

File initiated by
HHD 6/11/98

P.O. Box 1523
Murphysboro, IL 62966

ph. 618/684-4064 -
John Starke Spt.

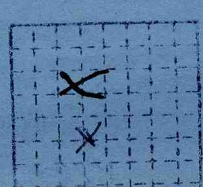
10/11: disconnected! Dir. assist:
no listing made comp. or support
in Murphysboro
2/15/00: new # 618/568-2415

Illini Energy
Resources

Razorback Mine
Mine # 1020

MINE INDEX # 1020

Jackson Co.



Sec. 36
T. 7
R. 2

NE/SW Cont Rec
5/1999

Razorback Mine

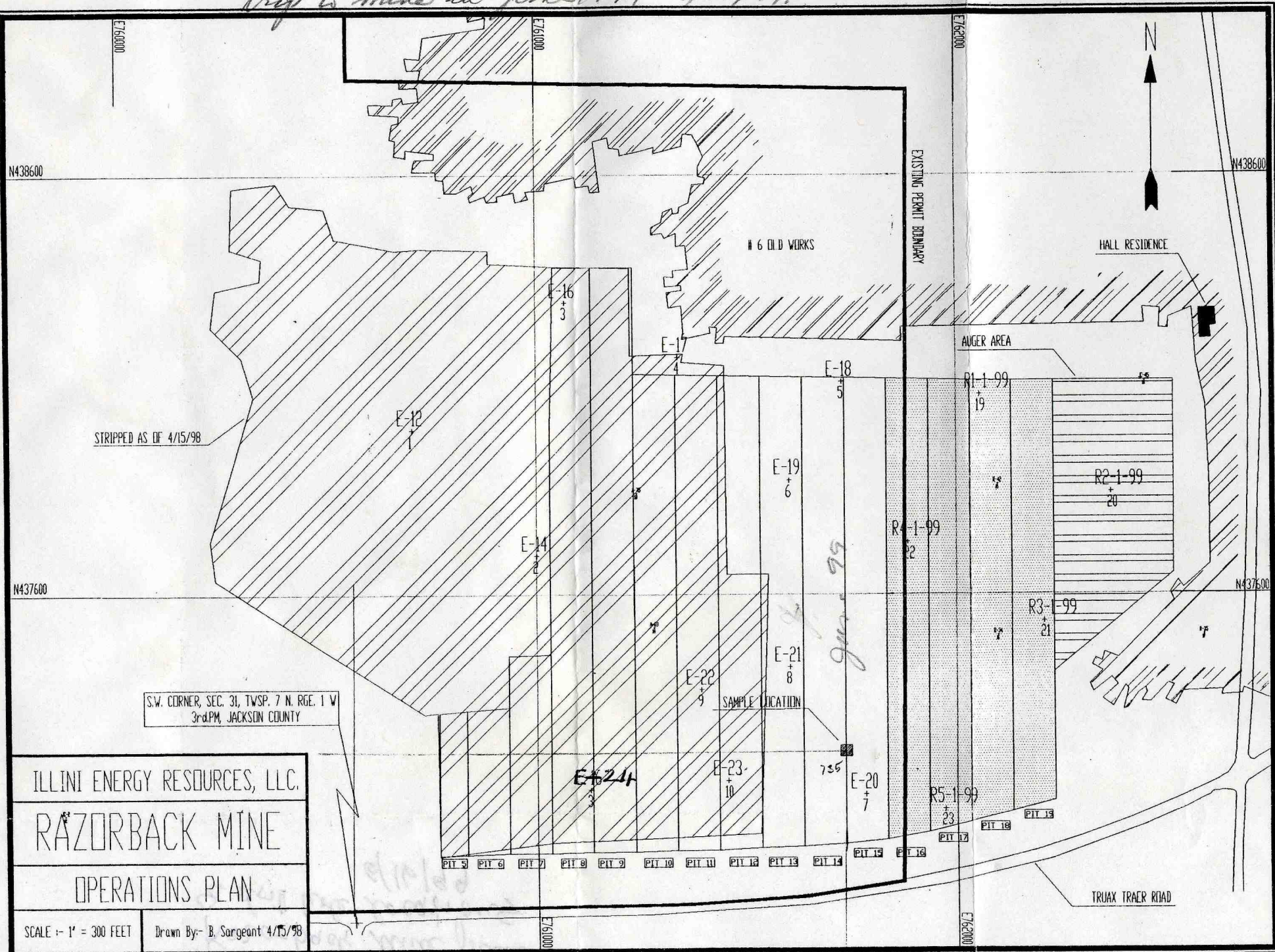
Production

year	tons	source	Cumulative
1997	139,039	OMM	139,039
1998	218,401	omm	357,440

Himi Energy Resources
Razorback Mine
Mine #
Coal Mine Production

Jackson Co.
S. 36
7 S - 2 W
Coal : HERRIN

From mine notes - Jackson Co.
 trip to mine in June 1999 6/16/99.



S.W. CORNER, SEC. 31, TWP. 7 N. RGE. 1 W
 3rd PM, JACKSON COUNTY

ILLINI ENERGY RESOURCES, LLC.
 RAZORBACK MINE
 OPERATIONS PLAN

SCALE 1" = 300 FEET

Drawn By: B. Sargeant 4/15/98



FORM 180 W

Illinois Resources Inc., Razorback Mine, MI # 1020Herrin (No. 6) Coal

Visited by Heinz Damberger and Dan North on 6/16/99

Purpose: to take channel sample(s) of mined coal and to observe the local geology. The samples will be analyzed by ISGS for prox, ult, Btu, FSI, S forms, Cl, R, macerals, etc.; a sub-sample will be submitted to USGS for TE analysis, as part of the Natl. Coal Qual. Inventory (NaCQI) program.

Info on mine: We arrived at about 8 a.m.; we were met by John Stockage, Spt., and Barry Sargeant (geologist?). Barry took us to their office (trailer) to show us mine maps and give us an overview of mine operations. He then took us around to the mine and also showed us their coal storage facility.

They are mining a small block of coal that was left unmined by Truax-Traer (Burning Star underground drift and slope mine, MI #606, operated from 1958 to 1965) for unknown reasons (too shallow, bad roof conditions, ownership?), with about 750,000 tons of coal in place. Barry called this "opportunity mining". They use trucks, shovels and dozers to move earth materials (see photos). They will have mined out the reserve sometime early next year. They are already working on their next project, several miles to the north, where a much larger reserve block is available. They will be looking for other opportunities, as long as they can find a buyer; key is low cost.

They mine the coal selectively in 3 separate benches/lifts, producing "coals" A, B and C which they stockpile separately in their storage area. The 3 benches have somewhat different properties, both ash and S content, as shown in table below. They have no breaker; they simply run the dozer over the coal if they need to reduce size.

Based on 5 core samples (see below) which they had split into 3 samples each, in thickness about like the 3 benches as they mine them, their coals A, B and C average about is follows:



FORM 180 W

Coal	Thickness (ft)	Equil. moist. (%)	Ash (%)	Sulfur (%)	Heating value (Btu/lb)
A	3.48 (2.6-4.3)	8.03	8.45 (7.6-9.9)	3.15 (2.6-3.6)	12,131 (11,836-12,291)
B	2.54 (2.0-3.0)	8.03	11.58 (10.0-13.5)	1.74 (1.0-2.8)	11,661 (11,455-11,940)
Blue band (excluded during mining!)					
C	1.47 (1.2-1.8)	8.03	21.06 (16.1-26.3)	3.03 (0.9-7.9)	10,041 (9,358-10,923)

Barry promised to provide us with copies of their drill hole records and coal analyses (sent with 6/30 letter, see copies below).

Because of the limited size of the open pit we took only one channel sample.

Channel sample #1, Lab # C36494

Location: pit was only a few 100 ft in width at time of visit; sample was taken within about 20-30 ft of N end of highwall; face was fresh.

Murphysboro 7.5 min. quad; State Plane East Zone Coordinates: N 437 220
E 761 735

Twp 7S Rng 1W, Section 31, 1230 ft from W line, 390 ft from S line
approx. surface elevation (from quad map): 421 ft; approx. depth to top of
coal: 60 ft

Description of coal seam, by HHD, recorded by DLN:

<u>From</u>	<u>To</u>	<u>Thickness</u>	<u>Description</u>
			TOP OF COAL
0.00	0.35	0.35	<u>Coal</u> , bright banded, finely laminated, hard, numerous cleats, generally with calcite coatings
0.35	0.38	0.02	<u>Fusain</u> , pyritized
0.38	0.79	0.41	<u>Coal</u> , bright banded, with some fairly thick (up to 0.07') vitrain lenses



FORM 180 W

0.79	0.83	0.04	<u>Shale</u> , carbonaceous, pyritized, with fusain
0.83	1.47	0.64	<u>Coal</u> , bright banded, mostly clarain, with vitrain lenses; calcite on cleat surfaces; some pyrite-filled fissures
1.47	1.48	0.01	<u>Shale</u> , carbonaceous, lenticular, up to 0.04' away from channel sampled
1.48	1.88	0.40	<u>Coal</u> , bright banded, mostly clarain; cleats well developed, with calcite coatings; irregular \pm vertical fissures impregnated with pyrite
1.88	2.15	0.27	<u>Coal</u> , fairly dull, with thin vitrain lenses and some thin clay lenses; hard
2.15	2.62	0.47	<u>Coal</u> , bright banded, finely laminated, vitrain and clarain, about 1:1
2.62	2.65	0.03	<u>Fusain</u> , lenticular, soft
2.65	2.73	0.08	<u>Coal</u> , bright banded
2.73	2.76	0.03	<u>Shale</u> , bituminous, in part bony coal; dark gray
2.76	3.12	0.36	<u>Coal</u> , bright banded
3.12	3.24	0.12	<u>Coal</u> , dull, hard, some thin vitrain lenses
3.24	4.19	0.95	<u>Coal</u> , bright banded, fairly vitrain rich, with occasional fusain lenses
			NOTE: approximate bottom of Top Coal
("A")			
4.19	4.33	0.14	<u>Coal</u> , dull, several fusain lenses
4.33	4.48	0.15	<u>Coal</u> , bright banded
4.48	4.72	0.24	<u>Coal</u> , fairly dull, mostly clarain, some fusain
4.72	4.77	0.05	<u>Bone coal</u>
4.77	4.84	0.07	<u>Coal</u> , bright banded
4.84	5.35	0.51	<u>Coal</u> , dull, hard, with vitrain lenses, mostly clarain and thin boney coal layers
5.35	5.68	0.33	<u>Coal</u> , bright banded, vitrain and clarain
5.68	5.71	0.03	<u>Shale</u> , coaly, lenticular
5.71	6.07	0.36	<u>Coal</u> , dull, hard, thin vitrain streaks, fairly clay-rich
6.07	6.53	0.46	<u>Coal</u> , bright banded, vitrain and clarain



FORM 180 W

6.53	6.68	0.15	<p>NOTE: bottom of Middle Coal ("B") <u>Shale</u>, dark gray, "BLUE BAND" <u>EXCLUDED FROM SAMPLE</u> NOTE: they are selectively mining down to this shale layer, in two lifts (A and B); they push shale parting aside and then mine the bottom coal separately and also store it separately (Coal "C")</p>
6.68	7.13	0.45	<p><u>Coal</u>, bright banded, some thin fusain lenses</p>
7.13	7.28	0.15	<p><u>Coal</u>, dull, with thin fusain and clay lenses</p>
7.28	7.93	0.65	<p><u>Coal</u>, bright banded, vitrain and some clarain; cleats wutg calcite coatings BOTTOM OF COAL</p>

 FLOOR

Claystone, typical underclay, with rootlets

Roof sequence from top of coal up (jointly estimated from below)
 (in feet)

<u>From</u>	<u>To</u>	<u>Thick</u>	<u>Description</u>
0	10	10	Shale, silty, gray = ENERGY SHALE
10	14	4	Shale, very dark gray, blocky, = ANNA SHALE
14	17	2 - 3	Limestone, lower ~0.5' shaley, gray = BRERETON LIMESTONE
17	28	10-12	Shale, with ironstone bands and lenses = LAWSON SHALE
		+6	Limestone, massive, only preserved in portions of pit Unconsolidated (loess, till)

ILLINI ENERGY RESOURCES, LLC.
 RAZORBACK MINE
 DRILL LOGS

HOLE E-12 *N437987 E 760705*

0/27.5 Brn Clay
 27.5/29 Limestone Boulder
 29/35 Brn Clay
 35/46.2 Gry Clay
 46.2/49.7 Dark Gry Lime Stone
 49.7/53.4 Blk Shale
 53.4/60.8 Coal #6 7.4
 60.8/61 Under Clay

HOLE E-16 *N438290 E 761068*

0/38 Brn Clay
 38/49 Gry Clay
 49/53.5 Blk Shale
 53.5/65.4 Gry Shale 11.9
 65.4/72.6 Coal #6 7.0
 72.6/75 Under Clay

HOLE E-18 *N438100 E 761728*

0/19 Brn Clay
 19/20.5 Brn Shale
 20.5/30.9 Gry Lime Stone
 30.9/51 Gry Sandy Shale
 51/52.5 Dark Gry Lime Stone
 52.5/59 Blk Shale
 59/64.5 Gry Shale 9.5'
 64.5/72.5 Coal #6 8'
 72.5/74 Under Clay

HOLE E-20 *N 437 120*

0/27 Brn Clay
 27/43 Gry Shale
 43/48.5 Blk Shale
 48.5/60.1 Gry Shale 11.6'
 60.1/68 Coal #6 7.9
 68/70 Under Clay

E 761 780

HOLE E-14 *N437692 E 761000*

0/19 Gry Clay
 19/21 Lime Stone Boulder
 21/25 Broken Rocks
 25/35 Brn Clay
 35/49 Gry Shale
 49/53.3 Dark Gry Lime Stone
 53.5/56.7 Blk Shale
 56.7/63.7 Coal 7'
 63.7/65 Under Clay

HOLE E-17 *N438158 E 761339*

0/24 Brn Clay
 24/47 Gry Shale
 47/48 Dark Gry Lime Stone
 48/53.5 Blk Shale
 53.8/63.8 Gry Shale 10.0'
 63.8/70.9 Coal 7.1
 70.9/73 Under Clay

HOLE E-19 *N437870 E 761602*

0/36 Brn Clay
 36/40 Gry Shale
 40/41 Dark Gry Lime Stone
 41/46 Blk Shale
 46/56.9 Gry Shale 10.9'
 56.9/64.8 Coal #6 7.9
 64.8/66 Gry Under Clay

HOLE E-21

0/26 Brn Clay
 26/32 Brn Shale
 32/40.5 Gry Shale
 40.5/41.5 Dark Gry Shale
 41.5/46 Blk Shale
 46/57 Gry Shale 11.0'
 57/64.8 Coal #6 7.8
 64.8/66 Under Clay

N 437 428
E 761 602

HOLE E-22

0/17 Brn Clay
 17/23 Brn Lime Stone
 23/40 Gry Shale
 40/40.6 Dark Gry Lime Stone
 40.6/46 Blk Shale
 46/57.6 Gry Shale 11.6'
 57.6/64.6 Coal #6 7'
 64.6/66 Gry Under Clay

N 437 372
 E 761 392

HOLE E-23

0/16 Brn Clay
 16/18 Gry Limey Shale
 18/19 Brn Shale
 19/38 Gry Shale
 38/39 Dark Gry Lime Stone
 39/44 Blk Shale
 44/54.6 Gry Shale 10.6'
 54.6/62 Coal #6 7.4
 62/64 Under Clay

N 437 150
 E 761 454

HOLE E-24

0/20 Brn Clay
 20/46.4 Gry Shale
 46.4/51.5 Dark Gry Lime Stone
 51.5/55 Blk Shale
 55/62.3 Coal #6 7.3
 62.3/63 Gry Under Clay

N 437 130
 E 761 128

HOLE R1-1-99

0/20 Brn Clay
 20/29 Brn/Gry Limestone Brkn
 29/31 Gry Sandy Shale
 31/49 Drk Gry Shale
 49/54 Blk Shale
 54/68.25 Gry Shale 14.25'
 68.25/76.20 Coal #6 7.95'
 76.20/76.60 Underclay
 76.60/80 Limey Shale

1-5-99 N 438 068
 E 762 060

HOLE R2-1-99

0/22 Brn Clay
 22/32 Brn Lime Stone
 32/53.5 Drk Gry Shale
 53.5/55.2 Drk Gry Lime Stone
 55.2/62 Blk Shale
 62/67.05 Gry Shale 5.05'
 67.05/74.38 Coal #6 7.33'
 74.38/74.45 Underclay
 74.45/78 Limey Shale

1-6-99 N 437 841
 E 762 370

HOLE R3-1-99

0/18.5 Brn Clay
 18.5/20.5 Boulder
 20.5/26 Brn Clay
 26/33 Brn Shale
 33/40 D Gry Shale
 40/42.5 Drk Gry Lime Stone
 42.5/47 Blk Shale
 47/61.5 Gry Shale 14.5'
 61.5/68.3 Coal 6.8'
 68.3/69 Underclay
 69/71 Limey Shale

1-6-99 N 437 535
 E 762 210

HOLE R4-1-99

0/25 Brn Clay
 25/30 Gry Shale
 30/42 Drk Gry Shale
 42/47 Blk Shale
 47/58.42 Gry Shale 11.42'
 58.42/66.3 Coal #6 7.88'
 66.3/67.3 Underclay
 67.3/70 Limey Shale

1-6-99 N 437 725
 E 761 882

HOLE R5-1-99

0/24 Brn Clay
 24/28 Gry Shale
 28/40.5 Drk Gry Shale
 40.5/45 Blk Shale
 45/62.03 Gry Shale 17.03'
 62.03/69.98 Coal #6 7.95'
 69.98/71 Underclay
 71/72 Limey Shale

N 437 083
 E 761 970

<u>HOLE # R1-1-99</u>	Weight %	AS RECEIVED			BTU
		EQ Moist	Ash	Sul	
Top 3.30 feet	41.41	7.87	9.95	3.09	11,836
Middle 2.90 feet	36.52	7.87	9.96	1.04	11,940
Bottom 1.75 feet	22.07	7.87	16.14	1.79	10,923
Mathematical Composite	100.00	7.87	11.32	2.05	11,672

<u>HOLE # R2-1-99</u>	Weight %	AS RECEIVED			BTU
		EQ Moist	Ash	Sul	
Top 3.50 feet	45.43	7.39	8.80	3.58	12,206
Middle 2.55 feet	34.31	7.39	13.51	2.58	11,455
Bottom 1.28 feet	20.26	7.39	26.32	7.94	9,358
Mathematical Composite	100.00	7.39	13.97	4.12	11,371

<u>HOLE # R3-1-99</u>	Weight %	AS RECEIVED			BTU
		EQ Moist	Ash	Sul	
Top 2.65 feet	37.40	8.04	7.73	3.44	12,291
Middle 3.00 feet	43.38	8.04	11.32	2.81	11,688
Bottom 1.15 feet	19.22	8.04	22.56	3.26	9,613
Mathematical Composite	100.00	8.04	12.14	3.13	11,515

<u>HOLE # R4-1-99</u>	Weight %	AS RECEIVED			BTU
		EQ Moist	Ash	Sul	
Top 4.30 feet	51.40	8.40	8.16	3.05	12,121
Middle 2.00 feet	25.22	8.40	11.15	1.17	11,693
Bottom 1.58 feet	23.38	8.40	20.50	1.27	10,095
Mathematical Composite	100.00	8.40	11.80	2.16	11,539

<u>HOLE # R5-1-99</u>	Weight %	AS RECEIVED			BTU
		EQ Moist	Ash	Sul	
Top 3.65 feet	47.05	8.45	7.60	2.61	12,203
Middle 2.25 feet	29.54	8.45	11.98	1.12	11,530
Bottom 1.60 feet	23.41	8.45	19.79	0.90	10,216
Mathematical Composite	100.00	8.45	11.75	1.77	11,539

23-26



Razorback Mine, 6/16/99. View into pit from
S edge, next to road; reclaimed land to left (W),
pit in center, unmined land to right, glacial overburden partially
removed. Equipment from left: drilling, dozer, pump, front end loader, truck



SE corner of pit w. Barry & Dozer (backhoe used to rip up coal & break it). Bottom: sampling site f. ch. spl.



Razorbaek Mine 6/16/99. Coal Storage area, piles of coals A, B, C and loading of truck in pit (bottom)



Razorback Mine, 6/16/99
Pit showing coal and overlying strata
at sampling site. Note gray shale
directly above coal (Energy sh.), ~10ft,
then Anna sh. & Brecken 25.



Razor-back Mine, 6/16/99
Berry Sargeant (right) and mine
foreman.