DSM Design Group Drill Log Data Sheet

Company Name: Birmingham Coal and Coke Co., Inc.

Hole ID#: OB/MW 1

Mine Name: Old Union #2

Driller's Name: Landon Manasco

Sampler's Name: Kevin Farley

Elevation: 701.43'

Interval Depth:	Soil Description:	Total Depth:
0-5'	Clay, Reddish Brown, Sandy, Very Fine Grained	5'
5-10'	Clay, Brownish Yellow, Sandy, Very Fine Grained	10'
10-15'	Clay, Brown, Sandy, Very Fine Grained	15'
15-20'	Clay, Brown, Sandy, Very Fine Grained	20'
20-25'	Clay, Brown, Soft, Very Fine Grained, Shale	25'
25-30'	Shale, Gray, Soft, Very Fine Grained	30'
30-35'	Shale, Gray, Soft, Very Fine Grained	35'
35-40'	Shale, Gray, Soft, Very Fine Grained	40'
40-45'	Shale, Gray, Soft, Very Fine Grained	45'
45-50'	Shale, Gray, Medium Hard	50'
50-55'	Shale, Gray, Medium Hard	55'
55-60'	Shale, Gray, Medium Hard	60'
60-65'	Shale, Gray, Medium Hard	65'
65-70'	Shale, Gray, Medium Hard	70'
70-71.8'	Coal Seam (Black Creek Seam)	71.8'
71.8-76.8'	Shale, Gray, Soft, Very Fine Grained	76.8'
76.8-81.8'	Shale, Gray, Soft, Very Fine Grained	81.8'
	Total Hole Depth:	81.8'

DSM Design Group Drill Log Data Sheet

Company Name: Birmingham Coal and Coke Co., Inc.

Hole ID#: OB/MW 2

Mine Name: Old Union #2

Driller's Name: Landon Manasco

Sampler's Name: Kevin Farley

Elevation: 663.06'

Interval Depth:	Soil Description:	Total Depth:
0-5'	Clay, Brown, Sandy, Very Fine Grained	5'
5-10'	Clay, Brown with White streaks, Sandy, Very Fine Grained	10'
10-15'	Clay, Brown with Gray streaks, Sandy, Very Fine Grained	15'
15-20'	Shale, Gray, Sandy, Soft,	20'
20-25'	Shale, Gray, Medium Hard	25'
25-30'	Shale, Gray, Medium Hard	30'
30-35'	Shale, Gray, Medium Hard	35'
35-40'	Shale, Gray, Medium Hard	40'
40-45'	Shale, Gray, Medium Hard	45'
45-50'	Shale, Gray, Medium Hard	50'
50-55'	Shale, Gray, Medium Hard	55'
55-56.8'	Coal Seam (Black Creek Seam)	56.8'
56.8-61.8'	Shale, Gray, Sandy	61.8'
61.8-66.8'	Shale, Gray, Sandy	66.8'
	Total Hole Depth:	66.8'

DSM Design Group Drill Log Data Sheet

Company Name: Birmingham Coal and Coke Co., Inc.

Hole ID#: DH 2

Mine Name: Old Union #2

Driller's Name: Landon Manasco

Sampler's Name: Kevin Farley

Elevation: 613.79'

Interval Depth:	Soil Description:	Total Depth:
0-5'	Shale, Gray, Soft,Very Fine Grained	5'
5-10'	Shale, Gray, Soft,Very Fine Grained	10'
10-15'	Shale, Gray, Soft,Very Fine Grained	15'
15-20'	Shale, Gray, Soft,Very Fine Grained	20'
20-25'	Shale, Gray, Medium Hard	25'
25-30'	Shale, Gray, Medium Hard	30'
30-35'	Shale, Gray, Medium Hard	35'
35-38.8'	Coal Seam (Black Creek Seam)	38.8'
38.8-43.8'	Shale, Gray, Soft, Very Fine Grained	43.8'
43.8-48.8'	Shale, Gray, Soft, Very Fine Grained	48.8'
	Total Hole Depth:	48.8'

DSM Design Group Drill Log Data Sheet

Company Name:	Birmingham Coal and Coke Co., Inc.	**Hole ID#:**	OB 3
Mine Name:	Old Union #2	**Driller's Name:**	Landon Manasco
Sampler's Name:	Kevin Farley	**Elevation:**	668.56'

Interval Depth:	Soil Description:	Total Depth:
0-5'	Clay, Reddish Brown, Sandy, Very Fine Grained	5'
5-10'	Sandstone, Reddish Brown	10'
10-15'	Sandstone, Reddish Brown	15'
15-20'	Sandstone, Reddish Brown	20'
20-25'	Sandstone, Reddish Brown	25'
25-30'	Clay, Brown, Sandy, Very Fine Grained	30'
30-35'	Clay, Brown, Sandy, Very Fine Grained, Shale	35'
35-40'	Shale, Gray, Soft, Very Fine Grained	40'
40-45'	Shale, Gray, Soft, Very Fine Grained	45'
45-50'	Shale, Gray, Medium Hard	50'
50-55'	Shale, Gray, Medium Hard	55'
55-60'	Shale, Gray, Medium Hard	60'
60-65'	Shale, Gray, Medium Hard	65'
65-70'	Shale, Gray, Medium Hard	70'
70-75'	Shale, Gray, Medium Hard	75'
75-76'	Shale, Gray, Medium Hard	76'
76-77.8'	Coal Seam (Black Creek Seam)	77.8'
77.8-82.8'	Shale, Gray, Medium Hard	82.8'
82.8-87.8'	Shale, Gray, Soft, Very Fine Grained	87.8'
	Total Hole Depth:	87.8'

DSM Design Group Drill Log Data Sheet

Company Name: Birmingham Coal and Coke Co., Inc.

Hole ID#: OB/MW 4

Mine Name: Old Union #2

Driller's Name: Landon Manasco

Sampler's Name: Kevin Farley

Elevation: 642.92

Interval Depth:	Soil Description:	Total Depth:
0-5'	Clay, Brownish Yellow, Sandy	5'
5-10'	Clay, Brownish Yellow, Sandy	10'
10-15'	Shale, Soft, Sandstone streaks	15'
15-20'	Shale, Soft, Sandstone streaks	20'
20-25'	Shale, Gray, Medium Soft	25'
25-30'	Shale, Gray, Medium Soft	30'
30-35'	Shale, Gray, Medium Hard	35'
35-40'	Shale, Gray, Medium Hard	40'
40-45'	Shale, Gray, Medium Hard	45'
45-50'	Shale, Gray, Medium Hard	50'
50-55'	Shale, Gray, Medium Hard	55'
55-60'	Shale, Gray, Medium Hard	60'
60-61'	Shale, Gray, Medium Hard	61'
61-63'	Coal Seam (Black Creek Seam)	63'
63-68'	Shale, Gray, Medium Hard	68'
68-73'	Shale, Gray, Medium Hard	73'
	Total Hole Depth:	73'

DSM Design Group Drill Log Data Sheet

Company Name:	Birmingham Coal and Coke Co., Inc.	**Hole ID#:**	OB 5
Mine Name:	Old Union #2	**Driller's Name:**	Landon Manasco
Sampler's Name:	Kevin Farley	**Elevation:**	606.76'

Interval Depth:	Soil Description:	Total Depth:
0-5'	Clay, Reddish Brown, Sandy, Very Fine Grained	5'
5-10'	Clay, Reddish Brown, Sandy, Very Fine Grained	10'
10-15'	Clay, Brown, Sandy, Very Fine Grained	15'
15-20'	Shale, Gray, Soft, Very Fine Grained	20'
20-25'	Shale, Gray, Soft, Very Fine Grained	25'
25-30'	Shale, Gray, Soft, Very Fine Grained	30'
30-35'	Shale, Gray, Soft, Very Fine Grained	35'
35-39.3'	Shale, Gray, Medium Hard	39.3'
39.3-41.3'	Coal Seam (Black Creek Seam)	41.3'
41.3-46.3'	Shale, Gray, Medium Hard	46.3'
46.3-51.3'	Shale, Gray, Medium Hard	51.3'
	Total Hole Depth:	51.3'

DSM Design Group Drill Log Data Sheet

Company Name: Birmingham Coal and Coke Co., Inc.

Hole ID#: OB 6

Mine Name: Old Union #2

Driller's Name: Landon Manasco

Sampler's Name: Kevin Farley

Elevation: 694.46

Interval Depth:	Soil Description:	Total Depth:
0-5'	Clay, Reddish Brown, Sandy	5'
5-10'	Clay, Reddish Brown, Sandy	10'
10-15'	Clay, Brown, Sandy, Very Fine Grained, Sandstone	15'
15-20'	Clay, Brown, Sandy, Very Fine Grained, Sandstone	20'
20-25'	Clay, Brown, Sandy, Very Fine Grained, Sandstone	25'
25-30'	Clay, Brown, Sandy, Very Fine Grained, Sandstone	30'
30-35'	Clay, Brown, Sandy, Very Fine Grained, Sandstone	35'
35-40'	Clay, Brown, Sandy, Sandstone, Shale, Gray	40'
40-45'	Clay, Brown, Sandy, Sandstone, Shale, Gray	45'
45-50'	Shale, Gray, Soft, Very Fine Grained	50'
50-55'	Shale, Gray, Soft, Very Fine Grained	55'
55-60'	Shale, Gray, Soft, Very Fine Grained	60'
60-65'	Shale, Gray, Soft, Very Fine Grained	65'
652-70'	Shale, Gray, Soft, Very Fine Grained	70'
70-74'	Shale, Gray, Soft, Very Fine Grained	74'
74-77'	Coal Seam (Black Creek Seam)	77'
77-82'	Clay, Gray, Clayey Gravel	82'
82-87'	Clay, Gray, Clayey Gravel	87'
	Total Hole Depth:	87'

DSM Design Group Drill Log Data Sheet

Company Name:	Birmingham Coal and Coke Co., Inc.	**Hole ID#:**	OB 7
Mine Name:	Old Union #2	**Driller's Name:**	Landon Manasco
Sampler's Name:	Kevin Farley	**Elevation:**	666.42

Interval Depth:	Soil Description:	Total Depth:
0-5'	Clay, Brownish Red, Sandy	5'
5-10'	Clay, Brownish Red, Sandy	10'
10-15'	Clay, Reddish White, Sandy	15'
15-20'	Clay, Brownish White, Sandy, Very Fine Grained	20'
20-25'	Clay, Brownish, Sandy, Shale	25'
25-30'	Shale, Gray, Sandy	30'
30-35'	Clay, Brownish, Sandy, Very Fine Grained	35'
35-40'	Clay, Brownish, Sandy, Very Fine Grained	40'
40-45'	Clay, Brownish, Sandy, Very Fine Grained	45'
45-50'	Shale, Gray, Soft, Very Fine Grained	50'
50-55'	Shale, Gray, Soft, Very Fine Grained	55'
55-60'	Shale, Gray, Soft, Very Fine Grained	60'
60-65'	Shale, Gray, Soft, Very Fine Grained	65'
65-70'	Shale, Gray, Soft, Very Fine Grained	70'
70-73'	Shale, Gray, Soft, Very Fine Grained	73'
73-75'	Coal Seam (Black Creek Seam)	75'
75-80'	Shale, Gray, Medium Hard	80'
80-85'	Shale, Gray, Medium Hard	85'
	Total Hole Depth:	85'

DSM Design Group Drill Log Data Sheet

Company Name: Birmingham Coal and Coke Co., Inc.

Hole ID#: OB/MW 8

Mine Name: Old Union #2

Driller's Name: Landon Manasco

Sampler's Name: Kevin Farley

Elevation: 671.46

Interval Depth:	Soil Description:	Total Depth:
0-5'	Clay, Reddish Brown, Sandy	5'
5-10'	Clay, Red, Sandy, Very Fine Grained	10'
10-15'	Shale, Gray, Medium Hard	15'
15-20'	Shale, Gray, Medium Hard	20'
20-25'	Shale, Gray, Medium Hard	25'
25-30'	Shale, Gray, Medium Hard	30'
30-35'	Shale, Gray, Medium Hard	35'
35-40'	Shale, Gray, Medium Hard	40'
40-45'	Shale, Gray, Medium Hard	45'
45-50'	Shale, Gray, Medium Hard	50'
50-52.5'	Shale, Gray, Medium Hard	52.5'
52.5-54.5'	Coal Seam (Black Creek Seam)	54.5'
54.5-59.5'	Shale, Gray, Medium Hard	59.5'
59.5-64.5'	Shale, Gray, Medium Hard	64.5'
	Total Hole Depth:	64.5'

DSM Design Group Drill Log Data Sheet

Company Name: Birmingham Coal and Coke Co., Inc.

Hole ID#: OB 9

Mine Name: Old Union #2

Driller's Name: Landon Manasco

Sampler's Name: Kevin Farley

Elevation: 653.56

Interval Depth:	Soil Description:	Total Depth:
0-5'	Clay, Reddish Brown, Sandy	5'
5-10'	Clay, Reddish Brown, Sandy	10'
10-15'	Clay, Reddish Brown, Sandstone	15'
15-20'	Clay, Reddish Brown, Sandstone	20'
20-25'	Clay, Reddish Brown, Sandstone	25'
25-30'	Clay, Reddish Brown, Sandstone	30'
30-35'	Shale, Gray, Sandy, Very Fine Grained	35'
35-40'	Shale, Gray, Sandy, Very Fine Grained	40'
40-45'	Shale, Gray, Sandy, Very Fine Grained	45'
45-50'	Shale, Gray, Sandy, Medium Hard, Gravelly	50'
50-55'	Shale, Gray, Medium Hard, Gravelly	55'
55-60'	Shale, Gray, Medium Hard	60'
60-65'	Shale, Gray, Very Fine Grained	65'
65-70'	Shale, Gray, Very Fine Grained	70'
70-75'	Shale, Gray, Medium Hard	75'
75-80'	Shale, Gray, Very Fine Grained	80'
80-85'	Shale, Gray, Very Fine Grained	85'
85-86.8'	Coal Seam (Black Creek Seam)	86.8'
86.8-91.8'	Shale, Gray, Medium Hard	91.8'
91.8-96.8'	Shale, Gray, Medium Hard	96.8'

Total Hole Depth: 96.8'

DSM Design Group Drill Log Data Sheet

Company Name:	Birmingham Coal and Coke Co., Inc.	**Hole ID#:**	OB/MW 10
Mine Name:	Old Union #2	**Driller's Name:**	Landon Manasco
Sampler's Name:	Kevin Farley	**Elevation:**	627.15

Interval Depth:	Soil Description:	Total Depth:
0-5'	Clay, Reddish Brown, Sandy, Very Fine Grained	5'
5-10'	Clay, Brownish Yellow, Sandy, Very Fine Grained	10'
10-15'	Clay, Brownish Yellow, Sandy, Very Fine Grained	15'
15-20'	Clay, Brown, Sandy, Very Fine Grained	20'
20-25'	Clay, Brown, Very Fined Grained, Shale	25'
25-30'	Shale, Gray, Soft, Very Fine Grained	30'
30-35'	Shale, Gray, Soft, Very Fine Grained	35'
35-40'	Shale, Gray, Soft, Very Fine Grained	40'
40-45'	Shale, Gray, Medium Soft, Very Fine Grained	45'
45-50'	Shale, Gray, Medium Soft, Very Fine Grained	50'
50-55'	Shale, Gray, Medium Hard, Gravelly	55'
55-60'	Shale, Gray, Medium Hard	60'
60-65'	Shale, Gray, Medium Hard	65'
65-70'	Shale, Gray, Medium Hard, Sandstone fragments	70'
70-75'	Shale, Gray, Medium Hard, Sandstone fragments	75'
75-78'	Shale, Gray, Medium Hard	78'
78-79.8'	Coal Seam (Black Creek Seam)	79.8'
79.8-84.8'	Shale, Gray, Medium Hard	84.8'
84.8-89.8'	Shale, Gray, Medium Hard	89.8'
	Total Hole Depth:	89.8'