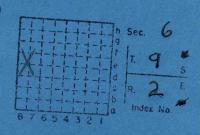
Form 180 Blue

Williamson Coal Co.

Williamson Coal Co. (Strip)
MINE INDEX NO. 955



WILLIAMSON COAL PRODUCTION

COAL CO.

(Sheet

countries 2

Sheets) Period Tons Mo. Day Year Mo. Day Year 1975 49 635 1976 209 859 1977 208 839 232 833 Williamson Goal Go. 1978 263 313 mine No.1 1979 256 813 1980 172 100 1981 211 578 1982 SUMMARIES No. No. 1975 thru 604 970 1982 Railroad, Wagon, Strip, Idle, Abandoned Sec. IDENTIFICATION County No .. Coal No. S. 05 e Coal Report No. L-259 E. d R. C Quad. Index No. County COAL MINE—PRODUCTION

ILLINOIS GEOLOGICAL SURVEY, URBANA

(2732-2M-7-41)

Williamson Coal Company - Energy, Illinois Roger Nance, John Nelson, and Jim Palmer July 21, 1976 Notes by John Nelson

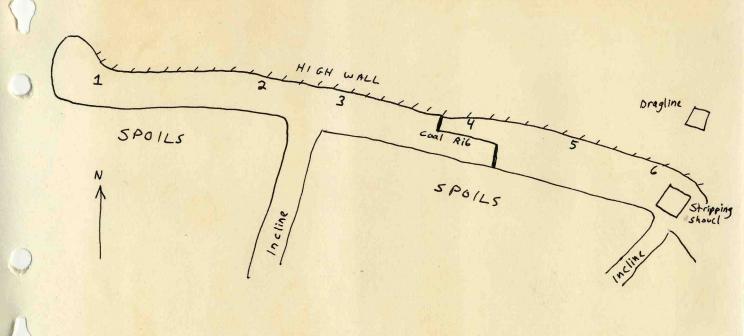
This is a small strip mine in the drained bed of the Carterville Reservoir. Operating with a 1946 Bucyrus-Erie dragline to remove overburden. Coal goes to S.I.P.S. power plant at Marion.

Mining Harrisburg (No. 5) Coal and small patches of Herrin (No. 6) Coal.

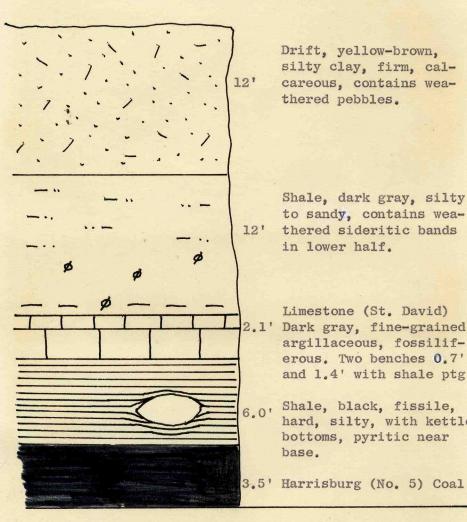
Pit runs east-west and is about 2,000 feet long. Inclines near the middle.



Sketch map of pit showing approximate locations of stops. Length of pit about 2000 feet.



#### 1.) Highwall section near west end:



Floor of pit is claystone below No. 5 Coal.

Cleats in coal 000°, 090° (primary) and 145° (secondary). Coal - Normally bright banded with numerous pyrite nodules noted. At this location, no significant bands or shale partings.

2 Just west of bottom of incline, Dykersburg Shale present, averages 5-6' thick, medium-dark gray, poorly laminated, silty, carbonaceous, pyritized fossils near top. Contact to black shale above is sharp but the lower part of the black shale is more micaceous, and upper part of Dykersburg Shale is darker gray and more carbonaceous, pyritic.

Shale above St. David Limestone is replaced by sandstone or coarse siltstone, light gray, weak, massive, argillaceous, carbonaceous which appears in places to cut out upper part of St. David Limestone; however, the relationship is unclear.

3. Just east of bottom of incline. Dykersburg Shale absent (pinched out within 100 feet or so). St. David Limestone very prominent. Also prominent 040-045° vertical joints in the black shale. St. David in two benches: 0.8' argillaceous, fossiliferous; 2.1' hard, dense, fine-grained, massive, splintery fracture. Photo - Roger's head at St. David Limestone.



4. About 600' east of incline St. David Limestone pinches out to east. Drift has cut down close to its position. Dark gray, carbonaceous, coaly shale present at and above St. David Limestone horizon.

St. David Limestone reappears to east (100 feet east) but is more shaly, finely granular, carbonaceous, micaceous, somewhat nodular, with discontinuous shaly partings. Black shale thins to 2½-3 feet and thin (~2 feet) pods of Dykersburg Shale are present.

Stratigraphy is peculiar to east of this point.

5. About 800 feet east of middle incline stratigraphy changes; unusual section. The Dykersburg Shale occurs in thin pods to about 2 feet thick. Above is black, slaty shale with typical "Kettlebottoms" up to about 2 feet in diameter. Shale ranges from about 2 to 4 feet thick. Next is 3-4 feet of unusual rock—dark gray, highly carbonaceous and coaly shale and dark, fine to medium-grained, fossiliferous, granular limestone. A distinct coal bed occurs above this. It is normally bright banded and 0.2-0.35' thick in the west, continuing for at least 150 feet. Eastward it thickens to at least 1.0 feet becoming very hard and boney, then splits into four or more sub-branching layers which thin and rise in the highwall eastward.

Photo: Coal splitting just above hammer top. Gray, silty claystone behind hammer. Drift inclined above coal.



Drift Bony coal 1.0 Lt gray, very slity claystone Jumbled Sandstone, clay i boulders COM M.B. B. 0.2-0.3 Limistone and very dark gray, carb- calcareous shale with coaly streaks + layers. gray shale Lenticular St. David Lineston Black Shale = 0 y Kers bur Shale DyKersbur NO. 5 COAL

E

#### Measured Section near 5.

- 15' Drift
- 3-4' Claystone-Sandy, very argillaceous, very poorly bedded, rubbly, calcareous in places, weathered, bouldery with large medium-gray dense limestone.
- up to
- 0.35' Coal-Normally bright banded, calcite on vertical fractures.
- 1.7' Shale-Medium-dark to dark gray, silty, carbonaceous, fairly dense, fairly poorly bedded, contains thin, discontinuous, vitrain lenses.
- 0.5' Limestone-Medium-light to medium gray, argillaceous, grades into a pod laterally. Contains coal streaks and lenticular inclusions-rafted.
- 1.6' Shale-Medium-dark gray, silty, finely micaceous, some fine, carbonaceous debris.
- 3.3' Shale-Black, fissile, typical. Fractured and jointed.
- Top Harrisburg (No. 5) Coal.
- 6 Easternmost accessible highwall more like center of pit.
- 10' Weathered shale, drift.
- 1-2½' St. David Limestone-Dense, fine grained, massive, wedges out to west, thickens to east.
- 5-6' Black shale with kettlebottoms.
- 5' Dykersburg Shale Medium gray.

Coal Top

Williamson Coal Co. Williamson County, Ill.

### Notes by John Nelson August 3, 1977

Strip mine operating in the Harrisburg (No. 5) Coal. Now mining a small patch of Herrin (No. 6) Coal in west-central part of the pit. This coal was 3-4' thick and directly overlain by about 8' of glacial drift.

The main pit in No. 5 Coal runs east-west and is advancing northward. There is 25 to 40 feet of overburden on the coal. The highwall is very steep and it is not possible to measure a good section.

# Approximate Section Near East End of Main Pit

- 15' Glacial Drift, thickens toward east.
- 0-5' Sandstone, brown, thin-bedded, shaly, absent in most places.
- Limestone (St. David) Dark gray, coarse, argillaceous, fossiliferous, grades to calcareous shale, appears lenticular, may pinch out in places.
- 4-5' Shale, black, hard, fissile, silty, micaceous, contains slip fractures and concretions. Near east end of exposure the upper 1-1.5' of the unit consists of coal, in vitrain bands several inches thick, interlaminated with bony coal and black shale. Appears to grade into:
- 6-8' Shale (Dykersburg) Dark gray, grading to medium gray, poorly bedded, micaceous, silty, carbonaceous.

Coal (Harrisburg- No. 5) Only top exposed.

Surface of coal seam undulates strongly in this area. Cannot tell if it varies in thickness. Layers above coal do not appear to be affected.

## Approximate Section Near Base of West Incline

- 15' Siltstone, medium-light gray, massive. Eastward the uppermost 5' or so of the highwall appears to be brownish-gray limestone nodules in a clay matrix (Higginsville Limestone?)
  - Westward the lower 5 feet of the siltstone grades into dark gray sideritic shale resembling typical Canton Shale.
- 1.5' Limestone (St. David) Dark gray, hard, dense, massive, fossiliferous. Upper part shaly, lower contact sharp.
- 6-7.5' Shale, black, hard, silty, contains large concretions, and joints trending 025-040. Also steep, curving slickensided fractures, mostly on same directional trend. No coal here Appears to be sharp contact:
- 0-5' Shale (Dykersburg) As at east end of pit.
  Thickness increases to east. Absent to west.
- 4-5' Coal (Harrisburg NO. 5) N.B.B., with calcite on cleats. Cleats trend 150-160 (dominant), 020-035 (secondary). No bands or partings. Seam nearly level. No clay dikes or tectonic faults.

Terry Storm, the pit foreman who took me around, says there is a "fault" to the west where the coal is cut out completely. To me it sounds more like a channel, but I could get no more information.

#### Visit by John Nelson January 5, 1978

Mine has been idle since December 6 because of U.M.W.A. contract strike. Pit not changed much since previous visit. Said to be only 2-3 cuts left in this pit; should require about 4 months of work. Then the company will open a new pit to the west. There is said to be a "fault" in the west field; probably a channel cut-out.

Coal exposed in west part of pit only. Mined-out area full of water and no clean coal face accessible The highwall is largely mud-draped, also hindering study. Most of the water in the pit is rain water that seeps through the spoils. It can be handled by occasional pumping and is no great problem.

No unusual stratigraphic or structural features noted. Generalized highwall section:

- Glacial drift, badly slumped in places. 10-15'
- 5-10' Shale (Canton), dark gray, thinly laminated carbonaceous, contains abundant sideritic bands. Upper part deeply weathered; consists locally of light greenish-gray mottled silt shale. No sign of the thin coal seam seen or previous visits in this interval.
- Limestone (St. David), medium-dark gray, 1-2' fine-grained, hard, massive, fossiliferous, generally consists of a single bed. Upper 0.5' is argillaceous, locally a coarse calca reous shale. Fairly sharp contact:
- Shale, black, fissile, hard, with numerous 5-6' concretions. Sharp contact:
- Shale (Dykersburg), medium gray, soft, poor-0-7' ly bedded. Forms broad lenses. Overlying units arch above lenses but do not appear to change thickness.

Coal (Harrisburg No. 5) Only top exposed.

Attached sketch map shows pit. Pit extends east of dragline but this part is very badly slumped.

county road NE comes section & 1 T95 - RIE Mine Office Dragine highwall slumped mined out-water coal uncovered ~ 1000' NORTH