., Min. **72** in.

R. R., **I.C. + C.B.+I.** *one side of R.R.*
 Location: authority, **Bull. 11**
Mine notes
Blue print from Co.
 Operator



19 **Centralia Coal Co.** No. 5
343 S. Dearborn St. Chicago.

Successor to
 Date
 Succeeded by
 Date
 Succeeded by
 Date

PRODUCTION.

										U. S. No.
1926	Daily cap.	3500	Tons.							
1928										
1931		292	628							
1932		267	602							
										1930 #1

Geol. Notes? **yes** Coop. No. **86** Coal secs.? **4**
 Analyses No. **5030, 5033, 5035, 2613**
 Examined by **G.H. Cady** July 5, 1918 Ref.

Coal bed name: Local Survey No.
 County **Washington** Index No. **01N25.95**



Mine originally operated by: (1) Centralia Coal Co.

Date 1908

Original name or number: #5
Illinois Coal Report 1908 p.

LATER OPERATORS

Date	Operator	Name or No.
	Bell & zoller Coal Mg. Co.	#5
	Centralia Coal Co.	#5
1947	Peabody Coal Co.	# 21
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

200' N 150' W of SE corner SE NE (1948)

* Also owners #See ownership sheet

Railroad, Wagon, Idle, Abandoned Shaft

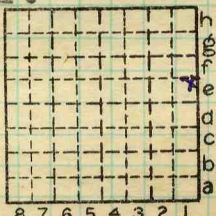
I.C., C.B.&Q.

5-1

IDENTIFICATION
County No. 50 Coal No. 6

Quad. Richview Part (1948) 7' 0"

County Washington



Sec. 25

T. 1 N.
R. 1 W.

Index No.

01N25 e1

COAL MINE OPERATOR



No.	Period						Tons	
	Mo.	Day	Year	Mo.	Day	Year		
						1935	286	281
1	1	1	1936	12	31	1936	249	496
1	1	1	1937	12	31	1937	233	161
S-1	1	1	1938	12	31	1938	170	905
						1939	215	488
						1940	231	502
S-1	1	1	1941	12	31	1941	203	323
S-1	1	1	1942	12	31	1942	321	860
						1943	430	048
						1944	447	991
						1945	523	419
						1946	459	356
						1947	174	051
						1948	463	143
							4	172 000

#2

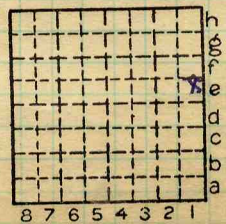
SUMMARIES

No.	to	No.		
1908		1935	9388	093
1936 -		1948	4172	000
		Total	13560	123

Railroad, Wagon, Idle, Abandoned

IDENTIFICATION

S-1
 County No. 50 Coal No. 6
 Richview
 Quad. Part
 County Washington



Sec. 25
 T. 1 N.
 R. 1 W.
 Index No. 01N25 e1



LOCATION AND ELEVATION

Location: *2 E* side *1.C.*
side
side Highway No.

R. R.
R. R.

on top. map Location sheet **Map Files# 6-41-4**

Elevation: Method, 1. Est. () ft.
2. Inst. (kind **Plane Table**) **504.2** ft.

By **Blomstran NB616 p.24** Data sheet

DEPTH

Authority *Co-Mr. Schovler* To coal **537** 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 **-33** ft.

Thickness

Max. in. Min. in. Aver. in. **78**

GEOLOGICAL DATA

Mine notes, date **1918**

Coop No. Pyr. inv. Coal Ash inv.

CHEMICAL DATA

Analyses Face U. I. **3** 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
#86 U. I. B. M. Others

Classification **R.I. 126 U.C.I. 145**

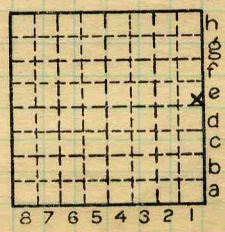
Misc. tests: Coking. Cleaning Boiler

Published descriptions:—

Railroad, Wagon, Idle, Abandoned

IDENTIFICATION

County No. **50** Coal No. **6**
Part
Quad. **Richview**
County **Washington**



Sec. **25**
T. **1** N.
R. **1** W.
Index No.

01N25-1e

COAL MINE LOCATION AND DATA

Location and Elevation Data

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

Location by..... Blomstrom

Date..... Notebook No. 616 Page 24

Looseleaf ref.....

Map files No. 6-41-4

Description of Location

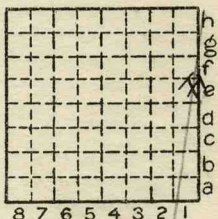
Position in sec., 1/4 sec., 40 acres

.....feet from North line

.....feet from East line

.....feet from South line

.....feet from West line



Sec. 25
 T / N.
 S.
 R / W.
 S.

Farm.....

Other description:.....

No.....

Company..... Centralia

Coal Co.

No. 5

County No. 50

Elevation..... 504.2 ft.

By..... Blomstrom

Method: Level, transit, alidade, hand level

PT

Elevation of.....

Height of point above ground.....

Date..... Notebook 616 P. 24

Looseleaf ref.....

Map files No.....

Description of item: (drill hole, mine, etc.).....

County Washington Quadrangle,

Index No.

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

- (a) Relative hardness, *Top bench prob. hardest - Middle cut by too many seams.*
- (b) Lustre, *Nothing notable*
- (c) Fracture,
- (d) Texture, See

(6) Impurities in coal, other than bedded, - *Little vest. pyrite*

- (a) Kind,
- (b) Position and persistence, *Not persistent. Negligible. Few sulphur beds. Poorly bedded.*
- (c) Rejected, *No* Ease of separation, See

L. Floor: (1) Material,

- (2) Thickness,
- (3) Variation,

Fire clay
3 feet

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

(5) Clay sample No.

Location,

See

M. Stratigraphy,

- (1) Fossiliferous horizons underground,

Collection No.

Location,

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

See

Collector, *Cady July 2*
Mine, *Centralia 5* Co. Washington

Coal: Survey No. Index No. *NO 25*

Mine No. 5

Town: Centralia, Ill.
Centralia Coal Co.

H. Cap. rock. Ls. 36" thick in layers. Rather slabby so that it falls in places.

See below - Lies directly on the coal in places in other places separated from coal by as fire clay which attains a thickness of 3 feet - over

I. Immediate roof. Most commonly black slate which aver. 18" in thickness. This is a good roof. May be as much as 36" thick or may entirely run out.

Contact with coal fairly clean. Rarely contains stringers of coal. Saw none. Sulphur plates between roof & coal not uncommon.

Horizontal variation. Every same: only variation due to pinching out under ls.

J. Drawslate. None

K. Coal bed. Max. 108 Min. 72, Avr. 78

Bench: Top bench fairly persistent Mother coal parting in some places sulphur streaks in parting $\frac{1}{2}$ " or less. Top bench 10" to 18" \pm

Middle bench. Contains clay + sulphur streaks about 48" \pm Reston blue band.

Bottom bench 10-15" above floor. -

Collector Cady July 5, 1918 Coal No 6
Mine Centralia Coal Co. No 5

Mine Notes. Washington Co. Index No N 0125

K₂ Bedded impurities:

Bedded imp. consist of clay and sulphur. Most constant is blue band, about $1\frac{1}{2}$ " thick. Not known to entirely run out in places gets thin, however. Dk grayish blue shale commonly pyritiferous. Pyrite seems to be impregnated with clay, so that it looks rather impure in many places.

Of Next importance is the pyrite parting and clay parting about $2\frac{1}{2}$ - 3 inches above blue band. This is very constant. This pyrite very pure, stony, Recoverable. Tends to come free of bed. In places nearly 2 inches thick, commonly $\frac{3}{4}$ " over for entire mine about $\frac{1}{4}$ "

6-8 inches above this pyrite is an interrupted layer of pyrite lenses. of less important & commonly not in evidence.

A fourth zone of pyrite lies between upper & middle benches of coal. This pyrite commonly $\frac{1}{4}$ " or less.

Other streaks of pyrite not uncommon.

A bedded shale - in places 4-6" thick in places lies in the top of middle bench. Possibly separating top & middle benches.

Collector: Cady July 5, 1918, Coal No 6

Mine: Centralia Coal Co No 5

Mine Notes 2.

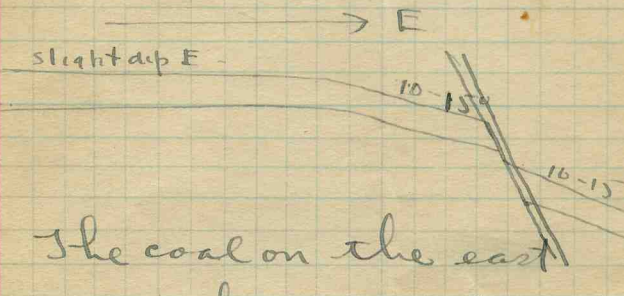
Washington

Co. Index No No 125

K₃ Irreg. in continuity of bed.

Of greatest interest in this mine is the NNWSSE fault - (see mine map) which crosses the east side of mine. The throw is only 3 feet - the fault plane pitches toward downthrow side (normal fault).

East of fault coal dips sharply to the east. Also dips toward fault plane from west for 100 feet or so. Pitch $15^{\circ}+$



The coal on the east side of the fault flattens out somewhat after 200 feet or so but the eastward dip still persists at a lower rate.

Collector: Cady,
Mine: Central Coal Co No 5
Mine Notes 3

July 5, 1918.

Coal No 6

Washington Co Index No N 0125

R3
Cont'd

East of the fault the coal is all very badly shattered. Cracks parallel to direction of structure pass through the coal.

The effect of the folding on the coal is much more marked than in the effects of folding on No 2 coal in the Salee region where cracks are transverse to bed even at greatest folding. Here cracks pitch parallel to main fault steeply \approx NE and they are all lined and sealed with celestite or gypsum scurf scales. The coal in this part of the mine is very badly shattered and accordingly goes all to pieces upon shooting. This is very different from the S.W. part of the mine where the coal shoots into large solid blocks.

Measurements

Room 6. 5N; SW

Roof: —

Coal, clean	66"	(10" top coal)
Bl. band (Bl. rock)	2"	
Coal	15"	

End of 5th N. SW.

Roof —

Coal - in roof prob-	18" ±	59'
Parting —		
C.	33"	61
Sulphur	1/2"	51 1/2
C.	10 1/4"	62 1/2
Shale	1"	62 1/2
C.	1/2"	63 1/2
Shale	2"	65 1/2
C.	1 1/2"	66 1/2
Bl. bnd.	12 3/4"	71'
Coal		

The above is an unusually dirty section

Room 8 - 8N. NE

Coal —	28"	Roof not in place
Coal + clay	8"	36
Coal	31"	47
Bl. Ld	1 1/2"	68 1/2
Coal	11 1/2"	80"



COAL MINE NOTES.

0125N

COUNTY *Washington* TOWN *IN.* MAP No. *15215*
 T. *1N.* R. *1E.* S. *25 SE. NE.*
 OPERATOR *Centralia Coal Co.*
 OFFICE *Centralia Ill* 2450' from
 MINE *No. 5* N' line + 125'
 TIPPLE *Steel* from E line
 ENGINES *24 X 42*
 BOILERS *2 O'Brien St. G. 1 Penna boiler*
 DRUM *No drum*
 SHAFT *3 compartment* CAGE *self dumping*
 HAULAGE *electric*
 CARS *3 ton*
 VENTILATION *Stevens fan 10ft.*

DRAINAGE
 SPRINKLING *Once in 24 hours.*
 WORKING SYSTEM *Room & Pillar*
 MINING METHODS *Mine just opened. Entries under-
 cut & sheared, Rooms undercut & shot.*

SIZE OF ENTRIES—MAIN *12'* cross entries *12'*
 CROSS *cuts 8'* ROOM *25'* NECK *12'*
 SIZE OF PILLARS—MAIN *100'* CROSS *25'* ROOM
 SHAFT *500'* CHAIN *25'* BARRIER

AMOUNT OF TIMBERING
 PROPORTION OF COAL UTILIZED *50%*
 AMOUNT AND CHARACTER OF WASTE

ACREAGE OF COAL MINED *Just driving entries*
 ACREAGE OF COAL REMAINING *[run better later]*
 PROPORTION OF MINE RUN AND SCREENED COAL *55% screenings will,*
 METHOD OF SIZING *Round hole screens* RESCREENED
 SIZES *Lump, egg & screenings 8", 6", to 1/2" Mesh*
 PER CENT

PROPORTION AND SIZE OF WASHED COAL
 DAILY OUTPUT *Much concrete & brick used*
 UTILIZATION *Fan encased in concrete*
 MARKETS *Foundations all concrete*
 FREIGHT RATES *Smokestack of brick*

SELLING PRICES AT MINE
 COAL LAND OWNED LEASED HELD IN FEE
 COST OF LAND OWNED LEASED HELD IN FEE
 ADDITIONAL NOTES

0125N

*15215**



DRILL RECORD

0125N

COUNTY *Washington*

TOWN

MAP No. *4540*

FARM

T.

R.

SEC.

OPERATOR

HOLE No.

AUTHORITY

ELEVATION

DATE DRILLED

COLLECTOR

No.	STRATA	THICKNESS		DEPTH	
		FEET	IN.	FEET	IN.
1					
2					
3					
4	<i>Centralia Coal Co's Mine 5</i>				
5					
6	<i>coal upto</i>	<i>6'</i>	<i>1"</i>		
7	<i>sulphur</i>	<i>1/4"</i>			
8	<i>Coal</i>	<i>8"</i>			
9	<i>sulphur</i>	<i>1/4"</i>			
10	<i>coal</i>	<i>19"</i>			
11	<i>sulphur</i>	<i>3/8"</i>			
12	<i>coal</i>	<i>7 1/2"</i>			
13	<i>Blueband</i>	<i>1 1/2"</i>			
14	<i>coal</i>	<i>12"</i>			
15	<i>coal</i>	<i>7 1/2"</i>			
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
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28					
29					
30					
31					
32					
33					
34					

0125N

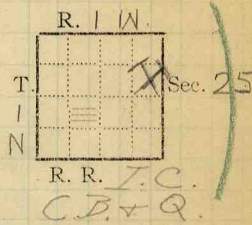
Handwritten mark

COAL MINING INVESTIGATIONS
COOPERATIVE AGREEMENT

Mine Name or No., 5
2 1/2 miles S from Centralia

Operator, 1912
Centralia Coal Co.
Operator, 191 Pit Boss - Hoye

Entrance, Shaft Elev., 497? ft. { above,
Depth to bottom coal, 526 ft. below, Alt.



SURFACE DATA.

- A. Topography Level. See
- B. Surficial materials, (1) Character Clay
- (2) Thickness, 18' Av. (3) Effect on mining and shaft-sinking, of former drainage lines, underground water strata, etc.
No trouble. Shaft is only wet place in mine. Sump is but 6 feet deep. Surface H₂O used in sprinkling.

- C. Outcrops, (1) Character, — See
(2) Structure, — See
(3) Fossil horizons — See
Collection No., — See
(4) Evidences of subsidence, — See
- D. Note collection of mine maps, drill records and shaft logs.
Said to be in Survey office.

See drill record sheet.

- E. Notes on surrounding area,
Cleat S. 60° W N. 40° W.
Most of fracturing extends E + W. so that roof falls on N-S. entries.
Rooms are run E-W.

See

Coal bed name: Local, #6. Survey

Collector, F.H. Kay. State No. N0125

Mine, Centralia C.C. #5 Co. Washington Co-op. No. 86.

L.—SURFACE SHEET (Geol.) was

UNDERGROUND DATA

F. Thickness of rock above bed worked, 508

(1) Important variations, See

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

See

- (1) Position,
- (2) Character,
- (3) Persistence,
- (4) Other workable coal beds,

See

H. Cap rock, Limestone + calc. shale.

(1) Thickness, 16' with small parting

(2) Height above coal, up to 3 feet.

SECTION

Ft.	In.	Name	Index	Sym.

See

I. Immediate roof Top coal.

(1) Thickness, 9" - 14" (2) Contact with coal, fairly smooth - mother of coal.

(3) Horizontal variation,

See X 1

J. Draw slate. (1) Thickness, To 3' (2) Contacts

(3) Persistence See X

K. Coal bed: Max. 8ft Min. 5' 4" Av. inches

(1) Benches,

(a) Position, Top, middle and bottom. Blue band 3" - 12" from bottom.

(b) Persistence,

Thrust

See

(2) Bedded impurities, kind, position in benches, persistence, ease of separation.

Small bands of pyrite, but principal impurity is blue band up to 3" thick

See

(3) Irregularities in continuity of bed (due to deposition, erosion, or movement).

Coal very regular. See

(a) Effect on mining, See

See

UNDERGROUND DATA (cont'd.)

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

(a) Relative hardness, Bottom hardest.

(b) Lustre, Top very bright.

(c) Fracture, Top hackly, brittle, rest blocky

(d) Texture, See

(6) Impurities in coal, other than bedded,

(a) Kind, $CaSO_4 + (CaCO_3?)$ (b) Position and persistence, Deposited in fractures
Turns red on exposure to air.

(c) Rejected, No. Ease of separation,

See

L. Floor: (1) Material Sandy sh., hard with pyrite.

(2) Thickness 1 ft.

(3) Variation No.

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

Dry, where exposed, softens +
exfoliates. Heaves slightly, Doors all
binding on rails after month
shut down.
Clay not undercut.

See

(5) Clay sample No. No clay to sample. Location,

M. Stratigraphy

(1) Fossiliferous horizons underground,

Collection No.

Location,

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

See

Collector, F. H. Kay Coal #6.
Mine, Centralia #5 Co. Washington

State No. N0125
Co-op. No. 86.

INDEX

I. The top coal is mostly glance and is extremely brittle. Breaks into small pieces resembling pitch. Do not note the checked appearance of Herrin district.

J.

Beneath the limestone caprock this mine shows three different materials, - black shale, gray shale and a calc. siliceous shale - ("bastard" of the miner.)

Gray shale in proportion of 1:10 when compared to black.

"White top" replaces black over $\frac{1}{10}$ of mine, and reaches 4-5 ft thickness. Coal is purer & better under white top. In places limestone rests on coal, but usually just beneath lms. comes the hard, sandy calc. rock - "bastard".



In driving entry, when shale disappears, this \downarrow impure sandy limestone "bastard" - forms roof for some distance before real limestone is found.

Collector

F.H. Kay

Mine

Centralia #5

X.-EXTRA SHEET No. I

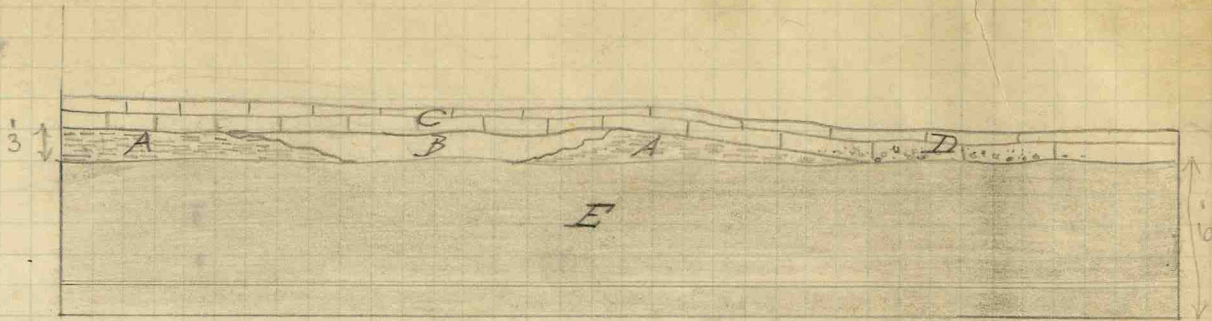
Coal #6

Co.

Washington

State No. N0125

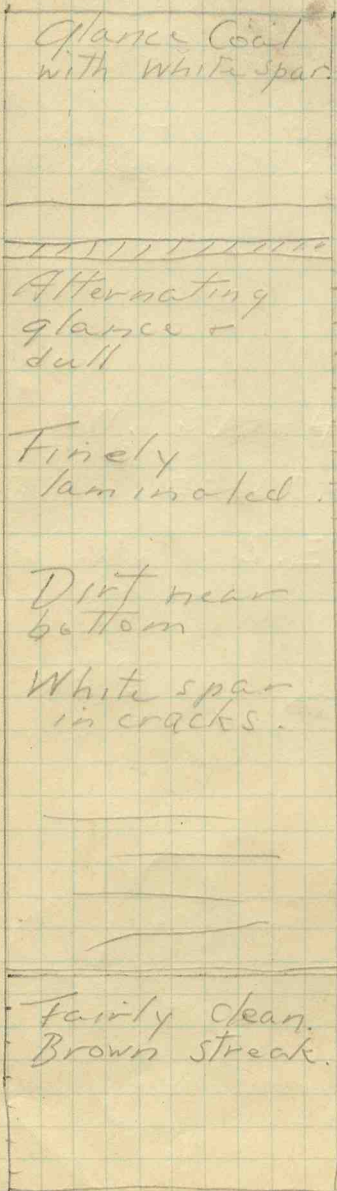
Co-op No. 86



Showing relation of various kinds of roof
in Centralia No 5.

A = Black shale B = white top C = limestone
D = Clod. E = coal.

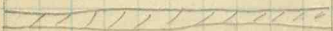
3rd S Room 20.



Glaucous Coal with white spar.

Limestone root.

Sulph.



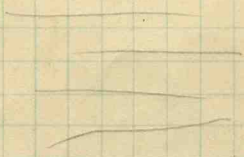
Bone.

Alternating glaucous & dull

Finely laminated

Dirt near bottom

White spar in cracks.



streaks

1/4 - 1/2 Blue band

Fairly clean. Brown streak.

Centralia # 5

COAL MINING INVESTIGATION

COOPERATIVE AGREEMENT

Operator, Centralia Coal Co Date, 6-28-1912
 Mine, #5 Located 2 1/2 miles* S of Centralia
 Location in mine, Room #20 off 3rd South-
 Total (vertical) depth from surface at point of sampling, 550 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	Roof hard carbonaceous shale (blue limestone) above		
2	Coal-hard-bright-clean.	1	2 1/2
x 3	Bone-		1/2
4	Coal-fairly clean-hard.	3	5
x 5	Bone-(blue band)		1/2
6	Coal-clean		3 1/2
x 7	Bone-(blue band)		1/2
8	Coal-clean	1	1/2
x 9	Floor-fire clay.		
10	Sample includes		
11			
12	Coal has been exposed about 3wks - mine not working - face was cut into		
13			
14	6		
15			
16			
17			

Is coal wet or dry? Dry
 Time exposed, 0 hours, 50 minutes.
 Weight, 45# gross, net.

What are the impurities, and how do they occur? -sulphur as pyrite
invert hor streaks - bone in hor streaks

What are shipped? 2, 4, 6, 8 scales of CaSO₄ (local)

What are excluded from the sample? 1, 3, 5, 7, 9

Coal bed, #6

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

Town, Centralia Mine, #5 Co. Centralia Coal Co.

Sample No. 86 A Can No. St. D. 42 No. 86-0125

I.—COAL SAMPLE SHEET. Sampler. Nebele Smith.

#5033

COAL MINING INVESTIGATION

COOPERATIVE AGREEMENT

Operator, Centralia Coal Co Date, 6-28, 1912
 Mine, #5 Located 2 1/2 miles* S from Centralia
 Location in mine, Room #1 off 4th North-
 Total (vertical) depth from surface at point of sampling, 550 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.
X1	Roof-top coal		
2	Coal - Clean-bright-hard	1	8 1/2
X3	Bone	0	3/4
4	Coal - Fairly clean	1	10
X5	Bone	0	3/4
6	Coal - clean	0	9 1/2
X7	Bone	0	1/2
8	Coal - clean-bright	0	2
X9	Sulphur-pyrite	0	3/4
X10	Bone - blueband	0	2
11	Coal - dirt streaked	0	10
X12	Floor-fireclay		
13	Sample does not include		
14	top coal		
15	Coal face had been exposed about		
16	three weeks, but a deep cut was		
17	made.		
	TOTAL,	5	8 1/4

Is coal wet or dry? Dry ✓ 40 ✓
 Time exposed, 0 hours, 40 minutes.
 Weight, 35# ✓ gross, net.

What are the impurities, and how do they occur? - sulphur in bands and vert. streaks - bone & dirt streaks horizontal

What are shipped? 2, 4, 6, 8, 11.
 What are excluded from the sample? 1, 3, 5, 7, 9, 10, 12.
 Coal bed, #6. ✓

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

Town, Centralia Mine, #5 Co. Centralia
 Sample No B6C. Can No. 5+D.57 No. 86

I.—COAL SAMPLE SHEET. Sampler. N 0125

#5030

Smith + Nebel

67 3/4 - 4 3/4 = 63

Washington

Pyrite

Geological occurrence

1. Manner: As lenses and occasionally as balls in blue band and 3" above bl bnd, 10" above bl. bnd & at parting between upper & middle bench and a little in fireclay at base of coal.

2. Size of masses: Up to 3" thick & 24" ± wide. Rare at this size. Thick ones narrow; thin ones broad commonly 1/2" - 3/4" - 1" thick 8"-12" horizontally. Sulphur in blue band not very clean or easy to separate. Other streaks purer & cleaner. esp. streak 3" or so above blue band.

3. Measurements:

Location in mine	1		2		3		4		5		Total		Rx 3	% P
	C	P	C	P	C	P	C	P	C	P	Coal	Pyrite		
1 R.6, 5N off S. W.	84	1/2	81	1	82	1/2	81	0	80	1				
2 R3 5N off S W	66	0	80	2	80	1/2	80	1	80	0				
3 9 5N " " "	80	1/8	80	1/8										
4 Face 5N " " "	80	1	80	0	80	1/2								
5 R.9 6N " " "	Coal										80	< 1/4		
6 R7 " " " "											80	1/4		
7 R6 " " " "											80	1/4		
8 R4 " " " "											80	1/2		
9 R1 " " " "											80	< 1/4		
10 R1 5S " " "											80	< 1/4		

4. Notes: #1. Sin Blbd. - Pieces thrown out < 1/4 Pyrite. #3 Py. streak abt 4" above Blbd. 1/2-1/4" aver. 1/4". Also 1/2" at top Middle bench. Refuse 50% Pyrite: well cleaned. #4. In room #12 get several nodules in coal above Blbd. Some rooms get 40-50 lbs a day See X-1

5 Samples

Label No	Location in mine	Analyses, etc
C18-34	From 5+6 N+S off SW.	
C18-35	From 8N+S+9N off NE	

6 Notes C18-34 Pyrite from lenses
C18-35 " " "

- 7 Method of rejection of pyrite: (1) In mine: Bl. band + all pyrite supposed to be rejected
 (2) Percent rejected. Total rejected including blue band + sulphur = probably 4% - About 5% of coal
 (3) At tipple: Rejected at cars by cleaners.
 (4) Percent rejected - Less than 1% - small amount
8. Percent pyrite in rejected lumps - In mine, pyrite probably not much over 1/10 of total rejected material but much picked out fairly clean could be easily saved.
- 9 Possible daily production of pyrite. Possibly about aver 20^{lb} per miner. (Aver allowable pyrite = 1/4") per day - & about 350 miners. ∴ Between 2 and 3 tons daily to 10 tons.
- 10 Conditions against recovery
 Pyr. in blue band not very clean: would lower standard if included: also amount rather small to bother with
11. Possibility of future production: Fair. depends largely on need. Mine would gladly cooperate if there was need.
12. Pyrite ever cleaned & shipped No

13. Washery

No

Collector: G. H. Cady July 5, 1918 Coal No. 6
 Co. Centralia Coal Co
 Mine No 5
 Pyrite sheet (2) Washington Co. Index No N 0125

4. Notes.

- #5. In this room man thinks makes at least 10 lbs sulphur daily
- #6 Band of pyrite 2" above blue band. Miner says more than 100# some days
- #9. Sulphur at parting 3" above blue band
- #10. Lens mother coal 8 ft x 6" rather sulphury not included in estimate

3. Measurements.

Loc. in mine	1		2		3		4		5		Total Coal Pyr.	Px 3	%P
	C	P	C	P	C	P	C	P	C	P			
11 Room 2, 5S-SW	80	1/2	1/3	1/3	1/6	0	Aver	80	<	1/4			
12 3							Aver	80	<	1/4			
13 4							Aver	80	1/2				
14 6							"		1/4				
15 Face							"		<	1/4			
16 Room 12 6S-SW							"		<	1/4			
17 9 " "									1/4				
18 8-4 " "									<	1/4			
19 —													
20 —													
21 Room 8 8N NE	77	1/4	77	1/4	77	1/2	77	0		1/4			
22 10 " "							Aver		1/4				
23 11							Aver		1/2				
24 12							Aver		1/2				
25 13							Aver		1/2				
26 15							Aver		1/4				
27 18							Aver		<	1/4			
28 20							Aver		<	1/4			
29 Face " "									<	1/4			
30 Stub off 9N " "									1/2				
31 R 26 " "									<	1/4			
32 5 8S " "									1/2				

A Notes: contd.

- 22 Band pyr. 3-3 1/2" above bl. bnd Aver 1/4 - 1/2
- 21 Possibly 1/4" for this room - ~~aver~~ Less than in SW
- 23 Miner says at least 50lbs easy (Prob. 25)
- 24 Well picked refuse Pyrite = 1/5 ±

- 11 - Some pyr. but aver. less than 1/4"
- 12 Few pyr. balls
- 13 Band above bl. bd. about 1/2 room. get 2" or less
Miner say aver sulphur = 200# (possibly 50)
- 14 Aver. pyr. in day about 100#
- 16 Very little prob. less than 10#

3.

From: St. Louis Post Dispatch

In Centralia, Ill., The Tears Flow Again



"I don't really remember the explosion. I have a few vague recollections of things I think happened."

Joe Vancil, the only person still alive from a blast 50 years ago that killed 111.



Wendi Fitzgerald/Post-Dispatch

CENTRALIA, Ill.

Vancil, 70, the last living survivor of the deadly explosion, in a ceremony a mile from the site.

ON MARCH 25, 1947, an explosion ripped through the No. 5 coal mine.

On Sunday, 50 years later, Brandon Hatfield, a percussionist with the Centralia Philharmonic Orchestra, rang the bells 111 times — once in memory of each of the men who died in the blast.

Paul McCormick was a member of the state mine rescue team that pulled Vancil from the mine. On Sunday, rescuer and rescued met for the first time in 50 years.

"He was skinned up. He really didn't know where he was," McCormick said after the emotional reunion.

Story, Page 3A

Hatfield was one of nearly 800 people who joined Joe

'I've Tried To Bury It So Often. . . . It Is Almost Impossible To Get Over It'

Crowd Commemorates 111 Miners Who Died

By Patrick E. Gauen
Of the Post-Dispatch Staff

CENTRALIA, Ill.

MINISTERS PRAYED and musicians played Sunday on the stage of Centralia High School.

But the star of the mournful commemoration of the community's deadly 1947 coal mine disaster sat quiet and damp-eyed in the auditorium's fourth row.

Joe Vancil, 70, got a standing ovation as the only person still alive who survived a blast 50 years ago tomorrow that killed 111 men.

In a strange twist for a day dedicated to remembrance, Vancil told how he first learned what happened through a newspaper he found lying on his hospital bed when he woke up days later.

"I don't really remember the explosion," he explained, his voice then failing as he fought for composure. "I have a few vague recollections of things I think happened."

What, in fact, happened was that some miners used coal dust instead of clay to tamp explosives into place to blast the end of a tunnel. The illegal but then fairly common practice triggered a dust explosion that immediately burned 65 men to death, leaving toxic fumes to suffocate 46 more.

Vancil was told later that he lay unconscious for more than six hours and was initially passed over by rescuers who presumed him asphyxiated. A fortuitous gasp attracted their attention.

He was revived and sent home before his strange behavior alerted loved ones that carbon monoxide fumes had stolen his memory. He had the idea that his sore chin was from being socked by someone.

Vancil's senses eventually returned at the hospital, where he saw in the newspaper that his father and two of his uncles were among the lost.

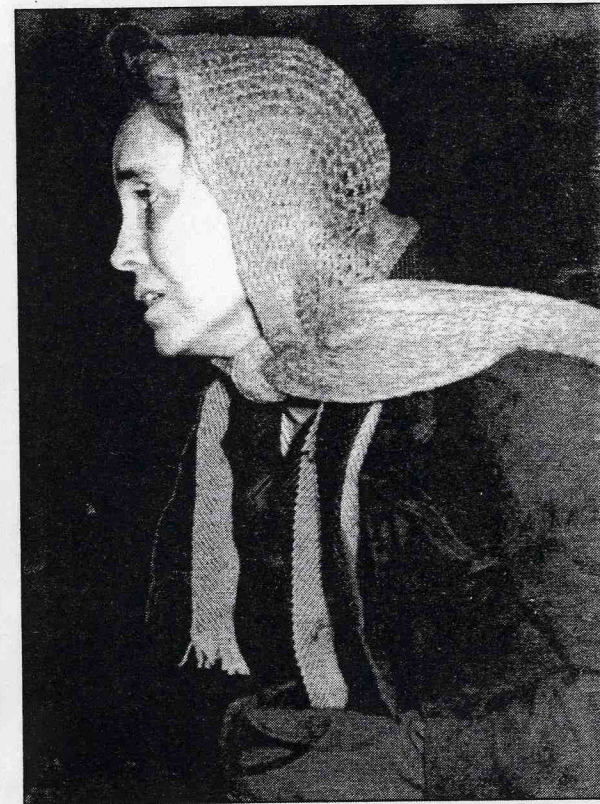
It took 5½ minutes for David Felts, one of Sunday's program participants, to read all the names of the dead, with a pause between each for a light tap on a bell.

Ruth Bude's father was on the list. She said Sunday that she almost didn't attend the service.

"I've tried to bury it so often," she explained. "It was such a shock. And it lasted so long, it is almost impossible to get over it. But some people told me I should come today because it would



Lloyd Spainhower



Sam Caldwell

ABOVE: An award-winning photo titled "Anxious" depicts the mood at the scene of the mine disaster 50 years ago near Centralia. LEFT: Rescue workers gathered to try to reach men trapped in the mine after the blast.

be an honor to my dad."

She was in her first year of teaching at Centralia High School — the site of Sunday's service — when the disaster occurred in Centralia Coal Co. No. 5.

Bude, then 23, returned home to find her mother on the phone. "She was half crying and half in shock. She said there had been an explosion, and it looked bad," the daughter recalled.

It would be five days before rescue workers recovered the body of Edward Bude, 53, and removed the last glimmer of hope from his wife and only child.

Some trapped miners lived several hours before dying, scratching farewell notes to their families. Folk composer Woody Guthrie immortalized their agony in a song, "The Dying Miner," performed Sunday by the Centralia Cultural Society Chorus.

It ends with a plea to the young to "fix up these mines so the fires won't kill daddies no more."

There was plenty of fixing to do. At the time, U.S. coal mines were killing more than 1,000 workers every year. The explosion at No. 5 helped galvanize attention to safety.

It turned out that Gov. Dwight H. Green had ignored a letter from four miners complaining of safety problems at No. 5. The blast came 55 weeks later, killing three of them.

A state mine inspector said his boss had refused to act on his complaints that unsafe levels of coal dust in No. 5 threatened an explosion.

After the disaster, that boss was gone in five days. Green was ousted at the next election, partly because of reporting by the Post-Dispatch that won a Pulitzer Prize.

The Centralia Coal Co. pleaded "no contest" to two misdemeanor charges and paid the maximum fine of \$1,000.

"It's sad that it takes a disaster to get the laws passed to prevent another disaster," Michael E. Bunton, District 12 secretary-treasurer of the United Mine Workers of America, told the gathering Sunday.

State Rep. Kurt Granberg, D-Carlyle, followed him with a warning that labor is still struggling: "Fifty years ago, 111 good working people gave up their lives to corporate greed. It continues today."

In an interview, he said contemporary victims

usually sacrifice in pay and jobs — not with their lives.

Granberg wants to see a memorial put at the site of the mine entrance, now forgotten in the clutter of an industrial park in Wamac, a small town at the southern edge of Centralia.

About 800 people refused to forget what happened there, assembling for Sunday afternoon's program and singing the same hymns some of them sang at another sad Palm Sunday gathering at the school 50 years before. Eight of the miners' 98 widows attended the 1997 service.

For Vancil, the lone mine survivor, there was a lingering sadness for both what he could remember and what he could not.

He said he went back to No. 5, working topside for months until he persuaded his bosses to let him return to the reopened pit. "I went back to the place where I had been, hoping to remember what happened," he explained. "But I didn't."

The mine closed for good two years later. Vancil went into construction work, often at mine sites, but never ventured deep into the earth again.



COAL MINING INVESTIGATION

COOPERATIVE AGREEMENT

Operator Centralia Coal Co. Date, 6-28, 1912
 Min. # 5 Located 2 1/2 miles* S from † Centralia
 Location in mine, Face of 1st E off North
 Total (vertical) depth from surface at point of sampling, 550 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 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	Roof-black-carbon-slate		
2	Coal-bright-hard-clean	5	7 ✓
3	Bone-(blue band)		5/8 ✓
4	Coal-dirt streaked	1	1 ✓
5			
6			
7	Floor-fire clay.		
8			
9			
10	Sample includes Top Coal		
11			
12	Face has been exposed about 3		
13	weeks - mine not working, but a		
14	deep cut was made in		
15	sampling.		
16		37	
17			
	TOTAL,	6	8 5/8 ✓

Is coal wet or dry? Dry ✓
 Time exposed, 0 hours, 40 minutes.
 Weight, 45 # ✓ gross, net.

What are the impurities, and how do they occur? hor. & vert. streaks of pyrite & Casoy. Bone & dirt bands near floor

What are shipped? 2, 4

What are excluded from the sample? 1, 3. Coal bed, #6 ✓

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

Town, Centralia Mine, No. 5 Co. Centralia
 Sample No. 86B ✓ Can No. 5TD 50 No. 86N 0125 ✓