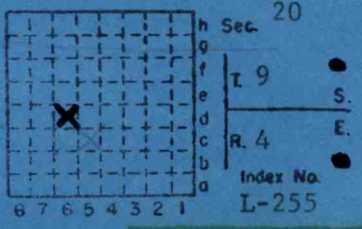
HOUSTON COAL CO. NO. 3

JADER FUEL CO. MINE NO. 2

JADER FUEL CO.
MINE NO. 2 (Strip)
MINE INDEX NO. 949



WILLIAMSON COUNTY

(Sheets) COAL PRODUCTION (Sheet)

Period Mo. Day Year	Period Mo. Day Year	Tons	
1973		7	346
1974		10	415
1975		45	117
1976		90	776
1977		62	441
1978		141	338
1979		96	393
1980		32	570
SUMMARIES		486	396
No.	to No.		

Railroad, Wagon, Strip, Idle, Abandoned

APPROX. D6

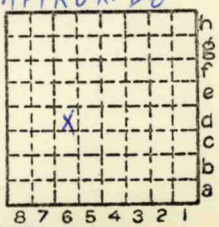
IDENTIFICATION

County No._____ Coal No. ☐6

Coal Report No. L-255

Quad.

County WILLIAMSON



Sec. 20

T. 9 N. S.

R. 4 E. W.

Index No.

COAL MINE—PRODUCTION

ILLINOIS GEOLOGICAL SURVEY, URBANA

(2732—2M—7-41)

Houston Coal Company #3

Rt. #5

Marion, Illinois 62959

Gassy:
Non-Gassy:

County Williamson Index No. L-255

Inspector Mr. John Morthland

Superintendent: Robert Houston

Mine Manager: Charles Houston

Union Affilation: Non Union

No. Employees: 4

Location: 1/2 mi. east Crab Orchard & 1/2 mi. south of State Hwy.#13

Legal Description: Sec. 20,T9S,R4E

Railroads and Highways Serving Mine: State Route #13

Date Mine Opened	Seam	Thickness	Depth	Type Opening	Mining Plan	Mining Method	Haulage	Hoisting	Loading	Ligh
2/15/73	#6	5½'	35'	Strip	Strip	Strip	Trucks		3/4yd. Shovel	

L-255

JADER FUEL CO. MINE NO. 2 WILLIAMSON COUNTY, ILL.

Notes by John Nelson August 3, 1977

Small strip mine in Herrin (No. 6) Coal. Active pit runs E-W and is about 2000 feet long.

The coal is 5-6' thick in most places and is overlain by only a few feet of bedrock with 30-40 feet of glacial drift above. The bedrock overburden consists of about 2 feet of Anna Shale (quite uniform) with broken, nodular, deeply weathered Brereton Limestone above. The glacial drift cuts down very gradually to the east and lies directly on the coal at the east end of the pit. Some of the upper part of the seam has probably been removed by erosion there.

One wedge or pod of soft, poorly bedded, gray Energy Shale noted. This is about 100 feet wide and mostly covered by slumped debris from highwall. The edges appear to be sharp and abruptbut so little of the bedrock remains that it is difficult to tell what happened. At the west side of the gray shale pod the coal is bent downward (see sketch, over). At the right (east) side the coal lies level across the transition but the Anna Shale appears to be folded sharply upward.

Superintendent Bill Pate refers to this situation as "faults" and reports that in places the upper part of the coal seam is missing and filled with "soapstone". This probably is an Energy Shale-filled "roll". I get the impression that the highwall is more prone to slump where gray shale wedges appear. There has been very little slumping in the pit and the walls are straight and clean. This undoubtedly is helped by the dry summer.

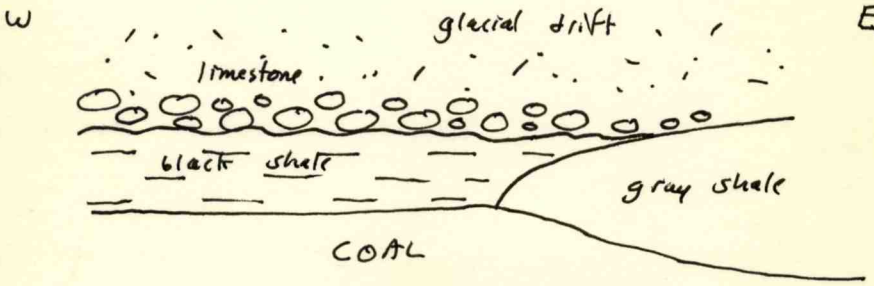
Other than the one poorly exposed Energy Shale wedge I noted no other irregularities in coal or overlying rocks along the entire length of highwall.

Near the east end of the pit a piece of wood was observed protruding from the brown glacial clay

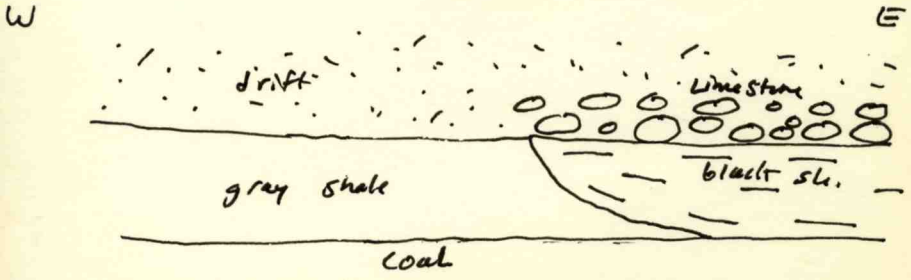
a few feet above the top of the coal seam. Supt. Pate reports that wood is commonly seen in the overburden and that several times he has tried without success to have it analyzed to see how old it is. I collect a small sample to take back to the Survey and have Carbon-14 run on it.

I also collect samples of a light blue, chalky substance in the glacial clay. This appears to fill small fractures or cavities in the clay and I am unable to identify it.

The total mining property is about 60 acres and Mr. Pate says the mine has about one year of life remaining. The company operates another mine south of Harrisburg and is reportedly considering opening a new pit near Shawneetown.



West Edge of Gray Shale Wedge



East End of Same Wedge.

JADER FUEL CO. MINE NO. 2 WILLIAMSON COUNTY

Notes by John Nelson on visit with Don McKay, 8/31/77.

Don McKay is making this visit to look at the surficial materials in the highwall. This visit was prompted by the samples of wood and vivianite (?) I collected on my previous visit. See McKay's notes for description of glacial materials.

Met Charles Houston, former operator and owner of this mine when it was Houston Coal Co. Now he works at the mine, operating the drill and other equipment. Mr. Houston appears very knowledgable and interested in geology. He has a good understanding of glacial, bedrock and coal geology. He reports finding petrified wood and nodules (coal balls) in the seam; some near its base.

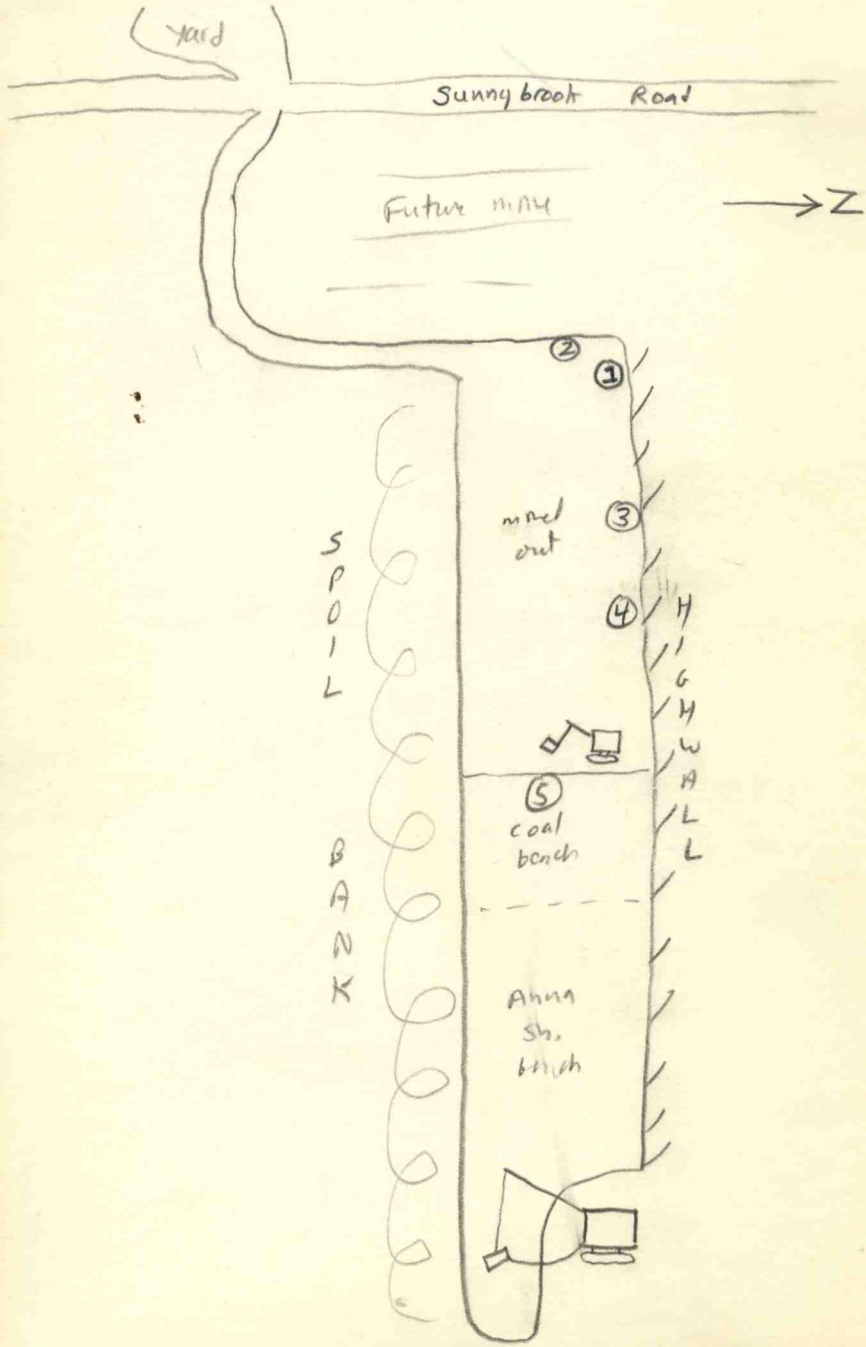
The highwall appears to have advanced one cut since my previous visit about a month ago. As before, the pit is very neat, with an almost vertical highwall showing very little slump though it is nearly all unconsolidated material. The dragline is working near the east end of t the pit and the shovel is loading coal about in the middle of the pit. See sketch map (over).

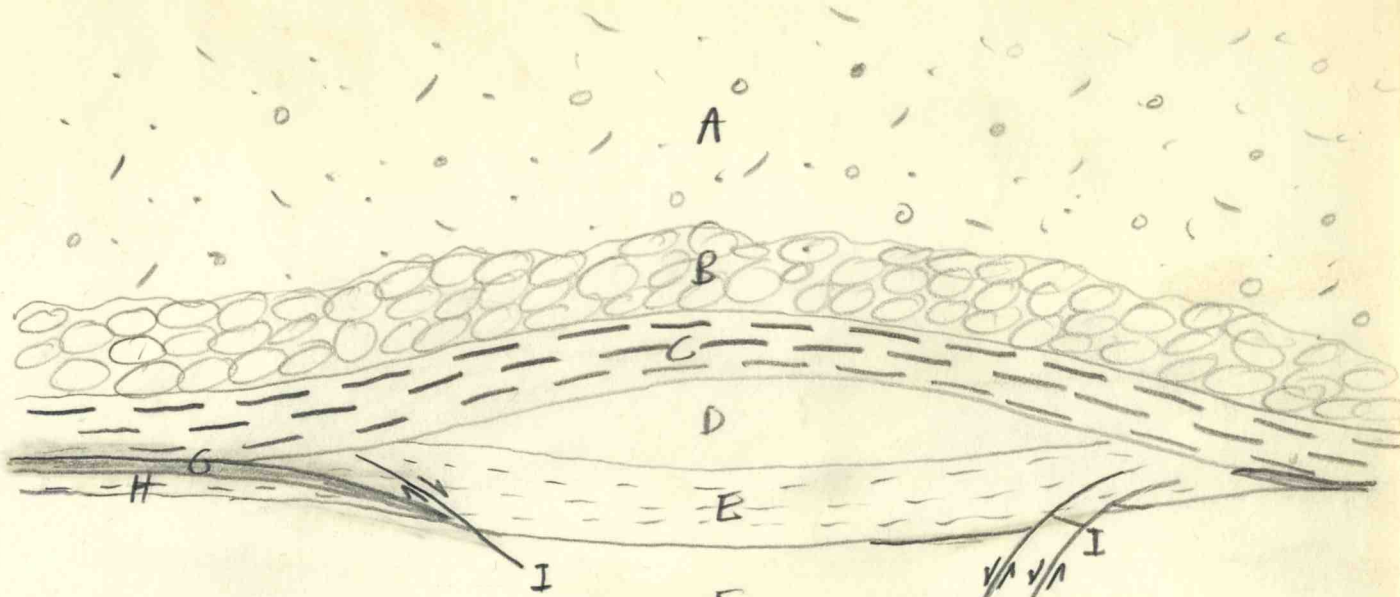
This mine is reportedly very near the end of its production. This will be the last cut made on this highwall, as the mine has reached the property line. A small amount of coal between the present pit and the road (west of the pit) is all that remains.

(1). At extreme west end of pit is an interesting wedge, about 55 feet long and 3 feet thick, of gray Energy Shale between the coal and the overlying black Anna Shale. See sketch (over).

The Anna Shale and the Brereton Limestone are gently and smoothly arched over the top of the gray shale wedge The entire coal seam is bowed downward beneath the wedge with fireclay exposed on either side but well below water level under the middle of the wedge. Cannot determine if the coal also thins beneath the gray shale, but it appears not to.

On the west side the coal is split near the top with a layer about 0.3' thick of very dark gray, brittle


Yard
Sunnybrook Road
Future mine
N
2
1
3
4
5
mined out
SPOIL
BANK
HIGHWALL
coal bench
Ahma sh. bench



A. Glacial Drift, not studied.
B. Brereton Limestone, broken, nodular, deeply weathered. About 2'
C. Anna Shale, black sheety, carbonaceous. 2.3' thick.
D. Energy Shale, medium gray, carb., massive, 1.3'
E. Energy Shale, dark gray, very carb., thinly laminated, up to 1.7'
F. Coal (Herrin No. 6) 5 5 to 6.0'
G. Coal split or rider, bright, blocky 0.4'
H. Shale parting, 0.3'
I. Slips, compactional.

and fissile carbonaceous shale. The thin layer of coal above this is clean, very bright and blocky. The split material appears to connect with the Energy Shale in the lens.

On the east side of the wedge is a very thin, short coal split or "rider".

The gray shale is clearly divided into two phases; a lower dark gray, carbonaceous, finely laminated shale and an upper medium gray, poorly bedded shale or mudstone. This creates a "lens within a lens"

Small, shallow-dipping compactional slips are seen in the coal east of the center of the gray shale lens. One slip is west of the center of the lens. All slips dip inward, toward the interior of the gray shale body.

To me it appears that the gray shale represents a small pond that formed in a depression in the coal swamp. As sediment collected in the pond the peat under neath compacted, allowing more water and sediment to come in. Around the fringes of the water peat tried to re-establish itself, creating coal splits and "riders". But as time went on the peat was drowned, and the mud deposited in the pond contained less organic debris, thus lighter in color.

Later the sea invaded the area and first the Anna Shale, then the Brereton Limestone were laid down on top of the gray shale lens. Further compaction caused the slips and compacted peat and sediment to their present form.

(2) Coal seam description on corner of pit south of Stop 1:

0.40' Coal, N.B.B., upper 0.03' thinly laminated, the rest blocky, with very well-developed 040° and 135° cleat.

0.25' Shale, very dark gray, thinly laminated, brittle, fissile, highly carbonaceous, contains much fine pyrite, has coal partings near base, interbeds with:

1.70' Coal, N.B.B., less blocky than above. Cleat 060°,

160°, not very prominent. Abundant pyrite filling cleats. Thinly laminated shale near top

0.01' Shale parting, discontinuous

0.85' Coal, as above.

0.01' Shale parting, discontinuous

2.35' Coal, similar to above, cleat somewhat more closely spaced.

0.05' Shale (Blue Band) Dark gray, firm, carbonaceous, varies in thickness.

0.70' Coal, with closely-spaced cleat, appears somewhat shalier than rest of seam. Cleat 040°, 167°.

1'exp. Claystone, olive gray, soft, micaceous, carbonaceous with plant debris.

5.65' Total thickness of coal below top split.

(3). Another gray shale pod or lens over 100 feet long. Limestone and most of black shale not present above gray shale; they were planed off by the glacier. Very sharp contact between medium gray and dark gray Energy Shale phases within the roll.

Section near middle of lens:

Glacial drift, not studied.

1.0' Shale (Anna) black, broken, deeply weathered.

2.4' Shale (Energy), medium gray, moderately hard, poorly bedded, finely silty, fine carbonaceous debris. Very sharp contact:

0.8' Shale (Energy), very dark gray, thinly laminated, finely silty, highly carbonaceous with abundant plant debris and numerous vitrain bands in upper half of unit.

3.75' Coal (Herrin- No. 6) N.B.B., moderately blocky, good cleat with minor calcite and pyrite filling thin shale and fusain partings, mostly discontinuous, esp near base; thin pyrite partings.

0.01' Shale, dark gray, hard, carbonaceous, very pyritic, contains thicker pyrite lenses.

1.1' Coal, as above.

0.05' Shale, (Blue Band) Dark gray, hard, carbonaceous

0.7' Coal, as above, not well exposed.

Claystone at water line in pit.

5.5' total coal seam thickness.

(4) Coal east of gray shale lens is 6.1' thick with the Blue Band 0.8' above the base. Numerous thin (0.01') fairly continuous gray shale partings are present 1-2' above the Blue Band. Local pyritic lenses are also seen.

The black shale above the coal tends to thicken eastward to a maximum of about 3 feet.

(5) On top of the coal bench is seen well-developed 035° primary and 110° secondary cleat

(6) Overburden removed from coal except for a thin layer of Anna Shale. This shows very prominent jointing in two directions. The first is 030°, spaced 0.2-0.3' apart, and the second 115°, spaced 0.8-1.2' apart. Large septarian concretions also are common.

JADER FUEL COMPANY, NO. 2 MINE
Williamson County
June 8, 1978

Notes by Popp on a visit with John Nelson.

Jader is extending their works to 30 acres of newly acquired land. The new site is just north of the former pit and is adjacent to the road. They expect to mine most of the land this year.

Although there was coal exposed we did not go into the pit. The highwall appears to contain black shale, perhaps a little weathered limestone, and the rest is glacial drift.