John C. Moor Corporation, Rochester, N. Y. Binder and holes in leaves Patented



Form 180 Blue

Open jud of war before

Labelle County Carbon CC Mine #1 or

m In bey

Mine #1 or La Salle mine

T. SA N. R. SA R. SA Index No.

DRAINAGE Ory WORKING SYSTEM Long Wall advancing Rooms & entrie @45 ENTRIES, MAIN 20' CROSS PILLARS, MAIN DRAWN

arches well. Gob packs. No sweface settlines

Note also: Variation in coal, impurities, roof, structure. Collect records, analyses, fossils. Note land values, etc.

1615



### COAL MINE NOTES.

OPERATOR La Salle County Carbon Coal Co. MINE La Salle.

ENTRANCE Shaft. NAME OF COAL BED #2. 1615

ELEVATION THICKNESS OF COAL

DEPTH TO FLOOR MAX. GO MIN. 36 AV. 42-3.

ALTITUDE OF COAL

LOCATION OF SECTION 14th East off. 3rd north.

No.	. SECTION.				
	30200000000000000000000000000000000000		In.		SECTION
1	Coal		23/4	SAMPLE No.	Feet
2	Coal Sulphyr. Coal		3/4 18"		
3	Coal		18"	CAN No. 77	
4					
5				CONDITION Dry	
6					
7				GROSS WEIGHT 25	
8					
9				TIME EXPOSED 30.	
10					
11				NOT SHIPPED #2	
12			0.5	BEBBBBB	
	Tape	Total	42.	NOT INCLUDED #2	

PHYSICAL PROPERTIES BY NUMBERS

some supplier in honzontal stracks. atvarying positions in coal. Only one stack where section was taken.

ROOF Soapstone

FLOOR Fire clay 4"-10" - Sndy shake bolow

DIP a lettle to the east

FAULTS, ETC. near roll or slip"

GAS none.

COLLECTOR Cady

REFERENCE

N.B. 9-28

DATE Dec 14 1910



### COAL MINING INVESTIGATIONS COOPERATIVE AGREEMENT

Mine Name or No., La Salle Shaft. mile from In La Salle Operator, 1912 La Salle. Co. Carbon Coal Co. Operator, 191

Entrance, 3haff. Elev., ft. {above, below, Depth to bottom coal, 400' ft. Alt Depth to bottom coal, 400'

SURFACE DATA.

Topography Undulating to hilly. A.

В. Surficial materials, (1) Character See

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

C. Outcrops, (1) Character,

(2) Structure,

(3) Fossil horizons Collection No.

(4) Evidences of subsidence.

See See

See

See

See

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

Ho log in file see Gady for notes

See drill record sheet.

E. Notes on surrounding area,

Get location and depth of shaft.

Coal bed name: Local, Third Vein.

Collector, KDWhite

Co. La salle

Survey #2 State No. 1615

Co-op. No. 3



## UNDERGROUND DATA

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

		See		
G.	Note presence of strata having important effect on mining	ζ.		
	Black State	See #	2,#1	
	(1) Position, Between Gray shale and Co	201		
	(2) Character, Sheeky			
	(3) Persistence, Over mine			
	(4) Other workable coal beds,			
	Thickness. 3'tos"	See		
H.			SECTION	
	(1) Thickness, 3'fo5'	Ft. In.	Name Index	Syn
	(2) Height above coal,			
	0' fo50' See #2			
I.	Immediate roof Gray Shale and Black slata			
	(1) Thistman (2) Contact with goal			
1.51	h. 0'-50' Av. 15' to 20' Yes.			
	(3) Horizontal variation,			
	See			
J.	Draw slate. (1) Thickness, (2) Contacts			
	acy shale 2" to 12", av. 8"			
	(3) Persistence			
K.	Coal bed: Max. 4'-0" Min. 3'-0"Av. 3'-6"inches			
	(1) Benches,			
	(a) Position,			
	(a) 1 ostuon,			
	(b) Persistence,			
	See			
	(2) Bedded impurities, kind, position in benches, persist-			
	ence, ease of separation.			
	ence, ease of separation.			
	See extra sheets.			
	See			
	(3) Irregularities in continuity of bed (due to deposition,			
	erosion, or movement).			
	3/1ps and rolls See 2,3			
		-		
	Roof Bad. See		103	
Col		ate No.		.o
Mi	ne, La Salle Shaff Co. La Salle Co. —UNDERGROUND SHEET (Geol.)	o-op. N	0.3	
M.	-UNDERGROUND SHEET (Geol.)			

State No. 1615

Co-op. No. 3

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

Mine, La Salle Shaff Co. La Salle

N.-UNDERGROUND SHEET (Geol.)

Coal \*2

Collector, KUW



### INDEX

Ks

Section 14th E-11- North

Roof gray shale Bed a very bright, hard, very brittle coal. Clean save of sulphur bands and balls! sheets of calcite and sulphur, along clearage planes, give coal a whitish appearance. Occurance irregular. Present section bloes not contain excessive amount. A band of sulphur bulls occurs 21" from top, presistant. A portion of the bed has a handed texture while the remaining part will be solid. No

Total Thickness 3-5 Between root and coal, occurs a band 1/2" fol" thick of brown, soft, sulphurous clay, with thin stringers of pyrite hear the top. Clay is frazen to the root

regularity as to what portion will be banded

Bottom a dark, gray, fire clay, with few plant impressions, badly blickened along breaking surfaces.

Goal shoots into an excellent blocky coul. Coal is reported to be noticable thinner under the black slate, and much harder; though no difference, kind or quality of impurities is noticuble.

67

When gray shale leases out black slate comes in as roof.

- Black Slate Gray Shale Coal

sketch showing lensing of shale,

Collector KOW

Mine La Salle Shaff X.—EXTRA SHEET No. / Coal #Z

Co. La Salle



State No. 1615

Co-op No. ,3



### INDEX

14

I

G Black Slate contains linge and iron concretions discord in form, some are 2'to 3' across. Occurance pockety generally a large number to the pocket.

Ls Top 21" of clay sampled. 2" directly under coal excluded on account of carbona ceous matter. Very little carbonaceous matter in clay sampled.

Fire clay is always slightly raised from face of coal due to pressure.

sketch showing heaving of clay next to face

Roof a gray shale, or soap stone, with very little sand, beded in layers from 2" to 2' thick sample taken.



Slips in shale from settling are always inclined away from the face of the coal, and run generally from 570 to 75° angles of inclination with the horizontal, and up to 90°

K3 Face 15th M.E. Rockwell Shaft

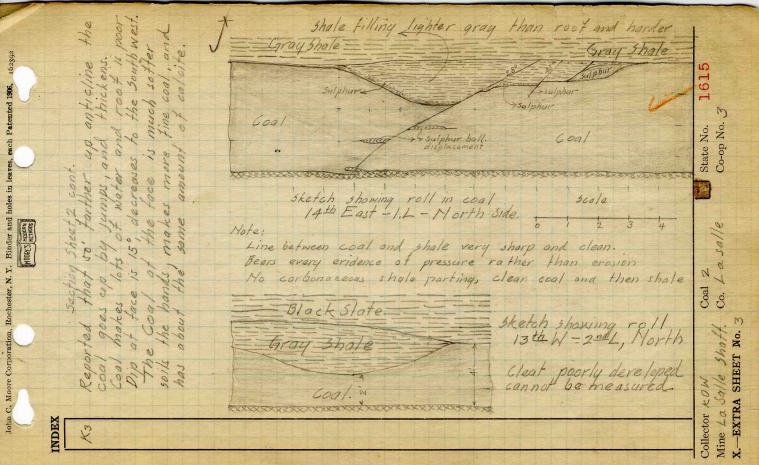
The coal thickens as the entry advances, coal is softer, tracture more conchoidal, tace measures 4'4". Coal thickens 1'in 6', angle of dip increases.

Collector KDW

Coal 2

State No.

1615





### COAL MINING INVESTIGATION

COOPERATIVE AGREEMENT

Date,

Location in mine,

Total (vertical) depth from surface at point of sampling, 460 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 \( \frac{3}{3} \) inch thick or over (and even those of less thickness if they are rejected at mine or tipple).

No.	DESCRIPTION	FEET   INCH	HES
1 Cand		2 4	
2		9 /	
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13	000		
14	226		
15			
16			
17	V	3 11	
	Total,	3 7	
Is coal wet or dry?			
Time exposed,	hours,	min	nutes.
Weight, 3/	gross,		net.
What are the impurities, and	d how do they occur?		
What are shipped?	tal serve	THE RESERVEN	
What are excluded from the	The state of the s		
*D: ":	Coal be		
		railway station.	
Town, La Valle	Mine, da Valle	Co. La Wall	
Sample No.	Can No.	No. 3 /16:	15
I.—COAL SAMPLE SHEE	T. Sampler.	/	
5306	" " " " " " " " " " " " " " " " " " "		



### COAL MINING INVESTIGATION

COOPERATIVE AGREEMENT

Operator Lanalle Carlos G. Co, Da

from t fa Kall

Location in mine, Country and Country and

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 inch thick or over (and even those of less thickness if they are rejected at mine or tipple).

	SECTION OF BED AT POINT SAMPLED		
No.	DESCRIPTION	FEET	Inches
1	Coal .	1	11
2	Sulphur band		19/9
3	Cha C	1	1/9
4		6	The state of
5			
6	2012年第二日本日本日本日本日本日本日本日本日本日本日本日本日本日本日本日本日本日本日本		
7			
8			
9			
10			
11			
12			
13	210		
14	710	441	
15		444	
16			1-12
17	Total, V	3	178
, ,			
Is coal wet or			
Time exposed	hours, 30		minutes.
Weight,	gross, impurities, and how do they occur?	0	net.
What are the	impurities, and now do they occur.	Ehur:	and
What are shi			
	sluded from the sample?		
	Coal be	ed,	
		railway stati	on.
Town,	Mine, and all a	Co.	alle
Sample No.	14 J Can No. 204 J	No.	1615
	AMPLE SHEET. Sampler.	22	
5307	mile	4	

# HOORES HODERN HETHOUS COAL MINING INVESTIGATION

Operator, La Lalle County Control of State Of St

from La Jalle

Total (vertical) depth from surface at point of sampling,

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 tipple).

No.	DESCRIPTION	FEET	Inches
1	PMO		11
2	and and		11,
3	Blue clay band	0	1
4	asac '		0
5			
6			
7			
8			
9			
10			
11			2000
12			
13			
14	225		
15			- Comments
16			
17		5	
1 1 1 1 1	TOTAL,	3	6
Is coal	or dry?		
Time expose	[10일 : 10] [10] [10] [10] [10] [10] [10] [10]		minutes.
Weight,	a / V gross,		net.
		11	
	e impurities, and how do they occur? Blue o	read La	ce de
What are sh	ipped?		
	cluded from the sample?	.,	
	Coal be	d, 🔥	
		ailway <mark>K</mark> ati	on.
Town	Mine,	Co.	
Sample No.	A 3 Can No. 20/	No.	a more
	SAMPLE SHEET. Sampler.	3	1615
	Jan Maria		



### COAL MINING INVESTIGATION

A 0	COOPER	ATIVE AGE	REEMEN	T		
Operator, Mine. Location in mine.	Corretu	Callo.	Date,	8/6	191	2
Mine, Mine	Located	a miles	*	from †	Halle	
Location in mine. 3	North	12	1100	Name and Associated		

Total (vertical) depth from surface at point of sampling,

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 tipple).

SECTION OF BED AT POINT SAMPLED

DESCRIPTION

No.	DESCRIPTION	FEET	INCHES
1	Coole		11
2	Blue clay band		1
3	eval	2	6
4			
5			
6			
7			
8			
9	10 00 0		
10	Duplicate.		
11			
12			
13			
14	040		The last of the
15	219		
16			
17			
	To the second se	OTAL,	T Y
Is coal wet or	r dry?		774
Time exposed	hours,	.31	minutes.
Weight,	gross,		net.
What are the	impurities, and how do they occur?	alut a las	Kan at
		31 Blue clay	
What are shi			
What are exc	luded from the sample?		
		Coal bed, 3	
	*Direction (N., NE., etc.).	†Nearest railway stati	on.
Town da.	Soll Mine, Sa Sal	4 Co.La	latte
Sample No.		No.	1615
THE RESERVE THE PARTY OF THE PA	AMPLE SHEET. Sampler.	Mana V	

MULLER

## MOORE'S MODERN METHODS

### COAL MINING INVESTIGATION

Operator, Date, Date, Mine, Located a miles\* from† Located Location in mine.

Total (vertical) depth from surface at point of sampling, 460 ft

No.

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 tipple).

SECTION OF BED AT POINT SAMPLED

FEET

INCHES

DESCRIPTION

1 2	Coal			3	4
3 4 5 6 7 8 9	Duple	cate			
11 12 13 14 15 16 17			221 Total,	3	4
Is coal web or Time exposed Weight, What are the		hours, gross, v do they occur	27 . Sto	ne	minutes.
Town Sample No.	*Direction (N.		4	ed, 3 railway station Co. Ca 3 No. 3	

# MOORE'S MODERN METHODS

### COAL MINING INVESTIGATION

COOPERATIVE AGREEMENT

COOLEKHIIVE HOKEEMENI	AND DESCRIPTION OF THE PARTY OF
Operator, Date,	191 2
Mine a Jalle Located a miles* from	La Salle
Operator, Mine de Palle Located at miles* Location in mine,	

Total (vertical) depth from surface at point of sampling, 44 60 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}{2}\) inch thick or over (and even those of less thickness if they are rejected at mine or tipple).

No.	DESCRIPTION	FEET	Inches
1	and !		11
2	Sulfkur band		3/0
3	Bank Comment		700
4			
5	<b>的复数形式有效对对自己的</b> 多数		
6	<b>美国政策的 医阿里斯氏</b>		
7			
8			
9			
10	Duplicate		
11	Superior -		
12	<b>美国教业民族的意见是是自身</b> 位		
13			
14			
15	:~209		
16			3
17		3	73
	Total,		
Is coal wet or		A	
Time exposed,	hours, 30		minutes.
Weight,	2 7 gross,	0 0	net.
What are the i	impurities, and how do they occur?	hur bai	not
What are ship			
What are exclu	aded from the sample?		
	Coal be		
		railway static	on.
Townday	Mine, a valle	Co. da x	all
Sample No.	14 Can No. 203	No.	21615
I.—COAL SA	MPLE SHEET. Sampler.	Ula -	



une 21, 1905 Operator, Mine, X Sec. Subur miles from Location in mine. GRAPHIC SECTION DESCRIPTION OF SECTION (AT POINT SAMPLED) In. No. No. (Note character and thickness of roof) Inches 12 36 I loor, shah (Note character and thickness of floor) Total thickness of coal. Condition. Time. hr. min. Wt. Gross. lbs. Net. 1bs. What Nos. shipped by Co.? Excluded from sample: No. Sample represents 40 tons. Impurities? How do they occur? Sample No. Can No. Coal: Survey No. Collector. 200 Index No. Mine.

R.—COAL SAMPLE SHEET.

LA SALLE. LA SALLE MINE.

Sample.—Bituminous coal; Illinois field; (Illinois No. 18) analyses Nos. 1741, 1742 (p. 85).

Mine.—La Salle; La Salle district; a shaft mine in the suburbs of La Salle, on the Illinois Central Railroad.

Coal bed.—No. 2, supposed to be the Murphysboro coal of the United States Geological Survey. Carboniferous age, Carbondale formation.

At this mine the bed lies flat, with differing local dips, and is worked on the long-wall advancing system through a shaft 420 feet. The bed is from 3 to 5 feet thick, averaging 3 feet 6 inches. It has a roof of massive black to gray shale, and a floor of clay shale of varying hardness. In places the shale floor is rough and some of it may be shoveled up in loading mine cars. In mining, the undercutting is usually done in the clay shale below the coal. In places the coal is softer than the shale, and the undercutting is then done in the coal.

Two sections were measured and sampled at widely separated points in the mine by J. W. Groves and J. S. Burrows on June 21, 1905, as noted below:

Sections of coal bed in La Salle shaft mine at La Salle.

Section	A 1741	B 1742
Roof, shale. Coal. Mother coal.	Ft. in. 1 4	Ft. in. 0 8
Sulphur a	0.5	0 11
Blackjack (shale and coal)  Coal	1 6	(62.40)
Floor, shale. Thickness of section. Thickness of coal sampled.	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	3 71

a Not included in sample.

Section A (sample 1741) was cut in west entry 12 off the north entry, at a point 4.000 feet north of the shaft.

Section B (sample 1742) was cut in east entry 3 off south entry 3, 4,000 feet southeast of the shaft.

Notes.—The coal from this mine, like that from others working the bed, is hard and brittle. The bed carries streaks of "sulphur" and shale, but no regular partings. The output was used chiefly for steam production. In 1905, the sizes made were: Lump, engine coal, nut, slack, duff, and that which passed through a \(\frac{3}{4}\)-inch screen. The larger part of the product was shipped to Chicago. The duff was used in a cement plant at La Salle.

For results of tests of this coal, see mention of specific tests as follows—steaming tests: U. S. Geol. Survey Bull. 290, p. 89; Bureau of Mines Bull. 23, pp. 60, 153; producer-gas tests: U. S. Geol. Survey Bull. 290, p. 90; Bureau of Mines Bull. 13, pp. 114, 273; washing tests: U. S. Geol. Survey Bull. 290, p. 91; Bull. 336, p. 12,

For chemical analyses see part I of this bulletin, p. 85; also U. S. Gcol. Survey Bull. 290, p. 88.

Collector,			Coal:	Survey	No.	2 1	
Mine, 2, 5000	Co.	Pa Salla	Index	No.	6/1	5,92	
Mine, La Salle Index No. 1615, 92. Q.—COAL SECTION SHEET.							