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SULFUR REDUCTION POTENTIAL OF U.S. COALS: A Revised Report of Investigations

U.S. Department of the Interior
Bureau of Mines
Pittsburgh, Pennsylvania 15231

Industrial Environmental Research Laboratory
Office of Research and Development
U.S. Environmental Protection Agency
Research Triangle Park, North Carolina 27711

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by

J.A. Cavallaro, M.T. Johnston, and A.W. Deurbrouck

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SULFUR REDUCTION POTENTIAL OF THE COALS OF THE UNITED STATES

A Revision of Report of Investigations 7633

by

J. A. Cavallaro, M. T. Johnston, and A. W. Deurbrouck

ERRATA

On page 30, the paragraph numbered 5 should begin as follows:

The 44 Western Midwest Region coal samples evaluated contained an average of 3.58 percent pyritic sulfur and 5.25 percent total sulfur.

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SULFUR REDUCTION POTENTIAL OF THE COALS OF THE UNITED STATES

A Revision of Report of Investigations 7633

by

J. A. Cavallaro,[1] M. T. Johnston,[2] and A. W. Deurbrouck[3]

ABSTRACT

This report presents the results of a washability study of 455 raw coal channel samples with special emphasis on sulfur reduction. These raw coals contained on the average 14.0 percent ash, 1.91 percent pyritic sulfur, and 3.02 percent total sulfur.

The complete washability data are presented for each sample processed. A statistical evaluation is included for the coalbeds from which more than 10 samples were collected and for the geographical coal producing regions. A graphical summation is presented for the coal producing regions and selected coalbeds. Finally a similar statistical evaluation is included showing composited data interpolated at Btu recovery levels of 50, 60, 70, 80, 90, and 100 percent. Graphical summations are presented for the various coal producing regions.

Generally, significant sulfur reduction is achieved if the coals are crushed to a finer size and the higher specific gravity increments are removed. If a 50-percent Btu recovery was acceptable, then 32 percent of the samples tested could be upgraded to meet the current Environmental Protection Agency (EPA) standard of 1.2 pounds of SO_2 emission per million (MM) Btu when crushed to 14-mesh top size and separated gravimetrically.

INTRODUCTION

The Air Quality Act of 1963 initiated a concerted effort by Federal and local governments to preserve the Nation's air quality. Because air pollution from combustion of fossil fuels has long been recognized as a problem by the EPA and its earlier counterparts, major emphasis has been placed on the development of methods for controlling sulfur oxide emissions.

Coal-fired electric utility plants are the major source of sulfur oxide air pollution in the United States today. In 1974 the electric utilities

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[2]Mathematician.
[3]Chief, Coal Preparation and Analysis Group.

burned 390 million tons of coal with an average sulfur content of 2.2 percent. The amount of coal consumed by electric utilities is anticipated to reach 500 million tons by 1980 and approximately a billion tons by the year 2000. It is therefore imperative that sulfur oxide emissions be controlled.

Available methods for controlling sulfur oxide emissions from stationary combustion sources fall into the following major categories:

1. The physical removal (coal cleaning) of pyritic sulfur prior to combustion.

2. The removal of sulfur oxides from the combustion flue gas.

3. Conversion of coal to a clean fuel by such processes as gasification, liquefaction, and chemical extraction.

Of these three methods, physical removal of pyritic sulfur is the most developed method technologically and is potentially lowest in cost. However, the amount of sulfur reduction that might be obtained is limited, since only pyritic sulfur can be removed.

Sulfur in coal occurs in three forms: organic, sulfate, and pyritic. Organic sulfur, which is an integral part of the coal matrix and which generally cannot be removed by direct physical separation, comprises from 30 to 70 percent of the total sulfur of most coals.

The sulfate sulfur content is normally an oxidation product which is water soluble and can be removed readily during coal cleaning. Sulfate sulfur contents are usually less than 0.05 percent in fresh coal.

Pyritic sulfur is the mineral pyrite which occurs in coal as discrete particles, although often of microscopic size. It is a heavy mineral which has a specific gravity of about 5.0, compared to coal which has a maximum specific gravity of only 1.7. The pyrite content of most coals can be reduced significantly by utilizing coal preparation methods of size reduction and gravimetric separation.

To determine the preparation method and the equipment needed to clean a coal, washability tests must be conducted. A washability analysis is an evaluation of those physical properties of a coal which determine its amenability to improvements in quality by cleaning. This includes stage crushing to release impurities and specific gravity fractionation to show the quality and quantity of the cleaned product. A washability study is made by testing the coal sample at preselected, carefully controlled specific gravities. This is termed "float-sink" analysis or specific gravity separation. Heavy organic liquids are commonly used to obtain the desired specific gravities of separation. Chemical analyses of the various specific gravity fractions of the coal are used to compile the washability data which indicate how well the coal can be prepared.

In 1965, the Federal Government funded a study by the Bureau of Mines to determine the forms of sulfur in the major sources of utility steam coals and the washabilities of these coals. To accelerate this program, in 1967, the Federal Government funded a similar study of 2 years duration to be carried out by the Commercial Testing and Engineering Co. The data in this report were compiled from the work done by these two organizations.

This report is an update of an earlier Bureau of Mines publication which summarized the washability characteristics of 322 raw coal channel samples.[4]

ACKNOWLEDGEMENTS

This report was made possible by the cooperation and assistance of the officials of the mines from which coal samples were collected and the National Coal Association. The authors wish to thank R. A. Welsh and P. Sutton for collecting the samples and H. H. Hensley and his staff for performing the washability analysis on the various coal samples.

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TEST PROCEDURE

Collection of Samples

Face samples were collected from surface and deep mines which were producing coal primarily for consumption by electric utilities. In general, an attempt was made to sample the largest utility coal producing mines in the United States; therefore, the 455 coal mine samples reported in this publication represent mines which provide more than 70 percent of the annual utility coal production.

Face samples were collected according to the procedure recommended by Fieldner and Selvig[5] and Holmes,[6] except that the dimensions of each sample cut were expanded to permit 600 pounds of coal to be taken from the face. Partings and impurities were not removed from the samples unless otherwise noted. The face was cleared of loose coal or dirt for a width of approximately 5 feet. Loose pieces of roof were also taken down to prevent their falling into the sample while it was being obtained. Within the cleaned off area on the face, the coal was cut from the roof to the floor in a channel 1 inch deep and about 3 feet wide to remove any altered or otherwise inferior

[4]Deurbrouck, A. W. Sulfur Reduction Potential of the Coals of the United States. BuMines RI 7633, 1972, 289 pp.

[5]Fieldner, A. C., and W. A. Selvig. Notes in the Sampling and Analysis of Coal. BuMines Tech. Paper 586, 1938, 48 pp.

[6]Holmes, J. A. The Sampling of Coal in the Mine. BuMines Tech. Paper 1, 1918, 22 pp.

coal. The floor was then cleared and smoothed and a sampling cloth was spread prior to collecting the sample.

The actual channel sample was cut perpendicular to the lay of the coalbed, approximately 10 inches deep and wide enough to provide a sample of 600 pounds. For example, for a 4-foot-thick coalbed a channel 30.5 inches wide would be collected. The exception to this rule would be when a strip mine sample is obtained where the overburden has been removed. In this case, the depth and width of the channel would be equal. For example, for the 4-foot-thick bed noted above, the channel would be 17.5 inches deep by 17.5 inches wide. The collected sample includes all partings and other impurities occurring in the channel.

Sample Preparation

The 600-pound channel samples collected in the field are loaded into steel drums and returned to the coal preparation laboratory for processing. The sample preparation procedure is outlined in the flowsheet shown in figure 1. Each sample to be tested is air dried and then crushed to 1-1/2-inch top size using a single roll crusher. The sample is then coned, long piled, and shoveled into four pans, according to ASTM specifications, and divided into two portions by combining opposite pans.

One of the 1-1/2-inch by 0 portions is processed as is; the other portion is crushed in a jaw mill to 3/8-inch top size. This 3/8-inch by 0 material is then riffled into two portions; one is processed as is (3/8-inch by 0) and the other is crushed to 14-mesh top size in a hammer mill and processed.

A head sample is riffled from the 14-mesh by 0 portion for proximate analysis (moisture, ash, volatile matter, and fixed carbon) and for determination of calorific value, fusibility of ash, free-swelling index, Hardgrove grindability index, and sulfur forms and content (pyritic, organic, and total). Since the minus 100-mesh material represents such a small percentage of the weight of the two coarser size fractions analyzed, it is removed prior to float-sink testing and is not presented in this report.

The various sized fractions are then float-sink tested at 1.30, 1.40, and 1.60 specific gravities using CERTIGRAV,[7] a commercial organic liquid of standardized specific gravity; the solution tolerance is ±0.001 specific gravity unit and is monitored using a spindle hydrometer. Those samples processed by Commercial Testing and Engineering Co. were further float-sink tested at 1.90 specific gravity.

For the two coarser sizes the separation is made in a screen bottom container which is inserted in 10-gallon-capacity vessels containing the organic liquid. The sample is placed in the 1.30 specific gravity bath, in small quantities to prevent entrapment, and is then stirred and allowed to separate. The lighter specific gravity coal fraction is removed from the surface of the

[7]Reference to specific brands does not imply endorsement by the Bureau of Mines.

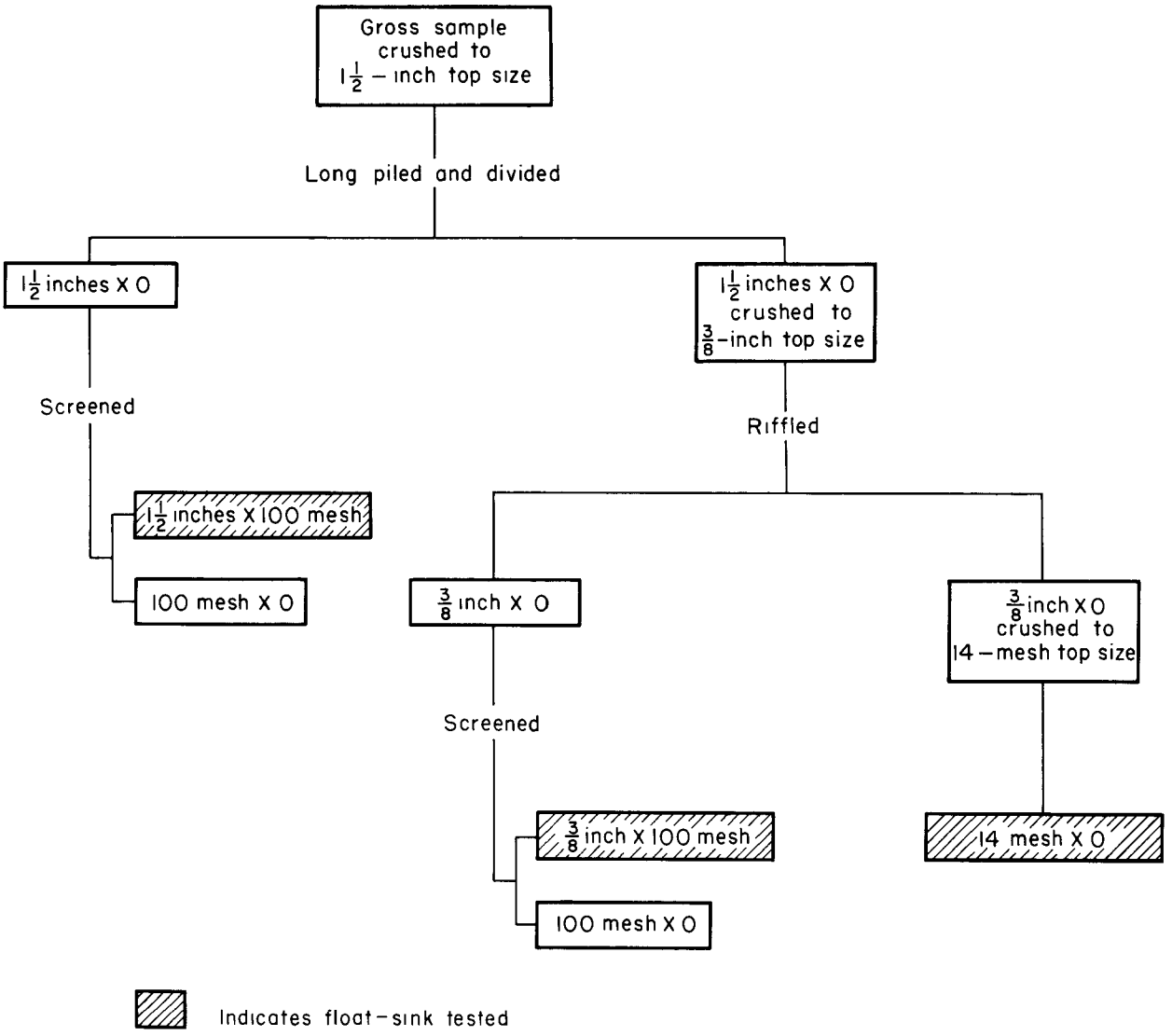


FIGURE 1. - Flow diagram showing preparation of face samples.

bath with a screen wire strainer; the heavier specific gravity material settles to the container bottom which is then raised above the liquid level to drain. The container with the heavier specific gravity material is then placed in the 1.40 specific gravity solution and the process is repeated. This is continued until the sample is separated into the desired specific gravity factions.

For the 14-mesh by 0 size fraction, the separation is made in glass separatory flasks joined by standard ground taper joints. After the sample separates, a stopper is passed through the float layer and inserted into the neck of the separatory funnel. Both products are filtered; the "floats" are dried and prepared for analysis, while the "sinks" are reintroduced into another separatory flask containing a heavier specific gravity liquid and the float-sink procedure is continued.

Upon completion of the float-sink testing, the specific gravity fractions of the three sized samples are analyzed for ash, pyritic sulfur, and total sulfur content. All chemical analyses are reported on a moisture-free basis unless otherwise noted. Raw coal moisture, as presented in the appendix tables, is the moisture contained in the sample after being air dried at the coal preparation laboratory. The air dry loss is not included in the moisture determination. It is felt that under normal conditions the moisture content as reported here would closely simulate the moisture content of the coal burned at the powerplant. Specific gravity separations of fine coal are particularly difficult, especially with coals that are porous and contain high inherent moisture contents, because the heavy liquid used can penetrate the pores and increase the apparent specific gravity of the coal. This explains the unexpectedly low weight recoveries noted occasionally for the float 1.30 specific gravity fraction of the lower rank coal samples crushed to 14-mesh top size.

The float-sink data from the channel samples are not to be construed as representing the quality of the product loaded at the mine where the sample was taken but rather as indicating the quality of the bed in that particular geographical location. Float-sink data are based upon theoretically perfect specific gravity separations that are approached but not equaled in commercial practice.

EXPERIMENTAL RESULTS

Four hundred and fifty-five sets of individual washability data have been compiled to show what effect size reduction and specific gravity fractionation have on the liberation and subsequent removal of pyritic sulfur and other impurities. Because of the gross amount of data available, all the individual washability data plus the statistical summations of the data are presented in three appendixes.

Washability Data

Appendix A is the complete tabulation of the 455 sets of washability data. Cumulative weight and Btu recovery, Btu per pound, ash, pyritic sulfur, total sulfur, and pounds SO_2 emission per million Btu levels are given showing theoretical recoveries and product quantities obtained at various specific gravities when the coal samples were crushed to 1-1/2-inch, 3/8-inch, and 14-mesh top sizes. The Btu per pound values for the float 1.60 specific gravity products and the total or raw coal products were obtained by actual analysis; those of the float 1.30, 1.40, and 1.90 specific gravity products were obtained by interpolation from a plot of cumulative ash versus cumulative Btu per pound. The pounds SO_2 emission per million Btu were calculated using the corresponding Btu per pound (moisture-free basis) and total sulfur content (moisture-free basis) and assumes that all of the sulfur in the coal goes out of the stack as SO_2. Actual emissions may vary since as-fired coals will contain some moisture and all of the sulfur may not go out the stack as SO_2.

Evaluation of Washability Data

Appendixes B and C are statistical evaluations of the composited washability data presented in appendix A. The appendixes are broken down by regions in the following manner:

1. Northern Appalachian Region includes the States of Maryland, Pennsylvania (bituminous), and Ohio and those 40 counties located in central and northern West Virginia as follows:

Barbour	Hampshire	Mineral	Ritchie
Berkeley	Hancock	Monongalia	Roane
Braxton	Hardy	Morgan	Taylor
Brooke	Harrison	Nicholas	Tucker
Calhoun	Jackson	Ohio	Tyler
Clay	Jefferson	Pendleton	Upshur
Doddridge	Lewis	Pleasants	Webster
Gilmer	Marion	Pocahontas	Wetzel
Grant	Marshall	Preston	Wirt
Greenbrier	Mason	Randolph	Wood

2. Southern Appalachian Region includes the States of Tennessee, Virginia, Kentucky (east) and the southern West Virginia counties of Boone, Cabell, Fayette, Kanawha, Lincoln, Logan, McDowell, Mercer, Mingo, Monroe, Putnam, Raleigh, Summers, Wayne, and Wyoming. Actually samples from only two southern West Virginia counties are included in this study--Kanawha and Logan--because the coals in this area are known to be of low sulfur content as mined.

3. Alabama Region includes only the State of Alabama.

4. Eastern Midwest Region includes the States of Illinois, Indiana, and Kentucky (west).

5. Western Midwest Region includes the States of Arkansas, Iowa, Kansas, Missouri, and Oklahoma.

6. Western Region includes the States of Arizona, Colorado, Montana, New Mexico, North Dakota, Utah, and Wyoming.

Data from the various regions are shown composited by coalbeds, giving the number of samples collected from a coalbed by States, and the total number of samples collected from the coalbed.

These data and a composite of all the samples collected for each individual coalbed, or a composite of all the samples collected for all the coalbeds of a region, showing the effect on ash, pyritic sulfur, and total sulfur contents when crushing the coal to three top sizes, 1-1/2 inches, 3/8 inch, and 14 mesh. Average values are given plus standard deviation (sigma) values. Average values are the arithmetic means of the data involved in computing any given average. Since the number of pieces of data involved in the computation

of an average gives a reader one measure of credence of the average, this number is shown in all output. Sigma values are given to show the spread of the data about the average. This sigma is the standard deviation of a sample of numbers and is defined as the root mean square deviation. For a normal distribution, 68 percent of the cases should fall between the "average" ($\bar{X}$), $\pm$ s; 95 percent of the cases between the "average" $\bar{X} \pm 2s$, and 99.7 percent of the cases between the "average" $\bar{X} \pm 3s$. Thus, it is desirable to have "N," the number of samples, large and s, "sigma," as small as possible.

Appendix B is a composite, by specific gravity fractions, of all the washability samples of a particular coalbed in a State and a region showing the effects of crushing and gravimetric separation on these coals.

For example, on page 272 (appendix B), 41 samples were collected from the Pittsburgh bed coal for this study; of these, 1 was from Maryland, 18 were from Ohio, 6 were from Pennsylvania, and 16 were from West Virginia. Starting from the left side of the page, the data show in detail the average ash content of the Pittsburgh bed coal samples collected for this study to be 13.1 percent, $\pm$ sigma of 6.8 percentage points. Thus, in 68 percent of the samples tested, the raw coal ash content would range from 6.3 to 19.9 percent. The average pyritic sulfur content was 2.17 percent, $\pm$1.0 percentage points. The average total sulfur content was 3.60 percent, $\pm$1.3 percentage points.

At float 1.30 when the sample is crushed to 1-1/2-inch top size, the average ash is 4.2 percent, $\pm$0.7 percentage points; this represents a reduction in ash content of 63 percent, $\pm$11 percentage points. Therefore, in 68 percent of the samples tested, the ash varied from 3.5 to 4.9 percent, representing a reduction in ash content from the raw coal varying from 52 to 76 percent. The corresponding pyritic sulfur content is 0.53 percent, $\pm$0.2 percentage points, thus providing 71 percent reduction over the raw coal, $\pm$23 percentage points. The total sulfur content at float 1.30 would be 2.06 percent, $\pm$15 percentage points.

As the specific gravity of the product increases, so will the Btu recovery and ash content, but the Btu per pound will decrease. As a general rule, the pyritic sulfur, total sulfur, and pounds SO_2 emission per million Btu will also increase. However, there are coals which contain almost no pyrite in the associated rock, most of the pyrite occurring with the coal. Such coals will show lower sulfur contents in the higher specific gravity fractions.

As the sample is reduced in size, impurities are released which are removable by float-sink separation. For example, at float 1.30, the ash content is 4.2 percent at 1-1/2-inch top size, 4.0 percent at 3/8-inch top size, and 3.5 percent at 14-mesh top size.

Appendix C shows the effect of crushing on liberation of impurities by showing the quality of the theoretical products, obtained from cumulative interpolated washability data at 50-, 60-, 70-, 80-, 90-, and 100-percent Btu recovery levels. These theoretical products are represented by averages for each of the previously stated levels. The data are arranged the same as for appendix B.

The recoveries are calculated by using the Lagrangian interpolation method described later. Note that the variations in the number of samples processed at each level of recovery reflects the fact that no extrapolation of washability data has been attempted. For example, if a coal showed a float 1.30 Btu recovery in excess of 50 percent, then this sample would not be included in the evaluation since no extrapolations were made.

Generally, these data show that as the recoveries increased, the ash, pyritic sulfur, total sulfur, weight, and pounds of SO_2 emission per million Btu also increased. However, the Btu per pound decreased since the ash content increased. As the sample was crushed, more impurities were released and readily separated. That is, the ash, pyritic sulfur, total sulfur, weight recovery, and pounds of SO_2 emission per million Btu generally decreased while the Btu per pound increased when the sample was crushed to the finer top sizes and the higher specific gravity material was removed.

Figure 2 is nomograph showing the SO_2 emissions which will result from burning coals of various sulfur and Btu contents. When using the nomograph or the formula, one must be consistent and be sure that both the Btu per pound and sulfur values are on an as-received, moisture-free or moisture-and-ash free basis. For example, a coal containing 0.8 percent sulfur and 13,100 Btu per pound would meet the EPA SO_2 emission standard; however, a coal of the same sulfur content but containing only 10,500 Btu per pound would produce 1.5 pounds of SO_2/MM Btu and would not be in compliance.

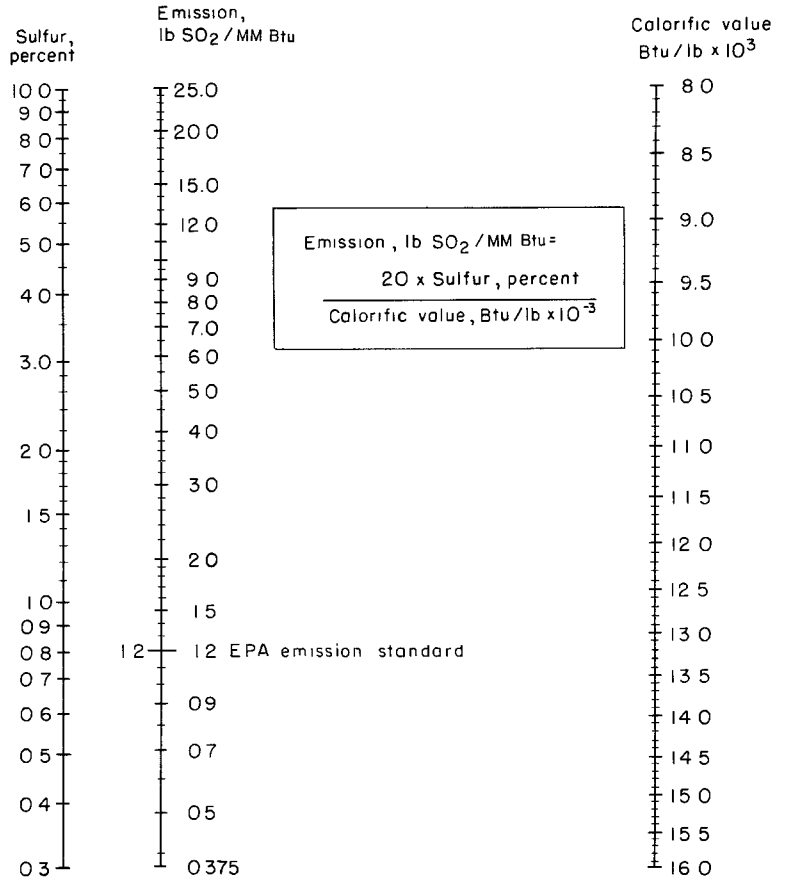


FIGURE 2. - Nomograph relating sulfur content and calorific value in coals to pounds SO_2 emission per million Btu.

Computer Programs

For each mine sample, the following data is entered: State, county, town, mine, and bed codes; laboratory number and laboratory identification code; bed-bench, and size fraction codes; year of sample collection, company, mine, and county name; the specific gravity fractions of separation and their associated levels with the

variables, weight and Btu recoveries, ash content, pyritic and total sulfur contents, and pounds of SO_2 emission per million Btu. All chemical analyses are reported on a moisture-free basis.

The initial computer program calculates Btu recovery, Btu per pound and pounds of SO_2 emission per million Btu for the various cumulated float products.

A second computer program was required to make the statistical evaluations. The raw data used consisted of those items calculated in the initial program.

By interpolation the EPA emission standard of 1.2 pounds of SO_2/MM Btu was obtained in the initial computer program. In the second program, interpolation was used to calculate the percentages of ash, pyritic sulfur, total sulfur, weight recovery, Btu per pound, and pounds of SO_2 emission per million Btu for the desired levels of Btu recovery.

In order to interpolate, it is necessary to assume that a valid functional relation exists between the variable used as the interpolant and each of the other variables to be associated with it. Since the available data was recorded at five or fewer levels, it must be assumed that these are sufficient in number and accurate enough to allow the use of a simple functional relation to determine statistically significant values of the variables at the level of the interpolant.

The actual interpolation is performed by means of a subroutine. This subroutine makes the following tests and continues accordingly.

I. Does the interpolant lie within the range of the given data?

A. If yes, the program proceeds to step II.

B. If no, is the interpolant less than or greater than given data?

1. If it is greater, then all the data meets the EPA standard.

II. If the interpolants lie within range of the given data, then determine if the interpolant is equal to a recorded level.

A. If equality occurs, the interpolated values of all the variables are set equal to their respective recorded values.

B. If equality does not occur, the subroutine checks to see if there is sufficient data to perform a three point Lagrangian interpolation. If there is, the desired interpolation is made for the variables. If not, linear interpolation is made.

C. The program then checks to see if the Lagrangian results for each variable interpolated are reasonable using the original data as a yardstick. If not, any specific value is recalculated by using linear interpolation.

Experience has shown that where there is not enough data to produce a sufficiently dense lattice of points, the Lagrangian and similar methods cannot be used as the mathematical model to produce reasonable results.

The second computer program further calculates the averages and standard deviations of the percent ash, pyritic sulfur, and total sulfur for 100-percent recovery as determined from the original data. These averages are found for each bed and the required data accumulated for similar averages for the region. In like manner, the average and standard deviation values are calculated for each set of interpolated values at the various yield levels.

DISCUSSION OF RESULTS

Northern Appalachian Region Coals

Two hundred twenty-seven coalbed samples collected from Maryland (34), Ohio (58), Pennsylvania (103), and northern West Virginia (32) were evaluated. The average raw coal of the region contained 15.1 percent ash, 2.01 percent pyritic sulfur, 3.01 percent total sulfur, and 12,693 Btu per pound which would produce 4.8 pounds SO_2/MM Btu fired at the powerplant.

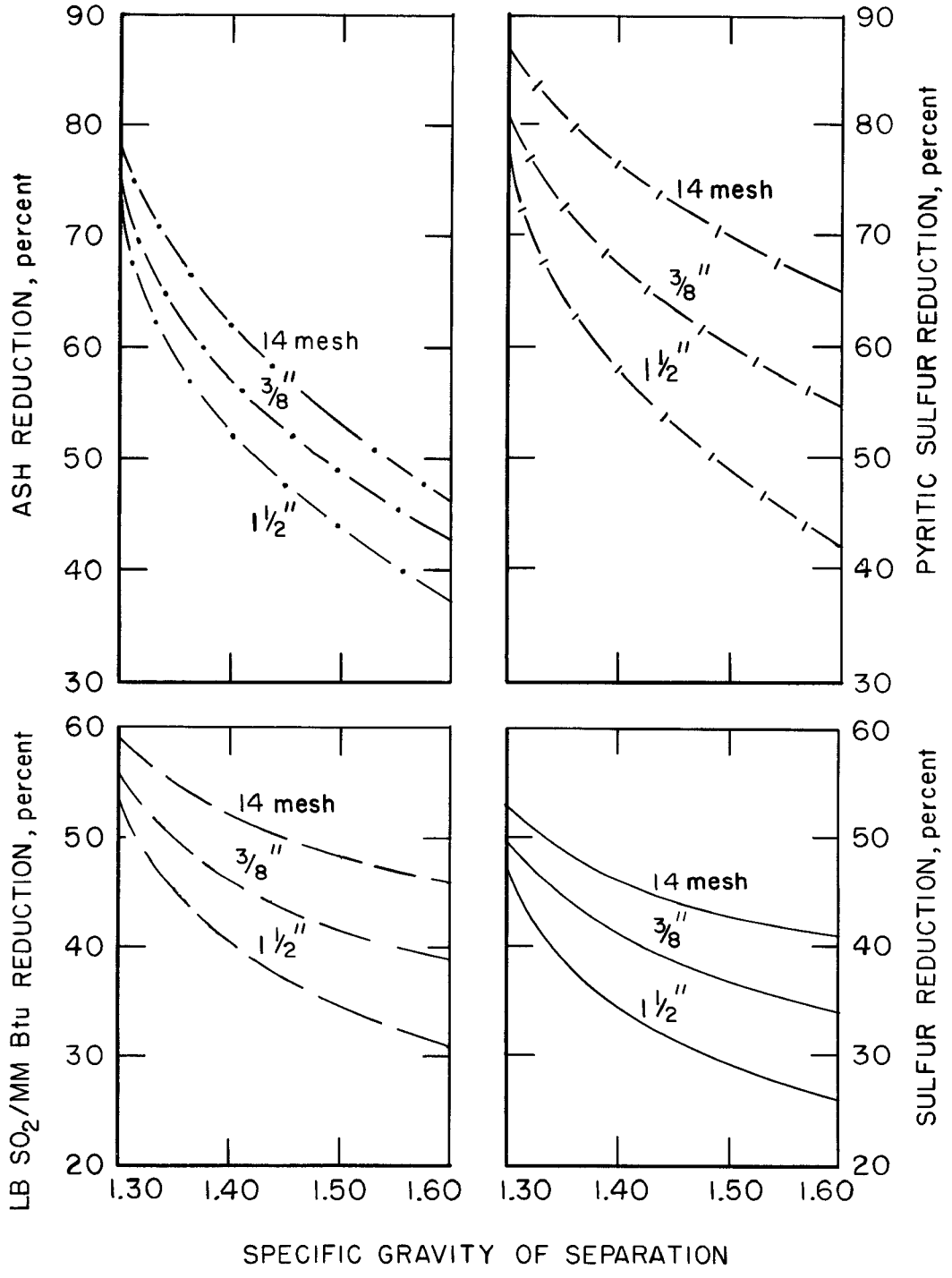
Crushing the raw coal to 14-mesh top size and removing the sink 1.60 specific gravity material would provide a produce analyzing 7.6 percent ash, 0.66 percent pyritic sulfur, 1.66 percent total sulfur and 13,821 Btu per pound, a Btu recovery of 92.1 percent. Thus, as shown in figure 3, coal preparation techniques would provide an average pyritic sulfur reduction of 65 percent, a total sulfur reduction of 41 percent, and pounds SO_2 emission per million Btu reduction of 46 percent.

Figure 4 shows that only 4 percent of the raw coal samples as mined could meet the current EPA emission standard of 1.2 pounds SO_2/MM Btu. Only 12 percent of the samples would comply at a Btu recovery of 90 percent when crushed to 1-1/2-inch top size and 31 percent would comply at a Btu recovery of 50 percent when crushed to 14-mesh top size. However, if the emission standard were raised to 2.0 pounds of SO_2/MM Btu, then 15 percent of the raw coal samples would meet this standard with no preparation, approximately 35 percent would comply at a 90-percent Btu recovery when crushed to 1-1/2-inch top size, and about 70 percent would comply at a 50-percent Btu recovery when crushed to 14-mesh top size.

Sewickley Coalbed

The 15 Sewickley bed coal samples were collected from four Northern Appalachian Region States: Maryland (2), Ohio (10), Pennsylvania (2), and West Virginia (1).

In general this coal showed significant pyritic sulfur liberation; however, because the organic sulfur content averaged 1.69 percent, the total sulfur content remained high regardless of the projected gravimetric separation. The average total sulfur content of this coalbed varied from as high as 4.45 percent in Ohio to as low as 1.32 percent in Maryland.



Northern Appalachian region (227 samples)

FIGURE 3. - The effect of crushing to 1-1/2-inch, 3/8-inch, and 14-mesh top size on the reduction of ash, pyritic sulfur, total sulfur, and pounds SO_2 emission per million Btu at various specific gravities of separation for the Northern Appalachian Region coals.

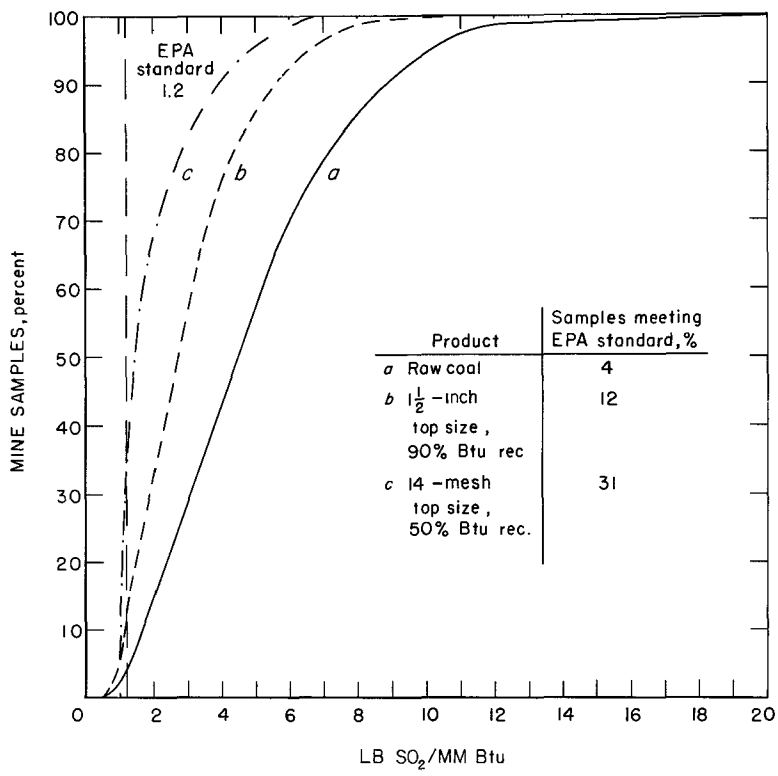


FIGURE 4. - Percent of Northern Appalachian Region coal samples meeting the current EPA standard of 1.2 pounds SO_2/MM Btu with no preparation, curve *a*; compared with those crushed to 1-1/2-inch top size at a Btu recovery of 90 percent, curve *b*; and those crushed to 14-mesh top size at a Btu recovery of 50 percent, curve *c*, and separated gravimetrically.

Pittsburgh Coalbed

The 41 Pittsburgh bed coal samples were collected from four States: Maryland (1), Ohio (18), Pennsylvania (6), and West Virginia (16).

This coal also showed significant pyritic sulfur liberation; however, because the organic sulfur content of this coal averaged 1.43 percent, the total sulfur content remained high regardless of the projected gravimetric separation. The average total sulfur content of this coal varied from as high as 4.19 percent in Ohio to as low as only 0.85 percent in Maryland.

Upper Freeport Coalbed

The 33 Upper Freeport bed coal samples were collected from three States: Maryland (7), Pennsylvania (20), and West Virginia (6).

The average pyritic sulfur and total sulfur contents of this coalbed were 1.77 and 2.45 percent. However, when this coal is crushed to 14-mesh top size, it can be gravimetrically upgraded to provide an average product which would meet the EPA SO_2 emission standard at a Btu recovery of 70 percent.

The Upper Freeport coalbed is an excellent example of a high sulfur content coal which can be sufficiently desulfurized to meet the current EPA SO_2 emission standard by utilizing appropriate coal preparation techniques.

Lower Freeport Coalbed

The 13 Lower Freeport bed coal samples were collected from three States: Maryland (1), Ohio (2), and Pennsylvania (10).

The average pyritic and total sulfur content of this coalbed were 1.70 and 2.39 percent. However, when this coal is crushed to 14-mesh top size, it can also be gravimetrically upgraded to provide an average product which would meet the EPA SO_2 emission standard at a Btu recovery of 80 percent.

The Lower Freeport coalbed is another excellent example of a high sulfur content coal which can be sufficiently desulfurized to meet the current EPA SO_2 emission standard by utilizing appropriate coal preparation techniques.

Upper Kittanning Coalbed

The 10 Upper Kittanning bed coal samples were collected from two States: Maryland (2), and Pennsylvania (8).

The average pyritic and total sulfur contents of this coalbed were 1.62 and 2.21 percent.

This coalbed was very amenable to upgrading by gravimetric means, providing an average product which would meet the EPA SO_2 emission standard at a Btu recovery of 70 percent when the sample was crushed to a top size of only 1-1/2 inches.

Middle Kittanning Coalbed

The 27 Middle Kittanning bed coal samples were collected from three States: Ohio (14), Pennsylvania (10), and West Virginia (3).

The average pyritic and total sulfur contents of this coalbed were 1.97 and 3.00 percent, respectively.

This coal showed significant pyritic sulfur liberation; however, because of the high average organic sulfur content of this coal, the average total sulfur content remained high regardless of the projected gravimetric separation.

Lower Kittanning Coalbed

The 47 Lower Kittanning bed coal samples were collected from four States: Maryland (3), Ohio (7), Pennsylvania (33), and West Virginia (4).

The average pyritic and total sulfur contents of this coalbed were 2.16 and 3.01 percent.

This coal also showed significant pyritic sulfur liberation; however, because of the high average organic sulfur content of this coal, the average total sulfur content remained high regardless of the projected gravimetric separation.

The average total sulfur content of this coalbed was much higher in Ohio, 4.14 percent, and Pennsylvania, 3.23 percent, than in Maryland, 0.92 percent, and West Virginia, 0.78 percent.

Southern Appalachian Region Coals

The 35 Southern Appalachian Region coalbed samples were collected from three states: Kentucky (east) (7), Tennessee (8), southern West Virginia (12),

and Virginia (8). The raw coal of the region averaged 11.0 percent ash, 0.37 percent pyritic sulfur, 1.03 percent total sulfur, and 13,314 Btu per pound; this would produce 1.6 pounds SO_2/MM Btu fired at the powerplant.

Significant ash and pyritic sulfur reductions are attainable from these coals by gravimetric separations, figure 5, and although the total sulfur reductions are not high, they are adequate to provide an average final product of very low total sulfur content.

Figure 6 shows that 35 percent of the raw coal samples as mined would meet the current EPA standard of 1.2 pounds SO_2/MM Btu. Fifty percent of the samples would comply at a Btu recovery of 90 percent when crushed to 1-1/2-inch top size; 63 percent would comply at a Btu recovery of 50 percent when crushed to 14-mesh top size. However, if the emission standard were raised to 2.0 pounds SO_2/MM, then more than 80 percent of the raw coal samples would meet the standard with no preparation and about 90 percent would comply at a 90-percent Btu recovery when crushed to 1-1/2 inch top size.

Alabama Region Coals

Only 10 raw coal samples were collected from Alabama. The average raw coals of the region contained 9.5 percent ash, 0.69 percent pyritic sulfur, 1.33 percent total sulfur, and 13,696 Btu per pound, which would produce 2.0 pounds of SO_2/MM Btu fired at the powerplant. The coals of this region, although low in total sulfur content, do not respond to upgrading by crushing and gravimetric separation, figure 7.

Figure 8 shows that 30 percent of the raw coal samples as mined would meet the current EPA standard of 1.2 pounds SO_2/MM Btu. Crushing to 14-mesh top size and accepting only a 50-percent Btu recovery would result in only 40 percent of the samples complying. If the EPA SO_2 emission standard were raised to 2.0 pounds SO_2/MM Btu, then more than 60 percent of the raw coal samples would meet the standard with no preparation and all the samples would comply at a 50-percent Btu recovery when crushed to 14-mesh top size.

Eastern Midwest Region Coals

The 95 Eastern Midwest Region samples were collected from three States: Illinois (40), Indiana (20), and Kentucky (west) (35).

The average raw coal from the region contained 14.2 percent ash, 2.29 percent pyritic sulfur, 3.92 percent total sulfur, and 12,189 Btu per pound, which would produce 6.5 pounds SO_2/MM Btu fired at the powerplant.

The average ash and pyritic sulfur contents of these coals were similar to those of the Appalachian Region Coals; however, these coals contained about 0.63 percent more organic sulfur which makes the problem of producing a low sulfur content product much more formidable.

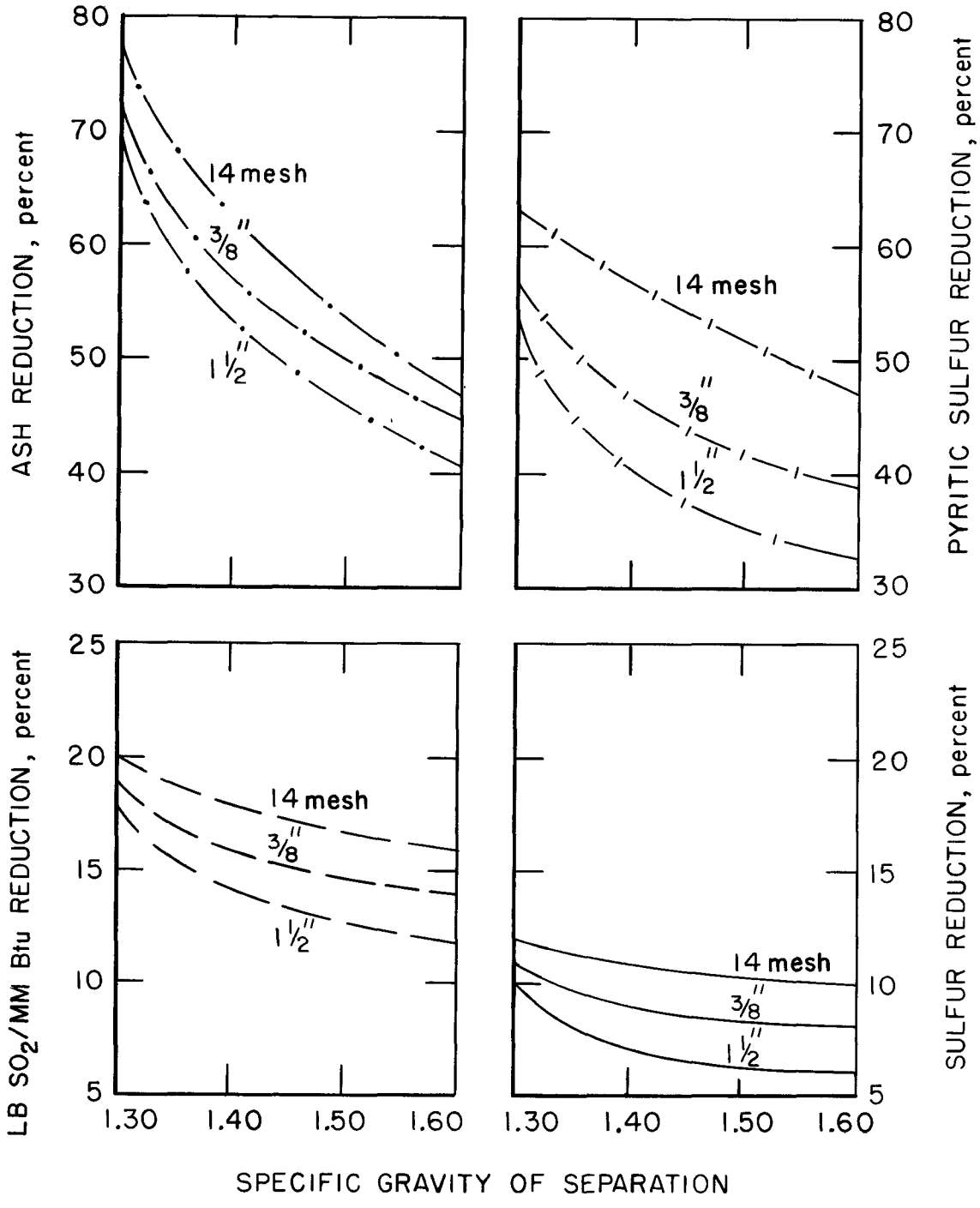


FIGURE 5. - The effect of crushing to 1-1/2-inch, 3/8-inch, and 14-mesh top size on the reduction of ash, pyritic sulfur, total sulfur, and pounds SO_2 emission per million Btu at various specific gravities of separation for the Southern Appalachian Region coals.

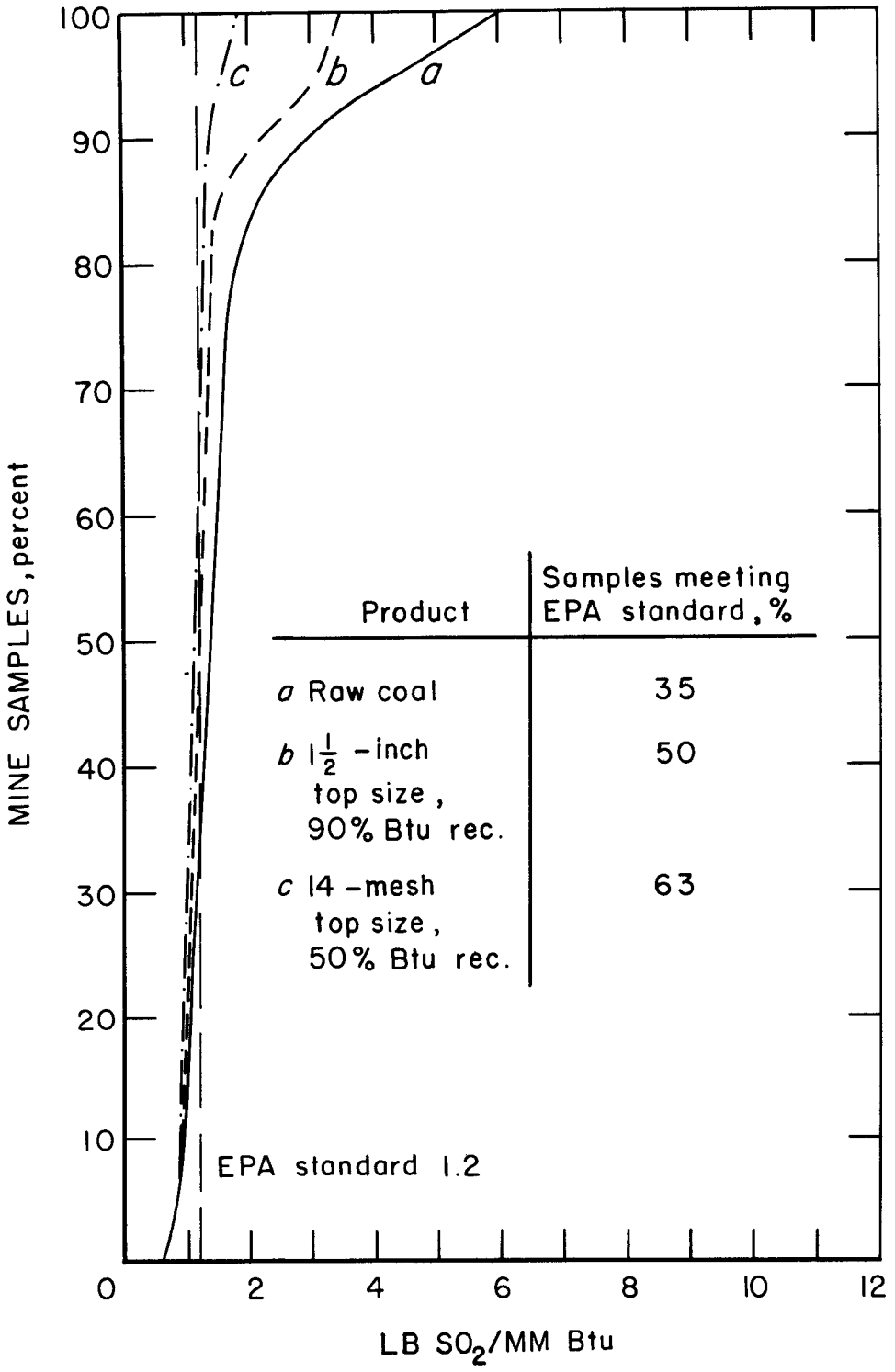


FIGURE 6. - Percent of Southern Appalachian Region coal samples meeting the current EPA standard of 1.2 pounds SO_2/MM Btu with no preparation, curve *a*; compared with those crushed to 1-1/2-inch top size at a Btu recovery of 90 percent, curve *b*; and those crushed to 14-mesh top size at a Btu recovery of 50 percent, curve *c*, and separated gravimetrically.

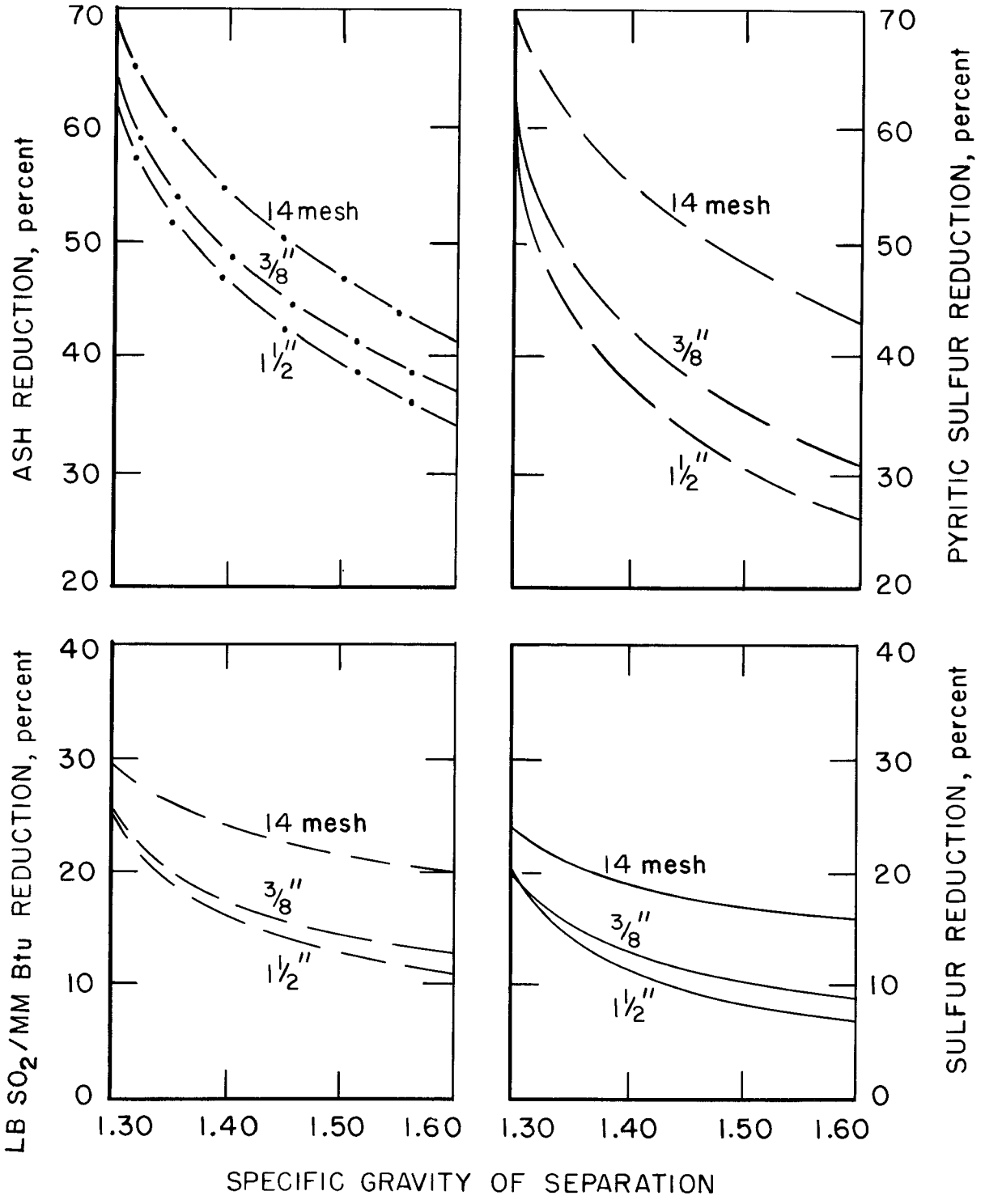


FIGURE 7. - The effect of crushing to 1-1/2-inch, 3/8-inch, and 14-mesh top size on the reduction of ash, pyritic sulfur, total sulfur, and pounds SO_2 emission per million Btu at various specific gravities of separation for the Alabama Region coals.

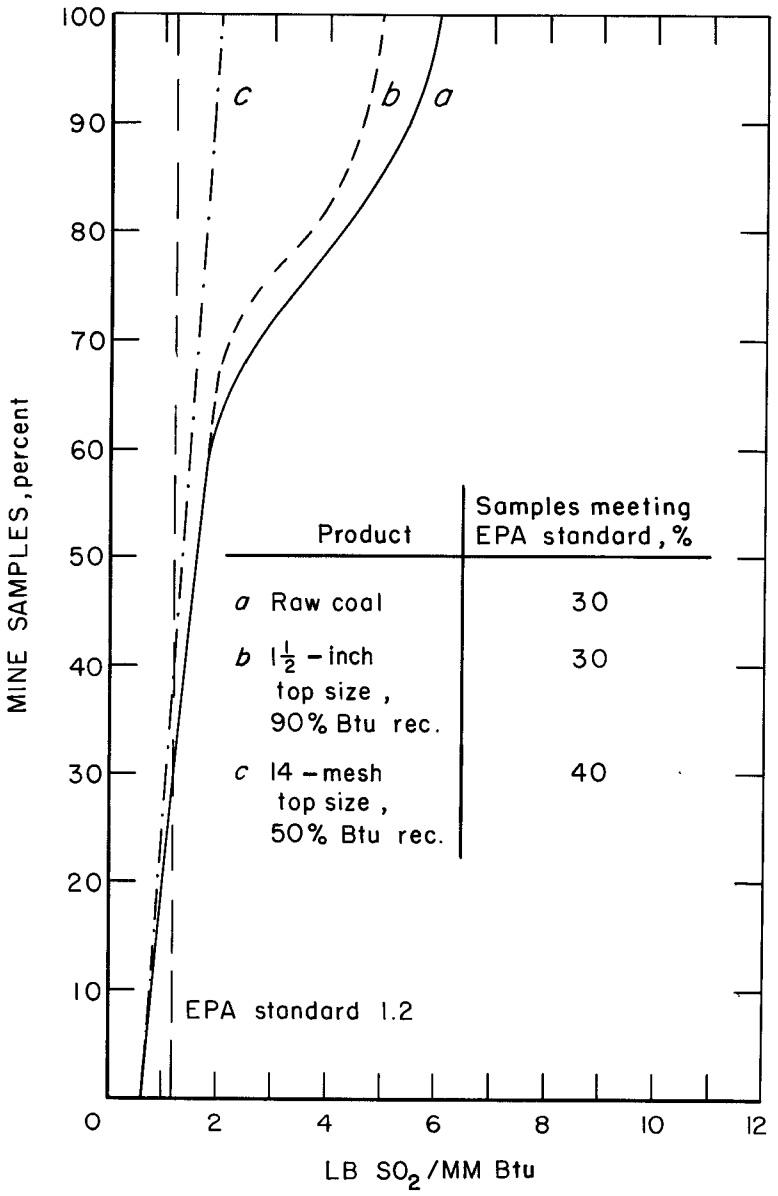


FIGURE 8. - Percent of Alabama Region coal samples meeting the current EPA standard of 1.2 pounds SO_2/MM Btu with no preparation, curve *a*; compared with those crushed to 1-1/2-inch top size at a Btu recovery of 90 percent, curve *b*; and those crushed to 14-mesh top size at a Btu recovery of 50 percent, curve *c*, and separated gravimetrically.

Figure 9 shows that crushing to 14-mesh top size and removing the sink 1.60 specific gravity material would provide a 45-percent reduction in ash, a 57-percent reduction in pyritic sulfur, a 32-percent reduction in total sulfur, and a 37-percent reduction in the pounds of SO_2 emission per million Btu.

The data in figure 10 show that only 1 percent of the raw coal samples as mined would meet the current EPA SO_2 emission standard. Only 2 percent of the samples could comply at a Btu recovery of 90 percent when crushed to 1-1/2-inch top size, whereas 4 percent would comply at a Btu recovery of 50 percent when crushed to 14-mesh top size. If the emission standard were raised to 2.0 pounds SO_2/MM Btu, only 2 percent of the raw coals would meet the standard with no preparation, and only 12 percent would meet the standard at a Btu recovery of 50 percent when crushed to 14-mesh top size.

Although significant numbers of samples were collected from certain coalbeds in the Eastern Midwest Region, individual discussions are not included because of the general likeness in physical characteristics of these coals.

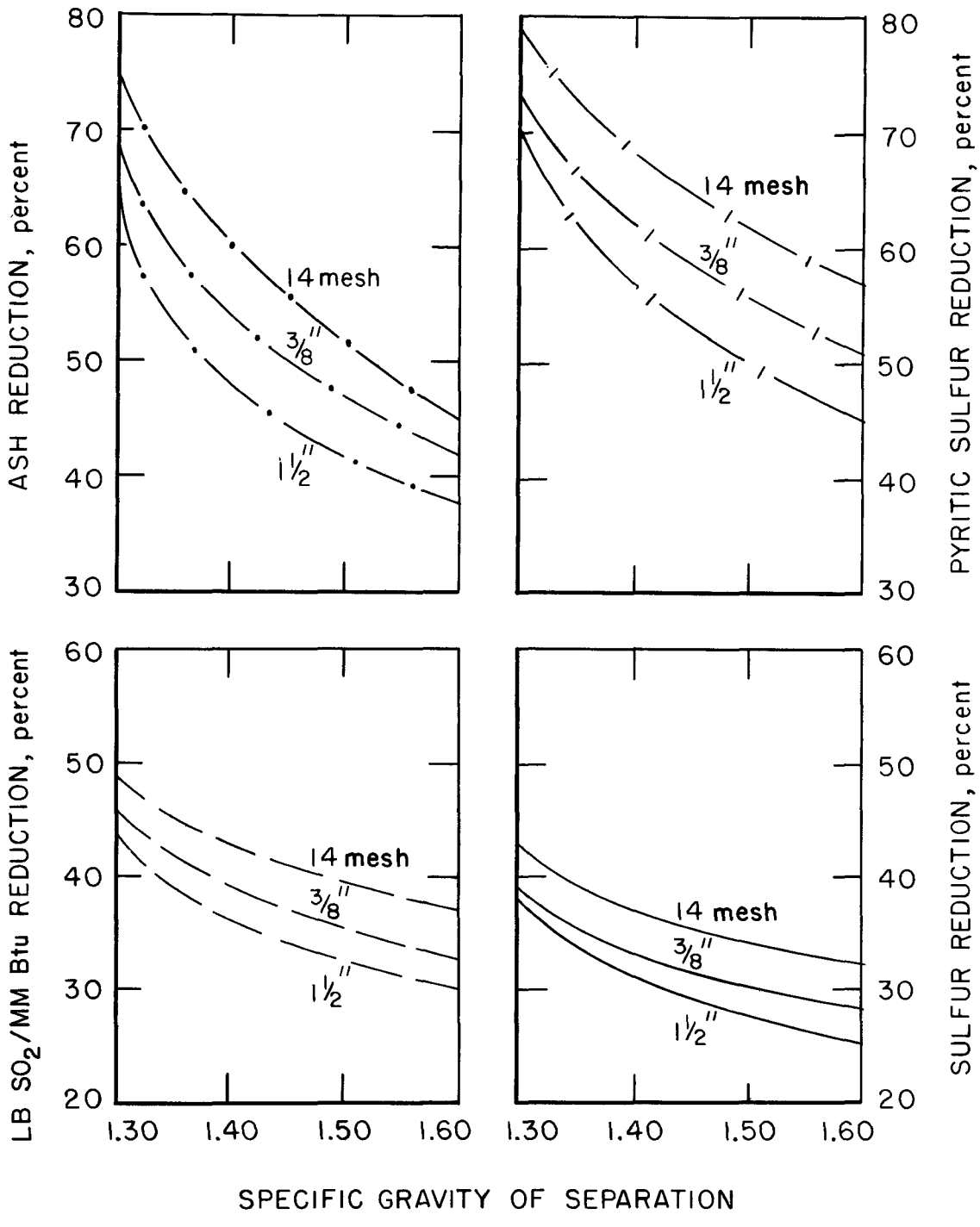


FIGURE 9. - The effect of crushing to 1-1/2-inch, 3/8-inch, and 14-mesh top size on the reduction of ash, pyritic sulfur, total sulfur, and pounds SO_2 emission per million Btu at various specific gravities of separation for the Eastern Midwest Region coals.

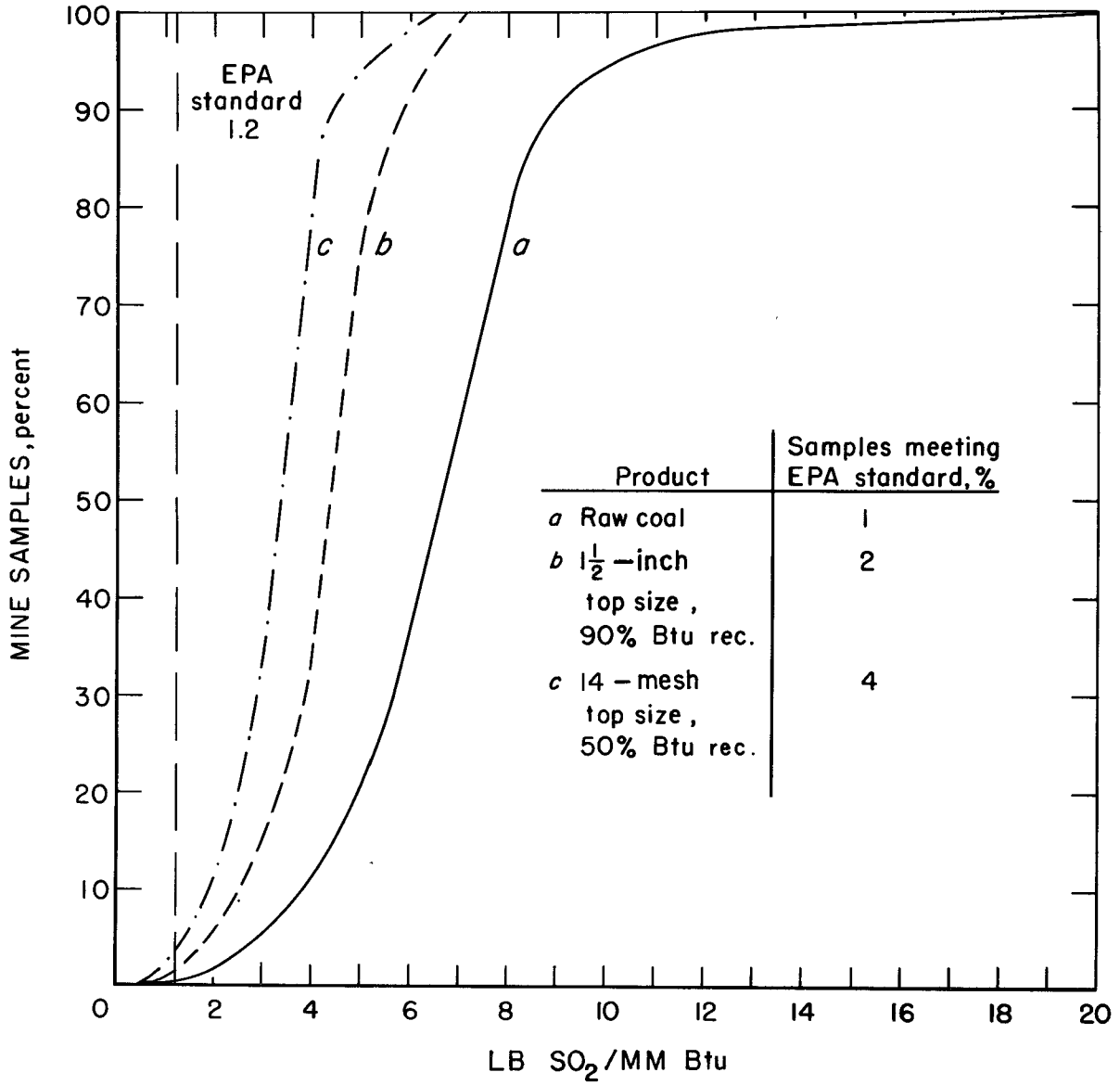


FIGURE 10. - Percent of Eastern Midwest Region coal samples meeting the current EPA standard of 1.2 pounds SO_2/MM Btu with no preparation, curve *a*; compared with those crushed to 1-1/2-inch top size at a Btu recovery of 90 percent, curve *b*; and those crushed to 14-mesh top size at a Btu recovery of 50 percent, curve *c*, and separated gravimetrically.

Western Midwest Region Coals

The 44 Western Midwest Region coalbed samples were collected from five States: Arkansas (3), Kansas (8), Iowa (17), Missouri (9), and Oklahoma (7). The average raw coal of the region contained 16.2 percent ash, 3.58 percent pyritic sulfur, 5.25 percent total sulfur, and 12,072 Btu per pound, which would produce 9.0 pounds SO_2/MM Btu fired at the powerplant.

Aside from two of the coals from Oklahoma, one of which could meet the EPA SO_2 emission standard as mined and the other which could be upgraded to meet the EPA SO_2 emission standard, these coals were generally of very high total sulfur content with high organic sulfur content.

Crushing of these coals to 14-mesh top size and removing the sink 1.60 specific gravity material would provide an ash reduction of 50 percent, a pyritic sulfur reduction of 55 percent, a total sulfur reduction of 33 percent, and a pounds SO_2/MM Btu reduction of 40 percent (fig. 11).

Figure 12 shows that less than 3 percent of the raw coal samples as mined could meet the current EPA SO_2 emission standard. Less than 6 percent of the samples would comply at a Btu recovery of 50 percent when crushed to 14-mesh top size.

Even if the emission standard were raised to 2.0 pounds SO_2/MM Btu, only 5 percent of the raw coal samples would meet the standard with no preparation, whereas approximately 8 percent would meet the standard at a Btu recovery of 50 percent when crushed to 14-mesh top size.

Western Region Coals

The 44 Western Region coalbed samples were collected from seven States: Arizona (6), Colorado (11), Montana (5), New Mexico (9), North Dakota (1), Utah (8), and Wyoming (4). The average raw coal of the region contained 8.9 percent ash, 0.23 percent pyritic sulfur, 0.68 percent total sulfur, and 12,437 Btu per pound, which would produce 1.1 pounds SO_2/MM Btu fired at the powerplant, thus meeting the current EPA SO_2 emission standard.

Figure 13 shows that crushing these coals below 1-1/2-inch top size would be of little benefit in reduction of total sulfur content because these raw coals generally contain less than 1 percent total sulfur. However, crushing to 14-mesh top size and removing the sink 1.60 specific gravity material would provide ash and pyritic sulfur reductions of 33 and 45 percent, respectively.

Figure 14 shows that 70 percent of the raw coal samples as mined would meet the current EPA SO_2 emission standard. Ninety-four percent would comply at a Btu recovery of 90 percent when crushed to 1-1/2-inch top size, and 98 percent would comply at a Btu recovery of 50 percent when crushed to 14-mesh top size.

The coals characteristically are of low sulfur content, often well below 1 percent total sulfur content. These coals range in rank from lignite to bituminous, being predominantly subbituminous coals. However, the inherent moisture content is much higher and the heating value much lower than those of Eastern bituminous coals; therefore, considering also the high transportation costs, extensive use of these coals in Eastern utility plants is doubtful.

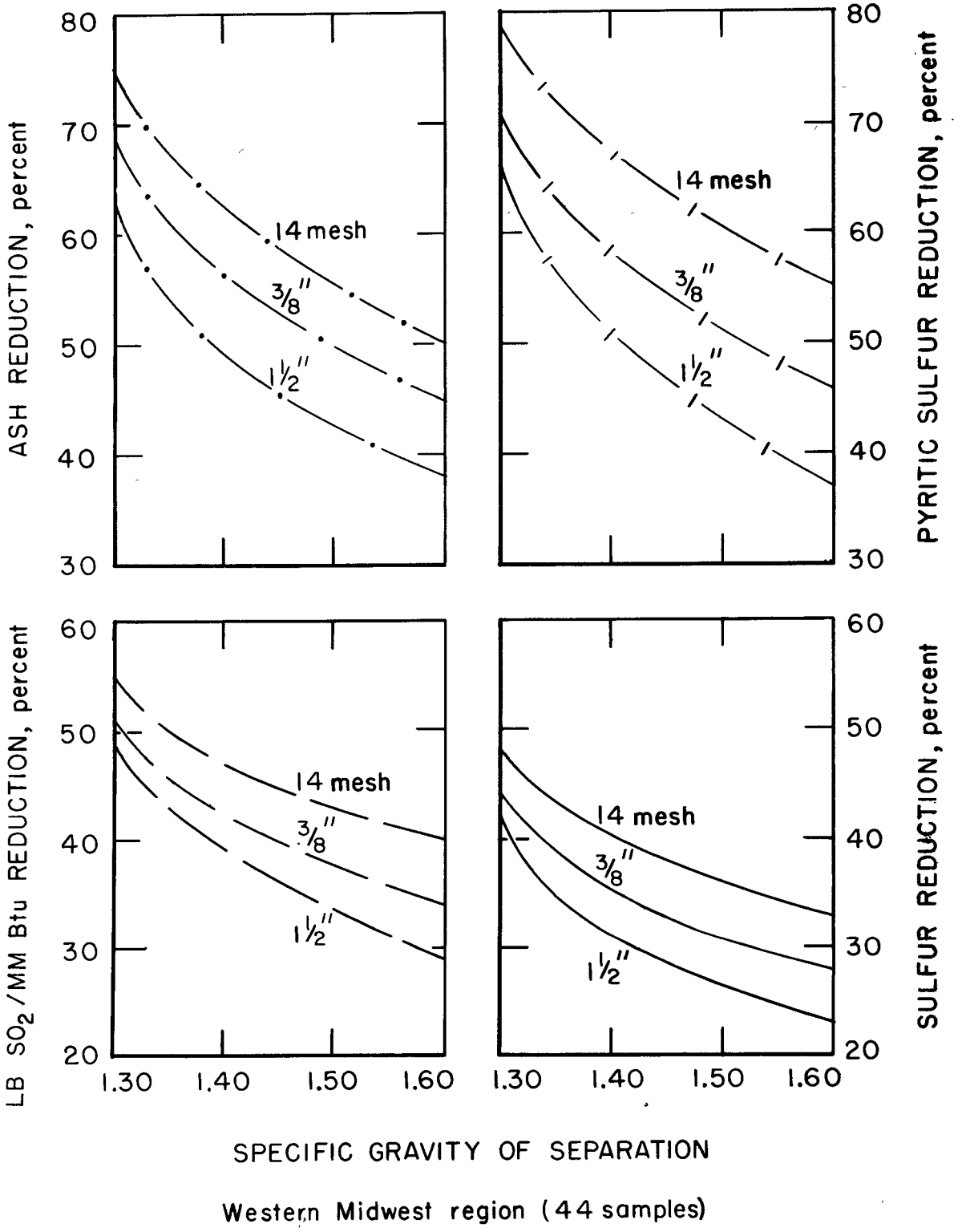


FIGURE 11. - The effect of crushing to 1-1/2-inch, 3/8-inch, and 14-mesh top size on the reduction of ash, pyritic sulfur, total sulfur, and pounds SO_2 emission per million Btu at various specific gravities of separation for the Western Midwest Region coals.

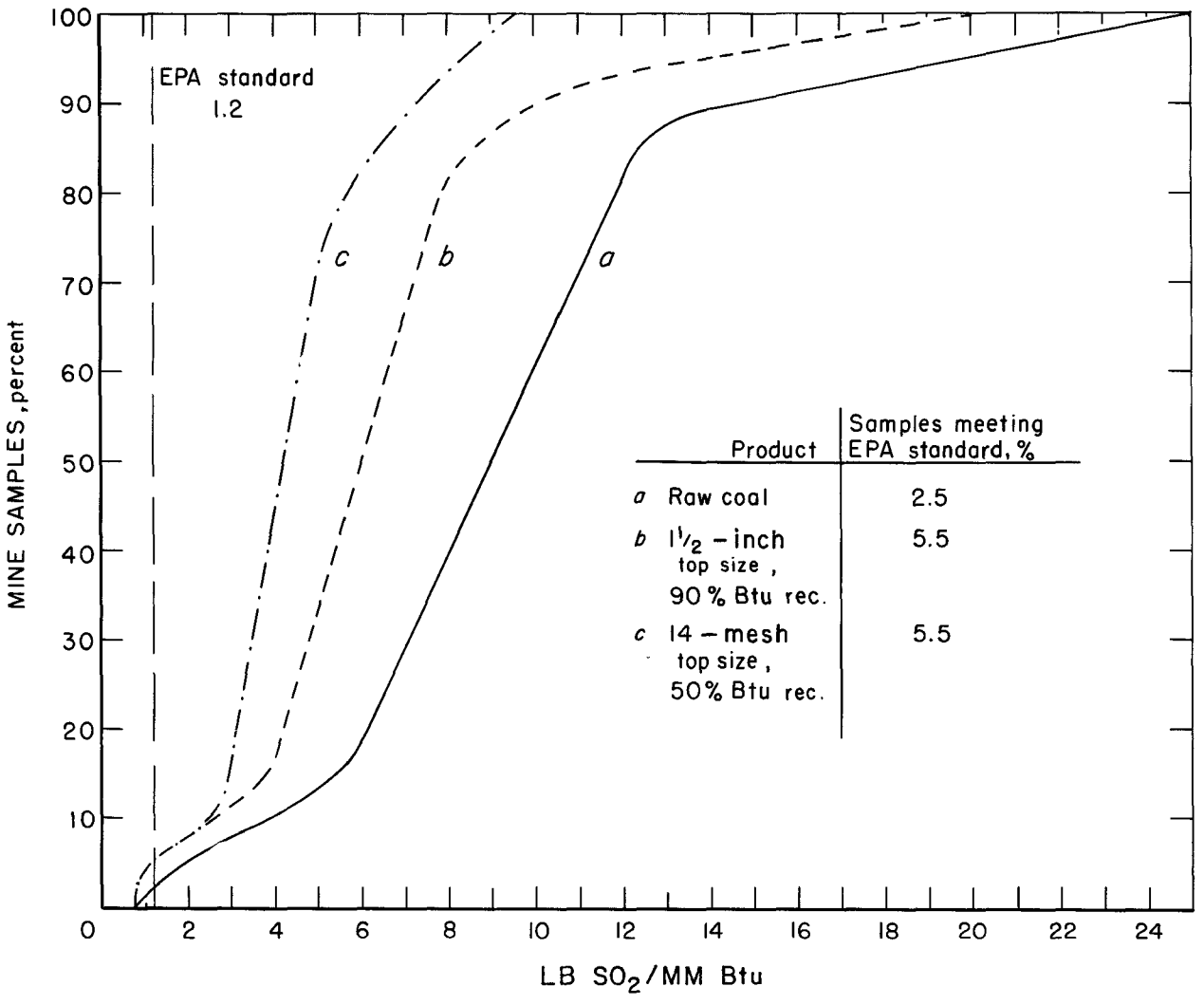


FIGURE 12. - Percent of Western Midwest Region coal samples meeting the current EPA standard of 1.2 pounds SO_2/MM Btu with no preparation, curve *a*; compared with those crushed to 1-1/2-inch top size at a Btu recovery of 90 percent, curve *b*; and those crushed to 14-mesh top size at a Btu recovery of 50 percent, curve *c*, and separated gravimetrically.

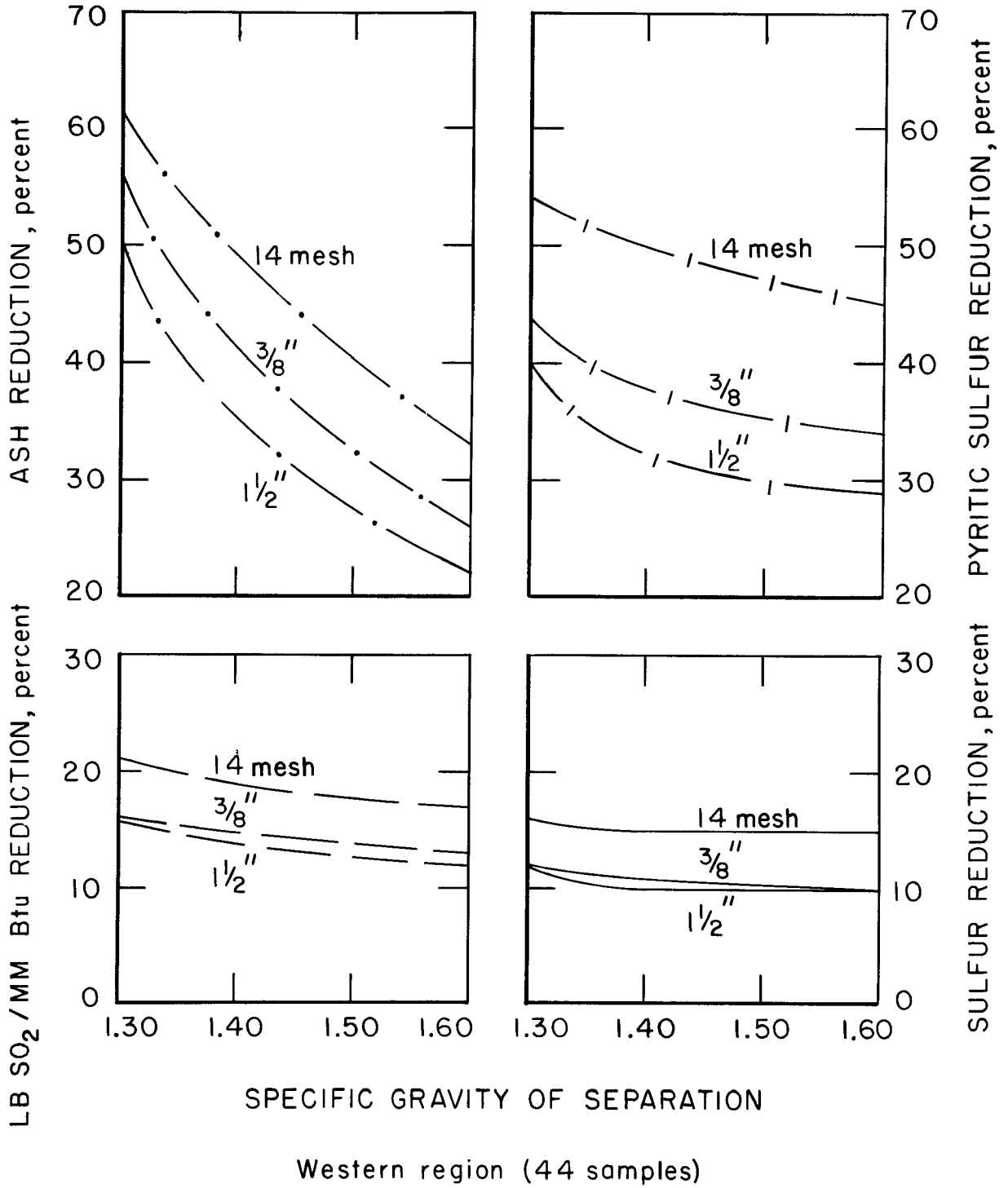


FIGURE 13. - The effect of crushing to 1-1/2-inch, 3/8-inch, and 14-mesh top size on the reduction of ash, pyritic sulfur, total sulfur, and pounds SO_2 emission per million Btu at various specific gravities of separation for the Western Region coals.

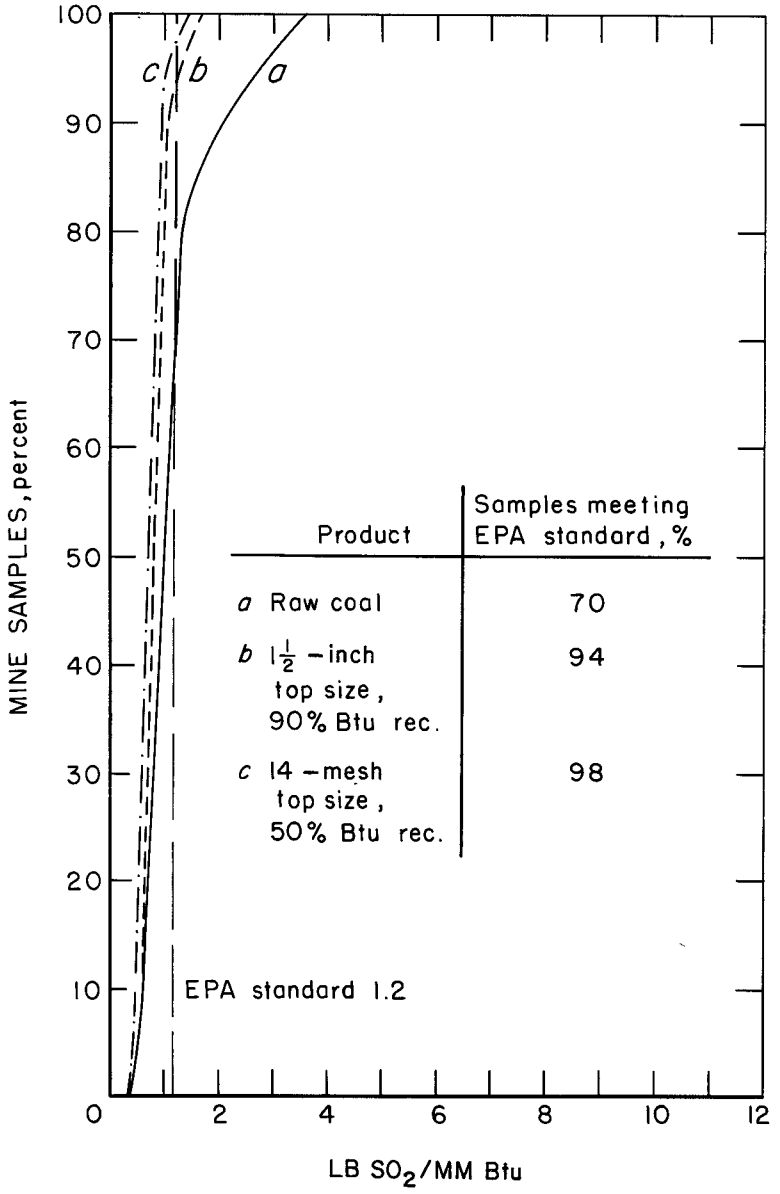


FIGURE 14. - Percent of Western Region coal samples meeting the current EPA standard of 1.2 pounds SO_2/MM Btu with no preparation, curve *a*; compared with those crushed to 1-1/2-inch top size at a Btu recovery of 90 percent, curve *b*; and those crushed to 14-mesh top size at a Btu recovery of 50 percent, curve *c*, and separated gravimetrically.

Summary of All Coals

The 455 raw coal samples averaged 14.0 percent ash, 1.91 percent pyritic sulfur, 3.02 percent total sulfur, and 12,574 Btu per pound, which would produce 4.9 pounds SO_2/MM Btu fired at the powerplant. The raw coal sulfur contents averaged 63 percent pyritic sulfur and 37 percent organic sulfur.

The ash, pyritic sulfur, total sulfur, and heating value contents varied considerably as would be expected when washability data of coals from various regions of the United States are evaluated. This is evidenced by the large sigma values for each of the parameters evaluated.

Figure 15 shows that significant reductions of impurities can be obtained, especially ash and pyritic sulfur contents, by crushing and gravimetric separation.

Figure 16 shows that only 14 percent of raw coal samples as mined could meet the current EPA SO_2 emission standard of 1.2 pounds SO_2/MM Btu. Twenty-four percent of the samples would meet the standard at a 90-percent Btu recovery when crushed to 1-1/2-inch top size, while 32 percent would meet the standard at a Btu recovery of 50 percent when crushed to 14-mesh top size.

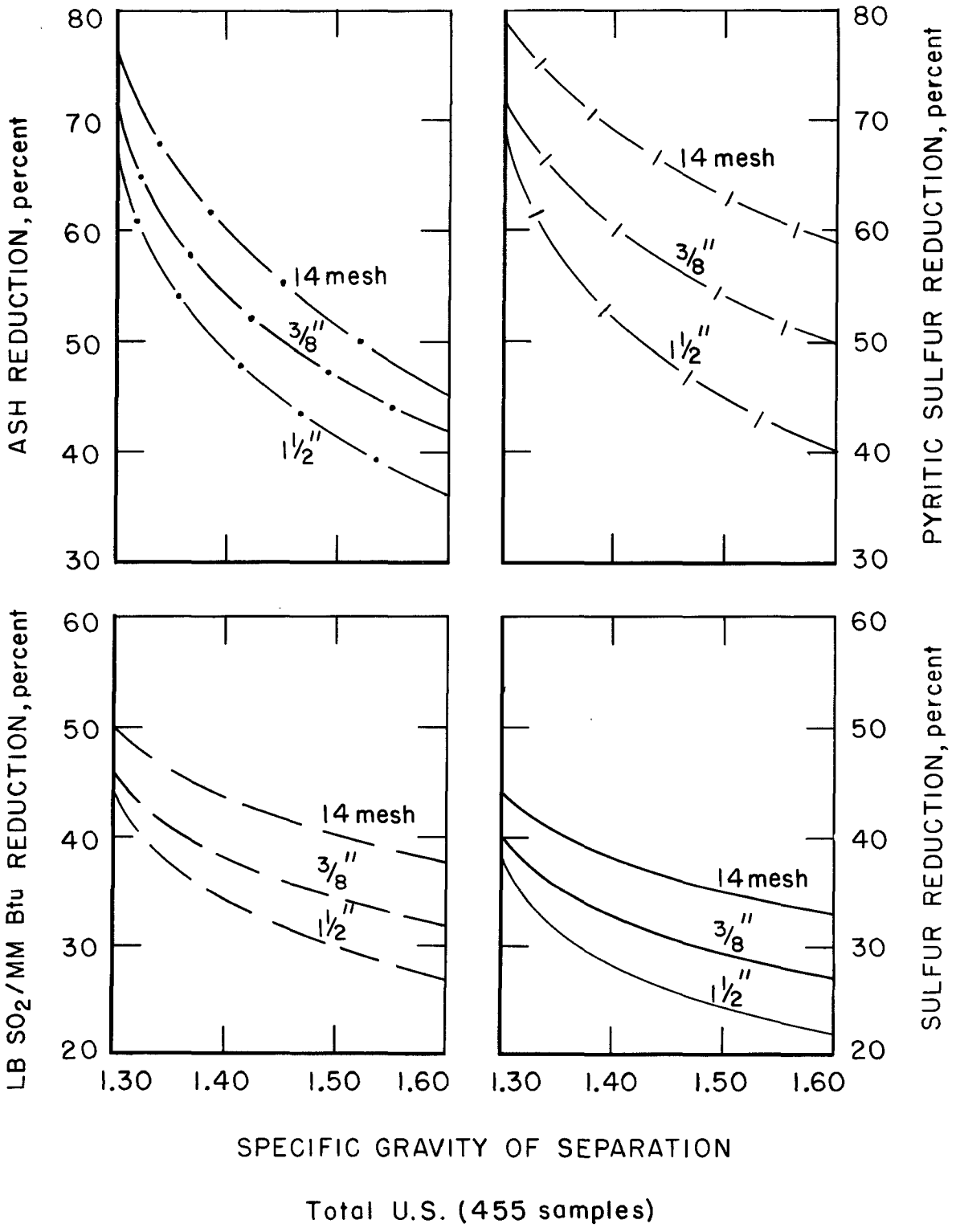


FIGURE 15. - The effect of crushing to 1-1/2-inch, 3/8-inch, and 14-mesh top size on the reduction of ash, pyritic sulfur, total sulfur, and pounds SO_2 emission per million Btu at various specific gravities of separation for all U.S. coals.

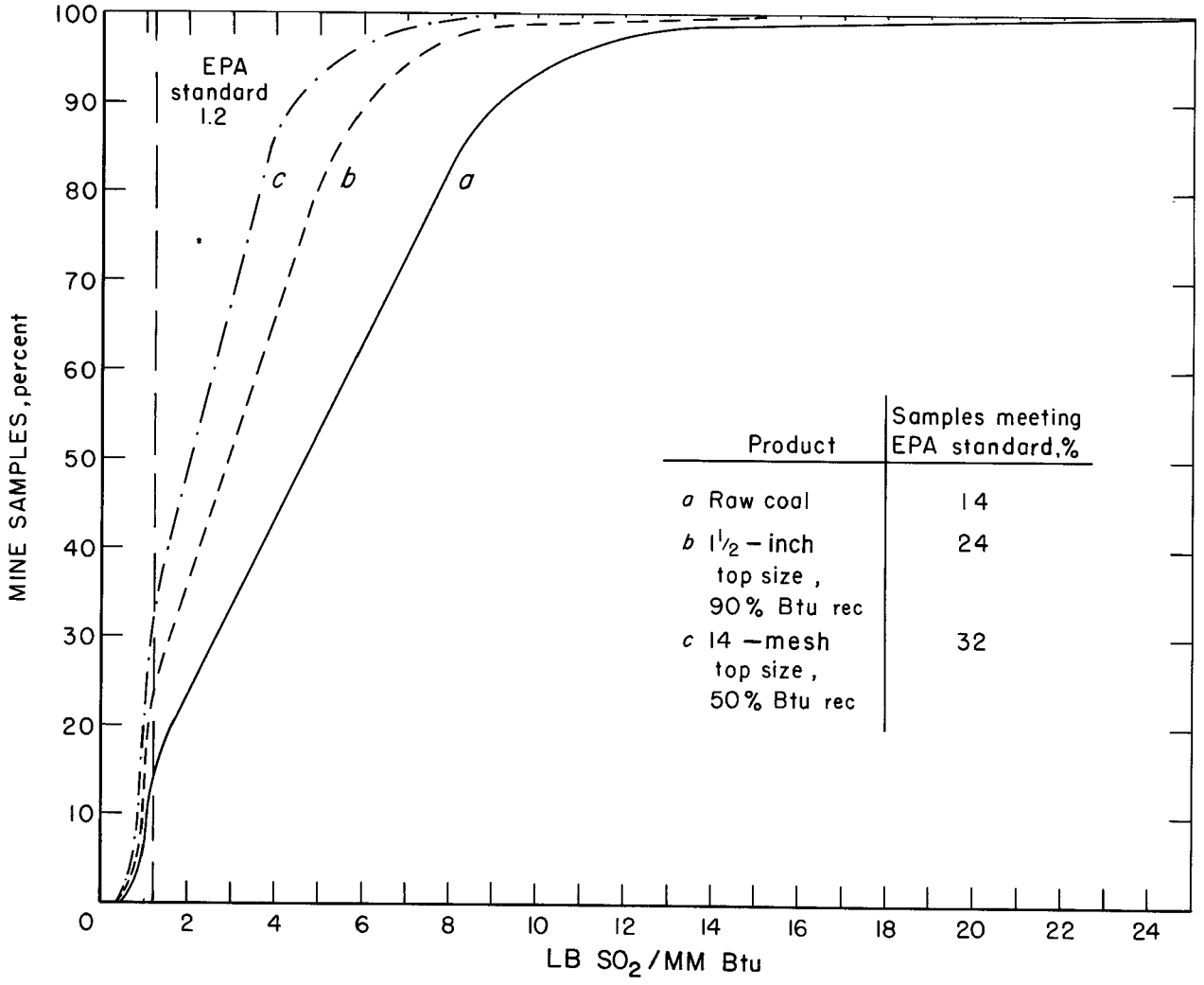


FIGURE 16. - Percent of all U.S. coal samples meeting the current EPA standard of 1.2 pounds SO_2/MM Btu with no preparation, curve *a*; compared with those crushed to 1-1/2-inch top size at a Btu recovery of 90 percent, curve *b*; and those crushed to 14-mesh top size at a Btu recovery of 50 percent, curve *c*, and separated gravimetrically.

Even if the standard were raised to 2.0 pounds SO_2/MM Btu, only 48 percent of the samples could meet the standard at a 50-percent Btu recovery when crushed to 14-mesh top size.

The composite data (table 1) show if all the coals were upgraded at a specific gravity of 1.60, the analyses of the clean coal products of the various regions would range on the average from 5.1 to 8.3 percent ash, 0.10 to 1.80 percent pyritic sulfur, 0.56 to 3.59 percent total sulfur, 12,779 to 14,264 Btu per pound and would produce 0.95 to 5.5 pounds of SO_2/MM at Btu recoveries ranging from 91.7 to 97.6 percent. The corresponding SO_2 removal efficiencies required to comply with the current EPA emission regulations of 1.2 pounds SO_2/MM Btu would range from none to 78 percent.

TABLE 1. - Summary of composite product analyses by region for coals crushed to 3/8-inch top size and cleaned at 1.60 specific gravity showing removal efficiency required to meet Federal SO_2 new source performance standards for steam generators (1.2# SO_2/MM Btu)

Region	Cumulative analyses of float 1.60 product						
	Percent				Pounds SO_2/MM Btu[1]	Calorific content, Btu per pound[2]	SO_2 removal efficiency required, percent[3]
	Btu recovery	Ash	Pyritic sulfur	Total sulfur			
Northern Appalachian	92.5	8.0	0.85	1.86	2.7	13,766	56
Southern Appalachian	96.1	5.1	.19	.91	1.3	14,197	8
Alabama.....	96.4	5.8	.49	1.16	1.7	14,264	29
Eastern Midwest.....	94.9	7.5	1.03	2.74	4.2	13,138	71
Western Midwest.....	91.7	8.3	1.80	3.59	5.5	13,209	78
Western.....	97.6	6.3	.10	.56	.9	12,779	None
Total United States.....	93.8	7.5	.85	2.00	3.0	13,530	60

[1]Based upon the moisture-free Btu value for the float coal and assuming all the sulfur is converted to SO_2. Actual emissions will vary depending upon the as-fired coal moisture content and the amount of sulfur that actually goes out the stack as SO_2.

[2]The calorific content (moisture-free basis) was used to calculate the SO_2 removal efficiency required.

[3]Values may require adjustment to account for the as-fired coal moisture content and the amount of sulfur that actually goes out the stack as SO_2.

CONCLUSIONS

1. The 227 Northern Appalachian Region coalbed samples evaluated averaged 2.01 percent pyritic sulfur and 3.01 percent total sulfur. Only 4 percent of the raw coal samples would meet the current EPA SO_2 emission standard whereas, if a 50-percent Btu recovery were acceptable, then 31 percent of the samples would meet the standard when crushed to 14-mesh top size. Coals from the Upper and Lower Freeport and Upper Kittanning coalbeds could be upgraded to meet the current EPA SO_2 emission standard utilizing coal preparation techniques. The coals of this region are especially amenable to pyritic sulfur liberation, averaging 80-percent reduction at a 70-percent Btu recovery when crushed to 14-mesh top size, and separated gravimetrically.

2. The 35 Southern Appalachian Region coalbed samples evaluated contained, on the average, 0.37 percent pyritic sulfur and 1.04 percent total sulfur. Sixty-three percent of the samples would comply with the EPA SO_2 emission standard at a Btu recovery of 50 percent when crushed to 14-mesh top size.

3. The 10 Alabama Region coalbed samples evaluated contained, on the average, 0.69 percent pyritic sulfur and 1.33 percent total sulfur. The pyrite does not readily liberate from these coals; therefore, while 30 percent of the raw coal samples would meet the EPA SO_2 emission standard with no preparation, only 40 percent would meet the standard at a 50-percent Btu recovery when crushed to 14-mesh top size.

4. The 95 Eastern Midwest Region coal samples contained, on the average, 2.29 percent pyritic sulfur and 3.92 percent total sulfur. These coals contained an average of 1.63 percent organic sulfur and, consequently, could not be upgraded to meet the current EPA SO_2 emission standard. Crushing to 14-mesh top size and removing the sink 1.60 specific gravity material would provide a float product with an average ash reduction of 45 percent and an average pyritic sulfur reduction of 57 percent. Only 1 percent of the raw coal samples would meet the current EPA SO_2 emission standard with no preparation; 4 percent would meet the standard at a Btu recovery of 50 percent when crushed to 14-mesh top size. However, none of the principal coalbeds on the average could be upgraded sufficiently to meet the current EPA SO_2 emission standard.

5. The 44 Western coal samples evaluated contained an average of 3.58 percent pyritic sulfur and 5.25 percent total sulfur. These coals contained, on the average, 1.67 percent organic sulfur and thus generally could not be upgraded to meet the EPA SO_2 emission standard. Less than 3 percent of the raw coal samples would meet the standard with no preparation, whereas only 6 percent would comply at a Btu recovery of 50 percent when crushed to 14-mesh top size. These coals contained on the average more than 1 percent higher pyritic and total sulfur content than those of the Eastern Midwest Region.

6. The 44 Western Region coalbed samples evaluated contained an average of 0.68 percent total sulfur which would produce 1.1 pounds SO_2/MM Btu and would thus meet the current EPA SO_2 emission standard as mined. Seventy percent of the raw coal samples would meet the EPA standard with no preparation and 94 percent would comply at a Btu recovery of 90 percent when crushed to 1-1/2-inch top size. These are generally subbituminous coals of high inherent moisture and low Btu content.

7. The 455 U.S. coal samples evaluated contained on the average 1.91 percent pyritic sulfur and 3.02 percent total sulfur. Only 14 percent of the raw coal samples could meet the current EPA SO_2 emission standard of 1.2 pounds SO_2/MM Btu with no preparation. If a 50-percent Btu recovery was acceptable, then 32 percent of the samples could be upgraded to meet the standard when crushed to 14-mesh top size.

APPENDIX A.--WASHABILITY CHARACTERISTICS AND DESULFURIZATION POTENTIAL OF U.S. COALS[1]

State	Coalbed	County	Page
Alabama	Clements	Walker	38
	Gwin	Jefferson	38
	America	Walker	39
	Mary Lee	Jefferson	39
	Black Creek	Blount	40
		Cullman	41
		Jefferson	41
		Marion	42
Arizona	Blue	Navajo	43
	Red	Navajo	44
Arkansas	Charleston	Franklin	46
	Upper Hartshorne	Johnson	46
	Lower Hartshorne	Johnson	47
Colorado	Wadge	Routt	47
	C	Gunnison	49
	Lennox	Routt	49
	Laramie No. 3	Weld	50
	Collom	Moffat	51
	Uncorrelated	Fremont	51
	Uncorrelated	LaPlata	52
	Uncorrelated	Montrose	52
Illinois	No. 6	Christian	53
		Douglas	53
		Franklin	54
		Fulton	55
		Jefferson	56
		Knox	57
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[1]All numbers in the tables are presented on a moisture-free basis unless otherwise noted. The raw coal moisture as presented in the tables is the moisture contained in the sample after being air dried at the coal preparation laboratory. The air dry loss is not included in the moisture determination.

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APPENDIX A.--WASHABILITY CHARACTERISTICS AND DESULFURIZATION POTENTIAL OF U.S. COALS

STATE: ALABAMA
COUNTY: WALKER
COALBED: CLEMENTS
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.1	32.7	14618	2.8	.26	1.12	1.5
FLOAT-1.40	70.5	76.3	14078	6.4	1.70	2.66	3.8
FLOAT-1.60	90.5	95.4	13718	8.8	2.45	3.40	5.0
TOTAL	100.0	100.0	13014	13.5	2.84	3.75	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.0	39.4	14618	2.8	.31	1.20	1.6
FLOAT-1.40	72.5	79.1	14168	5.8	1.55	2.55	3.6
FLOAT-1.60	88.9	94.6	13823	8.1	2.24	3.23	4.7
TOTAL	100.0	100.0	12984	13.7	2.82	3.76	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.7	48.4	14603	2.9	.35	1.33	1.8
FLOAT-1.40	71.5	79.2	14273	5.1	1.07	2.06	2.9
FLOAT-1.60	87.5	93.8	13808	8.2	1.75	2.77	4.0
TOTAL	100.0	100.0	12879	14.4	2.81	3.78	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ALABAMA
COUNTY: JEFFERSON
COALBED: GWIN
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.4	14.1	14752	4.6	.41	1.24	1.7
FLOAT-1.40	62.1	66.9	13945	9.8	.73	1.50	2.2
FLOAT-1.60	91.6	94.0	13278	14.1	.80	1.47	2.2
TOTAL	100.0	100.0	12936	16.3	1.12	1.77	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.9	18.0	14721	4.8	.42	1.26	1.7
FLOAT-1.40	64.0	68.9	13992	9.5	.71	1.49	2.1
FLOAT-1.60	91.3	93.9	13371	13.5	.76	1.47	2.2
TOTAL	100.0	100.0	12998	15.9	1.12	1.78	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.4	22.3	14845	4.0	.34	1.22	1.6
FLOAT-1.40	57.2	62.8	14178	8.3	.52	1.32	1.9
FLOAT-1.60	88.9	92.6	13464	12.9	.62	1.32	2.0
TOTAL	100.0	100.0	12921	16.4	1.24	1.93	3.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ALABAMA
COUNTY: WALKER
COALBED: AMERICA
RAW COAL MOISTURE: 1.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	47.6	53.7	14475	2.8	.19	1.07	1.5
FLOAT-1.40	69.6	77.3	14237	4.4	.44	1.34	1.9
FLOAT-1.60	83.7	90.3	13836	7.1	.63	1.52	2.2
TOTAL	100.0	100.0	12824	13.9	.93	1.71	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	48.2	54.7	14520	2.5	.12	1.04	1.4
FLOAT-1.40	71.9	79.9	14222	4.5	.41	1.33	1.9
FLOAT-1.60	83.8	90.8	13865	6.9	.52	1.41	2.0
TOTAL	100.0	100.0	12795	14.1	.94	1.73	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	42.9	49.2	14535	2.4	.10	.94	1.3
FLOAT-1.40	70.9	79.6	14222	4.5	.29	1.08	1.5
FLOAT-1.60	81.8	89.8	13910	6.6	.39	1.16	1.7
TOTAL	100.0	100.0	12676	14.9	.97	1.68	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ALABAMA
COUNTY: JEFFERSON
COALBED: MARY LEE
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	25.7	29.6	14731	3.9	.04	.75	1.0
FLOAT-1.40	76.9	85.1	14137	7.8	.07	.71	1.0
FLOAT-1.60	88.1	95.5	13863	9.6	.08	.67	1.0
TOTAL	100.0	100.0	12783	16.7	.11	.67	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	34.6	39.8	14746	3.8	.06	.70	.9
FLOAT-1.40	76.6	85.1	14244	7.1	.11	.65	.9
FLOAT-1.60	87.8	95.5	13955	9.0	.12	.63	.9
TOTAL	100.0	100.0	12828	16.4	.15	.62	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	37.7	43.2	14838	3.2	.02	.74	1.0
FLOAT-1.40	74.2	82.3	14366	6.3	.05	.71	1.0
FLOAT-1.60	87.3	94.6	14031	8.5	.07	.68	1.0
TOTAL	100.0	100.0	12950	15.6	.13	.69	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: ALABAMA
COUNTY: JEFFERSON

COALBED: MARY LEE
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.7	23.6	14557	4.9	.16	.81	1.1
FLOAT-1.40	77.9	84.8	13929	9.0	.34	.99	1.4
FLOAT-1.60	87.8	94.1	13714	10.4	.46	1.09	1.6
TOTAL	100.0	100.0	12795	16.4	.53	1.11	1.7
EPA STANDARD	42.0	46.6	14379	6.3	.21	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.0	32.0	14649	4.3	.16	.84	1.1
FLOAT-1.40	75.8	83.2	14066	8.1	.32	.99	1.4
FLOAT-1.60	88.0	94.6	13775	10.0	.45	1.09	1.6
TOTAL	100.0	100.0	12810	16.3	.54	1.12	1.7
EPA STANDARD	40.6	45.8	14530	5.2	.19	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.5	41.0	14832	3.1	.12	.83	1.1
FLOAT-1.40	71.6	79.3	14220	7.1	.25	.97	1.4
FLOAT-1.60	87.3	94.0	13821	9.7	.37	1.05	1.5
TOTAL	100.0	100.0	12841	16.1	.54	1.15	1.8
EPA STANDARD	48.9	55.7	14630	4.4	.15	.88	1.20

STATE: ALABAMA
COUNTY: BLOUNT

COALBED: BLACK CREEK
RAW COAL MOISTURE: 1.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	83.0	87.5	15256	2.0	.06	.71	.9
FLOAT-1.40	90.3	94.8	15193	2.4	.07	.71	.9
FLOAT-1.60	93.7	97.9	15131	2.8	.10	.73	1.0
FLOAT-1.90	94.8	98.7	15069	3.2	.15	.78	1.0
TOTAL	100.0	100.0	14477	7.0	.32	.93	1.3
EPA STANDARD	98.0	99.8	14678	5.3	.26	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	82.6	87.4	15349	1.4	.04	.71	.9
FLOAT-1.40	89.3	94.1	15287	1.8	.05	.71	.9
FLOAT-1.60	93.5	98.0	15209	2.3	.06	.71	.9
FLOAT-1.90	94.6	98.8	15147	2.7	.07	.72	1.0
TOTAL	100.0	100.0	14508	6.8	.28	.90	1.2
EPA STANDARD	99.2	99.8	14598	6.5	.25	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	75.7	80.8	15380	1.2	.04	.70	.9
FLOAT-1.40	87.3	92.6	15287	1.8	.06	.70	.9
FLOAT-1.60	92.6	97.6	15193	2.4	.07	.70	.9
FLOAT-1.90	94.0	98.6	15116	2.9	.08	.70	.9
TOTAL	100.0	100.0	14415	7.4	.31	.92	1.3
EPA STANDARD	98.7	99.7	14568	6.4	.35	.83	1.20

STATE: ALABAMA
COUNTY: CULLMAN

COALBED: BLACK CREEK
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	95.6	96.0	14850	1.4	.04	.61	.8
FLOAT-1.40	98.9	99.2	14835	1.5	.05	.61	.8
FLOAT-1.60	99.6	99.7	14803	1.7	.05	.62	.8
TOTAL	100.0	100.0	14788	1.8	.06	.62	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	92.9	93.4	14881	1.2	.04	.63	.8
FLOAT-1.40	98.4	98.7	14850	1.4	.04	.63	.8
FLOAT-1.60	99.5	99.7	14835	1.5	.05	.63	.8
TOTAL	100.0	100.0	14803	1.7	.06	.64	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	86.5	87.3	14943	.8	.05	.60	.8
FLOAT-1.40	97.1	97.6	14881	1.2	.05	.60	.8
FLOAT-1.60	99.0	99.4	14866	1.3	.06	.61	.8
TOTAL	100.0	100.0	14803	1.7	.08	.62	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: ALABAMA
COUNTY: JEFFERSON

COALBED: BLACK CREEK
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	89.0	90.4	15291	1.1	.07	.58	.8
FLOAT-1.40	95.0	96.4	15276	1.2	.07	.57	.7
FLOAT-1.60	97.5	98.7	15230	1.5	.07	.57	.7
TOTAL	100.0	100.0	15046	2.7	.09	.58	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	88.1	89.6	15291	1.1	.05	.61	.8
FLOAT-1.40	93.9	95.4	15276	1.2	.05	.60	.8
FLOAT-1.60	97.3	98.6	15230	1.5	.06	.60	.8
TOTAL	100.0	100.0	15031	2.8	.08	.61	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	87.0	88.2	15306	1.0	.07	.56	.7
FLOAT-1.40	92.6	93.8	15291	1.1	.07	.56	.7
FLOAT-1.60	97.0	97.9	15230	1.5	.08	.55	.7
TOTAL	100.0	100.0	15092	2.4	.10	.58	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: ALABAMA
COUNTY: MARION

COALBED: BLACK CREEK
RAW COAL MOISTURE: 2.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	88.9	90.1	14449	1.6	.16	.81	1.1
FLOAT-1.40	97.5	98.4	14391	2.0	.21	.86	1.2
FLOAT-1.60	98.8	99.6	14376	2.1	.23	.88	1.2
TOTAL	100.0	100.0	14259	2.9	.27	.90	1.3
EPA STANDARD	97.8	98.7	14388	2.0	.21	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	88.3	89.7	14435	1.7	.15	.80	1.1
FLOAT-1.40	96.4	97.7	14405	1.9	.19	.83	1.2
FLOAT-1.60	98.4	99.5	14376	2.1	.20	.85	1.2
TOTAL	100.0	100.0	14215	3.2	.28	.91	1.3
EPA STANDARD	99.2	99.6	14347	2.2	.21	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	87.0	88.4	14435	1.7	.13	.79	1.1
FLOAT-1.40	94.9	96.3	14405	1.9	.16	.81	1.1
FLOAT-1.60	98.0	99.2	14376	2.1	.18	.82	1.1
TOTAL	100.0	100.0	14201	3.3	.31	.93	1.3
EPA STANDARD	98.7	99.5	14315	2.7	.24	.86	1.20

STATE: ALABAMA
COUNTY: MARION

COALBED: BLACK CREEK
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	83.2	84.5	14286	2.1	.31	1.01	1.4
FLOAT-1.40	96.1	97.1	14213	2.6	.39	1.08	1.5
FLOAT-1.60	98.3	99.1	14183	2.8	.43	1.11	1.6
TOTAL	100.0	100.0	14066	3.6	.55	1.22	1.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	86.3	87.6	14286	2.1	.34	.91	1.3
FLOAT-1.40	95.6	96.7	14242	2.4	.40	.97	1.4
FLOAT-1.60	98.2	99.0	14198	2.7	.42	1.00	1.4
TOTAL	100.0	100.0	14080	3.5	.57	1.14	1.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	72.2	73.6	14331	1.8	.23	.83	1.2
FLOAT-1.40	92.9	94.4	14272	2.2	.32	.94	1.3
FLOAT-1.60	97.4	98.7	14242	2.4	.34	.96	1.3
TOTAL	100.0	100.0	14051	3.7	.58	1.20	1.7
EPA STANDARD	77.2	78.8	14315	1.8	.25	.86	1.20

STATE: ARIZONA
COUNTY: NAVAJO

COALBED: BLUE
RAW COAL MOISTURE: 10.2 %
CUMULATIVE WASHABILITY DATA

BENCH: TOP

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.2	72.9	13158	3.0	.14	.65	1.0
FLOAT-1.40	96.5	97.9	13037	3.8	.15	.66	1.0
FLOAT-1.60	98.6	99.6	12992	4.1	.15	.66	1.0
TOTAL	100.0	100.0	12856	5.0	.16	.67	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.5	73.3	13189	2.8	.12	.64	1.0
FLOAT-1.40	95.5	97.1	13083	3.5	.14	.64	1.0
FLOAT-1.60	98.5	99.5	13007	4.0	.15	.65	1.0
TOTAL	100.0	100.0	12871	4.9	.16	.66	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: ARIZONA
COUNTY: NAVAJO

COALBED: BLUE
RAW COAL MOISTURE: 10.6 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.0	71.0	12969	3.8	.12	.57	.9
FLOAT-1.40	88.0	92.3	12834	4.8	.13	.57	.9
FLOAT-1.60	93.1	96.5	12685	5.9	.14	.58	.9
TOTAL	100.0	100.0	12238	9.2	.19	.62	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.5	64.4	13064	3.1	.15	.55	.8
FLOAT-1.40	85.3	90.0	12956	3.9	.15	.56	.9
FLOAT-1.60	92.1	96.0	12793	5.1	.17	.57	.9
TOTAL	100.0	100.0	12279	8.9	.22	.62	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: ARIZONA
COUNTY: NAVAJO

COALBED: RED
RAW COAL MOISTURE: 8.6 %
CUMULATIVE WASHABILITY DATA

BENCH: TOP

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.0	39.4	12973	3.8	.07	.40	.6
FLOAT-1.40	82.2	85.6	12693	5.8	.06	.42	.7
FLOAT-1.60	96.0	97.9	12426	7.7	.06	.41	.7
TOTAL	100.0	100.0	12187	9.4	.06	.40	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.2	42.0	13043	3.3	.10	.39	.6
FLOAT-1.40	81.8	85.8	12791	5.1	.09	.41	.6
FLOAT-1.60	93.7	96.2	12510	7.1	.09	.39	.6
TOTAL	100.0	100.0	12187	9.4	.09	.38	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: ARIZONA
COUNTY: NAVAJO

COALBED: RED
RAW COAL MOISTURE: 9.5 %
CUMULATIVE WASHABILITY DATA

BENCH: MIDDLE

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.5	48.6	12979	3.2	.06	.35	.5
FLOAT-1.40	88.4	90.4	12694	5.2	.09	.35	.6
FLOAT-1.60	97.5	98.3	12509	6.5	.08	.35	.6
TOTAL	100.0	100.0	12410	7.2	.09	.35	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.9	46.0	13036	2.8	.05	.37	.6
FLOAT-1.40	86.7	89.1	12794	4.5	.05	.37	.6
FLOAT-1.60	96.0	97.2	12609	5.8	.05	.37	.6
TOTAL	100.0	100.0	12453	6.9	.05	.36	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: ARIZONA
COUNTY: NAVAJO

COALBED: RED
RAW COAL MOISTURE: 9.4 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	24.0	25.1	12860	4.6	.07	.43	.7
FLOAT-1.40	88.5	89.8	12467	7.4	.05	.44	.7
FLOAT-1.60	98.3	98.7	12341	8.3	.06	.43	.7
TOTAL	100.0	100.0	12285	8.7	.06	.42	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	19.3	20.3	12930	4.1	.18	.42	.6
FLOAT-1.40	86.3	88.3	12593	6.5	.14	.45	.7
FLOAT-1.60	97.1	98.0	12425	7.7	.14	.44	.7
TOTAL	100.0	100.0	12313	8.5	.14	.43	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: ARIZONA
COUNTY: NAVAJO

COALBED: RED
RAW COAL MOISTURE: 11.0 %
CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	57.3	60.7	13123	3.6	.10	.45	.7
FLOAT-1.40	90.4	93.9	12868	5.4	.10	.46	.7
FLOAT-1.60	95.7	98.3	12726	6.4	.11	.46	.7
TOTAL	100.0	100.0	12387	8.8	.12	.47	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	53.7	56.9	13207	3.0	.08	.48	.7
FLOAT-1.40	89.3	92.8	12953	4.8	.09	.48	.7
FLOAT-1.60	95.8	98.3	12783	6.0	.09	.48	.8
TOTAL	100.0	100.0	12458	8.3	.10	.49	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: ARKANSAS
COUNTY: FRANKLIN

COALBED: CHARLESTON
RAW COAL MOISTURE: .4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.5	8.0	15081	2.9	1.11	1.84	2.4
FLOAT-1.40	89.2	92.4	14692	5.4	2.31	3.11	4.2
FLOAT-1.60	94.9	97.8	14615	5.9	2.47	3.32	4.5
FLOAT-1.90	96.2	98.8	14568	6.2	2.56	3.42	4.7
TOTAL	100.0	100.0	14180	8.7	2.78	3.63	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	18.1	19.2	15096	2.8	1.06	1.83	2.4
FLOAT-1.40	87.4	90.8	14770	4.9	2.12	2.92	4.0
FLOAT-1.60	94.3	97.4	14677	5.5	2.33	3.18	4.3
FLOAT-1.90	95.8	98.5	14615	5.9	2.43	3.29	4.5
TOTAL	100.0	100.0	14211	8.5	2.73	3.58	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.7	22.2	15143	2.5	.80	1.57	2.1
FLOAT-1.40	83.2	87.3	14832	4.5	1.87	2.67	3.6
FLOAT-1.60	92.7	96.6	14723	5.2	2.17	3.04	4.1
FLOAT-1.90	94.4	97.8	14646	5.7	2.29	3.16	4.3
TOTAL	100.0	100.0	14133	9.0	2.74	3.61	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ARKANSAS
COUNTY: JOHNSON

COALBED: UPPER HARTSHORNE
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.6	.6	15109	1.8	.30	.76	1.0
FLOAT-1.40	88.9	91.9	14801	3.8	.35	.86	1.2
FLOAT-1.60	94.0	96.5	14709	4.4	.51	1.03	1.4
FLOAT-1.90	96.3	98.3	14616	5.0	.60	1.13	1.5
TOTAL	100.0	100.0	14324	6.9	1.19	1.76	2.5
EPA STANDARD	89.7	92.6	14786	4.1	.37	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.1	3.3	15001	2.5	.20	.74	1.0
FLOAT-1.40	88.4	91.7	14832	3.6	.22	.82	1.1
FLOAT-1.60	93.7	96.7	14755	4.1	.32	.92	1.2
FLOAT-1.90	95.6	98.1	14663	4.7	.40	1.01	1.4
TOTAL	100.0	100.0	14293	7.1	1.20	1.84	2.6
EPA STANDARD	91.9	95.1	14781	4.0	.28	.89	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.0	3.1	14909	3.1	.04	.69	.9
FLOAT-1.40	86.8	90.5	14878	3.3	.13	.79	1.1
FLOAT-1.60	93.2	96.7	14801	3.8	.17	.84	1.1
FLOAT-1.90	94.9	98.0	14724	4.3	.23	.90	1.2
TOTAL	100.0	100.0	14262	7.3	1.13	1.82	2.6
EPA STANDARD	94.5	97.7	14744	4.2	.21	.88	1.20

STATE: ARKANSAS
COUNTY: JOHNSON

COALBED: LOWER HARTSHORNE
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.1	.1	14536	4.8	1.07	1.77	2.4
FLOAT-1.40	56.5	58.8	14444	5.4	1.42	2.20	3.0
FLOAT-1.60	94.7	96.4	14124	7.5	2.46	3.35	4.7
FLOAT-1.90	98.0	99.1	14032	8.1	2.72	3.71	5.3
TOTAL	100.0	100.0	13879	9.1	2.92	3.97	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.6	.6	14750	3.4	.61	1.30	1.8
FLOAT-1.40	68.2	70.9	14475	5.2	1.32	2.08	2.9
FLOAT-1.60	93.6	95.9	14261	6.6	2.03	2.87	4.0
FLOAT-1.90	96.6	98.3	14169	7.2	2.27	3.21	4.5
TOTAL	100.0	100.0	13925	8.8	2.80	3.87	5.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.8	.9	14796	3.1	.61	1.26	1.7
FLOAT-1.40	69.1	72.3	14536	4.8	1.00	1.59	2.2
FLOAT-1.60	92.5	95.3	14322	6.2	1.62	2.35	3.3
FLOAT-1.90	94.9	97.3	14246	6.7	1.82	2.64	3.7
TOTAL	100.0	100.0	13895	9.0	2.89	4.03	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: COLORADO
COUNTY: ROUTT

COALBED: WADGE
RAW COAL MOISTURE: 5.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.6	26.4	12835	3.0	.03	.43	.7
FLOAT-1.40	83.9	88.0	12544	5.2	.04	.44	.7
FLOAT-1.60	97.2	98.6	12134	8.3	.04	.44	.7
FLOAT-1.90	99.4	99.8	12015	9.2	.04	.44	.7
TOTAL	100.0	100.0	11962	9.6	.04	.44	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.9	25.7	12848	2.9	.02	.43	.7
FLOAT-1.40	83.9	88.2	12570	5.0	.03	.44	.7
FLOAT-1.60	96.0	97.9	12200	7.8	.03	.44	.7
FLOAT-1.90	99.3	99.8	12028	9.1	.03	.44	.7
TOTAL	100.0	100.0	11962	9.6	.04	.44	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.2	5.6	12782	3.4	.03	.43	.7
FLOAT-1.40	82.3	86.7	12584	4.9	.04	.45	.7
FLOAT-1.60	94.3	96.8	12266	7.3	.04	.45	.7
FLOAT-1.90	98.9	99.7	12041	9.0	.04	.45	.7
TOTAL	100.0	100.0	11948	9.7	.05	.45	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: ROUTT

COALBED: WADGE
RAW COAL MOISTURE: 4.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.8	.9	13274	3.2	.06	.54	.8
FLOAT-1.40	89.8	91.9	12684	7.5	.06	.53	.8
FLOAT-1.60	99.2	99.6	12451	9.2	.06	.53	.9
FLOAT-1.90	99.4	99.8	12451	9.2	.06	.53	.9
TOTAL	100.0	100.0	12396	9.6	.08	.54	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	2.4	2.6	13302	3.0	.05	.54	.8
FLOAT-1.40	88.6	91.1	12767	6.9	.05	.51	.8
FLOAT-1.60	98.5	99.4	12520	8.7	.05	.50	.8
FLOAT-1.90	99.2	99.7	12479	9.0	.05	.50	.8
TOTAL	100.0	100.0	12410	9.5	.09	.54	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.6	6.0	13302	3.0	.04	.55	.8
FLOAT-1.40	87.0	89.9	12808	6.6	.04	.48	.7
FLOAT-1.60	97.4	98.8	12575	8.3	.04	.48	.8
FLOAT-1.90	99.0	99.8	12492	8.9	.04	.48	.8
TOTAL	100.0	100.0	12396	9.6	.10	.53	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: ROUTT

COALBED: WADGE
RAW COAL MOISTURE: 6.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.9	12.9	13159	2.7	.05	.57	.9
FLOAT-1.40	87.0	91.2	12712	5.8	.13	.66	1.0
FLOAT-1.60	94.5	97.2	12467	7.5	.12	.66	1.1
TOTAL	100.0	100.0	12121	9.9	.14	.66	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.6	15.0	13217	2.3	.08	.60	.9
FLOAT-1.40	82.0	87.4	12741	5.6	.07	.67	1.1
FLOAT-1.60	93.0	96.5	12395	8.0	.09	.66	1.1
TOTAL	100.0	100.0	11948	11.1	.12	.69	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.8	12.8	13073	3.3	.05	.57	.9
FLOAT-1.40	82.1	86.7	12756	5.5	.05	.62	1.0
FLOAT-1.60	92.9	96.7	12568	6.8	.06	.62	1.0
TOTAL	100.0	100.0	12078	10.2	.11	.66	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: GUNNISON

COALBED: C
RAW COAL MOISTURE: 4.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	75.2	78.4	13956	2.6	.07	.43	.6
FLOAT-1.40	89.0	91.8	13808	3.6	.07	.43	.6
FLOAT-1.60	98.5	99.4	13498	5.7	.07	.43	.6
TOTAL	100.0	100.0	13380	6.5	.07	.42	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.9	76.4	13985	2.4	.05	.42	.6
FLOAT-1.40	87.5	90.6	13823	3.5	.05	.42	.6
FLOAT-1.60	97.6	98.8	13513	5.6	.05	.42	.6
TOTAL	100.0	100.0	13350	6.7	.06	.41	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.0	75.7	14044	2.0	.09	.43	.6
FLOAT-1.40	88.5	91.9	13882	3.1	.09	.43	.6
FLOAT-1.60	96.4	98.3	13631	4.8	.09	.42	.6
TOTAL	100.0	100.0	13365	6.6	.10	.42	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: ROUTT

COALBED: LENNOX
RAW COAL MOISTURE: 7.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.4	31.7	13111	4.1	.06	.54	.8
FLOAT-1.40	83.7	88.6	12863	5.9	.08	.60	.9
FLOAT-1.60	93.4	96.5	12546	8.2	.08	.60	1.0
TOTAL	100.0	100.0	12146	11.1	.10	.62	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.1	35.8	13180	3.6	.09	.55	.8
FLOAT-1.40	83.8	88.8	12918	5.5	.10	.59	.9
FLOAT-1.60	92.6	96.1	12643	7.5	.10	.60	.9
TOTAL	100.0	100.0	12188	10.8	.12	.60	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	18.3	19.8	13263	3.0	.10	.66	1.0
FLOAT-1.40	80.6	85.8	13042	4.6	.07	.64	1.0
FLOAT-1.60	91.9	95.8	12780	6.5	.07	.63	1.0
TOTAL	100.0	100.0	12257	10.3	.09	.65	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: WELD

COALBED: LARAMIE NO. 3
RAW COAL MOISTURE: 15.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.1	72.9	12446	4.0	.04	.36	.6
FLOAT-1.40	98.2	98.7	12379	4.4	.05	.38	.6
FLOAT-1.60	99.5	99.9	12363	4.5	.05	.38	.6
TOTAL	100.0	100.0	12313	4.8	.07	.40	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.2	68.0	12496	3.7	.06	.36	.6
FLOAT-1.40	94.2	95.0	12446	4.0	.06	.35	.6
FLOAT-1.60	99.4	99.8	12396	4.3	.06	.36	.6
TOTAL	100.0	100.0	12346	4.6	.08	.37	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.1	10.3	12496	3.7	.05	.39	.6
FLOAT-1.40	91.0	92.5	12446	4.0	.05	.39	.6
FLOAT-1.60	98.7	99.6	12363	4.5	.05	.39	.6
TOTAL	100.0	100.0	12246	5.2	.08	.42	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: WELD

COALBED: LARAMIE NO. 3
RAW COAL MOISTURE: 6.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	75.9	77.7	12724	4.3	.03	.30	.5
FLOAT-1.40	95.9	97.8	12684	4.6	.03	.30	.5
FLOAT-1.60	97.5	99.3	12658	4.8	.03	.30	.5
FLOAT-1.90	98.5	99.7	12578	5.4	.04	.30	.5
TOTAL	100.0	100.0	12432	6.5	.05	.31	.5

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.5	29.1	12751	4.1	.01	.30	.5
FLOAT-1.40	94.2	96.3	12751	4.1	.02	.30	.5
FLOAT-1.60	97.3	99.1	12698	4.5	.02	.30	.5
FLOAT-1.90	98.3	99.7	12645	4.9	.02	.30	.5
TOTAL	100.0	100.0	12472	6.2	.04	.31	.5

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.1	19.7	12831	3.5	.01	.29	.5
FLOAT-1.40	88.3	90.6	12778	3.9	.03	.31	.5
FLOAT-1.60	96.9	98.9	12711	4.4	.03	.31	.5
FLOAT-1.90	98.1	99.6	12645	4.9	.03	.31	.5
TOTAL	100.0	100.0	12458	6.3	.06	.34	.5

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: MOFFAT

COALBED: COLLOM
RAW COAL MOISTURE: 3.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.2	67.7	13253	3.2	0.00	.26	.4
FLOAT-1.40	93.7	95.0	13130	4.1	.01	.27	.4
FLOAT-1.60	99.5	99.7	12979	5.2	.01	.27	.4
FLOAT-1.90	99.8	99.9	12966	5.3	.01	.27	.4
TOTAL	100.0	100.0	12952	5.4	.01	.27	.4

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.9	54.5	13376	2.3	.00	.26	.4
FLOAT-1.40	92.2	93.9	13212	3.5	.00	.27	.4
FLOAT-1.60	99.0	99.4	13034	4.8	.00	.27	.4
FLOAT-1.90	99.7	99.8	12993	5.1	.00	.27	.4
TOTAL	100.0	100.0	12979	5.2	.00	.27	.4

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.2	41.6	13431	1.9	.01	.25	.4
FLOAT-1.40	90.5	92.6	13267	3.1	.01	.27	.4
FLOAT-1.60	98.1	98.9	13075	4.5	.01	.27	.4
FLOAT-1.90	99.4	99.7	13007	5.0	.01	.27	.4
TOTAL	100.0	100.0	12966	5.3	.01	.27	.4

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: FREMONT

COALBED: UNCORRELATED
RAW COAL MOISTURE: 5.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.6	.7	12894	4.1	.10	.53	.8
FLOAT-1.40	75.7	82.6	12517	6.9	.13	.56	.9
FLOAT-1.60	90.6	96.9	12262	8.8	.15	.56	.9
FLOAT-1.90	93.1	98.4	12127	9.8	.16	.57	.9
TOTAL	100.0	100.0	11469	14.7	.17	.55	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	2.0	2.2	12921	3.9	.04	.50	.8
FLOAT-1.40	71.9	79.1	12665	5.8	.07	.50	.8
FLOAT-1.60	89.2	95.9	12369	8.0	.10	.51	.8
FLOAT-1.90	92.7	98.3	12208	9.2	.11	.52	.9
TOTAL	100.0	100.0	11509	14.4	.13	.51	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.4	19.6	12961	3.6	.02	.49	.8
FLOAT-1.40	68.8	76.3	12732	5.3	.03	.49	.8
FLOAT-1.60	86.4	93.8	12464	7.3	.06	.49	.8
FLOAT-1.90	91.5	97.7	12262	8.8	.08	.50	.8
TOTAL	100.0	100.0	11482	14.6	.15	.54	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: LA PLATA

COALBED: UNCORRELATED
RAW COAL MOISTURE: 4.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	73.3	77.5	14018	3.4	.07	.50	.7
FLOAT-1.40	89.1	92.7	13792	4.9	.07	.50	.7
FLOAT-1.60	96.4	98.5	13549	6.5	.08	.50	.7
TOTAL	100.0	100.0	13262	8.4	.10	.51	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.5	71.9	14109	2.8	.09	.47	.7
FLOAT-1.40	86.6	90.7	13867	4.4	.10	.48	.7
FLOAT-1.60	95.8	98.2	13580	6.3	.11	.48	.7
TOTAL	100.0	100.0	13247	8.5	.13	.49	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	69.0	73.6	14185	2.3	.07	.49	.7
FLOAT-1.40	84.3	88.9	14018	3.4	.08	.49	.7
FLOAT-1.60	94.8	97.6	13686	5.6	.08	.49	.7
TOTAL	100.0	100.0	13292	8.2	.11	.50	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: MONTROSE

COALBED: UNCORRELATED
RAW COAL MOISTURE: 2.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.0	36.1	13928	4.5	.23	.79	1.1
FLOAT-1.40	78.9	84.5	13651	6.4	.25	.75	1.1
FLOAT-1.60	92.5	97.2	13388	8.2	.25	.73	1.1
TOTAL	100.0	100.0	12747	12.6	.31	.76	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.0	32.7	14030	3.8	.09	.61	.9
FLOAT-1.40	75.5	80.7	13753	5.7	.12	.60	.9
FLOAT-1.60	92.3	96.7	13476	7.6	.14	.61	.9
TOTAL	100.0	100.0	12864	11.8	.31	.75	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.9	27.4	14045	3.7	.07	.60	.9
FLOAT-1.40	69.6	75.1	13768	5.6	.08	.57	.8
FLOAT-1.60	91.0	96.0	13461	7.7	.10	.56	.8
TOTAL	100.0	100.0	12761	12.5	.31	.74	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: ILLINOIS
COUNTY: CHRISTIAN

COALBED: NO. 6
RAW COAL MOISTURE: 5.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.9	38.1	13120	5.4	.67	3.25	5.0
FLOAT-1.40	65.4	74.8	12952	6.6	.88	3.41	5.3
FLOAT-1.60	82.0	91.8	12674	8.6	1.27	3.77	5.9
TOTAL	100.0	100.0	11321	18.3	2.56	4.71	8.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.1	31.8	13203	4.8	.61	3.27	5.0
FLOAT-1.40	61.8	71.7	13064	5.8	.72	3.34	5.1
FLOAT-1.60	81.0	91.5	12729	8.2	1.16	3.72	5.8
TOTAL	100.0	100.0	11266	18.7	2.43	4.70	8.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.3	16.8	13148	5.2	.65	3.30	5.0
FLOAT-1.40	62.0	70.9	12785	7.8	1.16	3.74	5.9
FLOAT-1.60	81.2	91.8	12646	8.8	1.22	3.76	5.9
TOTAL	100.0	100.0	11182	19.3	2.65	5.12	9.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: DOUGLAS

COALBED: NO. 6
RAW COAL MOISTURE: 7.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	74.6	79.2	13578	5.0	.64	1.67	2.5
FLOAT-1.40	87.6	91.8	13410	6.2	.71	1.73	2.6
FLOAT-1.60	93.0	96.4	13257	7.3	.86	1.88	2.8
TOTAL	100.0	100.0	12795	10.6	1.69	2.71	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.7	75.5	13690	4.2	.53	1.63	2.4
FLOAT-1.40	85.7	90.5	13536	5.3	.59	1.66	2.5
FLOAT-1.60	91.7	95.7	13382	6.4	.70	1.75	2.6
TOTAL	100.0	100.0	12823	10.4	1.71	2.73	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.3	37.1	13857	3.0	.46	1.59	2.3
FLOAT-1.40	75.6	81.1	13759	3.7	.46	1.56	2.3
FLOAT-1.60	89.7	94.4	13494	5.6	.59	1.62	2.4
TOTAL	100.0	100.0	12823	10.4	1.67	2.68	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: DOUGLAS

COALBED: NO. 6
RAW COAL MOISTURE: 7.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	74.0	78.3	13616	4.5	.63	1.78	2.6
FLOAT-1.40	87.1	91.2	13476	5.5	.70	1.83	2.7
FLOAT-1.60	92.8	96.1	13337	6.5	.82	1.92	2.9
TOTAL	100.0	100.0	12876	9.8	2.09	3.13	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.2	71.6	13769	3.4	.49	1.69	2.5
FLOAT-1.40	84.9	89.5	13616	4.5	.56	1.73	2.5
FLOAT-1.60	92.6	96.3	13434	5.8	.68	1.83	2.7
TOTAL	100.0	100.0	12918	9.5	2.10	3.18	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.3	49.5	13783	3.3	.51	1.69	2.5
FLOAT-1.40	78.0	82.8	13699	3.9	.51	1.65	2.4
FLOAT-1.60	92.1	95.9	13434	5.8	.64	1.74	2.6
TOTAL	100.0	100.0	12904	9.6	2.02	3.09	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: FRANKLIN

COALBED: NO. 6
RAW COAL MOISTURE: 3.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.6	62.0	13855	3.9	.57	2.39	3.4
FLOAT-1.40	93.0	94.3	13494	6.3	.87	2.57	3.8
FLOAT-1.60	99.0	99.3	13359	7.2	.98	2.64	4.0
TOTAL	100.0	100.0	13314	7.5	1.03	2.69	4.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.3	75.2	13810	4.2	.84	2.42	3.5
FLOAT-1.40	90.7	92.7	13570	5.8	.88	2.52	3.7
FLOAT-1.60	98.1	98.9	13389	7.0	1.00	2.59	3.9
TOTAL	100.0	100.0	13284	7.7	1.11	2.69	4.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.7	75.7	13825	4.1	.57	2.32	3.4
FLOAT-1.40	89.6	92.1	13660	5.2	.65	2.40	3.5
FLOAT-1.60	97.1	98.3	13449	6.6	.71	2.48	3.7
TOTAL	100.0	100.0	13284	7.7	.92	2.68	4.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: FRANKLIN

COALBED: NO. 6
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	54.1	60.8	13751	4.0	.31	.96	1.4
FLOAT-1.40	84.9	93.2	13422	6.3	.38	1.00	1.5
FLOAT-1.60	89.3	97.0	13293	7.2	.39	1.01	1.5
FLOAT-1.90	91.2	98.4	13192	7.9	.42	1.04	1.6
TOTAL	100.0	100.0	12233	14.6	.59	1.16	1.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	53.5	60.9	13894	3.0	.27	.91	1.3
FLOAT-1.40	83.5	92.7	13550	5.4	.31	.93	1.4
FLOAT-1.60	87.4	96.3	13450	6.1	.33	.93	1.4
FLOAT-1.90	90.0	98.1	13307	7.1	.35	.95	1.4
TOTAL	100.0	100.0	12204	14.8	.57	1.12	1.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	22.5	26.0	14038	2.0	.20	.87	1.2
FLOAT-1.40	72.3	81.1	13636	4.8	.28	.91	1.3
FLOAT-1.60	85.8	94.1	13336	6.9	.32	.93	1.4
FLOAT-1.90	91.0	98.3	13135	8.3	.35	.95	1.4
TOTAL	100.0	100.0	12161	15.1	.60	1.15	1.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: FULTON

COALBED: NO. 6
RAW COAL MOISTURE: 8.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	70.7	82.9	13321	4.7	.65	2.43	3.6
FLOAT-1.40	77.1	90.0	13264	5.1	.67	2.45	3.7
FLOAT-1.60	81.5	94.0	13107	6.2	.73	2.48	3.8
TOTAL	100.0	100.0	11364	18.4	3.44	4.95	8.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	59.3	70.0	13421	4.0	.50	2.42	3.6
FLOAT-1.40	74.9	88.0	13349	4.5	.53	2.44	3.7
FLOAT-1.60	80.6	93.6	13192	5.6	.57	2.45	3.7
TOTAL	100.0	100.0	11364	18.4	3.35	4.99	8.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	25.4	30.2	13492	3.5	.42	2.29	3.4
FLOAT-1.40	60.8	72.0	13449	3.8	.44	2.32	3.5
FLOAT-1.60	79.4	92.1	13178	5.7	.58	2.40	3.6
TOTAL	100.0	100.0	11364	18.4	3.45	4.93	8.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: JEFFERSON

COALBED: NO. 6
RAW COAL MOISTURE: 4.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.3	45.6	13574	5.3	.32	.96	1.4
FLOAT-1.40	84.1	87.6	13113	8.4	.39	.97	1.5
FLOAT-1.60	95.4	97.4	12861	10.1	.41	.99	1.5
TOTAL	100.0	100.0	12593	11.9	.56	1.12	1.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.1	53.2	13589	5.2	.34	.98	1.4
FLOAT-1.40	80.8	85.3	13232	7.6	.41	1.00	1.5
FLOAT-1.60	93.9	96.8	12920	9.7	.43	1.01	1.6
TOTAL	100.0	100.0	12534	12.3	.60	1.17	1.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.0	56.7	13693	4.5	.30	.95	1.4
FLOAT-1.40	78.9	84.5	13441	6.2	.32	.94	1.4
FLOAT-1.60	93.7	97.7	13084	8.6	.33	.89	1.4
TOTAL	100.0	100.0	12548	12.2	.59	1.20	1.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: JEFFERSON

COALBED: NO. 6
RAW COAL MOISTURE: 7.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.8	53.3	13357	4.4	.38	1.15	1.7
FLOAT-1.40	77.1	91.1	12980	7.1	.47	1.21	1.9
FLOAT-1.60	82.3	96.2	12840	8.1	.52	1.25	1.9
FLOAT-1.90	84.4	97.7	12714	9.0	.56	1.27	2.0
TOTAL	100.0	100.0	10981	21.4	.79	1.43	2.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.8	45.3	13511	3.3	.36	1.12	1.7
FLOAT-1.40	72.7	86.8	13106	6.2	.47	1.19	1.8
FLOAT-1.60	81.4	95.4	12868	7.9	.52	1.23	1.9
FLOAT-1.90	84.3	97.6	12714	9.0	.55	1.25	2.0
TOTAL	100.0	100.0	10981	21.4	.77	1.38	2.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.7	38.5	13567	2.9	.30	1.09	1.6
FLOAT-1.40	63.6	77.6	13189	5.6	.41	1.15	1.7
FLOAT-1.60	79.3	93.3	12728	8.9	.50	1.20	1.9
FLOAT-1.90	84.2	97.5	12519	10.4	.55	1.22	1.9
TOTAL	100.0	100.0	10814	22.6	.73	1.32	2.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: JEFFERSON

COALBED: NO. 6
RAW COAL MOISTURE: 3.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.2	57.1	13871	3.7	.56	1.25	1.8
FLOAT-1.40	73.7	89.4	13309	7.6	.88	1.58	2.4
FLOAT-1.60	79.0	94.3	13108	9.0	.98	1.66	2.5
FLOAT-1.90	81.0	95.5	12935	10.2	1.02	1.69	2.6
TOTAL	100.0	100.0	10976	23.8	1.25	1.84	3.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.5	53.3	13799	4.2	.53	1.20	1.7
FLOAT-1.40	70.7	86.6	13482	6.4	.73	1.37	2.0
FLOAT-1.60	78.5	93.8	13151	8.7	.89	1.50	2.3
FLOAT-1.90	81.5	96.1	12978	9.9	.95	1.56	2.4
TOTAL	100.0	100.0	11005	23.6	1.25	1.78	3.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.1	46.7	13741	4.6	.15	1.15	1.7
FLOAT-1.40	64.8	80.1	13497	6.3	.64	1.29	1.9
FLOAT-1.60	78.7	94.5	13108	9.0	.75	1.34	2.0
FLOAT-1.90	81.9	96.8	12906	10.4	.80	1.38	2.1
TOTAL	100.0	100.0	10918	24.2	1.28	1.76	3.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: KNOX

COALBED: NO. 6
RAW COAL MOISTURE: 6.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.3	50.5	13321	4.0	.68	2.59	3.9
FLOAT-1.40	84.1	87.0	13185	5.0	.80	2.73	4.1
FLOAT-1.60	95.9	97.7	12995	6.4	.93	2.86	4.4
TOTAL	100.0	100.0	12751	8.2	1.07	2.98	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.3	36.8	13293	4.2	.73	2.64	4.0
FLOAT-1.40	79.4	82.6	13266	4.4	.74	2.66	4.0
FLOAT-1.60	94.9	97.1	13049	6.0	.89	2.83	4.3
TOTAL	100.0	100.0	12751	8.2	1.07	2.99	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.8	17.7	13402	3.4	.55	2.54	3.8
FLOAT-1.40	85.5	89.0	13253	4.5	.57	2.54	3.8
FLOAT-1.60	94.3	97.1	13117	5.5	.75	2.71	4.1
TOTAL	100.0	100.0	12738	8.3	1.10	3.06	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: KNOX

COALBED: NO. 6
RAW COAL MOISTURE: 11.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.9	59.0	13029	5.6	1.44	3.30	5.1
FLOAT-1.40	68.9	80.6	12877	6.7	1.80	3.67	5.7
FLOAT-1.60	77.6	89.3	12670	8.2	2.25	4.11	6.5
FLOAT-1.90	81.7	92.6	12477	9.6	2.68	4.58	7.3
TOTAL	100.0	100.0	11014	20.2	5.66	7.69	14.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.2	50.4	13278	3.8	1.09	2.94	4.4
FLOAT-1.40	69.2	81.6	13098	5.1	1.37	3.27	5.0
FLOAT-1.60	78.2	90.8	12905	6.5	1.71	3.64	5.6
FLOAT-1.90	80.7	93.0	12808	7.2	1.93	3.88	6.1
TOTAL	100.0	100.0	11111	19.5	5.39	7.58	13.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.7	38.7	13305	3.6	.83	2.67	4.0
FLOAT-1.40	66.3	79.7	13084	5.2	1.08	2.93	4.5
FLOAT-1.60	75.8	89.8	12905	6.5	1.43	3.34	5.2
FLOAT-1.90	79.4	93.0	12753	7.6	1.62	3.52	5.5
TOTAL	100.0	100.0	10890	21.1	5.92	8.20	15.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: MACOUPIN

COALBED: NO. 6
RAW COAL MOISTURE: 4.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.2	62.7	13106	5.5	.54	3.91	6.0
FLOAT-1.40	82.5	87.5	12890	7.1	.81	4.06	6.3
FLOAT-1.60	91.2	95.6	12741	8.2	1.39	4.56	7.2
TOTAL	100.0	100.0	12159	12.5	2.71	5.73	9.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.4	52.1	13309	4.0	.42	3.89	5.8
FLOAT-1.40	77.8	83.6	13011	6.2	.69	4.00	6.1
FLOAT-1.60	89.6	94.6	12781	7.9	1.22	4.44	6.9
TOTAL	100.0	100.0	12105	12.9	2.72	5.78	9.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.4	13.8	13458	2.9	.50	4.11	6.1
FLOAT-1.40	76.8	83.2	13106	5.5	.58	3.97	6.1
FLOAT-1.60	88.5	94.1	12863	7.3	.98	4.17	6.5
TOTAL	100.0	100.0	12091	13.0	2.91	6.01	9.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: MONTGOMERY

COALBED: NO. 6
RAW COAL MOISTURE: 8.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.8	46.9	13209	5.5	.51	3.23	4.9
FLOAT-1.40	83.3	85.7	12999	7.2	.62	3.42	5.3
FLOAT-1.60	95.3	96.9	12838	8.5	.81	3.68	5.7
TOTAL	100.0	100.0	12628	10.2	1.16	3.96	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.6	40.3	13135	6.1	.88	3.50	5.3
FLOAT-1.40	78.4	81.4	13060	6.7	1.07	3.67	5.6
FLOAT-1.60	94.1	96.1	12850	8.4	1.11	3.87	6.0
TOTAL	100.0	100.0	12578	10.6	1.48	4.15	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	18.9	20.3	13431	3.7	.52	3.11	4.6
FLOAT-1.40	74.3	78.3	13159	5.9	.68	3.30	5.0
FLOAT-1.60	93.1	96.6	12949	7.6	1.01	3.45	5.3
TOTAL	100.0	100.0	12480	11.4	1.54	4.00	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: MONTGOMERY

COALBED: NO. 6
RAW COAL MOISTURE: 10.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.1	32.0	13252	4.7	.65	3.01	4.5
FLOAT-1.40	74.5	82.6	12905	7.2	1.04	3.33	5.2
FLOAT-1.60	85.2	92.7	12668	8.9	1.35	3.60	5.7
FLOAT-1.90	90.0	96.3	12460	10.4	1.62	3.82	6.1
TOTAL	100.0	100.0	11639	16.3	2.85	4.92	8.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.5	19.1	13433	3.4	.49	2.87	4.3
FLOAT-1.40	71.4	80.4	13072	6.0	.88	3.25	5.0
FLOAT-1.60	84.1	92.6	12780	8.1	1.16	3.48	5.4
FLOAT-1.90	88.4	95.8	12585	9.5	1.34	3.61	5.7
TOTAL	100.0	100.0	11611	16.5	2.94	5.05	8.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	18.2	21.3	13544	2.6	.40	2.73	4.0
FLOAT-1.40	60.1	68.6	13183	5.2	.69	3.02	4.6
FLOAT-1.60	85.1	93.0	12627	9.2	1.15	3.33	5.3
FLOAT-1.90	89.2	96.2	12460	10.4	1.29	3.44	5.5
TOTAL	100.0	100.0	11556	16.9	2.83	4.89	8.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: PEORIA

COALBED: NO. 6
RAW COAL MOISTURE: 9.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.0	78.5	13234	4.9	.70	2.70	4.1
FLOAT-1.40	75.9	86.8	13121	5.7	.78	2.76	4.2
FLOAT-1.60	82.4	92.7	12909	7.2	.92	2.85	4.4
TOTAL	100.0	100.0	11469	17.4	2.61	4.28	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.4	64.6	13375	3.9	.56	2.50	3.7
FLOAT-1.40	72.9	84.3	13262	4.7	.63	2.60	3.9
FLOAT-1.60	81.0	92.0	13022	6.4	.76	2.68	4.1
TOTAL	100.0	100.0	11469	17.4	2.76	4.42	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.9	9.2	13389	3.8	.47	2.39	3.6
FLOAT-1.40	57.7	68.0	13516	2.9	.37	2.47	3.7
FLOAT-1.60	79.6	91.1	13121	5.7	.65	2.66	4.1
TOTAL	100.0	100.0	11469	17.4	2.73	4.37	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: PERRY

COALBED: NO. 6
RAW COAL MOISTURE: 3.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.9	39.0	13458	3.7	.48	2.61	3.9
FLOAT-1.40	74.5	82.4	12928	7.5	.84	2.83	4.4
FLOAT-1.60	86.5	93.7	12663	9.4	1.17	3.08	4.9
TOTAL	100.0	100.0	11687	16.4	2.45	4.19	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.0	53.5	13514	3.3	.50	2.58	3.8
FLOAT-1.40	73.7	83.3	13138	6.0	.73	2.74	4.2
FLOAT-1.60	83.7	92.6	12859	8.0	.90	2.83	4.4
TOTAL	100.0	100.0	11617	16.9	2.60	4.28	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.9	49.9	13598	2.7	.39	2.45	3.6
FLOAT-1.40	68.2	77.6	13291	4.9	.63	2.60	3.9
FLOAT-1.60	83.8	92.3	12873	7.9	.82	2.72	4.2
TOTAL	100.0	100.0	11687	16.4	2.68	4.33	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: PERRY

COALBED: NO. 6
RAW COAL MOISTURE: 6.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.6	54.5	13500	4.2	.52	2.68	4.0
FLOAT-1.40	83.3	88.9	13108	7.0	.75	2.79	4.3
FLOAT-1.60	90.4	95.4	12954	8.1	.93	2.94	4.5
TOTAL	100.0	100.0	12281	12.9	1.73	3.56	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.9	60.4	13584	3.6	.44	2.53	3.7
FLOAT-1.40	79.9	86.0	13290	5.7	.60	2.63	4.0
FLOAT-1.60	89.8	95.0	13066	7.3	.75	2.74	4.2
TOTAL	100.0	100.0	12351	12.4	1.78	3.58	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.1	49.2	13725	2.6	.35	2.54	3.7
FLOAT-1.40	73.6	80.6	13472	4.4	.51	2.64	3.9
FLOAT-1.60	87.5	93.7	13178	6.5	.63	2.68	4.1
TOTAL	100.0	100.0	12309	12.7	1.57	3.48	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: RANDOLPH

COALBED: NO. 6
RAW COAL MOISTURE: 7.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.5	31.9	13171	4.6	.61	2.27	3.4
FLOAT-1.40	70.4	81.4	12673	8.2	.92	2.76	4.4
FLOAT-1.60	82.5	93.3	12396	10.2	1.15	2.99	4.8
TOTAL	100.0	100.0	10957	20.6	2.29	3.84	7.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.8	40.9	13268	3.9	.57	2.59	3.9
FLOAT-1.40	69.2	80.9	12825	7.1	.81	2.79	4.4
FLOAT-1.60	81.4	93.0	12535	9.2	1.01	2.94	4.7
TOTAL	100.0	100.0	10971	20.5	2.35	3.97	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.6	27.4	13241	4.1	.55	2.56	3.9
FLOAT-1.40	57.9	68.9	12991	5.9	.74	2.67	4.1
FLOAT-1.60	78.5	90.5	12590	8.8	.92	2.79	4.4
TOTAL	100.0	100.0	10916	20.9	2.41	3.96	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: RANDOLPH

COALBED: NO. 6
RAW COAL MOISTURE: 6.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.8	43.5	13224	4.7	.49	2.63	4.0
FLOAT-1.40	76.7	82.9	12754	8.1	.77	2.78	4.4
FLOAT-1.60	88.8	94.1	12505	9.9	1.20	3.10	5.0
TOTAL	100.0	100.0	11799	15.0	2.59	4.39	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.4	48.9	13348	3.8	.30	2.65	4.0
FLOAT-1.40	74.6	81.6	12961	6.6	.56	2.74	4.2
FLOAT-1.60	87.7	93.6	12657	8.8	.81	2.92	4.6
TOTAL	100.0	100.0	11855	14.6	2.55	4.47	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.2	53.9	13210	4.8	.29	2.65	4.0
FLOAT-1.40	67.5	74.8	13099	5.6	.44	2.70	4.1
FLOAT-1.60	88.0	93.9	12602	9.2	.88	3.00	4.8
TOTAL	100.0	100.0	11813	14.9	2.56	4.50	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: ST. CLAIR

COALBED: NO. 6
RAW COAL MOISTURE: 6.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.6	40.6	13257	5.7	.80	2.94	4.4
FLOAT-1.40	82.9	85.1	12930	8.0	.97	3.13	4.8
FLOAT-1.60	96.9	97.9	12717	9.5	1.26	3.39	5.3
TOTAL	100.0	100.0	12589	10.4	1.44	3.55	5.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.4	40.2	13513	3.9	.54	2.71	4.0
FLOAT-1.40	79.5	82.9	13115	6.7	.74	2.94	4.5
FLOAT-1.60	94.8	96.6	12817	8.8	.94	3.11	4.9
TOTAL	100.0	100.0	12575	10.5	1.33	3.46	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.3	18.6	13613	3.2	.51	2.66	3.9
FLOAT-1.40	77.2	80.2	13129	6.6	.75	2.87	4.4
FLOAT-1.60	93.6	96.2	12987	7.6	.84	3.12	4.8
TOTAL	100.0	100.0	12632	10.1	1.43	3.69	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: ST CLAIR

COALBED: NO. 6
RAW COAL MOISTURE: 7.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.9	41.7	13247	5.1	.53	3.29	5.0
FLOAT-1.40	72.9	79.5	12791	8.4	.89	3.60	5.6
FLOAT-1.60	86.3	92.1	12514	10.4	1.66	4.37	7.0
TOTAL	100.0	100.0	11725	16.1	3.82	6.30	10.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.0	44.6	13414	3.9	.49	3.33	5.0
FLOAT-1.40	69.6	77.3	13026	6.7	.78	3.49	5.4
FLOAT-1.60	84.3	91.3	12694	9.1	1.35	3.99	6.3
TOTAL	100.0	100.0	11725	16.1	3.77	6.22	10.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.1	26.4	13372	4.2	.45	3.30	4.9
FLOAT-1.40	54.3	60.9	13123	6.0	.65	3.46	5.3
FLOAT-1.60	79.6	86.4	12694	9.1	1.12	3.72	5.9
TOTAL	100.0	100.0	11697	16.3	3.74	6.13	10.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: SALINE

COALBED: NO. 6
RAW COAL MOISTURE: 1.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.3	37.9	13745	3.4	.49	2.28	3.3
FLOAT-1.40	69.3	80.7	13219	7.1	.88	2.70	4.1
FLOAT-1.60	79.9	91.0	12934	9.1	1.10	2.89	4.5
FLOAT-1.90	84.6	94.6	12692	10.8	1.30	3.07	4.8
TOTAL	100.0	100.0	11355	20.2	3.34	5.20	9.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.7	56.5	13774	3.2	.48	2.19	3.2
FLOAT-1.40	69.6	82.6	13503	5.1	.70	2.44	3.6
FLOAT-1.60	78.0	90.8	13247	6.9	.85	2.57	3.9
FLOAT-1.90	82.7	94.3	12977	8.8	.99	2.68	4.1
TOTAL	100.0	100.0	11383	20.0	3.30	5.05	8.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.0	46.2	13788	3.1	.46	2.16	3.1
FLOAT-1.40	62.0	73.8	13503	5.1	.69	2.42	3.6
FLOAT-1.60	77.6	89.9	13133	7.7	.92	2.63	4.0
FLOAT-1.90	83.5	94.6	12849	9.7	1.08	2.74	4.3
TOTAL	100.0	100.0	11340	20.3	3.15	4.94	8.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: STARK
COALBED: NO. 6
RAW COAL MOISTURE: 5.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	73.4	85.2	13058	4.9	.48	2.48	3.8
FLOAT-1.40	78.1	90.5	13044	5.0	.51	2.49	3.8
FLOAT-1.60	82.6	94.9	12931	5.8	.58	2.52	3.9
TOTAL	100.0	100.0	11253	17.6	2.34	3.96	7.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.4	62.1	13357	2.8	.46	2.36	3.5
FLOAT-1.40	70.2	83.0	13314	3.1	.50	2.37	3.6
FLOAT-1.60	80.1	93.4	13144	4.3	.62	2.44	3.7
TOTAL	100.0	100.0	11268	17.5	2.48	3.98	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.1	25.9	13257	3.5	.47	2.33	3.5
FLOAT-1.40	62.1	72.8	13243	3.6	.46	2.33	3.5
FLOAT-1.60	81.1	93.7	13044	5.0	.62	2.48	3.8
TOTAL	100.0	100.0	11296	17.3	2.48	3.99	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: WILLIAMSON
COALBED: NO. 6
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.4	39.7	13897	3.4	.38	1.65	2.4
FLOAT-1.40	80.1	86.2	13323	7.4	.66	1.98	3.0
FLOAT-1.60	91.3	96.5	13079	9.1	.86	2.17	3.3
TOTAL	100.0	100.0	12376	14.0	1.95	3.19	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.0	48.5	13954	3.0	.30	1.63	2.3
FLOAT-1.40	78.2	85.4	13510	6.1	.57	1.90	2.8
FLOAT-1.60	88.0	94.2	13251	7.9	.71	1.99	3.0
TOTAL	100.0	100.0	12376	14.0	1.99	3.16	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.4	70.3	13940	3.1	.34	1.69	2.4
FLOAT-1.40	75.6	84.1	13768	4.3	.44	1.79	2.6
FLOAT-1.60	80.1	88.2	13624	5.3	.50	1.84	2.7
TOTAL	100.0	100.0	12376	14.0	1.97	3.11	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: WILLIAMSON

COALBED: NO. 6
RAW COAL MOISTURE: 4.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.6	54.5	13849	3.6	.47	1.55	2.2
FLOAT-1.40	82.3	90.0	13491	6.1	.69	1.79	2.7
FLOAT-1.60	89.1	96.1	13319	7.3	.82	1.90	2.9
TOTAL	100.0	100.0	12343	14.1	1.67	2.65	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.2	62.1	13892	3.3	.42	1.56	2.2
FLOAT-1.40	81.8	89.9	13577	5.5	.64	1.75	2.6
FLOAT-1.60	89.1	96.4	13376	6.9	.76	1.84	2.8
TOTAL	100.0	100.0	12357	14.0	1.66	2.64	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.0	49.9	13979	2.7	.46	1.45	2.1
FLOAT-1.40	79.5	88.3	13677	4.8	.62	1.60	2.3
FLOAT-1.60	88.5	96.9	13476	6.2	.71	1.67	2.5
TOTAL	100.0	100.0	12314	14.3	1.68	2.55	4.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: WILLIAMSON

COALBED: NO. 6
RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.4	50.0	13281	4.2	.46	2.37	3.6
FLOAT-1.40	72.7	82.8	12837	7.4	.64	2.50	3.9
FLOAT-1.60	83.6	93.1	12546	9.5	.89	2.74	4.4
FLOAT-1.90	87.6	96.0	12352	10.9	1.09	2.94	4.8
TOTAL	100.0	100.0	11271	18.7	2.59	4.35	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.8	57.2	13350	3.7	.42	2.33	3.5
FLOAT-1.40	74.1	84.5	12976	6.4	.57	2.44	3.8
FLOAT-1.60	82.2	92.2	12768	7.9	.69	2.52	3.9
FLOAT-1.90	86.8	95.7	12546	9.5	.82	2.63	4.2
TOTAL	100.0	100.0	11382	17.9	2.49	4.21	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.1	46.8	13378	3.5	.41	2.30	3.4
FLOAT-1.40	62.2	72.9	13114	5.4	.52	2.38	3.6
FLOAT-1.60	80.4	90.9	12643	8.8	.74	2.53	4.0
FLOAT-1.90	85.8	95.0	12394	10.6	.86	2.62	4.2
TOTAL	100.0	100.0	11188	19.3	2.87	4.53	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: WILLIAMSON

COALBED: NO. 6
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.8	33.1	13753	3.8	.58	1.56	2.3
FLOAT-1.40	77.2	88.1	13181	7.8	.82	1.82	2.8
FLOAT-1.60	84.4	94.9	12995	9.1	.93	1.92	3.0
FLOAT-1.90	87.1	96.9	12852	10.1	1.03	2.01	3.1
TOTAL	100.0	100.0	11551	19.2	1.57	2.47	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.0	50.1	13781	3.6	.43	1.41	2.0
FLOAT-1.40	75.3	87.3	13395	6.3	.64	1.63	2.4
FLOAT-1.60	83.2	94.9	13181	7.8	.75	1.74	2.6
FLOAT-1.90	86.2	97.2	13024	8.9	.84	1.82	2.8
TOTAL	100.0	100.0	11551	19.2	1.51	2.41	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.8	28.7	13796	3.5	.30	1.23	1.8
FLOAT-1.40	66.4	77.9	13438	6.0	.53	1.49	2.2
FLOAT-1.60	81.2	92.7	13067	8.6	.68	1.63	2.5
FLOAT-1.90	87.3	97.5	12795	10.5	.79	1.72	2.7
TOTAL	100.0	100.0	11451	19.9	1.49	2.34	4.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: WILLIAMSON

COALBED: NO. 6
RAW COAL MOISTURE: 3.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.6	49.2	13852	3.7	.50	2.22	3.2
FLOAT-1.40	85.3	88.7	13359	7.2	.71	2.41	3.6
FLOAT-1.60	94.5	96.8	13161	8.6	.99	2.66	4.0
TOTAL	100.0	100.0	12850	10.8	1.68	3.31	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.9	56.0	13881	3.5	.32	2.16	3.1
FLOAT-1.40	84.7	89.0	13514	6.1	.59	2.35	3.5
FLOAT-1.60	93.3	96.5	13302	7.6	.79	2.52	3.8
TOTAL	100.0	100.0	12865	10.7	1.71	3.32	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.0	71.9	13810	4.0	.36	2.20	3.2
FLOAT-1.40	84.3	89.0	13584	5.6	.53	2.27	3.3
FLOAT-1.60	92.7	96.3	13359	7.2	.75	2.45	3.7
TOTAL	100.0	100.0	12865	10.7	1.74	3.34	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: FRANKLIN

COALBED: NO. 5
RAW COAL MOISTURE: 2.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.0	54.0	13406	3.9	.46	1.91	2.8
FLOAT-1.40	81.8	87.8	13057	6.4	.60	2.03	3.1
FLOAT-1.60	90.7	95.8	12848	7.9	.72	2.13	3.3
FLOAT-1.90	93.1	97.5	12737	8.7	.87	2.28	3.6
TOTAL	100.0	100.0	12165	12.8	1.77	3.15	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.9	49.8	13518	3.1	.39	1.83	2.7
FLOAT-1.40	78.9	85.5	13211	5.3	.55	1.93	2.9
FLOAT-1.60	89.9	95.5	12946	7.2	.65	2.01	3.1
FLOAT-1.90	92.3	97.2	12834	8.0	.73	2.08	3.2
TOTAL	100.0	100.0	12193	12.6	1.74	3.07	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.3	38.3	13573	2.7	.37	1.82	2.7
FLOAT-1.40	75.5	81.8	13183	5.5	.54	1.94	2.9
FLOAT-1.60	90.0	95.5	12904	7.5	.66	2.02	3.1
FLOAT-1.90	92.7	97.5	12792	8.3	.74	2.08	3.3
TOTAL	100.0	100.0	12165	12.8	1.77	3.08	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: FULTON

COALBED: NO. 5
RAW COAL MOISTURE: 5.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.6	61.3	13101	7.2	.42	2.54	3.9
FLOAT-1.40	88.5	90.1	12955	8.3	.65	2.76	4.3
FLOAT-1.60	97.8	98.5	12822	9.3	.97	3.07	4.8
TOTAL	100.0	100.0	12729	10.0	1.10	3.17	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.2	43.9	13234	6.2	.43	2.56	3.9
FLOAT-1.40	82.3	84.7	13088	7.3	.53	2.66	4.1
FLOAT-1.60	96.0	97.3	12889	8.8	.92	3.02	4.7
TOTAL	100.0	100.0	12716	10.1	1.15	3.20	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.4	7.8	13474	4.4	.50	2.45	3.6
FLOAT-1.40	82.3	84.9	13168	6.7	.49	2.60	3.9
FLOAT-1.60	95.2	97.0	13008	7.9	.66	2.81	4.3
TOTAL	100.0	100.0	12769	9.7	1.04	3.12	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: FULTON

COALBED: NO. 5
RAW COAL MOISTURE: 4.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.1	71.1	12899	7.7	.55	2.67	4.1
FLOAT-1.40	86.1	89.2	12803	8.4	.76	2.88	4.5
FLOAT-1.60	95.4	97.3	12611	9.8	1.09	3.20	5.1
TOTAL	100.0	100.0	12363	11.6	1.46	3.55	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.6	66.0	13037	6.7	.47	2.68	4.1
FLOAT-1.40	87.8	90.3	12913	7.6	.65	2.84	4.4
FLOAT-1.60	96.7	98.2	12748	8.8	.97	3.15	4.9
TOTAL	100.0	100.0	12556	10.2	1.30	3.45	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.0	11.1	13656	2.2	.18	2.42	3.5
FLOAT-1.40	83.7	88.5	13051	6.6	.51	2.73	4.2
FLOAT-1.60	92.0	95.5	12817	8.3	.80	3.03	4.7
TOTAL	100.0	100.0	12349	11.7	1.46	3.65	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: FULTON

COALBED: NO. 5
RAW COAL MOISTURE: 5.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.1	67.1	12779	8.6	1.12	2.73	4.3
FLOAT-1.40	83.0	86.1	12676	9.4	1.19	2.88	4.5
FLOAT-1.60	94.0	96.1	12483	10.9	1.46	3.19	5.1
TOTAL	100.0	100.0	12213	13.0	1.92	3.63	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.4	54.9	13063	6.4	.48	2.69	4.1
FLOAT-1.40	81.9	85.9	12844	8.1	.75	2.87	4.5
FLOAT-1.60	91.6	94.9	12676	9.4	1.04	3.12	4.9
TOTAL	100.0	100.0	12239	12.8	1.74	3.75	6.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.8	5.3	13462	3.3	.27	1.68	2.5
FLOAT-1.40	71.9	77.1	13101	6.1	.48	2.48	3.8
FLOAT-1.60	93.9	98.1	12754	8.8	.85	2.90	4.5
TOTAL	100.0	100.0	12213	13.0	1.79	3.81	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: FULTON

COALBED: NO. 5
RAW COAL MOISTURE: 10.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.0	51.0	12858	8.0	.60	2.62	4.1
FLOAT-1.40	69.2	78.9	12638	9.6	.99	2.97	4.7
FLOAT-1.60	81.8	91.4	12390	11.4	1.35	3.28	5.3
FLOAT-1.90	87.2	95.5	12143	13.2	1.55	3.43	5.6
TOTAL	100.0	100.0	11083	20.9	2.47	4.17	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.0	37.1	13023	6.8	.58	2.59	4.0
FLOAT-1.40	69.4	79.2	12817	8.3	.76	2.73	4.3
FLOAT-1.60	83.0	92.7	12542	10.3	1.05	2.98	4.8
FLOAT-1.90	86.8	95.6	12377	11.5	1.18	3.06	4.9
TOTAL	100.0	100.0	11235	19.8	2.26	3.98	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.8	29.7	13298	4.8	.48	2.44	3.7
FLOAT-1.40	65.6	76.4	12941	7.4	.66	2.60	4.0
FLOAT-1.60	81.3	92.5	12638	9.6	.97	2.85	4.5
FLOAT-1.90	85.7	96.0	12445	11.0	1.09	2.92	4.7
TOTAL	100.0	100.0	11111	20.7	2.37	4.04	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: GALLATIN

COALBED: NO. 5
RAW COAL MOISTURE: 3.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.9	40.6	13715	4.6	.41	2.29	3.3
FLOAT-1.40	68.5	84.2	13240	7.9	.84	2.51	3.8
FLOAT-1.60	77.2	92.9	12953	9.9	1.22	2.82	4.4
FLOAT-1.90	79.7	95.0	12838	10.7	1.50	3.07	4.8
TOTAL	100.0	100.0	10767	25.1	2.74	4.06	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.3	32.4	13830	3.8	.33	2.25	3.3
FLOAT-1.40	62.7	77.1	13269	7.7	.84	2.60	3.9
FLOAT-1.60	78.1	92.6	12794	11.0	1.33	3.02	4.7
FLOAT-1.90	81.6	95.6	12651	12.0	1.51	3.15	5.0
TOTAL	100.0	100.0	10796	24.9	2.86	4.29	7.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	21.5	27.8	13916	3.2	.26	2.27	3.3
FLOAT-1.40	59.9	74.3	13355	7.1	.98	2.51	3.8
FLOAT-1.60	76.5	91.5	12881	10.4	1.35	2.77	4.3
FLOAT-1.90	81.9	95.7	12579	12.5	1.53	2.92	4.6
TOTAL	100.0	100.0	10767	25.1	2.77	3.94	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: PERRY

COALBED: NO. 5
RAW COAL MOISTURE: 6.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.5	25.5	13833	3.4	.42	2.67	3.9
FLOAT-1.40	79.6	86.5	13246	7.5	.84	3.09	4.7
FLOAT-1.60	88.1	94.4	13060	8.8	1.14	3.37	5.2
FLOAT-1.90	91.2	96.8	12931	9.7	1.39	3.61	5.6
TOTAL	100.0	100.0	12186	14.9	2.54	4.66	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.8	31.8	13919	2.8	.37	2.66	3.8
FLOAT-1.40	73.1	80.7	13432	6.2	.68	2.93	4.4
FLOAT-1.60	87.2	94.1	13131	8.3	.89	3.10	4.7
FLOAT-1.90	90.4	96.6	13003	9.2	1.06	3.25	5.0
TOTAL	100.0	100.0	12172	15.0	2.38	4.48	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.5	32.9	13976	2.4	.36	2.59	3.7
FLOAT-1.40	69.2	77.2	13518	5.6	.60	2.83	4.2
FLOAT-1.60	85.6	93.0	13160	8.1	.87	3.03	4.6
FLOAT-1.90	89.9	96.4	12988	9.3	1.05	3.18	4.9
TOTAL	100.0	100.0	12115	15.4	2.48	4.55	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: PERRY

COALBED: NO. 5
RAW COAL MOISTURE: 5.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.2	62.1	13298	5.3	.36	3.02	4.5
FLOAT-1.40	91.5	94.2	13046	7.1	.43	3.04	4.7
FLOAT-1.60	94.0	96.5	13004	7.4	.48	3.07	4.7
TOTAL	100.0	100.0	12667	9.8	1.23	3.71	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.6	55.6	13424	4.4	.29	3.03	4.5
FLOAT-1.40	88.7	92.0	13172	6.2	.39	3.04	4.6
FLOAT-1.60	94.0	96.8	13074	6.9	.42	3.04	4.7
TOTAL	100.0	100.0	12696	9.6	1.23	3.77	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.3	52.7	13550	3.5	.28	2.96	4.4
FLOAT-1.40	81.1	85.3	13340	5.0	.35	3.00	4.5
FLOAT-1.60	93.2	96.5	13130	6.5	.41	3.00	4.6
TOTAL	100.0	100.0	12681	9.7	1.35	3.82	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: RANDOLPH

COALBED: NO. 5
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.0	47.4	13607	4.3	.42	3.05	4.5
FLOAT-1.40	72.5	77.7	13236	6.9	1.05	3.60	5.4
FLOAT-1.60	91.1	94.2	12764	10.2	2.05	4.49	7.0
TOTAL	100.0	100.0	12349	13.1	3.41	5.74	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.4	51.3	13665	3.9	.42	2.98	4.4
FLOAT-1.40	72.6	78.2	13322	6.3	.91	3.42	5.1
FLOAT-1.60	89.9	93.4	12850	9.6	1.75	4.15	6.5
TOTAL	100.0	100.0	12364	13.0	3.32	5.64	9.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.6	53.4	13736	3.4	.39	2.85	4.1
FLOAT-1.40	67.8	74.2	13407	5.7	.78	3.04	4.5
FLOAT-1.60	85.3	90.1	12936	9.0	1.41	3.71	5.7
TOTAL	100.0	100.0	12249	13.8	3.68	5.91	9.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: SALINE

COALBED: NO. 5
RAW COAL MOISTURE: 1.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.3	27.4	13969	3.5	.42	1.40	2.0
FLOAT-1.40	80.2	90.7	13419	7.3	1.01	1.93	2.9
FLOAT-1.60	85.9	96.3	13304	8.1	1.23	2.21	3.3
FLOAT-1.90	87.2	97.3	13246	8.5	1.34	2.32	3.5
TOTAL	100.0	100.0	11870	18.0	2.29	3.34	5.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.1	39.2	14042	3.0	.42	1.37	2.0
FLOAT-1.40	76.9	88.0	13579	6.2	.81	1.73	2.5
FLOAT-1.60	84.4	95.4	13419	7.3	.99	1.94	2.9
FLOAT-1.90	85.9	96.7	13361	7.7	1.10	2.05	3.1
TOTAL	100.0	100.0	11870	18.0	2.34	3.27	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	21.9	26.3	14100	2.6	.38	1.32	1.9
FLOAT-1.40	62.5	73.1	13709	5.3	.65	1.66	2.4
FLOAT-1.60	82.4	93.4	13289	8.2	.95	1.97	3.0
FLOAT-1.90	85.9	96.3	13144	9.2	1.08	2.09	3.2
TOTAL	100.0	100.0	11726	19.0	2.49	3.48	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: FULTON

COALBED: NO. 2
RAW COAL MOISTURE: 2.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.6	66.9	13228	4.8	1.44	2.73	4.1
FLOAT-1.40	68.7	82.1	13131	5.5	1.68	3.04	4.6
FLOAT-1.60	77.6	90.9	12881	7.3	2.12	3.58	5.6
FLOAT-1.90	82.0	94.3	12645	9.0	2.42	3.94	6.2
TOTAL	100.0	100.0	10991	20.9	4.04	5.49	10.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.9	31.2	13381	3.7	1.09	2.27	3.4
FLOAT-1.40	69.2	82.4	13214	4.9	1.50	2.80	4.2
FLOAT-1.60	78.6	91.8	12964	6.7	1.92	3.33	5.1
FLOAT-1.90	82.5	94.8	12756	8.2	2.17	3.64	5.7
TOTAL	100.0	100.0	11102	20.1	4.17	5.52	9.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.5	37.5	13450	3.2	.85	2.01	3.0
FLOAT-1.40	68.6	83.3	13298	4.3	1.19	2.45	3.7
FLOAT-1.60	76.1	91.1	13103	5.7	1.46	2.76	4.2
FLOAT-1.90	81.2	95.1	12825	7.7	1.72	3.04	4.7
TOTAL	100.0	100.0	10949	21.2	4.40	5.56	10.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: PEORIA

COALBED: NO. 2
RAW COAL MOISTURE: 8.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.3	78.6	13716	4.2	.85	2.80	4.1
FLOAT-1.40	83.2	91.2	13644	4.7	1.10	3.07	4.5
FLOAT-1.60	87.2	94.9	13544	5.4	1.33	3.31	4.9
FLOAT-1.90	89.9	96.8	13401	6.4	1.54	3.51	5.2
TOTAL	100.0	100.0	12442	13.1	3.35	5.21	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.9	61.1	13902	2.9	.49	2.45	3.5
FLOAT-1.40	83.5	92.1	13773	3.8	.77	2.79	4.1
FLOAT-1.60	86.9	95.4	13701	4.3	.96	2.99	4.4
FLOAT-1.90	88.2	96.3	13630	4.8	1.05	3.09	4.5
TOTAL	100.0	100.0	12485	12.8	3.26	5.23	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.5	50.9	13931	2.7	.39	2.34	3.4
FLOAT-1.40	79.7	88.2	13773	3.8	.66	2.66	3.9
FLOAT-1.60	87.0	95.2	13616	4.9	.98	3.00	4.4
FLOAT-1.90	89.0	96.8	13530	5.5	1.11	3.13	4.6
TOTAL	100.0	100.0	12442	13.1	3.24	5.22	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: SULLIVAN

COALBED: NO. VII
RAW COAL MOISTURE: 3.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	83.0	85.8	13362	7.5	.54	1.19	1.8
FLOAT-1.40	92.4	94.7	13249	8.3	.56	1.21	1.8
FLOAT-1.60	96.2	98.1	13179	8.8	.63	1.28	1.9
TOTAL	100.0	100.0	12925	10.6	1.16	1.82	2.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	69.6	73.5	13659	5.4	.42	1.08	1.6
FLOAT-1.40	86.3	89.8	13461	6.8	.45	1.10	1.6
FLOAT-1.60	95.0	97.5	13278	8.1	.50	1.14	1.7
TOTAL	100.0	100.0	12939	10.5	1.23	1.87	2.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.8	25.9	14110	2.2	.23	.81	1.1
FLOAT-1.40	75.0	79.2	13673	5.3	.32	.97	1.4
FLOAT-1.60	94.3	97.2	13348	7.6	.38	1.02	1.5
TOTAL	100.0	100.0	12953	10.4	1.19	1.84	2.8
EPA STANDARD	34.0	37.1	14026	2.5	.24	.84	1.20

STATE: INDIANA
COUNTY: SULLIVAN

COALBED: NO. VII
RAW COAL MOISTURE: 13.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.6	57.7	13639	4.9	.03	.33	.5
FLOAT-1.40	92.1	94.2	13211	7.8	.06	.33	.5
FLOAT-1.60	97.2	98.4	13077	8.7	.09	.36	.6
TOTAL	100.0	100.0	12915	9.8	.43	.70	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.3	56.7	13743	4.2	.07	.32	.5
FLOAT-1.40	88.2	91.2	13358	6.8	.07	.34	.5
FLOAT-1.60	96.6	98.3	13137	8.3	.07	.34	.5
TOTAL	100.0	100.0	12915	9.8	.39	.65	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.4	43.1	13802	3.8	.03	.31	.4
FLOAT-1.40	85.2	88.5	13432	6.3	.06	.32	.5
FLOAT-1.60	96.5	98.4	13181	8.0	.06	.33	.5
TOTAL	100.0	100.0	12930	9.7	.41	.67	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: INDIANA
COUNTY: VIGO

COALBED: NO. VII
RAW COAL MOISTURE: 4.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	74.7	78.9	13329	6.8	.38	.90	1.4
FLOAT-1.40	89.4	93.1	13143	8.1	.41	.91	1.4
FLOAT-1.60	94.3	97.4	13029	8.9	.43	.94	1.4
TOTAL	100.0	100.0	12616	11.8	.95	1.46	2.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.6	70.7	13571	5.1	.29	.85	1.3
FLOAT-1.40	84.5	89.6	13343	6.7	.34	.87	1.3
FLOAT-1.60	92.5	96.5	13129	8.2	.38	.91	1.4
TOTAL	100.0	100.0	12587	12.0	1.01	1.54	2.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.7	42.1	13928	2.6	.15	.68	1.0
FLOAT-1.40	78.7	85.4	13514	5.5	.21	.73	1.1
FLOAT-1.60	89.9	94.9	13157	8.0	.27	.77	1.2
TOTAL	100.0	100.0	12459	12.9	1.03	1.52	2.4
EPA STANDARD	93.3	97.8	13141	8.8	.29	.78	1.20

STATE: INDIANA
COUNTY: SULLIVAN

COALBED: NO. VI
RAW COAL MOISTURE: 3.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.9	67.4	13459	4.8	.68	1.68	2.5
FLOAT-1.40	82.0	90.3	13177	6.8	.88	1.88	2.9
FLOAT-1.60	87.8	95.6	13022	7.9	1.00	1.99	3.1
TOTAL	100.0	100.0	11965	15.4	1.96	2.87	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.9	62.5	13614	3.7	.63	1.63	2.4
FLOAT-1.40	78.6	87.6	13318	5.8	.85	1.87	2.8
FLOAT-1.60	87.0	95.3	13093	7.4	1.00	2.01	3.1
TOTAL	100.0	100.0	11951	15.5	1.91	2.85	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.3	40.0	13798	2.4	.41	1.38	2.0
FLOAT-1.40	70.8	80.1	13389	5.3	.74	1.73	2.6
FLOAT-1.60	85.4	94.2	13065	7.6	.92	1.91	2.9
TOTAL	100.0	100.0	11838	16.3	2.04	2.93	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: SULLIVAN

COALBED: NO. VI
RAW COAL MOISTURE: 9.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.4	54.3	13551	5.2	.67	2.14	3.2
FLOAT-1.40	77.5	86.5	13194	7.7	.88	2.33	3.5
FLOAT-1.60	86.0	94.2	12952	9.4	1.09	2.52	3.9
TOTAL	100.0	100.0	11825	17.3	2.01	3.39	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.1	52.2	13650	4.5	.60	1.95	2.9
FLOAT-1.40	75.7	85.5	13322	6.8	.81	2.18	3.3
FLOAT-1.60	84.7	93.9	13080	8.5	.97	2.35	3.6
TOTAL	100.0	100.0	11796	17.5	2.05	3.36	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.0	30.5	13864	3.0	.48	1.79	2.6
FLOAT-1.40	69.5	79.0	13422	6.1	.71	2.04	3.0
FLOAT-1.60	86.0	94.3	12952	9.4	1.01	2.39	3.7
TOTAL	100.0	100.0	11811	17.4	2.10	3.38	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: VERMILLION

COALBED: NO. VI
RAW COAL MOISTURE: 8.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.9	46.3	13575	4.3	.84	2.18	3.2
FLOAT-1.40	63.7	71.3	13111	7.6	1.03	2.32	3.5
FLOAT-1.60	89.2	93.4	12255	13.7	1.27	2.51	4.1
TOTAL	100.0	100.0	11707	17.6	2.32	3.58	6.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.0	46.7	13659	3.7	.63	2.02	3.0
FLOAT-1.40	64.8	73.4	13238	6.7	.85	2.20	3.3
FLOAT-1.60	84.1	90.6	12592	11.3	1.07	2.36	3.7
TOTAL	100.0	100.0	11693	17.7	2.25	3.57	6.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.8	32.7	13757	3.0	.54	1.91	2.8
FLOAT-1.40	53.5	62.2	13603	4.1	.60	2.02	3.0
FLOAT-1.60	77.9	86.4	12985	8.5	.94	2.28	3.5
TOTAL	100.0	100.0	11707	17.6	2.32	3.55	6.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: WARRICK

COALBED: NO. VI
RAW COAL MOISTURE: 7.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	35.2	37.9	13480	4.7	1.28	2.66	3.9
FLOAT-1.40	80.4	83.8	13055	7.6	1.88	3.25	5.0
FLOAT-1.60	96.1	97.8	12747	9.7	2.21	3.60	5.6
TOTAL	100.0	100.0	12528	11.2	2.38	3.75	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	35.4	38.4	13554	4.2	1.11	2.55	3.8
FLOAT-1.40	74.7	79.0	13216	6.5	1.69	3.13	4.7
FLOAT-1.60	93.7	96.3	12850	9.0	2.05	3.47	5.4
TOTAL	100.0	100.0	12498	11.4	2.35	3.75	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	16.8	18.4	13700	3.2	.73	2.17	3.2
FLOAT-1.40	72.9	77.8	13363	5.5	1.38	2.82	4.2
FLOAT-1.60	92.5	95.5	12938	8.4	1.83	3.18	4.9
TOTAL	100.0	100.0	12528	11.2	2.32	3.69	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: WARRICK

COALBED: NO. VI
RAW COAL MOISTURE: 7.0 %
BENCH: TOP

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	62.1	67.5	13349	4.8	.97	2.86	4.3
FLOAT-1.40	83.9	89.5	13111	6.5	1.34	3.22	4.9
FLOAT-1.60	91.0	96.1	12972	7.5	1.58	3.44	5.3
TOTAL	100.0	100.0	12286	12.4	2.32	4.07	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	53.0	58.7	13545	3.4	.80	2.70	4.0
FLOAT-1.40	80.6	87.2	13237	5.6	1.18	3.08	4.7
FLOAT-1.60	89.4	95.3	13041	7.0	1.43	3.31	5.1
TOTAL	100.0	100.0	12231	12.8	2.27	4.02	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	48.2	53.0	13503	3.7	.89	2.81	4.2
FLOAT-1.40	69.7	76.2	13433	4.2	.92	2.83	4.2
FLOAT-1.60	87.9	94.0	13139	6.3	1.29	3.15	4.8
TOTAL	100.0	100.0	12286	12.4	2.24	3.99	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: WARRICK

COALBED: NO. VI
RAW COAL MOISTURE: 7.6 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.0	38.6	13362	4.1	.48	1.87	2.8
FLOAT-1.40	77.0	82.3	12938	7.2	.95	2.54	3.9
FLOAT-1.60	90.0	94.5	12705	8.9	1.28	2.92	4.6
TOTAL	100.0	100.0	12103	13.3	2.98	4.52	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.2	44.8	13485	3.2	.49	2.00	3.0
FLOAT-1.40	74.4	80.8	13129	5.8	.88	2.47	3.8
FLOAT-1.60	88.0	93.6	12856	7.8	1.22	2.80	4.4
TOTAL	100.0	100.0	12089	13.4	3.02	4.47	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.2	37.4	13622	2.2	.38	1.95	2.9
FLOAT-1.40	67.3	74.3	13348	4.2	.70	2.33	3.5
FLOAT-1.60	85.9	92.1	12965	7.0	1.17	2.75	4.2
TOTAL	100.0	100.0	12089	13.4	2.98	4.46	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: GIBSON

COALBED: NO. V
RAW COAL MOISTURE: 6.9 %
CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	75.8	78.2	13855	3.7	.35	1.08	1.6
FLOAT-1.40	94.9	96.4	13644	5.1	.61	1.37	2.0
FLOAT-1.60	97.5	98.7	13598	5.4	.69	1.45	2.1
TOTAL	100.0	100.0	13432	6.5	1.19	1.93	2.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	76.1	78.7	13900	3.4	.36	1.17	1.7
FLOAT-1.40	93.7	95.6	13719	4.6	.55	1.37	2.0
FLOAT-1.60	97.3	98.7	13644	5.1	.62	1.44	2.1
TOTAL	100.0	100.0	13447	6.4	1.13	1.93	2.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.1	35.7	14097	2.1	.29	1.12	1.6
FLOAT-1.40	90.3	92.9	13870	3.6	.44	1.27	1.8
FLOAT-1.60	96.6	98.4	13734	4.5	.50	1.31	1.9
TOTAL	100.0	100.0	13477	6.2	1.14	1.94	2.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: GREENE

COALBED: NO. V
RAW COAL MOISTURE: 8.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.8	41.4	13715	4.9	.64	2.34	3.4
FLOAT-1.40	87.2	90.3	13294	7.8	.94	2.67	4.0
FLOAT-1.60	95.4	97.6	13134	8.9	1.19	2.86	4.4
TOTAL	100.0	100.0	12843	10.9	1.86	3.52	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.7	47.9	13831	4.1	.55	2.32	3.4
FLOAT-1.40	85.1	88.5	13410	7.0	.77	2.50	3.7
FLOAT-1.60	95.1	97.3	13206	8.4	1.03	2.71	4.1
TOTAL	100.0	100.0	12901	10.5	1.64	3.29	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.2	30.7	13991	3.0	.52	2.25	3.2
FLOAT-1.40	70.4	74.4	13599	5.7	.71	2.44	3.6
FLOAT-1.60	94.1	96.6	13221	8.3	1.12	2.82	4.3
TOTAL	100.0	100.0	12872	10.7	1.83	3.52	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: PIKE

COALBED: NO. V
RAW COAL MOISTURE: 3.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.8	73.0	13596	5.1	.45	2.68	3.9
FLOAT-1.40	92.8	94.1	13379	6.5	.62	2.81	4.2
FLOAT-1.60	98.5	99.1	13271	7.2	.78	2.93	4.4
TOTAL	100.0	100.0	13194	7.7	.97	3.09	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	74.8	77.2	13596	5.1	.50	2.82	4.1
FLOAT-1.40	92.2	93.8	13410	6.3	.59	2.88	4.3
FLOAT-1.60	98.0	98.8	13287	7.1	.70	2.98	4.5
TOTAL	100.0	100.0	13178	7.8	.94	3.20	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.6	74.2	13673	4.6	.54	2.80	4.1
FLOAT-1.40	90.4	92.5	13503	5.7	.49	2.77	4.1
FLOAT-1.60	97.1	98.1	13333	6.8	.60	3.03	4.5
TOTAL	100.0	100.0	13194	7.7	.90	3.26	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: PIKE

COALBED: NO. V
RAW COAL MOISTURE: 4.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	61.9	63.9	13392	5.9	.81	2.92	4.4
FLOAT-1.40	92.5	93.7	13148	7.5	1.06	3.12	4.7
FLOAT-1.60	98.5	99.0	13041	8.2	1.26	3.31	5.1
TOTAL	100.0	100.0	12980	8.6	1.49	3.51	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	60.9	63.4	13499	5.2	.88	2.69	4.0
FLOAT-1.40	86.4	88.5	13285	6.6	1.00	2.73	4.1
FLOAT-1.60	97.8	98.7	13087	7.9	1.19	2.89	4.4
TOTAL	100.0	100.0	12965	8.7	1.48	3.18	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	35.8	37.9	13697	3.9	.53	2.46	3.6
FLOAT-1.40	87.0	89.8	13362	6.1	.74	2.82	4.2
FLOAT-1.60	97.0	98.5	13148	7.5	.93	2.91	4.4
TOTAL	100.0	100.0	12950	8.8	1.33	3.44	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: PIKE

COALBED: NO. V
RAW COAL MOISTURE: 9.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	43.2	45.8	13581	5.0	.88	2.58	3.8
FLOAT-1.40	89.7	92.5	13210	7.6	1.19	2.85	4.3
FLOAT-1.60	95.3	97.4	13096	8.4	1.33	2.99	4.6
TOTAL	100.0	100.0	12811	10.4	2.41	4.07	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	47.1	50.1	13709	4.1	.76	2.51	3.7
FLOAT-1.40	87.1	90.3	13367	6.5	1.01	2.75	4.1
FLOAT-1.60	95.0	97.4	13224	7.5	1.17	2.88	4.4
TOTAL	100.0	100.0	12897	9.8	2.21	3.92	6.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	31.3	33.9	13923	2.6	.32	2.20	3.2
FLOAT-1.40	79.2	83.2	13524	5.4	.78	2.48	3.7
FLOAT-1.60	93.4	96.4	13281	7.1	.93	2.64	4.0
TOTAL	100.0	100.0	12868	10.0	2.20	3.85	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: PIKE

COALBED: NO. V
RAW COAL MOISTURE: 5.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	62.1	65.5	13482	4.9	.67	2.56	3.8
FLOAT-1.40	88.8	92.0	13242	6.6	.87	2.63	4.0
FLOAT-1.60	92.8	95.6	13158	7.2	.95	2.72	4.1
TOTAL	100.0	100.0	12776	9.9	2.89	4.53	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	53.9	57.6	13638	3.8	.49	2.50	3.7
FLOAT-1.40	86.3	90.1	13327	6.0	.68	2.58	3.9
FLOAT-1.60	92.9	96.0	13186	7.0	.81	2.65	4.0
TOTAL	100.0	100.0	12762	10.0	2.84	4.56	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	42.6	45.9	13793	2.7	.41	2.38	3.5
FLOAT-1.40	78.9	83.1	13482	4.9	.61	2.50	3.7
FLOAT-1.60	92.6	95.9	13256	6.5	.75	2.55	3.8
TOTAL	100.0	100.0	12804	9.7	2.77	4.43	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: SULLIVAN

COALBED: NO. V
RAW COAL MOISTURE: 6.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	27.0	31.8	13641	5.4	.58	2.36	3.5
FLOAT-1.40	61.1	70.4	13324	7.6	1.14	3.00	4.5
FLOAT-1.60	81.9	91.7	12949	10.2	1.99	3.87	6.0
FLOAT-1.90	86.2	95.2	12776	11.4	2.41	4.31	6.7
TOTAL	100.0	100.0	11564	19.8	3.89	5.64	9.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	24.0	28.4	13829	4.1	.53	2.29	3.3
FLOAT-1.40	60.8	70.8	13598	5.7	.84	2.59	3.8
FLOAT-1.60	80.6	91.3	13237	8.2	1.40	3.23	4.9
FLOAT-1.90	84.8	94.9	13064	9.4	1.79	3.64	5.6
TOTAL	100.0	100.0	11680	19.0	3.67	5.43	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	21.8	26.2	13901	3.6	.45	2.21	3.2
FLOAT-1.40	60.9	71.0	13468	6.6	.75	2.49	3.7
FLOAT-1.60	80.4	90.5	13007	9.8	1.32	3.12	4.8
FLOAT-1.90	85.2	94.6	12819	11.1	1.64	3.45	5.4
TOTAL	100.0	100.0	11550	19.9	3.94	5.75	10.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: WARRICK

COALBED: NO. V
RAW COAL MOISTURE: 7.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	37.0	39.6	13306	5.1	.67	2.79	4.2
FLOAT-1.40	81.3	85.0	12984	7.4	1.15	3.31	5.1
FLOAT-1.60	92.2	95.0	12801	8.7	1.71	3.90	6.1
TOTAL	100.0	100.0	12422	11.4	2.40	4.47	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	37.4	40.4	13447	4.1	.62	2.65	3.9
FLOAT-1.40	79.8	84.0	13096	6.6	1.10	3.16	4.8
FLOAT-1.60	91.1	94.5	12900	8.0	1.59	3.66	5.7
TOTAL	100.0	100.0	12436	11.3	2.61	4.57	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	30.3	33.3	13601	3.0	.51	2.71	4.0
FLOAT-1.40	73.0	77.6	13180	6.0	.99	3.16	4.8
FLOAT-1.60	88.9	92.7	12928	7.8	1.40	3.57	5.5
TOTAL	100.0	100.0	12394	11.6	2.40	4.64	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: CLAY

COALBED: NO. III
RAW COAL MOISTURE: 4.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	47.5	51.0	13406	4.7	.79	3.77	5.6
FLOAT-1.40	77.2	81.2	13137	6.6	1.18	4.13	6.3
FLOAT-1.60	95.0	97.0	12755	9.3	1.49	4.33	6.8
TOTAL	100.0	100.0	12486	11.2	1.65	4.47	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	54.1	58.0	13391	4.8	.81	3.85	5.7
FLOAT-1.40	77.4	82.0	13222	6.0	1.06	4.06	6.1
FLOAT-1.60	93.0	96.0	12882	8.4	1.32	4.21	6.5
TOTAL	100.0	100.0	12486	11.2	1.62	4.47	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	33.4	35.9	13462	4.3	.56	3.33	4.9
FLOAT-1.40	79.0	83.6	13250	5.8	.86	3.74	5.6
FLOAT-1.60	91.8	95.0	12953	7.9	1.14	3.93	6.1
TOTAL	100.0	100.0	12514	11.0	1.59	4.29	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: GREENE

COALBED: NO. III
RAW COAL MOISTURE: 7.2 %
CUMULATIVE WASHABILITY DATA

BENCH: TOP

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.5	60.6	13579	4.8	1.64	3.32	4.9
FLOAT-1.40	85.5	90.3	13381	6.2	2.25	3.97	5.9
FLOAT-1.60	90.7	95.1	13281	6.9	2.55	4.30	6.5
TOTAL	100.0	100.0	12671	11.2	4.48	6.13	9.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.2	62.8	13665	4.2	1.30	2.92	4.3
FLOAT-1.40	82.9	88.3	13480	5.5	1.82	3.50	5.2
FLOAT-1.60	89.6	94.6	13367	6.3	2.17	3.87	5.8
TOTAL	100.0	100.0	12657	11.3	4.55	6.08	9.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.5	44.3	13764	3.5	.88	2.60	3.8
FLOAT-1.40	75.6	81.6	13565	4.9	1.48	3.18	4.7
FLOAT-1.60	84.9	90.6	13409	6.0	1.91	3.57	5.3
TOTAL	100.0	100.0	12572	11.9	4.76	6.33	10.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: GREENE

COALBED: NO. III
RAW COAL MOISTURE: 6.2 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.0	50.7	13374	5.7	1.33	3.16	4.7
FLOAT-1.40	77.0	83.2	13106	7.6	1.86	3.77	5.8
FLOAT-1.60	87.5	92.9	12880	9.2	2.26	4.17	6.5
TOTAL	100.0	100.0	12132	14.5	5.43	7.14	11.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.0	50.1	13530	4.6	1.12	3.10	4.6
FLOAT-1.40	75.4	82.1	13219	6.8	1.58	3.53	5.3
FLOAT-1.60	84.9	91.2	13050	8.0	1.89	3.84	5.9
TOTAL	100.0	100.0	12146	14.4	5.40	7.14	11.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.5	36.5	13572	4.3	1.00	2.99	4.4
FLOAT-1.40	63.0	69.9	13417	5.4	1.28	3.25	4.8
FLOAT-1.60	82.9	89.6	13064	7.9	1.74	3.63	5.6
TOTAL	100.0	100.0	12090	14.8	5.56	7.23	12.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: WAPELLO

COALBED: LUCAS COUNTY NO. 5
RAW COAL MOISTURE: 8.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.9	34.1	12770	7.5	.96	4.51	7.1
FLOAT-1.40	59.8	67.8	12289	11.0	1.17	4.58	7.5
FLOAT-1.60	80.7	87.8	11781	14.7	1.57	4.81	8.2
TOTAL	100.0	100.0	10833	21.6	5.16	7.96	14.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.6	28.2	13003	5.8	.84	4.44	6.8
FLOAT-1.40	57.0	65.9	12564	9.0	.99	4.50	7.2
FLOAT-1.60	79.7	87.7	11959	13.4	1.31	4.62	7.7
TOTAL	100.0	100.0	10874	21.3	4.91	7.76	14.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.6	20.2	13223	4.2	.74	4.41	6.7
FLOAT-1.40	51.0	59.9	12756	7.6	.83	4.43	6.9
FLOAT-1.60	77.2	86.7	12193	11.7	1.08	4.49	7.4
TOTAL	100.0	100.0	10860	21.4	5.01	7.80	14.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MARION

COALBED: LOWER COAL-FORD COAL
RAW COAL MOISTURE: 3.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.4	41.0	12197	9.1	2.84	4.81	7.9
FLOAT-1.40	53.9	63.2	12018	10.4	3.66	5.58	9.3
FLOAT-1.60	66.7	76.8	11798	12.0	4.43	6.31	10.7
TOTAL	100.0	100.0	10242	23.3	10.23	12.08	23.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.8	19.7	12707	5.4	1.92	4.03	6.3
FLOAT-1.40	47.9	57.8	12335	8.1	2.69	4.71	7.6
FLOAT-1.60	65.6	77.5	12073	10.0	3.66	5.68	9.4
TOTAL	100.0	100.0	10214	23.5	10.40	12.02	23.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.3	9.2	12941	3.7	1.69	3.79	5.9
FLOAT-1.40	44.8	55.9	12734	5.2	2.03	3.89	6.1
FLOAT-1.60	67.4	80.8	12252	8.7	3.47	5.43	8.9
TOTAL	100.0	100.0	10214	23.5	10.55	12.24	24.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MARION

COALBED: LOWER COAL-FORD COAL
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	75.2	78.4	13057	6.6	.92	1.87	2.9
FLOAT-1.40	90.0	92.9	12931	7.5	1.17	2.15	3.3
FLOAT-1.60	94.3	96.8	12861	8.0	1.37	2.38	3.7
FLOAT-1.90	96.0	98.1	12806	8.4	1.55	2.57	4.0
TOTAL	100.0	100.0	12526	10.4	2.24	3.28	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	77.6	81.5	13239	5.3	.72	1.70	2.6
FLOAT-1.40	89.4	93.2	13141	6.0	.95	1.93	2.9
FLOAT-1.60	92.5	96.0	13085	6.4	1.10	2.10	3.2
FLOAT-1.90	94.1	97.1	13015	6.9	1.24	2.25	3.5
TOTAL	100.0	100.0	12610	9.8	2.21	3.21	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.9	60.4	13421	4.0	.61	1.63	2.4
FLOAT-1.40	82.6	87.7	13197	5.6	.95	1.98	3.0
FLOAT-1.60	90.0	94.8	13085	6.4	1.19	2.25	3.4
FLOAT-1.90	91.8	96.2	13029	6.8	1.32	2.39	3.7
TOTAL	100.0	100.0	12428	11.1	2.63	3.70	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MARION

COALBED: LOWER COAL-FORD COAL
RAW COAL MOISTURE: 11.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.9	50.5	12610	7.1	1.44	2.97	4.7
FLOAT-1.40	69.7	75.4	12395	8.7	1.92	3.61	5.8
FLOAT-1.60	86.2	91.6	12166	10.4	2.63	4.44	7.3
TOTAL	100.0	100.0	11452	15.7	5.00	6.71	11.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.8	43.5	12907	4.9	1.07	2.56	4.0
FLOAT-1.40	69.5	76.4	12651	6.8	1.58	3.25	5.1
FLOAT-1.60	83.8	90.6	12435	8.4	2.20	3.97	6.4
TOTAL	100.0	100.0	11506	15.3	4.98	6.60	11.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.5	38.3	13068	3.7	.95	2.61	4.0
FLOAT-1.40	56.3	63.5	12880	5.1	1.28	3.01	4.7
FLOAT-1.60	79.4	87.4	12584	7.3	1.91	3.70	5.9
TOTAL	100.0	100.0	11425	15.9	4.94	6.70	11.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MARION

COALBED: LOWER COAL-FORD COAL
RAW COAL MOISTURE: 13.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.6	44.8	13280	4.8	1.60	2.79	4.2
FLOAT-1.40	80.0	88.2	12946	7.2	1.72	3.31	5.1
FLOAT-1.60	84.9	92.8	12834	8.0	1.96	3.50	5.5
FLOAT-1.90	87.3	94.8	12750	8.6	2.14	3.65	5.7
TOTAL	100.0	100.0	11746	15.8	4.94	6.29	10.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.9	42.8	13420	3.8	1.54	2.54	3.8
FLOAT-1.40	73.4	81.3	13169	5.6	2.04	3.04	4.6
FLOAT-1.60	82.3	89.8	12974	7.0	2.27	3.28	5.1
FLOAT-1.90	86.0	93.3	12890	7.6	2.41	3.41	5.3
TOTAL	100.0	100.0	11886	14.8	5.32	6.20	10.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.2	53.1	13099	6.1	1.97	3.27	5.0
FLOAT-1.40	80.7	87.8	12932	7.3	2.32	3.57	5.5
FLOAT-1.60	88.0	94.8	12806	8.2	2.60	3.81	6.0
FLOAT-1.90	90.0	96.3	12722	8.8	2.72	3.91	6.1
TOTAL	100.0	100.0	11886	14.8	4.93	6.04	10.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MONROE

COALBED: LOWER COAL-FORD COAL
RAW COAL MOISTURE: 7.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.9	59.2	12596	7.1	.98	2.32	3.7
FLOAT-1.40	74.3	79.4	12488	7.9	1.15	2.64	4.2
FLOAT-1.60	88.4	92.8	12260	9.6	1.57	3.17	5.2
TOTAL	100.0	100.0	11683	13.9	3.62	5.33	9.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.3	56.7	12864	5.1	.85	2.23	3.5
FLOAT-1.40	72.9	79.5	12689	6.4	1.00	2.46	3.9
FLOAT-1.60	85.0	91.4	12502	7.8	1.33	2.90	4.6
TOTAL	100.0	100.0	11630	14.3	4.16	5.78	9.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.5	4.0	13159	2.9	.21	1.97	3.0
FLOAT-1.40	70.9	79.0	12904	4.8	.64	2.10	3.3
FLOAT-1.60	84.3	91.4	12555	7.4	1.08	2.56	4.1
TOTAL	100.0	100.0	11576	14.7	4.04	5.60	9.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MONROE

COALBED: LOWER COAL-FORD COAL
RAW COAL MOISTURE: 11.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.1	69.4	12831	8.4	1.45	2.22	3.5
FLOAT-1.40	78.4	84.4	12762	8.9	1.64	2.45	3.8
FLOAT-1.60	87.0	92.6	12622	9.9	2.09	2.91	4.6
TOTAL	100.0	100.0	11855	15.4	4.32	5.23	8.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.5	57.1	13194	5.8	1.14	1.96	3.0
FLOAT-1.40	77.7	84.9	12999	7.2	1.28	2.12	3.3
FLOAT-1.60	85.7	92.6	12859	8.2	1.66	2.50	3.9
TOTAL	100.0	100.0	11897	15.1	4.59	5.31	8.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.2	41.8	13292	5.1	.99	1.94	2.9
FLOAT-1.40	70.0	77.4	13083	6.6	1.28	2.21	3.4
FLOAT-1.60	84.2	91.5	12859	8.2	1.60	2.48	3.9
TOTAL	100.0	100.0	11827	15.6	4.60	5.35	9.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MAHASKA

COALBED: CLIFFLAND
RAW COAL MOISTURE: 5.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.0	67.3	13104	6.1	1.46	6.14	9.4
FLOAT-1.40	71.6	79.5	12966	7.1	1.64	6.22	9.6
FLOAT-1.60	84.5	91.5	12647	9.4	1.98	6.39	10.1
TOTAL	100.0	100.0	11678	16.4	3.50	7.52	12.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.0	54.7	13395	4.0	1.16	5.87	8.8
FLOAT-1.40	70.2	78.6	13160	5.7	1.36	5.93	9.0
FLOAT-1.60	82.2	90.1	12883	7.7	1.61	6.03	9.4
TOTAL	100.0	100.0	11747	15.9	3.54	7.46	12.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.2	39.8	13589	2.6	.86	5.55	8.2
FLOAT-1.40	61.9	70.5	13298	4.7	1.15	5.63	8.5
FLOAT-1.60	80.1	88.7	12938	7.3	1.47	5.77	8.9
TOTAL	100.0	100.0	11678	16.4	3.82	7.44	12.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MAHASKA

COALBED: HASTIE
RAW COAL MOISTURE: 7.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.1	53.9	13036	5.4	1.35	4.63	7.1
FLOAT-1.40	71.2	78.9	12622	7.8	1.83	5.03	8.0
FLOAT-1.60	84.8	91.4	12276	9.8	2.46	5.64	9.2
TOTAL	100.0	100.0	11395	14.9	4.79	8.05	14.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.3	49.0	13244	4.2	1.11	4.29	6.5
FLOAT-1.40	67.3	75.8	12881	6.3	1.51	4.64	7.2
FLOAT-1.60	83.4	91.2	12501	8.5	2.15	5.28	8.4
TOTAL	100.0	100.0	11429	14.7	4.68	7.90	13.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.5	38.4	13485	2.8	.89	4.19	6.2
FLOAT-1.40	62.2	71.1	13053	5.3	1.42	4.59	7.0
FLOAT-1.60	82.4	90.9	12587	8.0	2.17	5.25	8.3
TOTAL	100.0	100.0	11412	14.8	5.08	8.20	14.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MONROE

COALBED: HASTIE
RAW COAL MOISTURE: 4.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.0	67.9	13225	5.3	.79	4.00	6.0
FLOAT-1.40	79.0	86.2	12977	7.1	.87	4.01	6.2
FLOAT-1.60	88.5	94.6	12701	9.1	.94	4.03	6.3
TOTAL	100.0	100.0	11887	15.0	2.80	5.74	9.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.7	62.2	13377	4.2	.62	4.00	6.0
FLOAT-1.40	78.3	86.1	13156	5.8	.72	4.02	6.1
FLOAT-1.60	88.1	94.7	12866	7.9	.80	4.03	6.3
TOTAL	100.0	100.0	11970	14.4	2.92	5.94	9.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.9	46.5	13432	3.8	.63	4.02	6.0
FLOAT-1.40	68.8	76.9	13197	5.5	.71	4.05	6.1
FLOAT-1.60	84.7	92.4	12880	7.8	.81	4.08	6.3
TOTAL	100.0	100.0	11804	15.6	3.08	5.84	9.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: LUCAS

COALBED: UNCORRELATED
RAW COAL MOISTURE: 12.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.1	55.5	13010	6.5	1.27	2.85	4.4
FLOAT-1.40	71.5	77.5	12735	8.5	1.76	3.30	5.2
FLOAT-1.60	91.2	94.6	12186	12.5	2.19	3.64	6.0
TOTAL	100.0	100.0	11746	15.7	2.83	4.18	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.5	47.9	13312	4.3	.83	2.20	3.3
FLOAT-1.40	69.9	76.7	12968	6.8	1.46	2.84	4.4
FLOAT-1.60	87.8	92.7	12474	10.4	1.85	3.21	5.1
TOTAL	100.0	100.0	11815	15.2	2.76	4.04	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.6	35.1	13477	3.1	.51	1.82	2.7
FLOAT-1.40	65.2	72.5	13078	6.0	1.21	2.59	4.0
FLOAT-1.60	83.1	89.7	12694	8.8	1.74	3.10	4.9
TOTAL	100.0	100.0	11760	15.6	2.92	4.18	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MAHASKA

COALBED: UNCORRELATED
RAW COAL MOISTURE: 7.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	81.3	83.6	13632	4.2	.50	1.22	1.8
FLOAT-1.40	93.6	95.6	13546	4.8	.55	1.27	1.9
FLOAT-1.60	96.0	97.9	13517	5.0	.67	1.42	2.1
TOTAL	100.0	100.0	13259	6.8	1.66	2.45	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	69.7	72.5	13761	3.3	.30	1.10	1.6
FLOAT-1.40	90.9	93.8	13646	4.1	.32	1.09	1.6
FLOAT-1.60	95.1	97.6	13574	4.6	.41	1.18	1.7
TOTAL	100.0	100.0	13230	7.0	1.73	2.51	3.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.9	9.5	14076	1.1	.05	.87	1.2
FLOAT-1.40	89.2	92.9	13746	3.4	.18	.94	1.4
FLOAT-1.60	94.4	97.3	13603	4.4	.21	1.00	1.5
TOTAL	100.0	100.0	13202	7.2	1.80	2.63	4.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MAHASKA

COALBED: UNCORRELATED
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.2	52.9	12746	7.3	1.53	4.82	7.6
FLOAT-1.40	75.7	81.4	12499	9.1	1.82	4.98	8.0
FLOAT-1.60	88.4	93.5	12293	10.6	2.28	5.35	8.7
FLOAT-1.90	92.4	96.7	12155	11.6	2.53	5.56	9.1
TOTAL	100.0	100.0	11619	15.5	3.33	6.22	10.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.7	58.0	13145	4.4	1.01	4.37	6.6
FLOAT-1.40	76.2	83.5	12843	6.6	1.30	4.60	7.2
FLOAT-1.60	84.8	91.7	12664	7.9	1.62	4.87	7.7
FLOAT-1.90	88.4	94.5	12526	8.9	1.84	5.02	8.0
TOTAL	100.0	100.0	11715	14.8	3.29	6.21	10.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.7	46.4	13283	3.4	.86	4.28	6.4
FLOAT-1.40	69.8	77.6	12966	5.7	1.14	4.50	6.9
FLOAT-1.60	82.5	90.0	12719	7.5	1.43	4.70	7.4
FLOAT-1.90	86.4	93.2	12581	8.5	1.61	4.81	7.6
TOTAL	100.0	100.0	11660	15.2	3.42	6.27	10.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MAHASKA

COALBED: UNCORRELATED
RAW COAL MOISTURE: 4.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.0	55.9	12823	7.8	2.08	4.92	7.7
FLOAT-1.40	57.2	64.9	12753	8.3	2.25	5.08	8.0
FLOAT-1.60	76.4	84.0	12363	11.1	3.57	6.29	10.2
TOTAL	100.0	100.0	11248	19.1	7.82	10.35	18.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.0	45.7	13130	5.6	1.56	4.66	7.1
FLOAT-1.40	56.0	64.9	12991	6.6	1.75	4.74	7.3
FLOAT-1.60	74.9	84.2	12600	9.4	2.82	5.72	9.1
TOTAL	100.0	100.0	11206	19.4	8.01	10.31	18.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.5	24.8	13576	2.4	1.02	4.37	6.4
FLOAT-1.40	50.8	59.8	13228	4.9	1.49	4.51	6.8
FLOAT-1.60	72.8	82.8	12781	8.1	2.38	5.24	8.2
TOTAL	100.0	100.0	11234	19.2	7.77	10.38	18.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MAHASKA

COALBED: UNCORRELATED
RAW COAL MOISTURE: 8.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.5	63.2	13398	5.1	1.46	4.90	7.3
FLOAT-1.40	80.3	85.3	13162	6.8	1.79	5.15	7.8
FLOAT-1.60	91.1	94.9	12912	8.6	2.22	5.52	8.6
TOTAL	100.0	100.0	12397	12.3	3.03	6.19	10.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.3	57.9	13565	3.9	1.30	4.75	7.0
FLOAT-1.40	79.3	84.4	13301	5.8	1.61	4.95	7.4
FLOAT-1.60	89.9	94.1	13079	7.4	1.96	5.27	8.1
TOTAL	100.0	100.0	12495	11.6	3.05	6.19	9.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.2	48.9	13718	2.8	.91	4.42	6.4
FLOAT-1.40	69.5	75.6	13496	4.4	1.19	4.59	6.8
FLOAT-1.60	86.9	92.5	13218	6.4	1.57	4.88	7.4
TOTAL	100.0	100.0	12411	12.2	3.11	6.14	9.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MARION

COALBED: UNCORRELATED
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.7	29.8	12781	8.0	2.73	6.40	10.0
FLOAT-1.40	49.2	60.1	12420	10.6	3.21	6.76	10.9
FLOAT-1.60	73.1	84.6	11769	15.3	3.85	7.20	12.2
TOTAL	100.0	100.0	10174	26.8	7.45	10.43	20.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.3	22.0	13044	6.1	1.96	5.92	9.1
FLOAT-1.40	41.0	51.1	12794	7.9	2.39	6.17	9.6
FLOAT-1.60	68.1	80.3	12101	12.9	3.35	6.86	11.3
TOTAL	100.0	100.0	10258	26.2	7.00	10.20	19.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.1	9.3	13141	5.4	1.27	4.69	7.1
FLOAT-1.40	34.1	44.2	13058	6.0	1.70	5.54	8.5
FLOAT-1.60	60.1	73.9	12379	10.9	2.56	6.13	9.9
TOTAL	100.0	100.0	10064	27.6	7.55	10.52	20.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MARION

COALBED: UNCORRELATED
RAW COAL MOISTURE: 12.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.8	51.1	12368	9.3	1.44	3.61	5.8
FLOAT-1.40	72.8	78.5	12206	10.5	1.78	3.99	6.5
FLOAT-1.60	86.1	91.2	11991	12.1	2.28	4.47	7.5
TOTAL	100.0	100.0	11318	17.1	4.71	6.69	11.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.1	46.7	12623	7.4	1.10	3.48	5.5
FLOAT-1.40	72.7	79.3	12422	8.9	1.41	3.79	6.1
FLOAT-1.60	83.9	90.1	12233	10.3	1.80	4.17	6.8
TOTAL	100.0	100.0	11385	16.6	4.51	6.75	11.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.1	37.5	12812	6.0	.95	3.25	5.1
FLOAT-1.40	64.1	71.2	12556	7.9	1.30	3.61	5.8
FLOAT-1.60	80.2	87.6	12354	9.4	1.67	3.95	6.4
TOTAL	100.0	100.0	11305	17.2	4.56	6.74	11.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KANSAS
COUNTY: CRAWFORD

COALBED: BEVIER
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.3	26.9	13693	6.0	1.05	2.48	3.6
FLOAT-1.40	55.1	70.7	13256	9.0	1.61	2.99	4.5
FLOAT-1.60	70.6	87.5	12804	12.1	2.18	3.53	5.5
FLOAT-1.90	77.6	93.3	12411	14.8	2.51	3.83	6.2
TOTAL	100.0	100.0	10328	29.1	3.59	4.72	9.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.6	22.0	13810	5.2	.97	2.33	3.4
FLOAT-1.40	52.0	66.9	13373	8.2	1.56	2.90	4.3
FLOAT-1.60	66.9	83.0	12906	11.4	2.06	3.35	5.2
FLOAT-1.90	74.6	89.4	12469	14.4	2.37	3.62	5.8
TOTAL	100.0	100.0	10401	28.6	3.30	4.35	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.2	19.3	13897	4.6	.71	2.17	3.1
FLOAT-1.40	51.1	67.2	13445	7.7	1.25	2.70	4.0
FLOAT-1.60	63.3	80.1	12936	11.2	1.69	3.07	4.7
FLOAT-1.90	71.8	87.1	12411	14.8	2.05	3.38	5.4
TOTAL	100.0	100.0	10226	29.8	3.63	4.74	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KANSAS
COUNTY: CRAWFORD

COALBED: CROWEBURG
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.0	24.4	13705	6.0	1.12	2.55	3.7
FLOAT-1.40	48.6	67.4	13268	9.0	1.71	3.09	4.7
FLOAT-1.60	64.8	85.9	12685	13.0	2.25	3.60	5.7
FLOAT-1.90	72.2	92.5	12247	16.0	2.63	3.93	6.4
TOTAL	100.0	100.0	9565	34.4	3.23	4.24	8.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.5	40.7	13793	5.4	1.08	2.44	3.5
FLOAT-1.40	48.6	67.9	13487	7.5	1.44	2.76	4.1
FLOAT-1.60	64.3	85.9	12889	11.6	2.00	3.30	5.1
FLOAT-1.90	71.4	92.2	12466	14.5	2.37	3.66	5.9
TOTAL	100.0	100.0	9652	33.8	3.14	4.15	8.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.4	15.3	13866	4.9	.84	2.11	3.0
FLOAT-1.40	41.3	59.0	13487	7.5	1.29	2.51	3.7
FLOAT-1.60	59.9	81.6	12845	11.9	1.82	3.03	4.7
FLOAT-1.90	69.6	90.5	12262	15.9	2.14	3.34	5.4
TOTAL	100.0	100.0	9433	35.3	3.12	4.12	8.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KANSAS
COUNTY: CRAWFORD

COALBED: CROWEBURG
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.2	30.2	14032	5.5	1.52	2.93	4.2
FLOAT-1.40	72.5	78.1	13637	8.2	2.11	3.50	5.1
FLOAT-1.60	88.8	93.2	13286	10.6	2.50	3.89	5.9
TOTAL	100.0	100.0	12658	14.9	2.72	4.10	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.6	35.2	14119	4.9	1.77	3.00	4.2
FLOAT-1.40	73.9	80.0	13710	7.7	2.42	3.61	5.3
FLOAT-1.60	87.1	92.2	13418	9.7	2.52	3.86	5.8
TOTAL	100.0	100.0	12672	14.8	2.90	4.23	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.1	30.6	14221	4.2	1.24	2.62	3.7
FLOAT-1.40	72.1	78.7	13754	7.4	2.12	3.54	5.1
FLOAT-1.60	86.6	92.4	13447	9.5	2.61	3.99	5.9
TOTAL	100.0	100.0	12599	15.3	2.98	4.34	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KANSAS
COUNTY: CHEROKEE

COALBED: FLEMING
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.5	56.0	13948	4.3	1.07	2.80	4.0
FLOAT-1.40	68.2	75.7	13683	6.1	1.41	3.10	4.5
FLOAT-1.60	79.0	85.9	13403	8.0	2.07	3.68	5.5
TOTAL	100.0	100.0	12327	15.3	3.62	5.01	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.2	68.2	13948	4.3	1.08	2.75	3.9
FLOAT-1.40	71.4	80.0	13801	5.3	1.39	3.06	4.4
FLOAT-1.60	79.1	87.3	13594	6.7	1.89	3.54	5.2
TOTAL	100.0	100.0	12312	15.4	3.70	5.16	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.6	71.5	14037	3.7	.91	2.66	3.8
FLOAT-1.40	71.8	81.4	13919	4.5	1.19	2.93	4.2
FLOAT-1.60	79.8	88.8	13668	6.2	1.77	3.45	5.0
TOTAL	100.0	100.0	12283	15.6	3.64	5.17	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KANSAS
COUNTY: CHEROKEE

COALBED: MINERAL
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.8	21.6	14016	5.2	.81	2.38	3.4
FLOAT-1.40	84.9	88.9	13465	9.1	1.41	2.85	4.2
FLOAT-1.60	91.5	95.0	13352	9.9	1.55	2.99	4.5
TOTAL	100.0	100.0	12857	13.4	2.54	4.03	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.2	33.9	14030	5.1	.87	2.42	3.4
FLOAT-1.40	85.3	89.6	13578	8.3	1.31	2.79	4.1
FLOAT-1.60	91.0	94.9	13479	9.0	1.45	2.93	4.3
TOTAL	100.0	100.0	12928	12.9	2.44	3.91	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.9	27.5	14100	4.6	.57	2.15	3.0
FLOAT-1.40	72.0	77.4	13747	7.1	.87	2.39	3.5
FLOAT-1.60	88.7	94.2	13578	8.3	1.14	2.62	3.9
TOTAL	100.0	100.0	12786	13.9	2.58	4.12	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KANSAS
COUNTY: CRAWFORD

COALBED: ROWE
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.0	15.3	13926	5.3	1.71	2.57	3.7
FLOAT-1.40	52.9	64.2	13249	9.9	3.08	3.86	5.8
FLOAT-1.60	75.7	89.0	12837	12.7	4.17	5.04	7.9
TOTAL	100.0	100.0	10925	25.7	5.84	6.63	12.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.3	32.4	13955	5.1	1.23	2.28	3.3
FLOAT-1.40	56.1	69.2	13425	8.7	2.26	3.33	5.0
FLOAT-1.60	74.8	89.5	13014	11.5	3.12	4.19	6.4
TOTAL	100.0	100.0	10881	26.0	5.26	6.14	11.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.5	31.4	14102	4.1	.98	2.04	2.9
FLOAT-1.40	54.0	66.5	13558	7.8	2.00	3.05	4.5
FLOAT-1.60	72.5	86.5	13146	10.6	2.93	3.92	6.0
TOTAL	100.0	100.0	11013	25.1	5.86	6.71	12.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KANSAS
COUNTY: CRAWFORD

COALBED: KNIFETON
RAW COAL MOISTURE: 1.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.6	39.2	13819	6.4	1.30	2.74	4.0
FLOAT-1.40	78.5	84.0	13429	9.1	1.97	3.36	5.0
FLOAT-1.60	89.3	94.0	13212	10.6	2.39	3.78	5.7
TOTAL	100.0	100.0	12546	15.2	3.58	5.06	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.0	40.2	13906	5.8	1.08	2.50	3.6
FLOAT-1.40	76.1	82.4	13472	8.8	1.79	3.18	4.7
FLOAT-1.60	86.8	92.7	13284	10.1	2.22	3.61	5.4
TOTAL	100.0	100.0	12445	15.9	3.57	5.08	8.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.0	32.9	14065	4.7	.80	2.20	3.1
FLOAT-1.40	76.0	82.6	13486	8.7	1.66	2.98	4.4
FLOAT-1.60	85.9	92.0	13298	10.0	2.06	3.39	5.1
TOTAL	100.0	100.0	12416	16.1	3.56	5.04	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KANSAS
COUNTY: CRAWFORD

COALBED: KNIFETON
RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	2.8	3.4	13892	4.4	1.03	2.31	3.3
FLOAT-1.40	29.8	33.8	12791	12.2	2.78	4.15	6.5
FLOAT-1.60	84.3	89.2	11930	18.3	3.56	4.89	8.2
TOTAL	100.0	100.0	11281	22.9	5.17	6.54	11.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.0	9.9	13934	4.1	.95	2.32	3.3
FLOAT-1.40	40.6	46.7	12988	10.8	2.09	3.51	5.4
FLOAT-1.60	81.9	88.4	12170	16.6	2.68	4.07	6.7
TOTAL	100.0	100.0	11281	22.9	5.09	6.61	11.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.0	18.6	13962	3.9	.86	2.17	3.1
FLOAT-1.40	43.2	50.9	13256	8.9	1.72	3.06	4.6
FLOAT-1.60	73.6	81.8	12509	14.2	2.35	3.68	5.9
TOTAL	100.0	100.0	11253	23.1	5.49	6.80	12.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (EAST)
COUNTY: MARTIN

COALBED: STOCKTON
RAW COAL MOISTURE: 2.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.0	38.7	13992	3.3	.06	.82	1.2
FLOAT-1.40	79.1	85.3	13659	5.6	.12	.88	1.3
FLOAT-1.60	87.6	92.9	13427	7.2	.13	.88	1.3
TOTAL	100.0	100.0	12659	12.5	.19	.88	1.4
EPA STANDARD	45.5	51.0	13912	3.9	.08	.84	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.3	36.7	13963	3.5	.05	.82	1.2
FLOAT-1.40	78.1	84.4	13673	5.5	.06	.82	1.2
FLOAT-1.60	87.2	92.7	13456	7.0	.07	.82	1.2
TOTAL	100.0	100.0	12659	12.5	.19	.88	1.4
EPA STANDARD	78.4	84.6	13667	5.5	.06	.82	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.3	36.7	14036	3.0	.06	.83	1.2
FLOAT-1.40	77.7	83.5	13688	5.4	.07	.82	1.2
FLOAT-1.60	88.0	93.3	13500	6.7	.08	.83	1.2
TOTAL	100.0	100.0	12731	12.0	.25	.94	1.5
EPA STANDARD	78.3	84.1	13677	5.5	.07	.82	1.20

STATE: KENTUCKY (EAST)
COUNTY: BELL

COALBED: HADDIX
RAW COAL MOISTURE: 3.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.7	33.9	13958	3.3	.28	1.30	1.9
FLOAT-1.40	74.6	83.1	13626	5.6	.36	1.29	1.9
FLOAT-1.60	86.1	93.7	13323	7.7	.39	1.31	2.0
TOTAL	100.0	100.0	12239	15.2	.42	1.29	2.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.0	36.6	14030	2.8	.44	1.18	1.7
FLOAT-1.40	73.1	81.7	13698	5.1	.46	1.26	1.8
FLOAT-1.60	85.7	93.8	13409	7.1	.46	1.27	1.9
TOTAL	100.0	100.0	12254	15.1	.53	1.25	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.0	33.5	14074	2.5	.14	1.25	1.8
FLOAT-1.40	69.2	78.5	13799	4.4	.27	1.27	1.8
FLOAT-1.60	83.8	93.0	13496	6.5	.34	1.32	2.0
TOTAL	100.0	100.0	12167	15.7	.49	1.35	2.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (EAST)
COUNTY: BELL

COALBED: HAZARD NO. 4
RAW COAL MOISTURE: 2.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.4	57.9	14457	2.7	.13	.84	1.2
FLOAT-1.40	73.2	87.9	14215	4.3	.26	.99	1.4
FLOAT-1.60	78.7	93.2	14034	5.5	.32	1.04	1.5
TOTAL	100.0	100.0	11845	20.0	.75	1.33	2.2
EPA STANDARD	52.8	64.4	14417	2.8	.15	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.0	64.5	14532	2.2	.10	.84	1.2
FLOAT-1.40	73.5	88.2	14321	3.6	.22	.95	1.3
FLOAT-1.60	78.7	93.2	14140	4.8	.27	1.01	1.4
TOTAL	100.0	100.0	11935	19.4	.70	1.28	2.1
EPA STANDARD	59.7	72.4	14478	2.5	.14	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.1	62.7	14578	1.9	.10	.95	1.3
FLOAT-1.40	67.9	82.2	14396	3.1	.20	1.05	1.5
FLOAT-1.60	77.1	91.7	14140	4.8	.28	1.11	1.6
TOTAL	100.0	100.0	11890	19.7	.69	1.34	2.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (EAST)
COUNTY: FLOYD

COALBED: HAZARD NO. 4
RAW COAL MOISTURE: 3.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.4	54.3	14052	3.4	.12	.83	1.2
FLOAT-1.40	79.0	89.4	13876	4.6	.11	.83	1.2
FLOAT-1.60	82.6	93.0	13803	5.1	.12	.83	1.2
TOTAL	100.0	100.0	12261	15.6	.22	.84	1.4
EPA STANDARD	81.1	91.5	13833	4.9	.12	.83	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.2	56.7	14052	3.4	.12	.78	1.1
FLOAT-1.40	77.4	88.0	13862	4.7	.15	.78	1.1
FLOAT-1.60	82.0	92.7	13773	5.3	.15	.78	1.1
TOTAL	100.0	100.0	12187	16.1	.23	.79	1.3
EPA STANDARD	89.4	95.7	13121	10.4	.16	.78	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.2	58.0	14141	2.8	.12	.73	1.0
FLOAT-1.40	73.7	84.0	13964	4.0	.10	.73	1.0
FLOAT-1.60	82.8	93.2	13788	5.2	.11	.73	1.1
TOTAL	100.0	100.0	12246	15.7	.21	.75	1.2
EPA STANDARD	97.4	99.0	12477	14.6	.20	.74	1.20

STATE: KENTUCKY (EAST)
COUNTY: HARLAN

COALBED: LOW SPLINT
RAW COAL MOISTURE: 2.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.7	30.1	14277	3.1	.35	1.80	2.5
FLOAT-1.40	84.2	88.5	13791	6.4	.75	2.16	3.1
FLOAT-1.60	90.3	94.2	13688	7.1	.98	2.37	3.5
FLOAT-1.90	92.9	96.6	13643	7.4	1.05	2.44	3.6
TOTAL	100.0	100.0	13128	10.9	1.73	3.07	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.1	49.8	14233	3.4	.50	1.96	2.8
FLOAT-1.40	79.3	84.4	14012	4.9	.68	2.14	3.1
FLOAT-1.60	88.3	93.0	13879	5.8	.92	2.36	3.4
FLOAT-1.90	92.6	97.0	13791	6.4	1.05	2.49	3.6
TOTAL	100.0	100.0	13172	10.6	1.73	3.13	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.6	52.4	14130	4.1	.48	1.79	2.5
FLOAT-1.40	83.0	88.5	13968	5.2	.64	1.94	2.8
FLOAT-1.60	91.1	96.0	13806	6.3	.88	2.15	3.1
FLOAT-1.90	93.4	97.9	13732	6.8	1.03	2.29	3.3
TOTAL	100.0	100.0	13098	11.1	1.79	3.02	4.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (EAST)
COUNTY: MCCREARY

COALBED: UPPER ELKHORN NO. 3
RAW COAL MOISTURE: 2.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	74.0	82.4	14517	2.0	.14	.86	1.2
FLOAT-1.40	85.1	94.0	14397	2.8	.31	1.04	1.4
FLOAT-1.60	88.8	97.4	14306	3.4	.37	1.09	1.5
TOTAL	100.0	100.0	13038	11.8	.68	1.33	2.0
EPA STANDARD	74.6	83.1	14510	2.0	.15	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.9	81.4	14563	1.7	.14	.90	1.2
FLOAT-1.40	82.2	91.4	14502	2.1	.23	1.00	1.4
FLOAT-1.60	88.4	97.4	14366	3.0	.33	1.09	1.5
TOTAL	100.0	100.0	13038	11.8	.67	1.35	2.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.7	74.5	14623	1.3	.16	.91	1.2
FLOAT-1.40	82.2	91.1	14517	2.0	.27	1.04	1.4
FLOAT-1.60	88.4	97.2	14397	2.8	.37	1.12	1.6
TOTAL	100.0	100.0	13098	11.4	.65	1.33	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (EAST)
COUNTY: FLOYD

COALBED: UPPER ELKHORN NO. 2
RAW COAL MOISTURE: 3.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	74.0	77.4	14510	1.6	.12	.82	1.1
FLOAT-1.40	90.6	93.9	14390	2.4	.24	.94	1.3
FLOAT-1.60	94.2	96.8	14270	3.2	.27	.96	1.3
TOTAL	100.0	100.0	13880	5.8	.35	1.01	1.5
EPA STANDARD	80.6	84.6	14463	1.9	.16	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.5	74.9	14540	1.4	.10	.79	1.1
FLOAT-1.40	90.3	93.8	14420	2.2	.17	.86	1.2
FLOAT-1.60	94.0	96.9	14315	2.9	.21	.89	1.2
TOTAL	100.0	100.0	13880	5.8	.30	.96	1.4
EPA STANDARD	91.0	94.5	14405	2.3	.18	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	73.6	76.8	14555	1.3	.10	.79	1.1
FLOAT-1.40	90.2	93.4	14450	2.0	.20	.84	1.2
FLOAT-1.60	94.9	97.5	14330	2.8	.25	.89	1.2
TOTAL	100.0	100.0	13955	5.3	.40	1.01	1.4
EPA STANDARD	94.0	97.0	14394	2.4	.23	.86	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS
COALBED: NO. 14
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.9	42.2	13790	3.4	.89	2.12	3.1
FLOAT-1.40	69.5	77.0	13377	6.3	1.73	2.96	4.4
FLOAT-1.60	87.1	93.6	12964	9.2	2.36	3.58	5.5
TOTAL	100.0	100.0	12067	15.5	3.93	5.12	8.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.2	51.6	13832	3.1	.79	2.06	3.0
FLOAT-1.40	72.4	80.7	13491	5.5	1.44	2.73	4.0
FLOAT-1.60	85.6	92.9	13149	7.9	2.02	3.28	5.0
TOTAL	100.0	100.0	12110	15.2	3.67	4.95	8.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.8	60.5	13790	3.4	.63	1.97	2.9
FLOAT-1.40	73.5	82.8	13562	5.0	.89	2.24	3.3
FLOAT-1.60	83.7	92.1	13249	7.2	1.43	2.67	4.0
TOTAL	100.0	100.0	12039	15.7	3.91	4.98	8.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS
COALBED: NO. 14
RAW COAL MOISTURE: 3.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.0	32.2	13740	2.8	.49	1.53	2.2
FLOAT-1.40	48.1	74.9	13306	5.8	1.58	2.67	4.0
FLOAT-1.60	55.3	84.7	13089	7.3	2.07	3.07	4.7
TOTAL	100.0	100.0	8543	38.7	3.19	3.78	8.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.4	39.9	13769	2.6	.51	1.51	2.2
FLOAT-1.40	48.8	74.5	13393	5.2	1.36	2.42	3.6
FLOAT-1.60	56.4	84.5	13147	6.9	1.82	2.93	4.5
TOTAL	100.0	100.0	8775	37.1	3.04	3.89	8.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.5	32.3	13841	2.1	.30	1.44	2.1
FLOAT-1.40	44.3	68.2	13508	4.4	.90	2.11	3.1
FLOAT-1.60	55.1	82.5	13132	7.0	1.46	2.53	3.9
TOTAL	100.0	100.0	8775	37.1	2.92	3.71	8.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 14
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	38.7	47.9	13929	2.4	.50	1.60	2.3
FLOAT-1.40	69.1	83.1	13529	5.2	1.01	2.21	3.3
FLOAT-1.60	78.7	93.1	13301	6.8	1.35	2.58	3.9
FLOAT-1.90	81.3	95.2	13172	7.7	1.53	2.81	4.3
TOTAL	100.0	100.0	11246	21.2	2.62	3.82	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	45.0	55.3	13929	2.4	.50	1.59	2.3
FLOAT-1.40	69.3	83.2	13600	4.7	.87	2.04	3.0
FLOAT-1.60	79.1	93.1	13343	6.5	1.18	2.36	3.5
FLOAT-1.90	81.9	95.4	13201	7.5	1.36	2.59	3.9
TOTAL	100.0	100.0	11331	20.6	2.54	3.77	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIG	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	28.0	34.7	13971	2.1	.38	1.44	2.1
FLOAT-1.40	59.4	71.8	13615	4.6	.82	1.94	2.8
FLOAT-1.60	77.3	90.2	13144	7.9	1.21	2.36	3.6
FLOAT-1.90	83.3	95.3	12887	9.7	1.41	2.57	4.0
TOTAL	100.0	100.0	11260	21.1	2.51	3.83	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 12
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	10.0	11.8	13776	3.6	.59	2.90	4.2
FLOAT-1.40	75.7	82.8	12782	10.6	1.01	3.23	5.1
FLOAT-1.60	87.7	94.2	12555	12.2	1.17	3.35	5.3
TOTAL	100.0	100.0	11689	18.3	2.31	4.26	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	24.8	29.1	13805	3.4	.56	2.99	4.3
FLOAT-1.40	69.1	76.8	13080	8.5	.88	3.31	5.1
FLOAT-1.60	88.1	94.7	12654	11.5	1.16	3.46	5.5
TOTAL	100.0	100.0	11774	17.7	2.17	4.31	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	31.0	36.0	13762	3.7	.56	2.97	4.3
FLOAT-1.40	70.4	78.1	13151	8.0	.84	3.25	4.9
FLOAT-1.60	86.7	93.6	12796	10.5	1.01	3.31	5.2
TOTAL	100.0	100.0	11859	17.1	2.12	4.24	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBERG

COALBED: NO. 12
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.3	15.6	13581	4.2	.50	1.79	2.6
FLOAT-1.40	73.0	81.8	12976	8.5	1.06	2.41	3.7
FLOAT-1.60	82.6	90.9	12751	10.1	1.25	2.60	4.1
TOTAL	100.0	100.0	11584	18.4	3.35	4.65	8.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.0	26.9	13623	3.9	.62	1.89	2.8
FLOAT-1.40	71.9	80.2	13005	8.3	1.05	2.39	3.7
FLOAT-1.60	83.3	91.1	12751	10.1	1.29	2.63	4.1
TOTAL	100.0	100.0	11654	17.9	3.13	4.24	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.4	30.0	13722	3.2	.51	1.90	2.8
FLOAT-1.40	72.0	81.2	13117	7.5	.84	2.30	3.5
FLOAT-1.60	81.9	90.7	12878	9.2	1.14	2.52	3.9
TOTAL	100.0	100.0	11626	18.1	3.32	4.63	8.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBERG

COALBED: NO. 12
RAW COAL MOISTURE: 2.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	21.6	25.2	13567	5.1	.74	2.67	3.9
FLOAT-1.40	70.8	78.7	12956	9.4	1.07	2.95	4.6
FLOAT-1.60	86.2	93.1	12587	12.0	1.28	3.10	4.9
TOTAL	100.0	100.0	11649	18.6	2.44	4.02	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.2	35.4	13596	4.9	.76	2.68	3.9
FLOAT-1.40	71.2	79.9	13027	8.9	1.05	2.94	4.5
FLOAT-1.60	84.7	92.6	12686	11.3	1.27	3.11	4.9
TOTAL	100.0	100.0	11606	18.9	2.67	4.27	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.1	39.3	13709	4.1	.58	2.54	3.7
FLOAT-1.40	69.2	78.8	13155	8.0	.85	2.80	4.3
FLOAT-1.60	82.2	91.0	12786	10.6	1.08	2.94	4.6
TOTAL	100.0	100.0	11549	19.3	2.64	4.23	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBERG

COALBED: NO. 12
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.7	26.4	13420	5.1	.62	1.99	3.0
FLOAT-1.40	73.9	82.5	12884	8.9	.99	2.48	3.8
FLOAT-1.60	84.9	92.9	12630	10.7	1.22	2.71	4.3
TOTAL	100.0	100.0	11544	18.4	3.65	5.00	8.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.6	33.0	13547	4.2	.49	1.93	2.8
FLOAT-1.40	76.2	84.2	12969	8.3	.96	2.40	3.7
FLOAT-1.60	86.1	93.5	12757	9.8	1.16	2.60	4.1
TOTAL	100.0	100.0	11742	17.0	3.28	4.57	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.4	32.3	13758	2.7	.43	1.85	2.7
FLOAT-1.40	66.7	75.6	13237	6.4	.78	2.27	3.4
FLOAT-1.60	82.4	91.1	12898	8.8	1.00	2.41	3.7
TOTAL	100.0	100.0	11671	17.5	3.34	4.60	7.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBERG

COALBED: NO. 12
RAW COAL MOISTURE: 3.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.8	31.2	13382	5.0	.78	1.64	2.5
FLOAT-1.40	79.9	86.3	12865	8.7	1.13	2.02	3.1
FLOAT-1.60	89.3	94.8	12656	10.2	1.24	2.14	3.4
TOTAL	100.0	100.0	11916	15.5	1.84	2.68	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.7	33.8	13522	4.0	.66	1.41	2.1
FLOAT-1.40	76.9	84.0	12977	7.9	1.05	1.86	2.9
FLOAT-1.60	88.0	94.4	12740	9.6	1.21	2.01	3.2
TOTAL	100.0	100.0	11874	15.8	1.84	2.56	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.5	14.3	13690	2.8	.55	.70	1.0
FLOAT-1.40	67.6	74.5	13201	6.3	.78	1.79	2.7
FLOAT-1.60	88.2	94.1	12768	9.4	1.08	1.96	3.1
TOTAL	100.0	100.0	11971	15.1	1.81	2.63	4.4
EPA STANDARD	15.0	18.2	13638	3.2	.57	.84	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBURG

COALBED: NO. 12
RAW COAL MOISTURE: 2.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.9	26.9	13452	5.0	.68	1.77	2.6
FLOAT-1.40	75.0	81.6	13013	8.1	1.01	2.25	3.5
FLOAT-1.60	88.5	94.4	12758	9.9	1.48	2.80	4.4
FLOAT-1.90	92.2	97.1	12603	11.0	1.63	2.99	4.7
TOTAL	100.0	100.0	11966	15.5	2.52	4.05	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.2	28.6	13664	3.5	.49	1.67	2.4
FLOAT-1.40	74.9	81.5	13112	7.4	.93	2.20	3.4
FLOAT-1.60	88.1	94.0	12857	9.2	1.34	2.69	4.2
FLOAT-1.90	92.1	97.1	12702	10.3	1.51	2.88	4.5
TOTAL	100.0	100.0	12050	14.9	2.49	4.00	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.0	21.9	13778	2.7	.37	1.60	2.3
FLOAT-1.40	68.7	75.7	13183	6.9	.84	2.10	3.2
FLOAT-1.60	87.4	93.7	12829	9.4	1.26	2.55	4.0
FLOAT-1.90	91.6	96.9	12659	10.6	1.44	2.74	4.3
TOTAL	100.0	100.0	11966	15.5	2.53	4.02	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 11
RAW COAL MOISTURE: 2.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.5	57.4	13978	2.9	.57	2.96	4.2
FLOAT-1.40	82.4	90.1	13705	4.8	.93	3.19	4.7
FLOAT-1.60	88.0	95.2	13561	5.8	1.08	3.29	4.9
TOTAL	100.0	100.0	12539	12.9	2.59	4.56	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.0	70.2	13949	3.1	.64	2.87	4.1
FLOAT-1.40	85.4	92.6	13777	4.3	.93	3.08	4.5
FLOAT-1.60	90.3	96.9	13647	5.2	1.06	3.18	4.7
TOTAL	100.0	100.0	12712	11.7	2.36	4.27	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.5	71.3	13964	3.0	.40	2.75	3.9
FLOAT-1.40	81.3	88.9	13820	4.0	.66	2.88	4.2
FLOAT-1.60	90.2	97.3	13633	5.3	.88	3.07	4.5
TOTAL	100.0	100.0	12640	12.2	2.35	4.37	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 11
RAW COAL MOISTURE: 5.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.7	77.6	13782	3.8	.65	2.72	3.9
FLOAT-1.40	78.3	90.2	13652	4.7	.84	2.89	4.2
FLOAT-1.60	83.4	95.0	13493	5.8	.99	3.01	4.5
TOTAL	100.0	100.0	11846	17.2	2.70	4.42	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.7	80.2	13826	3.5	.65	2.72	3.9
FLOAT-1.40	77.3	89.6	13725	4.2	.80	2.86	4.2
FLOAT-1.60	82.3	94.3	13580	5.2	.94	2.96	4.4
TOTAL	100.0	100.0	11846	17.2	2.83	4.56	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.9	41.1	13970	2.5	.40	2.47	3.5
FLOAT-1.40	70.6	81.9	13754	4.0	.59	2.57	3.7
FLOAT-1.60	81.5	93.3	13580	5.2	.85	2.73	4.0
TOTAL	100.0	100.0	11860	17.1	2.89	4.55	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBERG

COALBED: NO. 11
RAW COAL MOISTURE: 4.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	77.6	79.1	13952	3.4	.52	2.54	3.6
FLOAT-1.40	96.4	97.3	13812	4.3	.76	2.78	4.0
FLOAT-1.60	99.1	99.6	13749	4.7	.86	2.86	4.2
TOTAL	100.0	100.0	13687	5.1	.93	2.93	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	82.8	84.6	13968	3.3	.54	2.56	3.7
FLOAT-1.40	94.8	96.1	13858	4.0	.71	2.71	3.9
FLOAT-1.60	98.3	99.1	13780	4.5	.82	2.81	4.1
TOTAL	100.0	100.0	13671	5.2	.97	2.95	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	79.5	81.5	14015	3.0	.42	2.41	3.4
FLOAT-1.40	93.5	95.1	13905	3.7	.58	2.58	3.7
FLOAT-1.60	97.6	98.6	13812	4.3	.67	2.69	3.9
TOTAL	100.0	100.0	13671	5.2	.96	2.98	4.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST) COALBED: NO. 11
COUNTY: MUHLENBERG RAW COAL MOISTURE: 2.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.0	65.7	13889	3.7	.71	3.03	4.4
FLOAT-1.40	84.1	92.3	13700	5.0	1.25	3.54	5.2
FLOAT-1.60	88.9	96.8	13584	5.8	1.48	3.75	5.5
TOTAL	100.0	100.0	12480	13.4	2.52	4.59	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.6	58.5	13933	3.4	.65	3.09	4.4
FLOAT-1.40	85.7	93.2	13642	5.4	1.35	3.68	5.4
FLOAT-1.60	89.4	96.7	13555	6.0	1.52	3.82	5.6
TOTAL	100.0	100.0	12538	13.0	2.68	4.75	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.9	69.6	13976	3.1	.43	2.93	4.2
FLOAT-1.40	79.0	86.2	13773	4.5	.88	3.31	4.8
FLOAT-1.60	89.8	96.9	13628	5.5	1.38	3.73	5.5
TOTAL	100.0	100.0	12625	12.4	2.66	4.80	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST) COALBED: NO. 11
COUNTY: MUHLENBERG RAW COAL MOISTURE: 2.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.7	73.1	13753	3.5	.46	2.73	4.0
FLOAT-1.40	83.8	90.7	13584	4.7	.69	2.89	4.3
FLOAT-1.60	89.4	95.7	13442	5.7	.95	3.11	4.6
TOTAL	100.0	100.0	12551	12.0	2.80	4.81	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.9	74.0	13782	3.3	.43	2.69	3.9
FLOAT-1.40	82.1	89.8	13626	4.4	.63	2.85	4.2
FLOAT-1.60	88.0	95.1	13456	5.6	.85	3.03	4.5
TOTAL	100.0	100.0	12452	12.7	3.00	5.05	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.2	73.3	13838	2.9	.40	2.58	3.7
FLOAT-1.40	79.8	87.2	13654	4.2	.57	2.68	3.9
FLOAT-1.60	88.4	95.3	13470	5.5	.74	2.84	4.2
TOTAL	100.0	100.0	12495	12.4	3.06	5.00	8.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST) COALBED: NO. 11
COUNTY: MUHLENBERG RAW COAL MOISTURE: 2.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.1	73.3	13648	3.6	.52	2.71	4.0
FLOAT-1.40	84.6	92.8	13492	4.7	.80	2.89	4.3
FLOAT-1.60	87.7	95.6	13407	5.3	.87	2.94	4.4
TOTAL	100.0	100.0	12304	13.1	2.97	4.80	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.4	66.7	13719	3.1	.49	2.59	3.8
FLOAT-1.40	80.8	89.4	13521	4.5	.79	2.82	4.2
FLOAT-1.60	85.9	94.1	13379	5.5	.93	2.93	4.4
TOTAL	100.0	100.0	12219	13.7	3.13	4.88	8.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.2	66.2	13719	3.1	.49	2.48	3.6
FLOAT-1.40	78.8	87.2	13563	4.2	.66	2.76	4.1
FLOAT-1.60	86.5	94.2	13351	5.7	.84	2.88	4.3
TOTAL	100.0	100.0	12261	13.4	3.07	4.88	8.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST) COALBED: NO. 11
COUNTY: MUHLENBERG RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.4	70.3	13774	3.6	.67	2.91	4.2
FLOAT-1.40	83.5	91.3	13587	4.9	1.12	3.34	4.9
FLOAT-1.60	88.2	95.7	13486	5.6	1.41	3.58	5.3
TOTAL	100.0	100.0	12424	13.0	2.87	4.80	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.9	74.0	13802	3.4	.64	2.79	4.0
FLOAT-1.40	83.7	91.4	13630	4.6	1.03	3.15	4.6
FLOAT-1.60	88.6	95.9	13515	5.4	1.25	3.35	5.0
TOTAL	100.0	100.0	12481	12.6	2.63	4.52	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.4	66.3	13817	3.3	.57	2.83	4.1
FLOAT-1.40	80.7	87.7	13673	4.3	.83	3.02	4.4
FLOAT-1.60	89.1	95.5	13486	5.6	1.23	3.32	4.9
TOTAL	100.0	100.0	12582	11.9	2.69	4.65	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST) COALBED: NO. 9
COUNTY: DAVIESS RAW COAL MOISTURE: 5.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.6	45.2	13491	4.6	.57	2.40	3.6
FLOAT-1.40	79.6	86.4	13138	7.1	.87	2.69	4.1
FLOAT-1.60	88.0	94.3	12968	8.3	1.23	3.04	4.7
FLOAT-1.90	91.5	97.1	12841	9.2	1.50	3.31	5.2
TOTAL	100.0	100.0	12105	14.4	2.73	4.50	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.2	48.6	13661	3.4	.48	2.30	3.4
FLOAT-1.40	78.7	86.2	13307	5.9	.67	2.48	3.7
FLOAT-1.60	87.2	94.2	13124	7.2	.93	2.71	4.1
FLOAT-1.90	89.8	96.3	13025	7.9	1.12	2.89	4.4
TOTAL	100.0	100.0	12148	14.1	2.77	4.50	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.2	34.6	13831	2.2	.42	2.24	3.2
FLOAT-1.40	72.1	80.0	13392	5.3	.63	2.43	3.6
FLOAT-1.60	86.1	93.5	13095	7.4	.90	2.64	4.0
FLOAT-1.90	89.5	96.1	12954	8.4	1.07	2.79	4.3
TOTAL	100.0	100.0	12063	14.7	2.88	4.57	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST) COALBED: NO. 9
COUNTY: HOPKINS RAW COAL MOISTURE: 5.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.2	47.2	13670	4.2	.58	2.41	3.5
FLOAT-1.40	81.8	87.0	13313	6.7	1.09	2.89	4.3
FLOAT-1.60	90.4	95.0	13156	7.8	1.50	3.28	5.0
TOTAL	100.0	100.0	12513	12.3	2.86	4.60	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.0	52.5	13698	4.0	.52	2.46	3.6
FLOAT-1.40	81.4	86.9	13356	6.4	.90	2.82	4.2
FLOAT-1.60	90.2	94.9	13170	7.7	1.22	3.11	4.7
TOTAL	100.0	100.0	12513	12.3	2.80	4.51	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.2	61.3	13641	4.4	.72	2.60	3.8
FLOAT-1.40	80.8	86.4	13370	6.3	.86	2.95	4.4
FLOAT-1.60	85.9	91.0	13241	7.2	1.12	2.97	4.5
TOTAL	100.0	100.0	12499	12.4	3.02	4.79	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST) COALBED: NO. 9
COUNTY: HOPKINS RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.7	49.1	13799	4.4	.67	2.38	3.4
FLOAT-1.40	91.0	93.1	13432	6.9	1.10	2.79	4.2
FLOAT-1.60	96.5	98.1	13344	7.5	1.47	3.16	4.7
TOTAL	100.0	100.0	13123	9.0	2.35	4.04	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.4	54.3	13858	4.0	.59	2.33	3.4
FLOAT-1.40	89.6	92.2	13491	6.5	.96	2.66	3.9
FLOAT-1.60	95.5	97.5	13388	7.2	1.28	2.95	4.4
TOTAL	100.0	100.0	13109	9.1	2.41	4.07	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.4	58.0	13887	3.8	.53	2.28	3.3
FLOAT-1.40	85.2	89.0	13623	5.6	.78	2.44	3.6
FLOAT-1.60	93.6	96.4	13432	6.9	1.11	2.77	4.1
TOTAL	100.0	100.0	13035	9.6	2.57	4.19	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST) COALBED: NO. 9
COUNTY: HOPKINS RAW COAL MOISTURE: 4.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.9	58.9	13679	4.2	.50	2.42	3.5
FLOAT-1.40	85.7	89.8	13356	6.5	.62	2.48	3.7
FLOAT-1.60	93.9	96.6	13117	8.2	.77	2.60	4.0
TOTAL	100.0	100.0	12752	10.8	2.22	4.03	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.7	65.3	13693	4.1	.46	2.39	3.5
FLOAT-1.40	84.2	88.7	13426	6.0	.59	2.48	3.7
FLOAT-1.60	93.0	96.1	13159	7.9	.75	2.60	4.0
TOTAL	100.0	100.0	12738	10.9	2.40	4.22	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.4	54.8	13861	2.9	.33	2.26	3.3
FLOAT-1.40	79.2	84.4	13566	5.0	.47	2.35	3.5
FLOAT-1.60	91.2	95.0	13271	7.1	.65	2.55	3.8
TOTAL	100.0	100.0	12738	10.9	2.35	4.17	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 9
RAW COAL MOISTURE: 3.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.5	47.7	13717	4.3	.48	2.59	3.8
FLOAT-1.40	84.0	87.4	13324	7.1	.79	2.83	4.2
FLOAT-1.60	93.0	95.3	13128	8.5	1.08	3.09	4.7
TOTAL	100.0	100.0	12805	10.8	1.85	3.78	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.1	44.1	13773	3.9	.48	2.61	3.8
FLOAT-1.40	84.8	88.7	13437	6.3	.79	2.85	4.2
FLOAT-1.60	92.8	95.6	13240	7.7	.98	3.00	4.5
TOTAL	100.0	100.0	12847	10.5	1.81	3.74	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.3	71.2	13745	4.1	.56	2.74	4.0
FLOAT-1.40	82.5	87.1	13521	5.7	.71	2.83	4.2
FLOAT-1.60	91.9	95.4	13296	7.3	.92	3.00	4.5
TOTAL	100.0	100.0	12805	10.8	1.86	3.83	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 9
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.4	50.3	13793	4.6	.70	2.57	3.7
FLOAT-1.40	81.4	87.5	13389	7.4	1.20	2.99	4.5
FLOAT-1.60	89.6	95.0	13201	8.7	1.57	3.29	5.0
TOTAL	100.0	100.0	12451	13.9	2.80	4.46	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.3	55.8	13836	4.3	.59	2.52	3.6
FLOAT-1.40	80.0	86.6	13490	6.7	1.00	2.86	4.2
FLOAT-1.60	89.1	94.9	13273	8.2	1.36	3.16	4.8
TOTAL	100.0	100.0	12465	13.8	2.76	4.49	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.8	54.3	13851	4.2	.67	2.48	3.6
FLOAT-1.40	79.5	86.3	13519	6.5	1.03	2.77	4.1
FLOAT-1.60	90.9	96.9	13273	8.2	1.37	3.06	4.6
TOTAL	100.0	100.0	12451	13.9	2.78	4.41	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 9
RAW COAL MOISTURE: 3.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.1	69.3	14056	3.9	.52	3.38	4.8
FLOAT-1.40	91.1	95.5	13851	5.3	.72	3.54	5.1
FLOAT-1.60	93.8	97.8	13778	5.8	.78	3.59	5.2
FLOAT-1.90	94.8	98.6	13734	6.1	.82	3.61	5.3
TOTAL	100.0	100.0	13208	9.7	1.49	4.18	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.0	76.6	14100	3.6	.47	3.32	4.7
FLOAT-1.40	89.3	94.1	13968	4.5	.61	3.42	4.9
FLOAT-1.60	93.1	97.5	13880	5.1	.69	3.49	5.0
FLOAT-1.90	94.4	98.4	13807	5.6	.74	3.52	5.1
TOTAL	100.0	100.0	13252	9.4	1.55	4.19	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.5	58.7	14202	2.9	.36	3.21	4.5
FLOAT-1.40	86.5	91.7	13983	4.4	.55	3.44	4.9
FLOAT-1.60	92.6	97.1	13836	5.4	.67	3.43	5.0
FLOAT-1.90	94.2	98.3	13763	5.9	.73	3.47	5.0
TOTAL	100.0	100.0	13193	9.8	1.61	4.20	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 9
RAW COAL MOISTURE: 3.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.6	44.6	13705	4.0	.49	2.55	3.7
FLOAT-1.40	80.2	87.9	13334	6.6	.77	2.78	4.2
FLOAT-1.60	87.1	94.4	13177	7.7	.90	2.88	4.4
FLOAT-1.90	90.3	96.7	13020	8.8	1.09	3.04	4.7
TOTAL	100.0	100.0	12163	14.8	2.10	3.93	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.8	42.9	13819	3.2	.38	2.45	3.5
FLOAT-1.40	78.9	86.9	13419	6.0	.64	2.63	3.9
FLOAT-1.60	87.0	94.6	13248	7.2	.75	2.73	4.1
FLOAT-1.90	89.2	96.2	13134	8.0	.84	2.79	4.2
TOTAL	100.0	100.0	12178	14.7	2.10	3.91	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.4	37.3	13905	2.6	.34	2.42	3.5
FLOAT-1.40	71.1	79.5	13519	5.3	.59	2.57	3.8
FLOAT-1.60	85.7	93.6	13205	7.5	.75	2.70	4.1
FLOAT-1.90	88.7	95.8	13063	8.5	.84	2.76	4.2
TOTAL	100.0	100.0	12092	15.3	2.15	3.95	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBURG

COALBED: NO. 9
RAW COAL MOISTURE: 6.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.8	48.3	13732	4.1	.68	2.73	4.0
FLOAT-1.40	88.7	91.5	13446	6.1	1.00	3.07	4.6
FLOAT-1.60	94.7	97.0	13345	6.8	1.27	3.41	5.1
FLOAT-1.90	96.0	98.0	13302	7.1	1.41	3.57	5.4
TOTAL	100.0	100.0	13030	9.0	2.19	4.33	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.2	53.4	13889	3.0	.42	2.45	3.5
FLOAT-1.40	86.4	89.9	13589	5.1	.77	2.81	4.1
FLOAT-1.60	93.7	96.6	13460	6.0	1.05	3.13	4.7
FLOAT-1.90	95.2	97.7	13403	6.4	1.19	3.30	4.9
TOTAL	100.0	100.0	13059	8.8	2.21	4.36	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.4	46.4	13904	2.9	.40	2.40	3.5
FLOAT-1.40	84.4	88.3	13603	5.0	.73	2.75	4.0
FLOAT-1.60	93.3	96.5	13446	6.1	.99	3.03	4.5
FLOAT-1.90	95.1	97.8	13374	6.6	1.15	3.22	4.8
TOTAL	100.0	100.0	13002	9.2	2.21	4.34	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: OHIO

COALBED: NO. 9
RAW COAL MOISTURE: 5.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.4	60.0	13697	4.2	.58	2.65	3.9
FLOAT-1.40	89.8	91.5	13342	6.5	1.03	3.07	4.6
FLOAT-1.60	98.2	98.8	13172	7.6	1.40	3.44	5.2
TOTAL	100.0	100.0	13095	8.1	1.60	3.63	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.2	64.4	13728	4.0	.56	2.68	3.9
FLOAT-1.40	87.4	90.0	13434	5.9	.90	3.00	4.5
FLOAT-1.60	96.5	97.8	13218	7.3	1.23	3.31	5.0
TOTAL	100.0	100.0	13049	8.4	1.63	3.72	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.7	52.5	13805	3.5	.71	2.73	4.0
FLOAT-1.40	85.1	87.9	13512	5.4	.82	2.87	4.2
FLOAT-1.60	95.8	97.4	13296	6.8	1.11	3.11	4.7
TOTAL	100.0	100.0	13080	8.2	1.61	3.60	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST) COALBED: NO. 9
COUNTY: OHIO RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.1	54.6	13682	4.2	.61	2.68	3.9
FLOAT-1.40	83.5	90.5	13339	6.6	1.05	3.18	4.8
FLOAT-1.60	90.6	97.2	13211	7.5	1.29	3.44	5.2
FLOAT-1.90	91.8	98.1	13153	7.9	1.39	3.55	5.4
TOTAL	100.0	100.0	12311	13.8	2.10	4.22	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.3	55.0	13753	3.7	.52	2.58	3.8
FLOAT-1.40	80.9	88.2	13453	5.8	.87	2.99	4.4
FLOAT-1.60	89.8	96.6	13268	7.1	1.14	3.27	4.9
FLOAT-1.90	91.5	97.9	13196	7.6	1.24	3.38	5.1
TOTAL	100.0	100.0	12339	13.6	2.06	4.16	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.9	39.5	13853	3.0	.41	2.46	3.6
FLOAT-1.40	72.0	79.6	13525	5.3	.73	2.79	4.1
FLOAT-1.60	87.7	94.6	13196	7.6	1.11	3.14	4.8
FLOAT-1.90	91.2	97.4	13068	8.5	1.26	3.29	5.0
TOTAL	100.0	100.0	12239	14.3	2.25	4.23	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST) COALBED: NO. 9
COUNTY: UNION RAW COAL MOISTURE: 4.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.2	73.1	13259	5.8	.76	2.74	4.1
FLOAT-1.40	74.4	86.5	13118	6.8	.90	2.85	4.3
FLOAT-1.60	81.9	93.8	12935	8.1	1.13	3.06	4.7
FLOAT-1.90	84.3	96.0	12850	8.7	1.26	3.16	4.9
TOTAL	100.0	100.0	11288	19.8	2.72	4.54	8.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.3	56.8	13526	3.9	.53	2.55	3.8
FLOAT-1.40	68.4	80.6	13273	5.7	.76	2.71	4.1
FLOAT-1.60	79.8	92.0	12977	7.8	1.09	2.97	4.6
FLOAT-1.90	84.6	96.1	12794	9.1	1.35	3.16	4.9
TOTAL	100.0	100.0	11260	20.0	2.93	4.54	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.0	44.8	13653	3.0	.42	2.47	3.6
FLOAT-1.40	64.5	76.0	13287	5.6	.66	2.56	3.9
FLOAT-1.60	80.2	91.6	12879	8.5	1.01	2.75	4.3
FLOAT-1.90	85.2	95.5	12639	10.2	1.22	2.90	4.6
TOTAL	100.0	100.0	11274	19.9	2.77	4.22	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST) COALBED: NO. 9
COUNTY: UNION RAW COAL MOISTURE: 4.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.9	43.1	13635	4.3	.35	2.17	3.2
FLOAT-1.40	83.2	86.8	13183	7.5	.75	2.54	3.9
FLOAT-1.60	92.6	95.3	12999	8.8	.99	2.76	4.2
TOTAL	100.0	100.0	12632	11.4	2.31	4.04	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.8	55.8	13677	4.0	.38	2.22	3.2
FLOAT-1.40	83.2	87.4	13338	6.4	.69	2.50	3.7
FLOAT-1.60	91.7	95.0	13155	7.7	.88	2.64	4.0
TOTAL	100.0	100.0	12702	10.9	2.16	3.86	6.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.3	38.7	13932	2.2	.21	2.11	3.0
FLOAT-1.40	77.4	82.3	13508	5.2	.51	2.38	3.5
FLOAT-1.60	90.6	94.5	13253	7.0	.70	2.48	3.7
TOTAL	100.0	100.0	12702	10.9	2.16	3.82	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST) COALBED: NO. 9
COUNTY: UNION RAW COAL MOISTURE: 2.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.1	33.5	14123	3.5	.41	2.40	3.4
FLOAT-1.40	81.3	84.4	13616	7.1	.76	2.88	4.2
FLOAT-1.60	94.5	96.3	13376	8.8	1.32	3.33	5.0
TOTAL	100.0	100.0	13122	10.6	2.20	4.17	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.4	41.4	14194	3.0	.28	2.41	3.4
FLOAT-1.40	82.7	86.2	13700	6.5	.68	2.66	3.9
FLOAT-1.60	94.1	96.3	13461	8.2	1.04	2.98	4.4
TOTAL	100.0	100.0	13151	10.4	2.08	3.97	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.9	45.5	14250	2.6	.26	2.54	3.6
FLOAT-1.40	79.2	83.6	13841	5.5	.57	2.70	3.9
FLOAT-1.60	92.6	95.8	13559	7.5	.93	3.01	4.4
TOTAL	100.0	100.0	13108	10.7	2.29	4.24	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: BUTLER
COALBED: NO. 6
RAW COAL MOISTURE: 3.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.1	52.9	13927	2.3	.53	1.29	1.9
FLOAT-1.40	72.1	81.2	13685	4.0	.93	1.85	2.7
FLOAT-1.60	84.6	93.6	13442	5.7	1.36	2.39	3.6
FLOAT-1.90	88.8	96.7	13229	7.2	1.59	2.67	4.0
TOTAL	100.0	100.0	12145	14.8	2.67	3.99	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.6	69.1	14027	1.6	.19	.92	1.3
FLOAT-1.40	77.6	87.5	13870	2.7	.37	1.11	1.6
FLOAT-1.60	84.4	94.2	13728	3.7	.57	1.31	1.9
FLOAT-1.90	86.9	96.1	13599	4.6	.69	1.46	2.1
TOTAL	100.0	100.0	12302	13.7	2.39	3.57	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.0	58.8	14070	1.3	.17	.87	1.2
FLOAT-1.40	65.8	76.6	13941	2.2	.27	.98	1.4
FLOAT-1.60	80.3	91.3	13613	4.5	.58	1.31	1.9
FLOAT-1.90	84.0	94.4	13457	5.6	.69	1.42	2.1
TOTAL	100.0	100.0	11974	16.0	3.25	4.57	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS
COALBED: NO. 6
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.7	73.5	13864	2.6	.58	1.46	2.1
FLOAT-1.40	78.1	91.0	13779	3.2	.72	1.65	2.4
FLOAT-1.60	81.4	94.2	13693	3.8	.82	1.76	2.6
FLOAT-1.90	84.2	96.3	13522	5.0	.96	1.90	2.8
TOTAL	100.0	100.0	11829	16.9	1.78	2.63	4.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.2	46.6	13992	1.7	.37	1.23	1.8
FLOAT-1.40	80.0	91.8	13850	2.7	.56	1.51	2.2
FLOAT-1.60	82.8	94.5	13779	3.2	.65	1.60	2.3
FLOAT-1.90	85.2	96.4	13650	4.1	.76	1.70	2.5
TOTAL	100.0	100.0	12071	15.2	1.69	2.55	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.9	30.8	14049	1.3	.27	1.16	1.7
FLOAT-1.40	70.0	82.0	13864	2.6	.46	1.35	1.9
FLOAT-1.60	78.4	90.6	13665	4.0	.60	1.48	2.2
FLOAT-1.90	84.0	95.4	13437	5.6	.72	1.58	2.4
TOTAL	100.0	100.0	11829	16.9	1.75	2.54	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 6
RAW COAL MOISTURE: 4.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	80.5	86.4	14085	2.0	.35	1.18	1.7
FLOAT-1.40	87.4	93.5	14041	2.3	.43	1.27	1.8
FLOAT-1.60	91.4	97.0	13926	3.1	.58	1.47	2.1
FLOAT-1.90	93.1	98.2	13840	3.7	.69	1.61	2.3
TOTAL	100.0	100.0	13121	8.7	1.20	2.16	3.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	80.4	86.5	14099	1.9	.33	1.15	1.6
FLOAT-1.40	87.3	93.5	14041	2.3	.40	1.23	1.8
FLOAT-1.60	91.0	96.8	13941	3.0	.52	1.39	2.0
FLOAT-1.90	93.0	98.2	13840	3.7	.65	1.56	2.3
TOTAL	100.0	100.0	13107	8.8	1.23	2.20	3.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.9	74.1	14113	1.8	.32	1.14	1.6
FLOAT-1.40	84.7	90.4	13998	2.6	.40	1.22	1.7
FLOAT-1.60	91.3	96.5	13869	3.5	.52	1.36	2.0
FLOAT-1.90	93.8	98.3	13754	4.3	.63	1.49	2.2
TOTAL	100.0	100.0	13121	8.7	1.22	2.16	3.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: UNION

COALBED: NOS. 6 AND 9
RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.6	51.4	14231	3.5	.19	1.97	2.8
FLOAT-1.40	77.9	85.6	13879	5.9	.67	2.31	3.3
FLOAT-1.60	86.2	93.3	13674	7.3	.92	2.52	3.7
TOTAL	100.0	100.0	12633	14.4	2.80	4.24	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.7	53.7	14216	3.6	.44	2.05	2.9
FLOAT-1.40	77.9	85.6	13879	5.9	.80	2.39	3.4
FLOAT-1.60	86.1	93.3	13688	7.2	1.05	2.61	3.8
TOTAL	100.0	100.0	12633	14.4	2.84	4.33	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.1	51.9	14157	4.0	.64	2.25	3.2
FLOAT-1.40	74.7	83.1	13981	5.2	.67	2.24	3.2
FLOAT-1.60	85.7	93.2	13674	7.3	1.06	2.64	3.9
TOTAL	100.0	100.0	12574	14.8	2.96	4.48	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST) COALBED: NOS. 11 AND 12
COUNTY: MUHLENBERG RAW COAL MOISTURE: 3.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.5	70.3	13720	4.6	.68	2.75	4.0
FLOAT-1.40	91.4	93.3	13446	6.4	1.01	3.05	4.5
FLOAT-1.60	98.0	98.9	13294	7.4	1.26	3.27	4.9
TOTAL	100.0	100.0	13173	8.2	1.39	3.39	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.1	74.3	13704	4.7	.74	2.76	4.0
FLOAT-1.40	89.0	91.6	13492	6.1	.99	3.01	4.5
FLOAT-1.60	96.7	98.2	13309	7.3	1.22	3.22	4.8
TOTAL	100.0	100.0	13112	8.6	1.50	3.49	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.9	61.1	13887	3.5	.47	2.58	3.7
FLOAT-1.40	88.4	91.3	13583	5.5	.73	2.82	4.2
FLOAT-1.60	96.5	97.9	13355	7.0	.94	3.00	4.5
TOTAL	100.0	100.0	13158	8.3	1.40	3.42	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND COALBED: WAYNESBURG
COUNTY: ALLEGANY RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.2	12.7	14607	3.5	.05	1.14	1.6
FLOAT-1.40	50.8	60.0	13897	8.2	.15	1.18	1.7
FLOAT-1.60	75.1	85.0	13322	12.0	.38	1.39	2.1
TOTAL	100.0	100.0	11765	22.3	1.29	2.26	3.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.4	15.5	14637	3.3	.03	1.10	1.5
FLOAT-1.40	52.2	62.5	13987	7.6	.07	1.06	1.5
FLOAT-1.60	74.2	85.2	13398	11.5	.15	1.09	1.6
TOTAL	100.0	100.0	11674	22.9	1.38	2.17	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.7	10.9	14789	2.3	.01	1.07	1.4
FLOAT-1.40	43.3	51.9	14199	6.2	.04	1.05	1.5
FLOAT-1.60	74.9	85.8	13579	10.3	.11	1.05	1.5
TOTAL	100.0	100.0	11856	21.7	1.37	2.15	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY
COALBED: WAYNESBURG
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.9	10.4	14845	3.2	.23	1.47	2.0
FLOAT-1.40	71.3	78.8	13990	8.8	.67	1.85	2.6
FLOAT-1.60	83.4	90.3	13715	10.6	1.05	2.19	3.2
TOTAL	100.0	100.0	12662	17.5	1.41	2.49	3.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.4	16.8	14845	3.2	.27	1.53	2.1
FLOAT-1.40	69.6	77.3	14112	8.0	.70	1.89	2.7
FLOAT-1.60	84.2	91.3	13776	10.2	1.06	2.20	3.2
TOTAL	100.0	100.0	12707	17.2	1.54	2.60	4.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.0	20.2	14968	2.4	.19	1.40	1.9
FLOAT-1.40	55.1	62.9	14341	6.5	.60	1.78	2.5
FLOAT-1.60	82.8	90.0	13669	10.9	1.01	2.05	3.0
TOTAL	100.0	100.0	12570	18.1	1.52	2.49	4.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY
COALBED: SEWICKLEY
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.0	42.5	15077	2.7	.03	.99	1.3
FLOAT-1.40	85.3	88.6	14747	4.8	.03	.97	1.3
FLOAT-1.60	95.5	97.3	14464	6.6	.12	1.05	1.5
TOTAL	100.0	100.0	14196	8.3	.24	1.16	1.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.5	50.9	15077	2.7	.01	1.04	1.4
FLOAT-1.40	87.8	90.2	14747	4.8	.03	1.03	1.4
FLOAT-1.60	96.8	98.1	14542	6.1	.09	1.07	1.5
TOTAL	100.0	100.0	14354	7.3	.19	1.17	1.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.6	62.2	15062	2.8	.01	1.03	1.4
FLOAT-1.40	86.2	89.9	14794	4.5	.02	1.02	1.4
FLOAT-1.60	93.3	96.1	14605	5.7	.06	1.04	1.4
TOTAL	100.0	100.0	14181	8.4	.26	1.23	1.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: SEWICKLEY
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.9	18.4	14741	3.2	.05	1.10	1.5
FLOAT-1.40	63.4	80.5	14144	7.1	.31	1.12	1.6
FLOAT-1.60	74.9	93.0	13838	9.1	.42	1.25	1.8
TOTAL	100.0	100.0	11146	26.7	.73	1.48	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.6	22.5	14771	3.0	.07	1.19	1.6
FLOAT-1.40	65.6	80.9	14221	6.6	.32	1.32	1.9
FLOAT-1.60	77.8	94.0	13930	8.5	.41	1.41	2.0
TOTAL	100.0	100.0	11529	24.2	.73	1.58	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.0	25.2	14832	2.6	.08	1.17	1.6
FLOAT-1.40	56.9	72.8	14282	6.2	.29	1.27	1.8
FLOAT-1.60	74.0	91.4	13792	9.4	.43	1.39	2.0
TOTAL	100.0	100.0	11162	26.6	.82	1.59	2.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: REDSTONE
RAW COAL MOISTURE: .7 %
BENCH: TOP

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.8	9.5	14801	2.8	.10	1.34	1.8
FLOAT-1.40	59.6	68.7	14068	7.6	.16	1.34	1.9
FLOAT-1.60	77.8	80.2	12587	17.3	1.03	2.05	3.3
TOTAL	100.0	100.0	12205	19.8	1.74	2.75	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.4	11.3	14785	2.9	.07	1.35	1.8
FLOAT-1.40	60.9	69.2	13946	8.4	.14	1.31	1.9
FLOAT-1.60	79.5	87.2	13457	11.6	.37	1.45	2.2
TOTAL	100.0	100.0	12267	19.4	1.75	2.77	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.4	11.3	14862	2.4	.02	1.33	1.8
FLOAT-1.40	50.8	58.4	14144	7.1	.09	1.28	1.8
FLOAT-1.60	79.3	87.5	13579	10.8	.25	1.41	2.1
TOTAL	100.0	100.0	12312	19.1	1.84	2.87	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: REDSTONE
RAW COAL MOISTURE: 1.0 %,
BENCH: BOTTOM

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	2.1	2.7	14792	2.5	.26	1.56	2.1
FLOAT-1.40	33.9	39.9	13590	10.5	.84	2.00	2.9
FLOAT-1.60	76.5	85.0	12824	15.6	2.05	3.09	4.8
TOTAL	100.0	100.0	11548	24.1	2.96	3.87	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	2.8	3.6	14777	2.6	.24	1.50	2.0
FLOAT-1.40	38.5	45.7	13666	10.0	.80	1.94	2.8
FLOAT-1.60	75.7	85.2	12945	14.8	1.71	2.83	4.4
TOTAL	100.0	100.0	11502	24.4	2.97	3.90	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.5	4.5	14822	2.3	.24	1.54	2.1
FLOAT-1.40	35.8	43.3	13951	8.1	.54	1.79	2.6
FLOAT-1.60	72.1	82.4	13185	13.2	1.06	2.10	3.2
TOTAL	100.0	100.0	11533	24.2	2.99	3.88	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: PITTSBURGH
RAW COAL MOISTURE: 4.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.9	1.0	13419	5.6	.05	1.12	1.7
FLOAT-1.40	3.8	4.2	13504	5.0	.03	1.10	1.6
FLOAT-1.60	49.7	54.3	13419	5.6	.02	.89	1.3
TOTAL	100.0	100.0	12290	13.5	.03	.82	1.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.5	.5	13333	6.2	.03	1.37	2.1
FLOAT-1.40	3.2	3.5	13490	5.1	.03	1.17	1.7
FLOAT-1.60	50.8	54.9	13404	5.7	.01	.91	1.4
TOTAL	100.0	100.0	12404	12.7	.01	.86	1.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	1.3	1.5	13876	2.4	.04	1.10	1.6
FLOAT-1.60	45.6	49.6	13461	5.3	.01	.93	1.4
TOTAL	100.0	100.0	12375	12.9	.02	.88	1.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: LITTLE PITTSBURGH
RAW COAL MOISTURE: 9.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	16.1	19.4	12901	5.1	.02	1.08	1.7
FLOAT-1.60	82.5	89.8	11675	14.1	.12	1.05	1.8
TOTAL	100.0	100.0	10721	21.1	.24	1.12	2.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	18.2	21.7	12887	5.2	.04	1.14	1.8
FLOAT-1.60	81.3	88.7	11811	13.1	.09	1.06	1.8
TOTAL	100.0	100.0	10830	20.3	.23	1.13	2.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	10.6	12.8	13078	3.8	.04	1.18	1.8
FLOAT-1.60	80.6	87.8	11797	13.2	.07	1.03	1.7
TOTAL	100.0	100.0	10830	20.3	.26	1.17	2.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: FRANKLIN
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.1	9.0	14860	3.3	.59	1.50	2.0
FLOAT-1.40	88.3	91.8	13853	9.8	1.37	2.18	3.1
FLOAT-1.60	92.7	95.9	13791	10.2	1.50	2.31	3.3
TOTAL	100.0	100.0	13327	13.2	2.03	2.80	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.6	13.1	14876	3.2	.51	1.42	1.9
FLOAT-1.40	70.2	74.6	13977	9.0	1.02	1.97	2.8
FLOAT-1.60	92.9	96.0	13590	11.5	1.63	2.49	3.7
TOTAL	100.0	100.0	13156	14.3	2.18	3.01	4.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.3	19.6	14922	2.9	.35	1.25	1.7
FLOAT-1.40	64.9	70.2	14272	7.1	.71	1.54	2.2
FLOAT-1.60	89.3	93.3	13791	10.2	1.14	1.96	2.8
TOTAL	100.0	100.0	13203	14.0	2.27	3.06	4.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: FRANKLIN
RAW COAL MOISTURE: 1.3 %
CUMULATIVE WASHABILITY DATA

BENCH: MIDDLE

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.9	4.3	14978	2.1	.04	1.09	1.5
FLOAT-1.40	76.0	79.0	13969	8.6	.06	1.07	1.5
FLOAT-1.60	97.0	98.5	13643	10.7	.17	1.14	1.7
TOTAL	100.0	100.0	13441	12.0	.23	1.18	1.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.9	6.6	14962	2.2	.05	1.33	1.8
FLOAT-1.40	77.9	80.9	13969	8.6	.07	.97	1.4
FLOAT-1.60	96.8	98.3	13659	10.6	.17	1.07	1.6
TOTAL	100.0	100.0	13457	11.9	.24	1.13	1.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.9	5.5	15086	1.4	.03	1.05	1.4
FLOAT-1.40	61.6	65.6	14326	6.3	.08	.99	1.4
FLOAT-1.60	92.8	95.5	13845	9.4	.13	1.10	1.6
TOTAL	100.0	100.0	13457	11.9	.26	1.20	1.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: FRANKLIN
RAW COAL MOISTURE: .7 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.5	6.3	14981	2.7	.55	1.59	2.1
FLOAT-1.40	69.2	73.6	14012	8.9	1.42	2.28	3.3
FLOAT-1.60	91.1	94.7	13684	11.0	2.01	2.85	4.2
TOTAL	100.0	100.0	13168	14.3	2.97	3.80	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.3	10.5	14950	2.9	.49	1.50	2.0
FLOAT-1.40	70.8	75.7	14137	8.1	1.21	2.10	3.0
FLOAT-1.60	90.6	94.3	13777	10.4	1.73	2.56	3.7
TOTAL	100.0	100.0	13230	13.9	2.87	3.74	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.4	13.1	15091	2.0	.20	1.23	1.6
FLOAT-1.40	61.5	67.5	14434	6.2	.71	1.70	2.4
FLOAT-1.60	87.3	92.0	13856	9.9	1.44	2.40	3.5
TOTAL	100.0	100.0	13152	14.4	2.95	4.01	6.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: FRANKLIN
RAW COAL MOISTURE: .8 %
CUMULATIVE WASHABILITY DATA

BENCH: FIRST

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	2.2	2.8	14675	2.9	.54	1.60	2.2
FLOAT-1.40	22.0	25.5	13361	11.7	1.21	2.11	3.2
FLOAT-1.60	80.5	86.3	12360	18.4	1.94	2.79	4.5
TOTAL	100.0	100.0	11524	24.0	2.23	3.13	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.0	6.3	14630	3.2	.55	1.79	2.4
FLOAT-1.40	31.5	37.1	13585	10.2	1.13	2.09	3.1
FLOAT-1.60	77.1	84.1	12569	17.0	1.72	2.54	4.0
TOTAL	100.0	100.0	11524	24.0	2.15	2.99	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	6.4	8.1	14541	3.8	.42	1.41	1.9
FLOAT-1.40	35.5	43.2	13943	7.8	.65	1.66	2.4
FLOAT-1.60	70.7	79.9	12957	14.4	.97	1.76	2.7
TOTAL	100.0	100.0	11464	24.4	2.13	2.95	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: FRANKLIN
RAW COAL MOISTURE: .6 %
CUMULATIVE WASHABILITY DATA

BENCH: SECOND

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.6	8.4	14872	3.4	.62	1.45	1.9
FLOAT-1.40	70.9	74.1	13995	9.1	1.49	2.28	3.3
FLOAT-1.60	95.2	96.7	13611	11.6	2.06	2.84	4.2
TOTAL	100.0	100.0	13396	13.0	2.60	3.36	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.9	12.1	14918	3.1	.54	1.39	1.9
FLOAT-1.40	72.7	76.4	14072	8.6	1.19	2.02	2.9
FLOAT-1.60	93.7	95.9	13703	11.0	1.68	2.49	3.6
TOTAL	100.0	100.0	13396	13.0	2.46	3.21	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.1	13.5	14933	3.0	.45	1.37	1.8
FLOAT-1.40	63.5	67.4	14242	7.5	.71	1.56	2.2
FLOAT-1.60	91.5	94.6	13872	9.9	1.14	1.92	2.8
TOTAL	100.0	100.0	13411	12.9	2.58	3.37	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: FRANKLIN
RAW COAL MOISTURE: .8 %
CUMULATIVE WASHABILITY DATA

BENCH: THIRD

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.1	5.8	14806	3.1	.58	1.49	2.0
FLOAT-1.40	72.0	76.2	13761	10.0	1.46	2.33	3.4
FLOAT-1.60	91.6	95.0	13489	11.8	1.98	2.83	4.2
TOTAL	100.0	100.0	13004	15.0	2.50	3.34	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.1	10.2	14760	3.4	.56	1.50	2.0
FLOAT-1.40	69.0	73.1	13882	9.2	1.30	2.15	3.1
FLOAT-1.60	90.8	94.8	13685	10.5	1.82	2.54	3.7
TOTAL	100.0	100.0	13110	14.3	2.67	3.32	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.2	16.2	14912	2.4	.26	1.14	1.5
FLOAT-1.40	61.3	66.6	14170	7.3	.76	1.59	2.2
FLOAT-1.60	87.9	92.7	13746	10.1	1.14	1.86	2.7
TOTAL	100.0	100.0	13035	14.8	2.73	3.36	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: FRANKLIN
RAW COAL MOISTURE: .7 %
CUMULATIVE WASHABILITY DATA

BENCH: FOURTH

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	2.0	2.7	14623	2.8	.52	1.57	2.1
FLOAT-1.40	21.5	26.0	13235	12.1	2.00	2.78	4.2
FLOAT-1.60	80.7	89.6	12160	19.3	3.21	3.86	6.3
TOTAL	100.0	100.0	10951	27.4	3.37	3.99	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.9	5.2	14579	3.1	.58	1.62	2.2
FLOAT-1.40	28.2	34.4	13414	10.9	1.54	2.44	3.6
FLOAT-1.60	77.1	86.4	12309	18.3	2.77	3.46	5.6
TOTAL	100.0	100.0	10981	27.2	3.47	4.09	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.4	9.7	14594	3.0	.38	1.34	1.8
FLOAT-1.40	30.4	37.5	13758	8.6	.92	1.91	2.8
FLOAT-1.60	70.3	80.7	12787	15.1	1.26	2.01	3.1
TOTAL	100.0	100.0	11145	26.1	3.32	3.94	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: BARTON
RAW COAL MOISTURE: 1.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.8	4.3	14911	2.1	.20	1.09	1.5
FLOAT-1.40	60.0	64.5	14270	6.3	.30	1.10	1.5
FLOAT-1.60	94.1	96.4	13598	10.7	.62	1.38	2.0
TOTAL	100.0	100.0	13278	12.8	.88	1.65	2.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	6.7	7.5	14881	2.3	.19	1.06	1.4
FLOAT-1.40	62.5	67.3	14316	6.0	.23	1.05	1.5
FLOAT-1.60	92.1	94.9	13690	10.1	.40	1.19	1.7
TOTAL	100.0	100.0	13293	12.7	.85	1.63	2.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	6.7	7.6	14896	2.2	.18	1.14	1.5
FLOAT-1.40	61.3	67.0	14453	5.1	.21	1.04	1.4
FLOAT-1.60	88.7	93.0	13858	9.0	.33	1.13	1.6
TOTAL	100.0	100.0	13216	13.2	.94	1.72	2.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: BARTON
RAW COAL MOISTURE: 5.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.1	.1	13767	3.4	.02	.51	.7
FLOAT-1.40	31.9	35.3	13626	4.4	.02	.41	.6
FLOAT-1.60	88.9	92.6	12820	10.1	.03	.39	.6
TOTAL	100.0	100.0	12312	13.7	.03	.39	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.4	.4	13739	3.6	.01	.48	.7
FLOAT-1.40	35.8	39.7	13668	4.1	.01	.43	.6
FLOAT-1.60	88.4	92.2	12834	10.0	.01	.35	.5
TOTAL	100.0	100.0	12312	13.7	.02	.34	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	32.1	36.0	13781	3.3	.01	.50	.7
FLOAT-1.60	84.5	89.3	12990	8.9	.01	.39	.6
TOTAL	100.0	100.0	12298	13.8	.02	.39	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: HARLEM
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.0	10.4	14991	2.9	.47	1.39	1.9
FLOAT-1.40	59.8	65.6	14191	8.1	1.19	2.04	2.9
FLOAT-1.60	85.3	90.6	13745	11.0	1.66	2.61	3.8
TOTAL	100.0	100.0	12944	16.2	2.28	3.16	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.6	12.5	14991	2.9	.41	1.26	1.7
FLOAT-1.40	57.9	65.1	14268	7.6	1.00	1.78	2.5
FLOAT-1.60	78.9	85.9	13822	10.5	1.61	2.24	3.2
TOTAL	100.0	100.0	12698	17.8	2.46	3.13	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.7	18.2	14991	2.9	.35	1.19	1.6
FLOAT-1.40	57.0	63.9	14514	6.0	.64	1.47	2.0
FLOAT-1.60	82.7	89.2	13960	9.6	1.05	1.78	2.6
TOTAL	100.0	100.0	12944	16.2	2.33	3.06	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: BAKERSTOWN
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	6.2	7.8	15006	2.1	.24	1.09	1.5
FLOAT-1.40	40.3	47.3	14089	8.1	.93	1.72	2.4
FLOAT-1.60	80.5	86.7	12911	15.8	1.29	1.97	3.1
TOTAL	100.0	100.0	11993	21.8	2.00	2.61	4.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.6	11.7	15006	2.1	.26	1.08	1.4
FLOAT-1.40	47.0	54.4	14211	7.3	.74	1.54	2.2
FLOAT-1.60	82.9	88.8	13156	14.2	1.11	1.82	2.8
TOTAL	100.0	100.0	12284	19.9	1.93	2.53	4.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.7	13.3	14976	2.3	.19	1.06	1.4
FLOAT-1.40	36.8	44.3	14456	5.7	.55	1.38	1.9
FLOAT-1.60	72.8	81.8	13492	12.0	.88	1.65	2.4
TOTAL	100.0	100.0	12009	21.7	2.06	2.72	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: LOWER BAKERSTOWN
RAW COAL MOISTURE: .8 %
CUMULATIVE WASHABILITY DATA

BENCH: TOP

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.4	13.3	15088	2.2	.24	.99	1.3
FLOAT-1.40	50.5	56.8	14513	5.9	.65	1.28	1.8
FLOAT-1.60	74.4	80.4	13938	9.6	2.38	2.94	4.2
TOTAL	100.0	100.0	12897	16.3	5.44	6.16	9.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	18.6	21.6	15103	2.1	.24	.85	1.1
FLOAT-1.40	62.7	70.3	14606	5.3	.61	1.26	1.7
FLOAT-1.60	76.4	83.6	14249	7.6	1.29	1.96	2.8
TOTAL	100.0	100.0	13021	15.5	5.30	6.11	9.4
EPA STANDARD	25.5	29.3	15041	2.6	.28	.90	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.5	15.8	15165	1.7	.12	.70	.9
FLOAT-1.40	62.5	71.0	14761	4.3	.45	1.05	1.4
FLOAT-1.60	79.0	88.0	14466	6.2	.73	1.30	1.8
TOTAL	100.0	100.0	12990	15.7	5.45	6.12	9.4
EPA STANDARD	44.5	51.0	14941	3.2	.30	.90	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: LOWER BAKERSTOWN
RAW COAL MOISTURE: .9 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.3	11.2	15220	1.9	.10	.67	.9
FLOAT-1.40	75.7	79.4	14701	5.3	.66	1.15	1.6
FLOAT-1.60	92.9	95.3	14381	7.4	1.15	1.62	2.3
TOTAL	100.0	100.0	14015	9.8	2.17	2.62	3.7
EPA STANDARD	46.8	49.6	14978	3.7	.37	.90	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.4	15.6	15250	1.7	.09	.72	.9
FLOAT-1.40	77.2	81.1	14793	4.7	.37	1.14	1.5
FLOAT-1.60	91.7	94.6	14518	6.5	.69	1.44	2.0
TOTAL	100.0	100.0	14076	9.4	2.10	2.86	4.1
EPA STANDARD	47.4	50.3	15054	3.1	.19	.90	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.1	12.1	15296	1.4	.04	.63	.8
FLOAT-1.40	73.9	78.3	14915	3.9	.22	.86	1.2
FLOAT-1.60	91.3	94.9	14625	5.8	.38	1.02	1.4
TOTAL	100.0	100.0	14076	9.4	2.20	2.78	4.0
EPA STANDARD	79.2	83.6	14859	4.3	.25	.89	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.2	10.8	14838	2.6	.24	1.14	1.5
FLOAT-1.40	33.8	37.0	13779	9.6	.87	1.66	2.4
FLOAT-1.60	94.4	96.2	12826	15.9	1.50	2.24	3.5
TOTAL	100.0	100.0	12584	17.5	1.98	2.68	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.5	12.5	14763	3.1	.20	1.12	1.5
FLOAT-1.40	43.3	48.0	13810	9.4	.52	1.35	2.0
FLOAT-1.60	88.7	92.0	12917	15.3	1.03	1.78	2.8
TOTAL	100.0	100.0	12448	18.4	2.13	2.82	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.3	15.6	14793	2.9	.24	1.14	1.5
FLOAT-1.40	46.5	52.0	14097	7.5	.31	1.20	1.7
FLOAT-1.60	87.1	91.1	13189	13.5	.50	1.31	2.0
TOTAL	100.0	100.0	12615	17.3	1.99	2.78	4.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.5	10.1	14922	2.8	.19	.95	1.3
FLOAT-1.40	68.5	77.1	14172	7.7	.79	1.46	2.1
FLOAT-1.60	83.0	91.5	13881	9.6	1.12	1.80	2.6
TOTAL	100.0	100.0	12595	18.0	1.49	2.10	3.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.7	13.8	14876	3.1	.23	.97	1.3
FLOAT-1.40	69.8	78.6	14202	7.5	.69	1.29	1.8
FLOAT-1.60	83.7	92.4	13927	9.3	.97	1.58	2.3
TOTAL	100.0	100.0	12610	17.9	1.40	1.94	3.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.3	17.0	14998	2.3	.15	.73	1.0
FLOAT-1.40	59.2	67.8	14447	5.9	.37	1.17	1.6
FLOAT-1.60	80.8	89.8	14018	8.7	.71	1.49	2.1
TOTAL	100.0	100.0	12610	17.9	1.45	2.11	3.3
EPA STANDARD	32.3	37.7	14805	3.6	.20	.89	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.3	8.4	15068	2.0	.03	.71	.9
FLOAT-1.40	67.8	73.8	14273	7.2	.16	.75	1.1
FLOAT-1.60	89.3	94.0	13799	10.3	.31	.90	1.3
TOTAL	100.0	100.0	13111	14.8	.55	1.13	1.7
EPA STANDARD	80.4	85.7	13994	9.0	.27	.83	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.5	9.6	14915	3.0	.15	.79	1.1
FLOAT-1.40	69.0	75.2	14349	6.7	.16	.75	1.0
FLOAT-1.60	88.6	93.5	13906	9.6	.23	.82	1.2
TOTAL	100.0	100.0	13172	14.4	.56	1.14	1.7
EPA STANDARD	91.0	95.8	13878	10.0	.24	.83	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.7	11.1	15129	1.6	.03	.61	.8
FLOAT-1.40	62.4	68.8	14548	5.4	.09	.67	.9
FLOAT-1.60	86.8	92.3	14044	8.7	.13	.72	1.0
TOTAL	100.0	100.0	13202	14.2	.55	1.09	1.7
EPA STANDARD	90.5	94.5	13809	12.7	.22	.81	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.6	23.0	15016	2.8	.03	.54	.7
FLOAT-1.40	70.6	76.6	14592	5.6	.19	.69	.9
FLOAT-1.60	88.9	93.6	14167	8.4	.25	.73	1.0
TOTAL	100.0	100.0	13455	13.1	.49	.95	1.4
EPA STANDARD	93.8	96.4	13851	12.1	.36	.82	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.3	26.9	15061	2.5	.03	.59	.8
FLOAT-1.40	73.4	78.9	14637	5.3	.09	.61	.8
FLOAT-1.60	90.4	94.4	14228	8.0	.13	.64	.9
TOTAL	100.0	100.0	13622	12.0	.47	.96	1.4
EPA STANDARD	96.1	97.7	13871	10.4	.32	.81	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.1	28.9	15077	2.4	.03	.54	.7
FLOAT-1.40	67.5	73.0	14728	4.7	.03	.61	.8
FLOAT-1.60	90.0	94.4	14289	7.6	.04	.57	.8
TOTAL	100.0	100.0	13622	12.0	.50	1.00	1.5
EPA STANDARD	96.0	97.8	13889	10.2	.15	.94	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .9 %
CUMULATIVE WASHABILITY DATA

BENCH: TOP

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.6	5.5	14771	2.3	.09	.79	1.1
FLOAT-1.40	44.8	50.8	13900	8.1	.32	.97	1.4
FLOAT-1.60	74.2	80.7	13315	12.0	1.23	1.80	2.7
TOTAL	100.0	100.0	12249	19.1	4.93	5.50	9.0
EPA STANDARD	22.2	25.5	14423	4.8	.18	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.4	6.3	14321	5.3	.29	.96	1.3
FLOAT-1.40	51.2	58.2	13900	8.1	.44	1.07	1.5
FLOAT-1.60	75.0	82.3	13405	11.4	.81	1.42	2.1
TOTAL	100.0	100.0	12219	19.3	4.91	5.55	9.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.2	10.0	14861	1.7	.03	.68	.9
FLOAT-1.40	49.0	57.5	14230	5.9	.18	.82	1.2
FLOAT-1.60	76.2	85.3	13585	10.2	.39	1.02	1.5
TOTAL	100.0	100.0	12129	19.9	5.17	5.86	9.7
EPA STANDARD	55.0	64.2	14143	6.6	.21	.85	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .8 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	2.6	3.0	15146	1.8	.06	.77	1.0
FLOAT-1.40	68.4	74.3	14319	7.2	.69	1.31	1.8
FLOAT-1.60	87.8	93.3	14013	9.2	1.15	1.78	2.5
TOTAL	100.0	100.0	13186	14.6	1.83	2.41	3.7
EPA STANDARD	21.5	23.7	14960	3.3	.21	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.3	10.6	15177	1.6	.06	.81	1.1
FLOAT-1.40	71.4	77.6	14457	6.3	.49	1.17	1.6
FLOAT-1.60	87.7	93.3	14166	8.2	.87	1.54	2.2
TOTAL	100.0	100.0	13309	13.8	1.78	2.37	3.6
EPA STANDARD	28.4	31.4	15003	3.0	.17	.90	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.9	13.7	15131	1.9	.06	.75	1.0
FLOAT-1.40	67.2	74.4	14564	5.6	.28	.94	1.3
FLOAT-1.60	85.4	92.0	14166	8.2	.54	1.26	1.8
TOTAL	100.0	100.0	13156	14.8	1.92	2.55	3.9
EPA STANDARD	54.0	60.0	14736	4.6	.22	.88	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.3	28.1	14918	3.4	.10	.61	.8
FLOAT-1.40	77.4	86.4	14422	6.6	.37	.89	1.2
FLOAT-1.60	86.0	94.9	14252	7.7	.69	1.20	1.7
TOTAL	100.0	100.0	12920	16.3	1.18	1.62	2.5
EPA STANDARD	74.7	83.4	14463	6.4	.35	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.2	43.7	14933	3.3	.08	.60	.8
FLOAT-1.40	75.4	85.8	14469	6.3	.29	.80	1.1
FLOAT-1.60	84.1	94.3	14267	7.6	.53	1.04	1.5
TOTAL	100.0	100.0	12719	17.6	1.15	1.57	2.5
EPA STANDARD	81.5	92.3	14415	6.9	.35	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.6	43.9	14980	3.0	.09	.64	.9
FLOAT-1.40	74.3	84.3	14562	5.7	.23	.77	1.1
FLOAT-1.60	84.6	94.3	14298	7.4	.44	.97	1.4
TOTAL	100.0	100.0	12827	16.9	1.23	1.67	2.6
EPA STANDARD	79.2	89.1	14436	6.8	.33	.86	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: LOWER FREEPORT
RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.2	4.9	14862	3.3	.34	1.09	1.5
FLOAT-1.40	64.4	72.1	14202	7.6	.61	1.31	1.8
FLOAT-1.60	80.2	87.8	13880	9.7	1.21	1.90	2.7
TOTAL	100.0	100.0	12683	17.5	3.57	4.21	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.7	5.6	14984	2.5	.22	.83	1.1
FLOAT-1.40	69.4	78.0	14233	7.4	.58	1.22	1.7
FLOAT-1.60	79.6	88.0	14002	8.9	.81	1.44	2.1
TOTAL	100.0	100.0	12668	17.6	3.52	4.02	6.3
EPA STANDARD	18.4	21.1	14870	3.4	.27	.89	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.5	11.3	15015	2.3	.23	1.02	1.4
FLOAT-1.40	60.0	68.6	14447	6.0	.40	1.06	1.5
FLOAT-1.60	80.6	89.8	14079	8.4	.61	1.25	1.8
TOTAL	100.0	100.0	12637	17.8	3.67	4.21	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: UPPER KITTANNING
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.7	14.6	14659	3.1	.07	.67	.9
FLOAT-1.40	72.5	78.9	13903	8.1	.09	.64	.9
FLOAT-1.60	90.4	95.3	13464	11.0	.07	.66	1.0
FLOAT-1.90	95.4	98.7	13207	12.7	.07	.66	1.0
TOTAL	100.0	100.0	12768	15.6	.13	.70	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.3	15.3	14689	2.9	.10	.68	.9
FLOAT-1.40	64.0	70.6	14099	6.8	.11	.68	1.0
FLOAT-1.60	88.9	94.1	13525	10.6	.08	.65	1.0
FLOAT-1.90	94.9	98.3	13237	12.5	.08	.64	1.0
TOTAL	100.0	100.0	12784	15.5	.14	.69	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.9	11.4	14674	3.0	.14	.62	.8
FLOAT-1.40	55.9	62.5	14281	5.6	.11	.69	1.0
FLOAT-1.60	85.9	92.0	13676	9.6	.07	.66	1.0
FLOAT-1.90	94.1	97.9	13283	12.2	.07	.66	1.0
TOTAL	100.0	100.0	12768	15.6	.14	.73	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: UPPER KITTANNING
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.4	6.2	15164	1.8	.08	.76	1.0
FLOAT-1.40	69.1	75.3	14424	6.6	.56	1.23	1.7
FLOAT-1.60	87.2	93.1	14132	8.5	1.22	1.94	2.7
TOTAL	100.0	100.0	13239	14.3	2.83	3.55	5.4
EPA STANDARD	27.5	30.3	14956	3.4	.22	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.0	9.1	15133	2.0	.06	.91	1.2
FLOAT-1.40	74.5	80.8	14471	6.3	.44	1.20	1.7
FLOAT-1.60	86.5	92.5	14270	7.6	.83	1.60	2.2
TOTAL	100.0	100.0	13346	13.6	2.71	3.53	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.2	8.2	15133	2.0	.06	1.05	1.4
FLOAT-1.40	67.4	73.8	14640	5.2	.32	1.21	1.7
FLOAT-1.60	87.0	93.3	14332	7.2	.66	1.33	1.9
TOTAL	100.0	100.0	13362	13.5	2.96	3.69	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 1.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.1	22.6	14635	4.1	.09	.80	1.1
FLOAT-1.40	76.1	82.3	14100	7.6	.39	1.08	1.5
FLOAT-1.60	88.8	93.9	13779	9.7	.63	1.30	1.9
TOTAL	100.0	100.0	13030	14.6	1.20	1.86	2.9
EPA STANDARD	37.8	41.8	14505	5.0	.16	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.6	35.7	14666	3.9	.09	.74	1.0
FLOAT-1.40	76.4	83.7	14238	6.7	.24	.93	1.3
FLOAT-1.60	87.2	93.6	13948	8.6	.43	1.09	1.6
TOTAL	100.0	100.0	13000	14.8	1.18	1.80	2.8
EPA STANDARD	64.4	71.0	14391	5.8	.18	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.4	35.8	14773	3.2	.09	.77	1.0
FLOAT-1.40	71.6	79.6	14421	5.5	.12	.79	1.1
FLOAT-1.60	86.1	93.1	14024	8.1	.33	1.04	1.5
TOTAL	100.0	100.0	12969	15.0	1.23	1.90	2.9
EPA STANDARD	75.5	83.3	14314	6.2	.18	.84	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 6.0 %
CUMULATIVE WASHABILITY DATA

BENCH: TOP

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	24.7	27.8	13422	3.1	.01	.51	.8
FLOAT-1.60	87.2	90.4	12375	10.7	.01	.45	.7
TOTAL	100.0	100.0	11935	13.9	.01	.44	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	26.5	29.7	13477	2.7	.01	.52	.8
FLOAT-1.60	84.7	88.7	12582	9.2	.02	.41	.7
TOTAL	100.0	100.0	12017	13.3	.02	.39	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	19.3	21.7	13532	2.3	.01	.52	.8
FLOAT-1.60	79.9	84.7	12761	7.9	.01	.46	.7
TOTAL	100.0	100.0	12031	13.2	.02	.43	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 5.0 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	27.1	29.9	13578	5.4	.01	.55	.8
FLOAT-1.60	88.7	91.5	12674	11.7	.01	.49	.8
TOTAL	100.0	100.0	12287	14.4	.02	.46	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	32.8	36.4	13635	5.0	.01	.55	.8
FLOAT-1.60	85.4	89.0	12803	10.8	.01	.49	.8
TOTAL	100.0	100.0	12287	14.4	.03	.45	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	29.7	33.6	13836	3.6	.01	.52	.8
FLOAT-1.60	81.4	86.4	12990	9.5	.01	.52	.8
TOTAL	100.0	100.0	12244	14.7	.03	.51	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: MISSOURI
COUNTY: BOONE

COALBED: BEVIER
RAW COAL MOISTURE: 1.4 %
CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	42.2	49.9	13612	5.2	.90	3.06	4.5
FLOAT-1.40	67.2	77.9	13325	7.2	1.21	3.34	5.0
FLOAT-1.60	80.2	90.6	12995	9.5	1.71	3.81	5.9
FLOAT-1.90	87.2	95.7	12621	12.1	2.13	4.20	6.7
TOTAL	100.0	100.0	11501	19.9	2.93	4.88	8.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	38.4	46.3	13856	3.5	.64	2.93	4.2
FLOAT-1.40	64.8	76.8	13627	5.1	.87	3.08	4.5
FLOAT-1.60	78.0	90.1	13282	7.5	1.22	3.40	5.1
FLOAT-1.90	83.8	94.5	12966	9.7	1.53	3.70	5.7
TOTAL	100.0	100.0	11501	19.9	2.82	4.82	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	23.1	28.4	14014	2.4	.53	2.70	3.9
FLOAT-1.40	56.5	68.1	13742	4.3	.77	2.91	4.2
FLOAT-1.60	74.8	87.4	13325	7.2	1.06	3.17	4.8
FLOAT-1.90	81.8	93.2	12995	9.5	1.30	3.41	5.2
TOTAL	100.0	100.0	11401	20.6	2.92	4.96	8.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MISSOURI
COUNTY: MACON
COALBED: BEVIER
RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.2	68.2	13074	6.0	.73	3.19	4.9
FLOAT-1.40	74.0	85.8	12935	7.0	.97	3.39	5.2
FLOAT-1.60	81.4	93.0	12741	8.4	1.29	3.68	5.8
FLOAT-1.90	87.2	96.9	12393	10.9	1.64	3.95	6.4
TOTAL	100.0	100.0	11155	19.8	2.10	4.17	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.9	61.5	13325	4.2	.50	3.14	4.7
FLOAT-1.40	73.9	86.9	13213	5.0	.66	3.28	5.0
FLOAT-1.60	79.0	91.9	13074	6.0	.81	3.41	5.2
FLOAT-1.90	83.5	95.5	12852	7.6	.94	3.48	5.4
TOTAL	100.0	100.0	11238	19.2	1.95	4.16	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.2	47.2	13436	3.4	.40	3.08	4.6
FLOAT-1.40	71.2	84.4	13227	4.9	.58	3.24	4.9
FLOAT-1.60	78.3	91.6	13047	6.2	.73	3.34	5.1
FLOAT-1.90	81.2	93.8	12880	7.4	.82	3.40	5.3
TOTAL	100.0	100.0	11155	19.8	2.08	4.34	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MISSOURI
COUNTY: RANDOLPH
COALBED: BEVIER
RAW COAL MOISTURE: 5.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.6	51.4	13403	4.1	.65	3.11	4.6
FLOAT-1.40	56.7	75.5	13062	6.5	1.31	3.73	5.7
FLOAT-1.60	70.0	90.6	12693	9.1	2.23	4.00	6.3
TOTAL	100.0	100.0	9812	29.4	3.10	4.97	10.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.4	47.9	13545	3.1	.53	2.98	4.4
FLOAT-1.40	54.1	73.8	13261	5.1	1.10	3.56	5.4
FLOAT-1.60	67.9	89.3	12792	8.4	1.93	4.26	6.7
TOTAL	100.0	100.0	9727	30.0	3.09	4.91	10.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.0	40.3	13658	2.3	.34	2.93	4.3
FLOAT-1.40	49.5	67.8	13459	3.7	.56	3.20	4.8
FLOAT-1.60	63.2	84.6	13147	5.9	1.39	3.62	5.5
TOTAL	100.0	100.0	9826	29.3	3.00	4.83	9.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MISSOURI
COUNTY: VERNON

COALBED: CROWEBURG
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.2	44.1	13920	5.2	1.02	2.47	3.5
FLOAT-1.40	71.5	78.7	13625	7.2	1.49	2.93	4.3
FLOAT-1.60	85.3	91.6	13299	9.4	1.86	3.28	4.9
TOTAL	100.0	100.0	12383	15.6	2.99	4.37	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.2	62.1	14068	4.2	1.02	2.35	3.3
FLOAT-1.40	76.7	85.0	13861	5.6	1.45	2.79	4.0
FLOAT-1.60	83.4	91.4	13699	6.7	1.72	3.07	4.5
TOTAL	100.0	100.0	12501	14.8	2.97	4.25	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.5	54.3	14157	3.6	.84	2.21	3.1
FLOAT-1.40	74.5	83.7	13905	5.3	1.31	2.68	3.9
FLOAT-1.60	81.8	90.9	13758	6.3	1.55	2.92	4.2
TOTAL	100.0	100.0	12383	15.6	2.95	4.29	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MISSOURI
COUNTY: VERNON

COALBED: FLEMING
RAW COAL MOISTURE: 2.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.5	28.6	13899	4.7	1.63	3.45	5.0
FLOAT-1.40	78.6	82.3	13485	7.6	2.40	4.21	6.2
FLOAT-1.60	92.0	94.9	13285	9.0	3.18	5.04	7.6
TOTAL	100.0	100.0	12885	11.8	4.29	6.17	9.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.7	41.8	13985	4.1	1.46	3.42	4.9
FLOAT-1.40	79.4	83.5	13628	6.6	2.26	4.27	6.3
FLOAT-1.60	89.7	93.3	13471	7.7	2.90	4.95	7.3
TOTAL	100.0	100.0	12957	11.3	4.11	6.13	9.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.8	47.8	14085	3.4	1.09	3.11	4.4
FLOAT-1.40	75.8	80.9	13771	5.6	1.81	3.93	5.7
FLOAT-1.60	87.6	92.3	13585	6.9	2.42	4.53	6.7
TOTAL	100.0	100.0	12900	11.7	4.16	6.19	9.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MISSOURI
COUNTY: HENRY

COALBED: TEBO
RAW COAL MOISTURE: 4.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.9	43.1	13162	6.3	.50	3.11	4.7
FLOAT-1.40	70.1	80.4	12923	8.0	.92	3.57	5.5
FLOAT-1.60	80.3	90.6	12713	9.5	1.21	3.85	6.1
TOTAL	100.0	100.0	11267	19.8	2.88	5.28	9.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.2	49.4	13204	6.0	.54	3.10	4.7
FLOAT-1.40	69.8	80.5	13007	7.4	.86	3.46	5.3
FLOAT-1.60	79.6	90.3	12797	8.9	1.16	3.73	5.8
TOTAL	100.0	100.0	11281	19.7	2.94	5.30	9.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.4	35.7	13274	5.5	.55	3.22	4.9
FLOAT-1.40	64.8	75.2	13106	6.7	.60	3.31	5.1
FLOAT-1.60	78.8	89.5	12825	8.7	1.04	3.62	5.6
TOTAL	100.0	100.0	11295	19.6	2.88	5.40	9.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MISSOURI
COUNTY: HENRY

COALBED: TEBO
RAW COAL MOISTURE: 1.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.2	45.9	13200	7.8	.48	2.38	3.6
FLOAT-1.40	75.0	81.6	12900	9.9	.81	2.65	4.1
FLOAT-1.60	85.3	91.5	12713	11.2	1.08	2.86	4.5
FLOAT-1.90	90.3	95.4	12527	12.5	1.29	3.02	4.8
TOTAL	100.0	100.0	11854	17.2	3.23	4.87	8.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.9	53.9	13415	6.3	.43	2.37	3.5
FLOAT-1.40	74.0	81.5	13129	8.3	.66	2.57	3.9
FLOAT-1.60	84.3	91.4	12928	9.7	.93	2.78	4.3
FLOAT-1.90	89.1	95.2	12742	11.0	1.10	2.90	4.6
TOTAL	100.0	100.0	11926	16.7	2.80	4.51	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.1	55.9	13501	5.7	.35	2.30	3.4
FLOAT-1.40	69.5	78.0	13300	7.1	.51	2.43	3.7
FLOAT-1.60	81.7	90.1	13071	8.7	.71	2.58	3.9
FLOAT-1.90	86.3	93.9	12900	9.9	.84	2.65	4.1
TOTAL	100.0	100.0	11854	17.2	2.96	4.65	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MISSOURI
COUNTY: BARTON

COALBED: KNIFETON
RAW COAL MOISTURE: 2.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	1.8	2.0	14238	4.7	.94	1.94	2.7
FLOAT-1.40	70.0	73.1	13178	12.0	2.38	3.36	5.1
FLOAT-1.60	94.8	97.1	12916	13.8	3.02	3.97	6.1
TOTAL	100.0	100.0	12611	15.9	3.66	4.58	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.3	9.4	14253	4.6	.87	1.84	2.6
FLOAT-1.40	69.0	73.1	13294	11.2	1.89	2.84	4.3
FLOAT-1.60	93.2	96.1	12945	13.6	2.56	3.50	5.4
TOTAL	100.0	100.0	12553	16.3	3.51	4.40	7.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.0	17.1	14282	4.4	.79	1.84	2.6
FLOAT-1.40	65.3	70.2	13497	9.8	1.54	2.62	3.9
FLOAT-1.60	88.4	92.4	13120	12.4	2.04	3.10	4.7
TOTAL	100.0	100.0	12553	16.3	3.65	4.68	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MISSOURI
COUNTY: BARTON

COALBED: ROWE
RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.8	10.8	14045	4.9	1.19	2.37	3.4
FLOAT-1.40	54.3	63.0	13292	10.0	2.87	4.10	6.2
FLOAT-1.60	82.9	93.3	12879	12.8	4.03	5.27	8.2
TOTAL	100.0	100.0	11448	22.5	4.70	5.83	10.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.4	27.5	14119	4.4	.94	2.28	3.2
FLOAT-1.40	59.6	70.1	13514	8.5	2.11	3.40	5.0
FLOAT-1.60	80.5	91.9	13115	11.2	3.01	4.27	6.5
TOTAL	100.0	100.0	11492	22.2	4.21	5.34	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.4	25.3	14281	3.3	.68	1.96	2.7
FLOAT-1.40	54.4	64.8	13706	7.2	1.55	2.85	4.2
FLOAT-1.60	75.4	87.0	13278	10.1	2.42	3.71	5.6
TOTAL	100.0	100.0	11507	22.1	4.72	5.81	10.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MONTANA
COUNTY: ROSEBUD

COALBED: MCKAY
RAW COAL MOISTURE: 20.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	64.3	66.7	12184	5.0	.15	.39	.6
FLOAT-1.40	91.0	93.4	12049	5.9	.15	.41	.7
FLOAT-1.60	96.2	98.3	11990	6.3	.15	.42	.7
TOTAL	100.0	100.0	11736	8.0	1.20	1.49	2.5
EPA STANDARD	97.2	98.7	11921	6.8	.23	.68	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	55.5	57.9	12347	3.9	.11	.35	.6
FLOAT-1.40	83.9	86.8	12243	4.6	.11	.36	.6
FLOAT-1.60	96.2	98.4	12109	5.5	.12	.37	.6
TOTAL	100.0	100.0	11841	7.3	1.14	1.45	2.4
EPA STANDARD	97.4	98.9	12023	6.1	.40	.66	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	26.3	27.9	12437	3.3	.06	.59	.9
FLOAT-1.40	74.3	78.1	12318	4.1	.07	.46	.7
FLOAT-1.60	95.2	98.1	12079	5.7	.07	.48	.8
TOTAL	100.0	100.0	11722	8.1	1.26	1.67	2.8
EPA STANDARD	96.1	98.5	12009	6.2	.12	.66	1.20

STATE: MONTANA
COUNTY: ROSEBUD

COALBED: ROSEBUD
RAW COAL MOISTURE: 17.9 %
CUMULATIVE WASHABILITY DATA

BENCH: TOP

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	66.4	68.7	12138	5.7	.05	.44	.7
FLOAT-1.40	92.3	94.2	11973	6.8	.06	.44	.7
FLOAT-1.60	98.0	99.1	11867	7.5	.06	.45	.8
TOTAL	100.0	100.0	11732	8.4	.35	.75	1.3
EPA STANDARD	99.7	99.9	11752	8.3	.27	.70	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	49.2	51.1	12304	4.6	.05	.51	.8
FLOAT-1.40	83.8	86.2	12198	5.3	.07	.52	.9
FLOAT-1.60	97.8	99.0	12003	6.6	.07	.54	.9
TOTAL	100.0	100.0	11852	7.6	.33	.80	1.3
EPA STANDARD	99.3	99.7	11902	7.3	.19	.70	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	12.6	13.4	12319	4.5	.12	.62	1.0
FLOAT-1.40	78.2	81.8	12168	5.5	.11	.57	.9
FLOAT-1.60	95.9	98.5	11943	7.0	.12	.58	1.0
TOTAL	100.0	100.0	11627	9.1	.40	.90	1.5
EPA STANDARD	97.5	99.1	11817	7.8	.21	.67	1.20

STATE: MONTANA
COUNTY: ROSEBUD

COALBED: ROSEBUD
RAW COAL MOISTURE: 14.0 %
CUMULATIVE WASHABILITY DATA

BENCH: MIDDLE

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.0	65.7	12213	5.3	.03	.51	.8
FLOAT-1.40	88.9	91.7	12083	6.2	.03	.51	.8
FLOAT-1.60	97.5	99.2	11910	7.4	.04	.50	.8
TOTAL	100.0	100.0	11709	8.8	.23	.70	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.0	43.8	12314	4.6	.04	.65	1.1
FLOAT-1.40	76.8	79.6	12242	5.1	.04	.58	.9
FLOAT-1.60	96.5	98.4	12040	6.5	.04	.55	.9
TOTAL	100.0	100.0	11810	8.1	.22	.73	1.2
EPA STANDARD	99.6	99.8	11836	7.9	.18	.72	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.6	16.3	12300	4.7	.05	.50	.8
FLOAT-1.40	78.7	82.0	12271	4.9	.08	.53	.9
FLOAT-1.60	95.7	98.2	12083	6.2	.09	.55	.9
TOTAL	100.0	100.0	11781	8.3	.33	.80	1.4
EPA STANDARD	98.5	99.3	11888	7.6	.22	.70	1.20

STATE: MONTANA
COUNTY: ROSEBUD

COALBED: ROSEBUD
RAW COAL MOISTURE: 15.0 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.2	67.4	12132	5.1	.21	.46	.8
FLOAT-1.40	84.4	89.2	12011	6.0	.21	.51	.8
FLOAT-1.60	92.1	96.0	11850	7.2	.22	.53	.9
TOTAL	100.0	100.0	11368	10.8	1.39	1.72	3.0
EPA STANDARD	93.2	96.6	11781	7.7	.30	.67	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.9	52.3	12279	4.0	.12	.61	1.0
FLOAT-1.40	81.2	85.9	12145	5.0	.13	.63	1.0
FLOAT-1.60	92.3	96.4	11984	6.2	.14	.65	1.1
TOTAL	100.0	100.0	11475	10.0	1.25	1.75	3.1
EPA STANDARD	92.8	96.6	11954	8.9	.17	.70	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.7	24.5	12333	3.6	.07	.40	.6
FLOAT-1.40	76.1	81.6	12226	4.4	.07	.44	.7
FLOAT-1.60	91.1	95.9	12011	6.0	.09	.44	.7
TOTAL	100.0	100.0	11408	10.5	1.39	1.78	3.1
EPA STANDARD	92.8	96.7	11893	6.9	.72	.49	1.20

STATE: MONTANA
COUNTY: ROSEBUD

COALBED: ROSEBUD
RAW COAL MOISTURE: 18.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.3	61.8	12041	5.9	.06	.54	.9
FLOAT-1.40	88.8	91.5	11917	6.8	.07	.55	.9
FLOAT-1.60	96.3	98.1	11780	7.8	.09	.56	1.0
TOTAL	100.0	100.0	11560	9.4	.53	1.01	1.7
EPA STANDARD	97.5	98.7	11711	8.3	.26	.67	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.8	52.2	12178	4.9	.06	.48	.8
FLOAT-1.40	83.8	87.1	12068	5.7	.08	.51	.8
FLOAT-1.60	95.4	97.9	11917	6.8	.09	.52	.9
TOTAL	100.0	100.0	11615	9.0	.54	.98	1.7
EPA STANDARD	97.2	98.7	11796	7.7	.24	.67	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.7	20.9	12178	4.9	.08	.48	.8
FLOAT-1.40	75.1	79.1	12082	5.6	.10	.52	.9
FLOAT-1.60	94.5	97.8	11876	7.1	.10	.52	.9
TOTAL	100.0	100.0	11478	10.0	.46	.88	1.5
EPA STANDARD	97.2	98.9	11680	8.5	.19	.61	1.20

STATE: NEW MEXICO
COUNTY: MCKINLEY

COALBED: BLUE
RAW COAL MOISTURE: 7.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.6	71.8	12792	4.5	.08	.45	.7
FLOAT-1.40	76.9	83.3	12668	5.4	.07	.44	.7
FLOAT-1.60	90.8	94.4	12157	9.1	.08	.43	.7
TOTAL	100.0	100.0	11688	12.5	.13	.48	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.9	58.1	12847	4.1	.06	.42	.7
FLOAT-1.40	69.2	75.6	12792	4.5	.06	.42	.7
FLOAT-1.60	87.6	92.7	12378	7.5	.06	.43	.7
TOTAL	100.0	100.0	11702	12.4	.13	.48	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.4	28.3	13027	2.8	.05	.50	.8
FLOAT-1.40	59.5	66.0	12958	3.3	.04	.51	.8
FLOAT-1.60	86.5	92.2	12447	7.0	.04	.49	.8
TOTAL	100.0	100.0	11674	12.6	.11	.55	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: NEW MEXICO
COUNTY: MCKINLEY

COALBED: BLUE
RAW COAL MOISTURE: 11.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	85.8	86.9	13257	3.5	.04	.58	.9
FLOAT-1.40	98.6	98.9	13139	4.3	.05	.58	.9
FLOAT-1.60	99.7	99.8	13110	4.5	.05	.58	.9
TOTAL	100.0	100.0	13095	4.6	.06	.59	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	73.8	75.0	13316	3.1	.10	.54	.8
FLOAT-1.40	95.9	96.7	13198	3.9	.10	.54	.8
FLOAT-1.60	99.5	99.7	13124	4.4	.10	.53	.8
TOTAL	100.0	100.0	13095	4.6	.12	.55	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.9	68.2	13389	2.6	.07	.52	.8
FLOAT-1.40	94.3	95.4	13286	3.3	.08	.51	.8
FLOAT-1.60	99.3	99.6	13183	4.0	.08	.51	.8
TOTAL	100.0	100.0	13139	4.3	.10	.53	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: NEW MEXICO
COUNTY: MCKINLEY

COALBED: BLUE
RAW COAL MOISTURE: 8.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	81.8	84.3	13193	4.1	.09	.56	.8
FLOAT-1.40	93.9	95.9	13072	4.9	.10	.57	.9
FLOAT-1.60	98.7	99.4	12891	6.1	.10	.57	.9
TOTAL	100.0	100.0	12800	6.7	.19	.66	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.5	72.9	13254	3.7	.10	.64	1.0
FLOAT-1.40	91.2	93.5	13133	4.5	.10	.63	1.0
FLOAT-1.60	97.6	98.8	12967	5.6	.11	.62	1.0
TOTAL	100.0	100.0	12816	6.6	.23	.74	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.8	46.6	13375	2.9	.11	.47	.7
FLOAT-1.40	88.8	91.6	13254	3.7	.10	.48	.7
FLOAT-1.60	97.0	98.7	13072	4.9	.11	.49	.7
TOTAL	100.0	100.0	12846	6.4	.31	.68	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: NEW MEXICO
COUNTY: SAN JUAN

COALBED: NO. 8
RAW COAL MOISTURE: 10.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.1	31.5	12810	6.2	.13	.59	.9
FLOAT-1.40	74.4	82.0	12160	11.0	.14	.56	.9
FLOAT-1.60	90.1	96.0	11753	14.0	.18	.58	1.0
TOTAL	100.0	100.0	11035	19.3	.28	.64	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.7	26.7	12973	5.0	.11	.60	.9
FLOAT-1.40	69.3	77.5	12363	9.5	.12	.57	.9
FLOAT-1.60	87.9	94.7	11902	12.9	.14	.59	1.0
TOTAL	100.0	100.0	11049	19.2	.26	.65	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	18.2	21.5	13081	4.2	.10	.49	.7
FLOAT-1.40	60.6	69.1	12620	7.6	.10	.56	.9
FLOAT-1.60	85.8	93.6	12065	11.7	.10	.57	.9
TOTAL	100.0	100.0	11063	19.1	.24	.64	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: NEW MEXICO
COUNTY: SAN JUAN

COALBED: NO. 8
RAW COAL MOISTURE: 8.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.7	30.7	12889	6.2	.08	.65	1.0
FLOAT-1.40	70.5	80.0	12259	10.8	.13	.68	1.1
FLOAT-1.60	85.7	94.0	11848	13.8	.15	.68	1.1
TOTAL	100.0	100.0	10807	21.4	.29	.78	1.4
EPA STANDARD	88.2	95.0	11664	17.1	.18	.68	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.8	29.7	12958	5.7	.05	.69	1.1
FLOAT-1.40	66.5	76.0	12382	9.9	.10	.65	1.0
FLOAT-1.60	85.4	93.8	11903	13.4	.13	.66	1.1
TOTAL	100.0	100.0	10834	21.2	.26	.74	1.4
EPA STANDARD	90.6	96.0	11524	17.5	.18	.68	1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: NEW MEXICO
COUNTY: SAN JUAN

COALBED: NO. 8
RAW COAL MOISTURE: 8.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.9	41.4	12667	7.3	.13	.65	1.0
FLOAT-1.40	74.3	85.1	12216	10.6	.13	.63	1.0
FLOAT-1.60	83.4	93.4	11956	12.5	.14	.63	1.1
TOTAL	100.0	100.0	10671	21.9	.29	.71	1.3
EPA STANDARD	92.2	96.9	11278	20.7	.21	.65	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.0	38.1	12803	6.3	.11	.62	1.0
FLOAT-1.40	71.1	81.8	12366	9.5	.12	.62	1.0
FLOAT-1.60	83.1	93.2	12065	11.7	.15	.62	1.0
TOTAL	100.0	100.0	10753	21.3	.31	.72	1.3
EPA STANDARD	92.4	97.0	11339	21.1	.29	.65	1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: NEW MEXICO
COUNTY: SAN JUAN

COALBED: NO. 8
RAW COAL MOISTURE: 7.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.2	39.8	12725	6.7	.05	.64	1.0
FLOAT-1.40	69.2	79.9	12252	10.2	.08	.64	1.0
FLOAT-1.60	82.4	92.3	11887	12.9	.10	.64	1.1
TOTAL	100.0	100.0	10618	22.3	.17	.67	1.3
EPA STANDARD	94.1	97.4	11043	20.3	.16	.65	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.2	37.5	12860	5.7	.06	.68	1.1
FLOAT-1.40	62.4	72.7	12468	8.6	.06	.69	1.1
FLOAT-1.60	82.0	91.9	11995	12.1	.08	.66	1.1
TOTAL	100.0	100.0	10699	21.7	.16	.66	1.2
EPA STANDARD	95.4	98.0	11027	19.3	.09	.66	1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: NEW MEXICO
COUNTY: COLFAX

COALBED: YORK
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.6	59.1	14298	4.7	.04	.46	.6
FLOAT-1.40	90.5	92.7	14021	6.6	.04	.46	.7
FLOAT-1.60	96.6	98.0	13890	7.5	.05	.46	.7
TOTAL	100.0	100.0	13685	8.9	.05	.46	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.7	66.7	14400	4.0	.04	.52	.7
FLOAT-1.40	88.8	91.5	14167	5.6	.05	.51	.7
FLOAT-1.60	95.7	97.4	13992	6.8	.05	.51	.7
TOTAL	100.0	100.0	13744	8.5	.05	.50	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.4	63.0	14488	3.4	.04	.53	.7
FLOAT-1.40	86.0	89.8	14254	5.0	.05	.51	.7
FLOAT-1.60	94.3	96.9	14035	6.5	.06	.51	.7
TOTAL	100.0	100.0	13656	9.1	.06	.49	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: NEW MEXICO
COUNTY: COLFAX

COALBED: YORK
RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.6	62.3	14059	5.2	.15	.48	.7
FLOAT-1.40	85.7	89.6	13829	6.8	.15	.50	.7
FLOAT-1.60	94.7	97.8	13657	8.0	.15	.50	.7
TOTAL	100.0	100.0	13226	11.0	.18	.52	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.0	69.3	14145	4.6	.12	.57	.8
FLOAT-1.40	86.1	90.6	13959	5.9	.12	.55	.8
FLOAT-1.60	93.1	96.7	13786	7.1	.13	.54	.8
TOTAL	100.0	100.0	13269	10.7	.15	.55	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.3	69.3	14260	3.8	.09	.41	.6
FLOAT-1.40	84.9	90.1	14045	5.3	.09	.42	.6
FLOAT-1.60	91.9	96.2	13858	6.6	.10	.43	.6
TOTAL	100.0	100.0	13240	10.9	.15	.47	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: NORTH DAKOTA
COUNTY: OLIVER
COALBED: UNCORRELATED
RAW COAL MOISTURE: 27.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	78.5	81.2	11410	6.0	.06	.64	1.1
FLOAT-1.40	94.0	96.3	11298	6.8	.10	.70	1.2
FLOAT-1.60	97.4	98.9	11199	7.5	.18	.77	1.4
TOTAL	100.0	100.0	11031	8.7	.79	1.39	2.5
EPA STANDARD	90.1	92.6	11335	6.6	.08	.68	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.0	70.7	11466	5.6	.11	.70	1.2
FLOAT-1.40	91.4	94.2	11368	6.3	.11	.71	1.2
FLOAT-1.60	96.9	98.8	11241	7.2	.16	.76	1.4
TOTAL	100.0	100.0	11031	8.7	.85	1.45	2.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: OHIO
COUNTY: ATHENS
COALBED: VARIOUS
RAW COAL MOISTURE: 4.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.1	38.0	13688	3.5	.80	2.63	3.8
FLOAT-1.40	81.1	85.9	13404	5.5	1.45	3.52	5.3
FLOAT-1.60	92.6	96.5	13191	7.0	1.84	3.88	5.9
FLOAT-1.90	94.8	98.1	13092	7.7	1.95	3.97	6.1
TOTAL	100.0	100.0	12652	10.8	2.57	4.54	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.3	59.9	13730	3.2	.59	2.42	3.5
FLOAT-1.40	81.2	86.8	13560	4.4	.98	2.92	4.3
FLOAT-1.60	90.2	95.1	13376	5.7	1.30	3.24	4.8
FLOAT-1.90	93.2	97.4	13248	6.6	1.47	3.39	5.1
TOTAL	100.0	100.0	12681	10.6	2.58	4.51	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.3	46.4	13815	2.6	.42	2.14	3.1
FLOAT-1.40	78.8	85.0	13574	4.3	.76	2.69	4.0
FLOAT-1.60	89.2	94.7	13361	5.8	1.06	3.01	4.5
FLOAT-1.90	92.2	97.0	13234	6.7	1.22	3.16	4.8
TOTAL	100.0	100.0	12581	11.3	2.74	4.65	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: WAYNESBURG
RAW COAL MOISTURE: 2.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.2	8.3	13799	4.7	.44	1.39	2.0
FLOAT-1.40	68.6	73.5	12903	10.9	1.05	1.96	3.0
FLOAT-1.60	91.0	94.2	12454	14.0	1.15	1.97	3.2
TOTAL	100.0	100.0	12035	16.9	1.82	2.61	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.0	11.6	13915	3.9	.27	1.28	1.8
FLOAT-1.40	65.9	72.1	13091	9.6	.68	1.63	2.5
FLOAT-1.60	87.6	92.4	12613	12.9	.89	1.78	2.8
TOTAL	100.0	100.0	11963	17.4	2.06	2.85	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.4	27.1	13959	3.6	.27	1.27	1.8
FLOAT-1.40	64.2	71.4	13380	7.6	.47	1.38	2.1
FLOAT-1.60	84.7	90.5	12859	11.2	.59	1.47	2.3
TOTAL	100.0	100.0	12035	16.9	1.96	2.72	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: SEWICKLEY
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.9	5.3	14017	3.6	.19	2.21	3.2
FLOAT-1.40	88.2	90.2	13262	8.8	1.08	3.00	4.5
FLOAT-1.60	96.7	97.9	13132	9.7	1.34	3.23	4.9
TOTAL	100.0	100.0	12972	10.8	1.72	3.57	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.2	8.9	13959	4.0	.20	2.28	3.3
FLOAT-1.40	83.5	86.4	13364	8.1	.71	2.61	3.9
FLOAT-1.60	94.6	96.5	13175	9.4	1.08	2.96	4.5
TOTAL	100.0	100.0	12914	11.2	1.78	3.60	5.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.6	33.3	14104	3.0	.09	2.14	3.0
FLOAT-1.40	81.9	85.9	13596	6.5	.26	2.22	3.3
FLOAT-1.60	93.2	95.9	13335	8.3	.60	2.36	3.5
TOTAL	100.0	100.0	12958	10.9	1.87	3.57	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT
COALBED: SEWICKLEY
RAW COAL MOISTURE: 2.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	6.2	6.8	13885	4.4	.35	1.62	2.3
FLOAT-1.40	79.6	83.2	13159	9.4	.88	2.20	3.3
FLOAT-1.60	95.6	97.6	12854	11.5	1.13	2.48	3.9
FLOAT-1.90	97.4	98.9	12781	12.0	1.22	2.57	4.0
TOTAL	100.0	100.0	12593	13.3	1.63	3.03	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	25.6	28.3	13943	4.0	.34	1.61	2.3
FLOAT-1.40	74.6	79.1	13377	7.9	.55	1.81	2.7
FLOAT-1.60	93.8	96.5	12985	10.6	.88	2.15	3.3
FLOAT-1.90	96.6	98.5	12869	11.4	1.00	2.28	3.5
TOTAL	100.0	100.0	12622	13.1	1.61	2.99	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	24.8	27.6	14016	3.5	.24	1.52	2.2
FLOAT-1.40	70.1	74.8	13449	7.4	.48	1.76	2.6
FLOAT-1.60	93.4	96.1	12970	10.7	.81	2.07	3.2
FLOAT-1.90	96.6	98.4	12839	11.6	.94	2.22	3.5
TOTAL	100.0	100.0	12607	13.2	1.62	3.00	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: HARRISON
COALBED: SEWICKLEY
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	20.5	21.7	13713	5.8	.29	1.13	1.6
FLOAT-1.40	91.4	93.1	13197	9.5	.86	1.76	2.7
FLOAT-1.60	97.3	98.2	13085	10.3	.98	1.85	2.8
TOTAL	100.0	100.0	12960	11.2	1.35	2.22	3.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	21.8	23.3	13908	4.4	.26	1.12	1.6
FLOAT-1.40	87.8	90.1	13336	8.5	.61	1.45	2.2
FLOAT-1.60	96.8	97.9	13155	9.8	.81	1.60	2.4
TOTAL	100.0	100.0	13002	10.9	1.35	2.13	3.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	40.4	43.9	14187	2.4	.24	1.16	1.6
FLOAT-1.40	84.6	87.1	13448	7.7	.35	1.24	1.8
FLOAT-1.60	95.8	97.3	13267	9.0	.47	1.35	2.0
TOTAL	100.0	100.0	13058	10.5	1.32	2.19	3.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: HARRISON
COALBED: SEWICKLEY
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.5	24.0	13857	5.0	.33	1.02	1.5
FLOAT-1.40	90.4	92.4	13276	8.9	.64	1.27	1.9
FLOAT-1.60	95.9	97.3	13187	9.5	.83	1.46	2.2
TOTAL	100.0	100.0	12993	10.8	1.30	1.94	3.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.2	27.1	14006	4.0	.39	1.04	1.5
FLOAT-1.40	86.8	89.4	13410	8.0	.55	1.20	1.8
FLOAT-1.60	96.0	97.5	13231	9.2	.71	1.36	2.1
TOTAL	100.0	100.0	13023	10.6	1.22	1.89	2.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.8	48.2	14036	3.8	.16	.82	1.2
FLOAT-1.40	84.9	88.1	13529	7.2	.33	1.15	1.7
FLOAT-1.60	95.3	97.5	13336	8.5	.48	1.28	1.9
TOTAL	100.0	100.0	13038	10.5	1.21	2.04	3.1
EPA STANDARD	47.8	51.3	14006	4.0	.16	.84	1.20

STATE: OHIO
COUNTY: MORGAN
COALBED: SEWICKLEY
RAW COAL MOISTURE: 2.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.2	30.3	13718	3.8	.58	3.87	5.6
FLOAT-1.40	67.8	72.7	13233	7.2	1.21	4.41	6.7
FLOAT-1.60	91.3	94.0	12705	10.9	1.94	4.96	7.8
TOTAL	100.0	100.0	12334	13.5	2.79	5.73	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.2	37.8	13732	3.7	.68	3.99	5.8
FLOAT-1.40	71.6	76.8	13333	6.5	1.20	4.28	6.4
FLOAT-1.60	90.7	93.8	12862	9.8	1.78	4.71	7.3
TOTAL	100.0	100.0	12434	12.8	2.75	5.57	9.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.5	49.3	13689	4.0	.65	3.89	5.7
FLOAT-1.40	69.5	75.1	13361	6.3	.99	4.11	6.2
FLOAT-1.60	89.4	93.3	12905	9.5	1.57	4.29	6.6
TOTAL	100.0	100.0	12363	13.3	2.75	5.41	8.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: MORGAN

COALBED: SEWICKLEY
RAW COAL MOISTURE: 3.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.2	3.8	13382	5.0	.63	3.79	5.7
FLOAT-1.40	56.2	64.0	12748	9.5	1.19	4.16	6.5
FLOAT-1.60	83.7	90.8	12142	13.8	1.75	4.58	7.5
FLOAT-1.90	92.4	97.2	11776	16.4	2.11	4.84	8.2
TOTAL	100.0	100.0	11199	20.5	2.77	5.35	9.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.7	27.1	13424	4.7	.57	3.75	5.6
FLOAT-1.40	60.1	69.2	12945	8.1	.94	4.03	6.2
FLOAT-1.60	80.3	88.9	12438	11.7	1.40	4.30	6.9
FLOAT-1.90	89.3	95.8	12058	14.4	1.73	4.53	7.5
TOTAL	100.0	100.0	11241	20.2	2.79	5.38	9.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.4	30.7	13466	4.4	.55	3.71	5.5
FLOAT-1.40	57.6	67.1	13002	7.7	.89	4.01	6.2
FLOAT-1.60	77.4	86.8	12509	11.2	1.25	4.19	6.7
FLOAT-1.90	87.4	94.7	12086	14.2	1.56	4.35	7.2
TOTAL	100.0	100.0	11157	20.8	2.86	5.46	9.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: MORGAN

COALBED: SEWICKLEY
RAW COAL MOISTURE: 3.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	1.1	1.3	13503	4.0	.68	3.49	5.2
FLOAT-1.40	39.6	45.6	12716	9.6	1.47	4.21	6.6
FLOAT-1.60	83.1	89.2	11858	15.7	1.96	4.42	7.5
FLOAT-1.90	91.5	95.9	11577	17.7	2.28	4.62	8.0
TOTAL	100.0	100.0	11042	21.5	3.30	5.51	10.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.8	5.7	12871	8.5	1.92	4.19	6.5
FLOAT-1.40	53.3	59.1	12027	14.5	2.70	4.83	8.0
FLOAT-1.60	87.9	91.9	11337	19.4	2.92	4.99	8.8
FLOAT-1.90	94.2	97.0	11169	20.6	3.07	5.07	9.1
TOTAL	100.0	100.0	10845	22.9	3.66	5.57	10.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.5	13.5	12772	9.2	.82	3.46	5.4
FLOAT-1.40	47.0	53.8	12420	11.7	1.44	4.15	6.7
FLOAT-1.60	79.1	85.2	11703	16.8	1.69	4.17	7.1
FLOAT-1.90	90.6	94.8	11366	19.2	1.99	4.36	7.7
TOTAL	100.0	100.0	10859	22.8	3.31	5.52	10.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: NOBLE

COALBED: SEWICKLEY
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.3	8.1	13687	3.9	.55	4.07	5.9
FLOAT-1.40	70.6	74.6	13014	8.7	1.61	4.70	7.2
FLOAT-1.60	94.0	96.2	12607	11.6	1.98	5.04	8.0
TOTAL	100.0	100.0	12312	13.7	2.85	5.85	9.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.8	9.9	13757	3.4	.53	4.13	6.0
FLOAT-1.40	67.8	72.6	13140	7.8	1.23	4.56	6.9
FLOAT-1.60	91.5	94.7	12705	10.9	1.69	4.89	7.7
TOTAL	100.0	100.0	12270	14.0	2.77	5.84	9.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.8	42.4	13799	3.1	.50	4.15	6.0
FLOAT-1.40	69.2	74.5	13252	7.0	1.08	4.37	6.6
FLOAT-1.60	90.9	94.5	12803	10.2	1.52	4.65	7.3
TOTAL	100.0	100.0	12312	13.7	2.72	5.72	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: NOBLE

COALBED: SEWICKLEY
RAW COAL MOISTURE: 1.8 %
CUMULATIVE WASHABILITY DATA

BENCH: TOP

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.5	4.2	13828	4.1	.22	2.83	4.1
FLOAT-1.40	43.4	47.9	12736	11.8	1.15	3.61	5.7
FLOAT-1.60	87.9	91.8	12042	16.7	2.36	4.52	7.5
TOTAL	100.0	100.0	11531	20.3	3.37	5.39	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.5	5.4	13715	4.9	.29	2.91	4.2
FLOAT-1.40	55.0	61.8	12864	10.9	.60	3.07	4.8
FLOAT-1.60	81.2	87.5	12339	14.6	1.28	3.52	5.7
TOTAL	100.0	100.0	11446	20.9	3.35	5.37	9.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.5	16.3	13814	4.2	.16	2.80	4.1
FLOAT-1.40	57.6	65.6	13077	9.4	.31	2.83	4.3
FLOAT-1.60	79.8	87.8	12623	12.6	.61	2.91	4.6
TOTAL	100.0	100.0	11475	20.7	3.52	5.56	9.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: NOBLE

COALBED: SEWICKLEY
RAW COAL MOISTURE: 1.7 %
BENCH: BOTTOM

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.9	4.3	13890	4.1	.50	3.95	5.7
FLOAT-1.40	71.6	74.9	13230	8.7	1.67	4.71	7.1
FLOAT-1.60	94.9	96.5	12858	11.3	2.55	5.46	8.5
TOTAL	100.0	100.0	12642	12.8	3.02	5.87	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.6	9.5	13933	3.8	.53	4.26	6.1
FLOAT-1.40	70.0	74.0	13331	8.0	1.43	4.79	7.2
FLOAT-1.60	92.2	94.6	12944	10.7	2.23	5.41	8.4
TOTAL	100.0	100.0	12614	13.0	3.09	6.14	9.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.4	14.8	14034	3.1	.39	3.95	5.6
FLOAT-1.40	67.3	71.2	13446	7.2	.98	4.64	6.9
FLOAT-1.60	94.0	96.1	13001	10.3	1.91	5.21	8.0
TOTAL	100.0	100.0	12714	12.3	2.87	6.00	9.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.9	41.0	14039	4.2	.71	2.65	3.8
FLOAT-1.40	81.0	88.1	13748	6.2	1.50	3.38	4.9
FLOAT-1.60	89.4	96.2	13602	7.2	1.89	3.73	5.5
TOTAL	100.0	100.0	12641	13.8	2.42	4.08	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.6	49.7	13981	4.6	.77	2.67	3.8
FLOAT-1.40	80.1	87.8	13748	6.2	1.42	3.27	4.8
FLOAT-1.60	88.6	95.8	13558	7.5	1.86	3.66	5.4
TOTAL	100.0	100.0	12539	14.5	2.42	4.07	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.1	43.6	14185	3.2	.47	2.44	3.4
FLOAT-1.40	77.9	84.9	13864	5.4	1.05	2.98	4.3
FLOAT-1.60	88.1	94.2	13602	7.2	1.41	3.38	5.0
TOTAL	100.0	100.0	12728	13.2	2.53	4.34	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.7	31.3	13893	4.1	.75	2.83	4.1
FLOAT-1.40	74.3	81.4	13489	6.9	1.81	3.83	5.7
FLOAT-1.60	86.5	93.3	13273	8.4	2.34	4.33	6.5
TOTAL	100.0	100.0	12307	15.1	4.38	6.22	10.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.5	41.5	13835	4.5	.79	2.82	4.1
FLOAT-1.40	76.9	83.1	13518	6.7	1.59	3.56	5.3
FLOAT-1.60	88.9	94.4	13287	8.3	2.21	4.11	6.2
TOTAL	100.0	100.0	12508	13.7	3.80	5.62	9.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.3	44.8	13691	5.5	1.04	3.06	4.5
FLOAT-1.40	73.6	80.8	13518	6.7	1.57	3.59	5.3
FLOAT-1.60	85.5	92.1	13258	8.5	2.15	4.18	6.3
TOTAL	100.0	100.0	12307	15.1	4.26	6.19	10.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.7	14.8	14033	3.9	.70	2.62	3.7
FLOAT-1.40	80.2	83.9	13632	6.7	2.08	3.96	5.8
FLOAT-1.60	93.4	96.2	13417	8.2	2.51	4.36	6.5
TOTAL	100.0	100.0	13030	10.9	3.26	5.05	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.0	23.8	14076	3.6	.62	2.67	3.8
FLOAT-1.40	80.0	84.1	13675	6.4	1.78	3.78	5.5
FLOAT-1.60	91.7	95.1	13489	7.7	2.23	4.17	6.2
TOTAL	100.0	100.0	13002	11.1	3.14	5.04	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.7	32.3	14162	3.0	.44	2.40	3.4
FLOAT-1.40	76.0	80.6	13818	5.4	1.17	3.28	4.7
FLOAT-1.60	91.4	95.1	13560	7.2	1.74	3.79	5.6
TOTAL	100.0	100.0	13030	10.9	3.26	5.27	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.2	37.9	14101	3.8	.59	2.63	3.7
FLOAT-1.40	81.3	85.6	13794	5.9	1.29	3.28	4.8
FLOAT-1.60	92.8	95.9	13546	7.6	1.70	3.67	5.4
TOTAL	100.0	100.0	13108	10.6	2.32	4.21	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.7	45.3	14116	3.7	.60	2.69	3.8
FLOAT-1.40	81.0	85.9	13794	5.9	1.17	3.16	4.6
FLOAT-1.60	91.1	95.1	13575	7.4	1.57	3.51	5.2
TOTAL	100.0	100.0	13006	11.3	2.54	4.40	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.0	47.5	14174	3.3	.51	2.63	3.7
FLOAT-1.40	81.8	86.5	13882	5.3	.94	2.98	4.3
FLOAT-1.60	90.9	94.8	13692	6.6	1.25	3.06	4.5
TOTAL	100.0	100.0	13123	10.5	2.38	4.08	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: PITTSBURGH
RAW COAL MOISTURE: 3.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.9	22.5	14026	3.6	.52	1.78	2.5
FLOAT-1.40	82.7	86.5	13655	6.2	1.11	2.38	3.5
FLOAT-1.60	92.3	95.2	13469	7.5	1.45	2.70	4.0
TOTAL	100.0	100.0	13056	10.4	2.00	3.19	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.5	29.7	14040	3.5	.49	1.78	2.5
FLOAT-1.40	82.6	86.9	13683	6.0	1.08	2.35	3.4
FLOAT-1.60	91.5	94.9	13498	7.3	1.37	2.61	3.9
TOTAL	100.0	100.0	13013	10.7	2.02	3.21	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.9	31.4	14111	3.0	.31	1.61	2.3
FLOAT-1.40	79.3	84.2	13783	5.3	.77	2.07	3.0
FLOAT-1.60	91.1	94.9	13527	7.1	1.04	2.21	3.3
TOTAL	100.0	100.0	12985	10.9	2.07	3.13	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: PITTSBURGH
RAW COAL MOISTURE: 2.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.0	30.8	13895	4.0	.41	2.13	3.1
FLOAT-1.40	79.9	85.6	13531	6.5	1.39	3.23	4.8
FLOAT-1.60	90.9	96.0	13342	7.8	1.79	3.60	5.4
TOTAL	100.0	100.0	12629	12.7	2.23	3.92	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.2	39.9	13910	3.9	.41	2.19	3.1
FLOAT-1.40	78.3	84.4	13619	5.9	1.12	2.95	4.3
FLOAT-1.60	89.1	94.5	13400	7.4	1.55	3.31	4.9
TOTAL	100.0	100.0	12629	12.7	2.43	4.04	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.1	30.8	13997	3.3	.32	2.16	3.1
FLOAT-1.40	78.6	84.3	13706	5.3	.81	2.67	3.9
FLOAT-1.60	90.9	95.6	13429	7.2	1.27	3.08	4.6
TOTAL	100.0	100.0	12775	11.7	2.23	3.95	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: PITTSBURGH
RAW COAL MOISTURE: 2.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.0	21.6	13874	3.7	.48	2.82	4.1
FLOAT-1.40	58.9	77.1	13442	6.7	1.23	3.68	5.5
FLOAT-1.60	70.2	89.9	13154	8.7	1.68	4.16	6.3
FLOAT-1.90	75.1	94.3	12894	10.5	1.86	4.33	6.7
TOTAL	100.0	100.0	10272	28.7	2.61	4.50	8.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.0	31.1	13903	3.5	.42	2.77	4.0
FLOAT-1.40	59.6	78.7	13557	5.9	1.02	3.45	5.1
FLOAT-1.60	69.1	89.5	13312	7.6	1.44	3.88	5.8
FLOAT-1.90	74.1	93.9	13024	9.6	1.67	4.01	6.2
TOTAL	100.0	100.0	10272	28.7	2.55	4.60	9.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.6	36.1	13917	3.4	.37	2.74	3.9
FLOAT-1.40	52.6	70.0	13629	5.4	.73	3.12	4.6
FLOAT-1.60	65.6	85.1	13283	7.8	1.13	3.51	5.3
FLOAT-1.90	73.5	92.6	12909	10.4	1.38	3.68	5.7
TOTAL	100.0	100.0	10244	28.9	2.79	4.66	9.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.4	22.3	13763	4.6	.75	3.22	4.7
FLOAT-1.40	74.5	79.0	13374	7.3	1.57	4.06	6.1
FLOAT-1.60	93.3	96.3	13013	9.8	2.15	4.70	7.2
FLOAT-1.90	96.6	98.6	12869	10.8	2.33	4.88	7.6
TOTAL	100.0	100.0	12609	12.6	2.72	5.30	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.4	26.8	13922	3.5	.65	3.09	4.4
FLOAT-1.40	77.8	82.6	13460	6.7	1.28	3.74	5.6
FLOAT-1.60	91.8	95.7	13215	8.4	1.72	4.20	6.4
FLOAT-1.90	95.3	98.1	13056	9.5	1.89	4.38	6.7
TOTAL	100.0	100.0	12681	12.1	2.56	5.11	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.8	14.2	13951	3.3	.54	3.05	4.4
FLOAT-1.40	72.7	78.0	13518	6.3	1.09	3.60	5.3
FLOAT-1.60	90.1	94.5	13215	8.4	1.58	4.07	6.2
FLOAT-1.90	94.4	97.8	13042	9.6	1.77	4.26	6.5
TOTAL	100.0	100.0	12595	12.7	2.64	5.25	8.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: PITTSBURGH
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.4	45.6	13430	5.3	1.06	3.25	4.8
FLOAT-1.40	68.0	81.1	13118	7.5	1.95	4.08	6.2
FLOAT-1.60	78.6	91.6	12821	9.6	2.57	4.57	7.1
FLOAT-1.90	82.2	94.3	12622	11.0	2.84	4.80	7.6
TOTAL	100.0	100.0	11005	22.4	4.62	6.29	11.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.7	43.7	13445	5.2	.97	3.10	4.6
FLOAT-1.40	68.5	81.4	13062	7.9	1.93	3.90	6.0
FLOAT-1.60	77.6	90.4	12806	9.7	2.44	4.31	6.7
FLOAT-1.90	82.9	93.8	12438	12.3	2.81	4.59	7.4
TOTAL	100.0	100.0	10991	22.5	4.62	6.18	11.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.3	37.6	13586	4.2	1.06	3.09	4.5
FLOAT-1.40	60.1	72.5	13203	6.9	2.04	3.61	5.5
FLOAT-1.60	77.1	89.7	12735	10.2	3.03	4.27	6.7
FLOAT-1.90	82.6	94.3	12494	11.9	3.42	4.63	7.4
TOTAL	100.0	100.0	10949	22.8	5.12	6.18	11.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: GALLIA

COALBED: PITTSBURGH
RAW COAL MOISTURE: 6.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.7	38.7	13554	3.5	.64	1.77	2.6
FLOAT-1.40	90.3	92.7	13177	6.2	1.49	2.51	3.8
FLOAT-1.60	96.1	97.8	13066	7.0	1.75	2.74	4.2
TOTAL	100.0	100.0	12843	8.6	2.29	3.26	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.3	57.4	13554	3.5	.63	1.69	2.5
FLOAT-1.40	88.2	91.5	13303	5.3	.94	2.09	3.1
FLOAT-1.60	94.3	96.8	13164	6.3	1.15	2.27	3.4
TOTAL	100.0	100.0	12829	8.7	2.29	3.37	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.7	71.0	13610	3.1	.48	1.64	2.4
FLOAT-1.40	86.2	90.6	13442	4.3	.66	1.82	2.7
FLOAT-1.60	92.9	96.5	13289	5.4	.79	1.94	2.9
TOTAL	100.0	100.0	12787	9.0	2.24	3.34	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: HARRISON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.4	29.3	13827	4.4	.93	2.38	3.4
FLOAT-1.40	62.9	76.3	13421	7.2	1.74	3.23	4.8
FLOAT-1.60	76.3	90.1	13059	9.7	2.22	3.64	5.6
TOTAL	100.0	100.0	11060	23.5	2.83	3.98	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.7	28.2	13855	4.2	.83	2.35	3.4
FLOAT-1.40	64.6	77.9	13464	6.9	1.74	3.14	4.7
FLOAT-1.60	75.4	89.1	13189	8.8	2.14	3.50	5.3
TOTAL	100.0	100.0	11162	22.8	2.84	3.94	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.8	38.2	13667	5.5	.83	2.33	3.4
FLOAT-1.40	62.9	76.3	13363	7.6	1.38	2.91	4.4
FLOAT-1.60	74.3	88.2	13073	9.6	1.92	3.27	5.0
TOTAL	100.0	100.0	11017	23.8	3.11	4.29	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: HARRISON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.4	39.2	13925	3.7	.40	1.73	2.5
FLOAT-1.40	73.8	79.7	13592	6.0	1.01	2.47	3.6
FLOAT-1.60	90.3	96.0	13375	7.5	1.43	2.98	4.5
FLOAT-1.90	93.2	98.0	13231	8.5	1.56	3.12	4.7
TOTAL	100.0	100.0	12580	13.0	2.01	3.48	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.5	57.8	13939	3.6	.32	1.71	2.5
FLOAT-1.40	81.2	88.1	13722	5.1	.74	2.21	3.2
FLOAT-1.60	88.9	95.1	13534	6.4	.94	2.44	3.6
FLOAT-1.90	92.4	97.7	13375	7.5	1.11	2.62	3.9
TOTAL	100.0	100.0	12652	12.5	1.89	3.35	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.3	26.1	14084	2.6	.23	1.61	2.3
FLOAT-1.40	78.6	85.9	13751	4.9	.56	1.99	2.9
FLOAT-1.60	87.3	93.9	13534	6.4	.77	2.21	3.3
FLOAT-1.90	91.5	97.1	13346	7.7	.98	2.42	3.6
TOTAL	100.0	100.0	12580	13.0	2.00	3.48	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: JEFFERSON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.4	31.5	14104	3.9	.63	2.04	2.9
FLOAT-1.40	85.9	89.9	13782	6.1	1.32	2.74	4.0
FLOAT-1.60	94.3	97.9	13665	6.9	1.78	3.19	4.7
TOTAL	100.0	100.0	13167	10.3	2.03	3.37	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.9	43.9	14119	3.8	.62	2.00	2.8
FLOAT-1.40	86.4	90.7	13826	5.8	1.14	2.53	3.7
FLOAT-1.60	93.5	97.2	13694	6.7	1.53	2.90	4.2
TOTAL	100.0	100.0	13167	10.3	1.93	3.24	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.3	52.8	14222	3.1	.48	1.85	2.6
FLOAT-1.40	84.5	88.8	13943	5.0	.88	2.33	3.3
FLOAT-1.60	93.4	96.9	13767	6.2	1.32	2.67	3.9
TOTAL	100.0	100.0	13269	9.6	1.99	3.29	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: JEFFERSON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.9	32.0	14238	3.7	.59	1.53	2.1
FLOAT-1.40	89.7	93.5	13873	6.2	1.17	2.14	3.1
FLOAT-1.60	93.2	96.8	13814	6.6	1.33	2.30	3.3
TOTAL	100.0	100.0	13302	10.1	2.03	2.98	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.1	48.1	14223	3.8	.61	1.57	2.2
FLOAT-1.40	88.9	92.7	13916	5.9	.99	1.99	2.9
FLOAT-1.60	94.0	97.3	13814	6.6	1.20	2.19	3.2
TOTAL	100.0	100.0	13346	9.8	1.89	2.82	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.7	60.7	14296	3.3	.34	1.41	2.0
FLOAT-1.40	84.3	88.6	14033	5.1	.70	1.77	2.5
FLOAT-1.60	92.7	96.6	13902	6.0	.88	1.89	2.7
TOTAL	100.0	100.0	13346	9.8	2.04	3.00	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: JEFFERSON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.5	13.6	14122	4.4	1.03	2.12	3.0
FLOAT-1.40	84.5	88.2	13591	7.9	2.17	3.12	4.6
FLOAT-1.60	94.6	97.7	13439	8.9	2.55	3.50	5.2
TOTAL	100.0	100.0	13015	11.7	2.98	3.90	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.0	27.3	14137	4.3	.97	2.07	2.9
FLOAT-1.40	79.8	84.6	13712	7.1	1.87	2.96	4.3
FLOAT-1.60	92.0	95.9	13485	8.6	2.38	3.46	5.1
TOTAL	100.0	100.0	12939	12.2	3.13	4.16	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.9	44.9	14243	3.6	.70	1.84	2.6
FLOAT-1.40	80.6	86.1	13864	6.1	1.27	2.43	3.5
FLOAT-1.60	90.8	95.4	13637	7.6	1.78	2.86	4.2
TOTAL	100.0	100.0	12984	11.9	3.08	4.09	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: JEFFERSON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.4	16.4	13836	4.4	.79	2.09	3.0
FLOAT-1.40	53.8	63.1	13286	8.2	1.58	3.12	4.7
FLOAT-1.60	81.7	91.7	12722	12.1	2.36	4.08	6.4
FLOAT-1.90	87.6	96.2	12447	14.0	2.55	4.28	6.9
TOTAL	100.0	100.0	11332	21.7	2.97	4.63	8.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.7	32.2	13880	4.1	.79	2.08	3.0
FLOAT-1.40	60.2	70.5	13474	6.9	1.36	2.83	4.2
FLOAT-1.60	80.2	91.0	13055	9.8	1.97	3.59	5.5
FLOAT-1.90	86.5	95.9	12751	11.9	2.19	3.82	6.0
TOTAL	100.0	100.0	11506	20.5	2.87	4.45	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.5	19.1	13981	3.4	.55	1.86	2.7
FLOAT-1.40	53.0	62.9	13460	7.0	1.12	2.54	3.8
FLOAT-1.60	76.6	87.5	12968	10.4	1.68	3.21	5.0
FLOAT-1.90	85.5	94.8	12577	13.1	1.94	3.49	5.5
TOTAL	100.0	100.0	11347	21.6	3.04	4.67	8.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: JEFFERSON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 2.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.2	18.0	13902	4.3	.71	1.83	2.6
FLOAT-1.40	80.6	86.9	13509	7.0	1.45	2.87	4.2
FLOAT-1.60	90.6	96.2	13306	8.4	1.69	3.15	4.7
FLOAT-1.90	93.3	98.1	13175	9.3	1.78	3.24	4.9
TOTAL	100.0	100.0	12536	13.7	2.05	3.42	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.7	47.6	14018	3.5	.56	1.82	2.6
FLOAT-1.40	80.2	87.6	13742	5.4	1.06	2.40	3.5
FLOAT-1.60	88.8	95.7	13553	6.7	1.31	2.67	3.9
FLOAT-1.90	91.9	97.8	13393	7.8	1.42	2.78	4.2
TOTAL	100.0	100.0	12580	13.4	1.87	3.19	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.3	37.6	14061	3.2	.46	1.64	2.3
FLOAT-1.40	74.9	82.7	13756	5.3	.84	2.10	3.1
FLOAT-1.60	87.0	94.2	13495	7.1	1.11	2.39	3.5
FLOAT-1.90	90.9	97.1	13321	8.3	1.25	2.53	3.8
TOTAL	100.0	100.0	12464	14.2	2.08	3.37	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: MONROE

COALBED: PITTSBURGH
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.5	12.8	12973	5.3	.59	2.68	4.1
FLOAT-1.40	43.4	62.6	12384	9.6	1.20	3.00	4.8
FLOAT-1.60	59.4	82.4	11918	13.0	1.95	3.51	5.9
FLOAT-1.90	67.3	90.7	11576	15.5	2.25	3.80	6.6
TOTAL	100.0	100.0	8589	37.3	2.70	3.84	8.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.3	34.4	13110	4.3	.39	2.45	3.7
FLOAT-1.40	47.3	69.1	12411	9.4	1.02	2.96	4.8
FLOAT-1.60	60.3	85.9	12096	11.7	1.60	3.43	5.7
FLOAT-1.90	66.6	91.0	11603	15.3	1.90	3.70	6.4
TOTAL	100.0	100.0	8493	38.0	2.49	3.75	8.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.6	21.8	12904	5.8	.47	2.35	3.6
FLOAT-1.40	43.3	63.0	12562	8.3	.85	2.57	4.1
FLOAT-1.60	58.7	81.6	12000	12.4	1.51	3.04	5.1
FLOAT-1.90	67.3	88.2	11315	17.4	1.89	3.27	5.8
TOTAL	100.0	100.0	8630	37.0	2.57	3.71	8.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: GUERNSEY

COALBED: MAHONING
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.6	22.2	13483	4.1	.83	2.81	4.2
FLOAT-1.40	62.3	80.5	13033	7.3	1.51	3.42	5.2
FLOAT-1.60	70.3	89.6	12850	8.6	1.80	3.59	5.6
FLOAT-1.90	75.5	94.0	12555	10.7	2.01	3.73	5.9
TOTAL	100.0	100.0	10080	28.3	3.11	4.44	8.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.5	52.2	13525	3.8	.77	2.78	4.1
FLOAT-1.40	62.7	81.5	13300	5.4	1.09	3.06	4.6
FLOAT-1.60	69.9	89.5	13103	6.8	1.35	3.22	4.9
FLOAT-1.90	74.4	93.5	12864	8.5	1.51	3.33	5.2
TOTAL	100.0	100.0	10235	27.2	3.10	4.50	8.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.9	35.1	13581	3.4	.65	2.69	4.0
FLOAT-1.40	53.8	71.6	13314	5.3	.99	2.99	4.5
FLOAT-1.60	66.5	85.0	12794	9.0	1.28	3.14	4.9
FLOAT-1.90	75.2	93.2	12400	11.8	1.47	3.25	5.2
TOTAL	100.0	100.0	10010	28.8	3.03	4.43	8.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: JEFFERSON

COALBED: MAHONING
RAW COAL MOISTURE: 2.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.7	71.0	14390	3.6	.30	.81	1.1
FLOAT-1.40	88.2	92.4	14166	5.1	.44	.98	1.4
FLOAT-1.60	94.0	97.2	13986	6.3	.51	1.06	1.5
FLOAT-1.90	96.0	98.4	13867	7.1	.59	1.13	1.6
TOTAL	100.0	100.0	13524	9.4	.89	1.48	2.2
EPA STANDARD	74.3	78.8	14325	3.9	.34	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.9	78.1	14509	2.8	.10	.62	.9
FLOAT-1.40	86.8	92.0	14345	3.9	.16	.69	1.0
FLOAT-1.60	92.2	96.6	14181	5.0	.21	.74	1.0
FLOAT-1.90	95.0	98.5	14031	6.0	.26	.78	1.1
TOTAL	100.0	100.0	13539	9.3	.84	1.46	2.2
EPA STANDARD	98.2	98.6	13990	7.2	.32	.83	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.8	65.4	14539	2.6	.09	.63	.9
FLOAT-1.40	87.0	91.7	14255	4.5	.17	.72	1.0
FLOAT-1.60	93.0	97.0	14106	5.5	.21	.75	1.1
FLOAT-1.90	95.7	98.8	13957	6.5	.24	.78	1.1
TOTAL	100.0	100.0	13524	9.4	.79	1.44	2.1
EPA STANDARD	99.3	98.9	13921	7.8	.29	.83	1.20

STATE: OHIO
COUNTY: HARRISON

COALBED: LOWER FREEPORT
RAW COAL MOISTURE: 2.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.0	56.8	14267	3.5	.44	1.26	1.8
FLOAT-1.40	86.8	91.1	13972	5.5	.80	1.79	2.6
FLOAT-1.60	93.5	97.1	13824	6.5	.95	1.97	2.9
FLOAT-1.90	95.8	98.8	13720	7.2	1.04	2.06	3.0
TOTAL	100.0	100.0	13306	10.0	1.37	2.36	3.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.6	71.5	14356	2.9	.37	1.10	1.5
FLOAT-1.40	84.9	90.0	14179	4.1	.53	1.35	1.9
FLOAT-1.60	92.3	96.6	14001	5.3	.71	1.57	2.2
FLOAT-1.90	94.9	98.5	13883	6.1	.83	1.69	2.4
TOTAL	100.0	100.0	13380	9.5	1.39	2.24	3.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.3	63.2	14430	2.4	.16	1.03	1.4
FLOAT-1.40	82.2	87.9	14223	3.8	.27	1.15	1.6
FLOAT-1.60	90.9	95.8	14031	5.1	.42	1.33	1.9
FLOAT-1.90	93.8	98.0	13898	6.0	.58	1.49	2.1
TOTAL	100.0	100.0	13306	10.0	1.45	2.39	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: HARRISON

COALBED: LOWER FREEPORT
RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	53.0	57.3	14253	3.5	.40	1.10	1.5
FLOAT-1.40	86.1	91.4	13987	5.3	.82	1.62	2.3
FLOAT-1.60	92.1	97.0	13869	6.1	1.01	1.84	2.7
FLOAT-1.90	93.9	98.3	13795	6.6	1.14	1.98	2.9
TOTAL	100.0	100.0	13175	10.8	1.64	2.45	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	63.6	69.0	14356	2.8	.16	.85	1.2
FLOAT-1.40	85.2	91.2	14164	4.1	.38	1.09	1.5
FLOAT-1.60	90.9	96.5	14046	4.9	.57	1.30	1.9
FLOAT-1.90	92.8	97.9	13958	5.5	.70	1.43	2.0
TOTAL	100.0	100.0	13234	10.4	1.56	2.30	3.5
EPA STANDARD	64.9	70.4	14348	2.9	.17	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	49.7	54.6	14445	2.2	.11	.78	1.1
FLOAT-1.40	81.4	87.9	14194	3.9	.24	.92	1.3
FLOAT-1.60	89.7	95.6	14017	5.1	.39	1.07	1.5
FLOAT-1.90	92.1	97.6	13928	5.7	.51	1.19	1.7
TOTAL	100.0	100.0	13145	11.0	1.73	2.45	3.7
EPA STANDARD	70.1	76.2	14306	3.2	.18	.86	1.20

STATE: OHIO
COUNTY: COLUMBIANA

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 2.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	52.9	56.5	14345	3.6	.69	1.33	1.9
FLOAT-1.40	87.1	91.0	14017	5.8	1.07	1.79	2.6
FLOAT-1.60	93.5	96.6	13869	6.8	1.22	1.96	2.8
FLOAT-1.90	96.2	98.4	13735	7.7	1.33	2.07	3.0
TOTAL	100.0	100.0	13422	9.8	1.71	2.51	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	68.0	73.0	14493	2.6	.25	.75	1.0
FLOAT-1.40	85.4	90.5	14300	3.9	.44	.99	1.4
FLOAT-1.60	91.4	95.7	14136	5.0	.61	1.20	1.7
FLOAT-1.90	94.5	97.8	13973	6.1	.74	1.35	1.9
TOTAL	100.0	100.0	13497	9.3	1.61	2.39	3.5
EPA STANDARD	77.6	82.8	14402	3.2	.34	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	69.0	74.8	14538	2.3	.13	.62	.9
FLOAT-1.40	83.1	89.1	14374	3.4	.24	.75	1.0
FLOAT-1.60	89.8	95.1	14196	4.6	.38	.91	1.3
FLOAT-1.90	93.2	97.4	14017	5.8	.49	1.04	1.5
TOTAL	100.0	100.0	13407	9.9	1.71	2.52	3.8
EPA STANDARD	88.9	94.5	14257	4.2	.33	.86	1.20

STATE: OHIO
COUNTY: COLUMBIANA

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.6	74.2	14217	3.8	.28	.69	1.0
FLOAT-1.40	86.0	91.6	14010	5.2	.43	.88	1.3
FLOAT-1.60	91.0	96.0	13877	6.1	.56	1.03	1.5
FLOAT-1.90	93.0	97.5	13789	6.7	.68	1.16	1.7
TOTAL	100.0	100.0	13153	11.0	1.72	2.35	3.6
EPA STANDARD	83.6	89.2	14051	4.9	.40	.84	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	74.5	80.7	14336	3.0	.07	.51	.7
FLOAT-1.40	86.5	92.7	14188	4.0	.11	.57	.8
FLOAT-1.60	90.4	96.2	14084	4.7	.16	.62	.9
FLOAT-1.90	92.2	97.3	13981	5.4	.21	.66	.9
TOTAL	100.0	100.0	13242	10.4	1.61	2.34	3.5
EPA STANDARD	98.6	97.6	13908	7.9	.40	.82	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	69.6	76.2	14395	2.6	.06	.48	.7
FLOAT-1.40	83.9	90.7	14217	3.8	.09	.52	.7
FLOAT-1.60	89.5	95.8	14084	4.7	.13	.55	.8
FLOAT-1.90	91.8	97.3	13937	5.7	.17	.59	.8
TOTAL	100.0	100.0	13153	11.0	1.67	2.42	3.7
EPA STANDARD	92.8	97.6	13839	10.4	.38	.81	1.20

STATE: OHIO
COUNTY: COLUMBIANA

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 3.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.5	71.4	13967	5.2	.54	.90	1.3
FLOAT-1.40	91.8	94.3	13775	6.5	.77	1.13	1.6
FLOAT-1.60	96.0	98.0	13687	7.1	.89	1.24	1.8
FLOAT-1.90	97.5	99.0	13613	7.6	.97	1.32	1.9
TOTAL	100.0	100.0	13407	9.0	1.40	1.75	2.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.0	74.4	14247	3.3	.13	.69	1.0
FLOAT-1.40	90.2	94.0	13967	5.2	.39	.93	1.3
FLOAT-1.60	94.1	97.1	13834	6.1	.50	1.04	1.5
FLOAT-1.90	95.5	98.1	13775	6.5	.57	1.11	1.6
TOTAL	100.0	100.0	13407	9.0	1.31	1.85	2.8
EPA STANDARD	84.7	88.9	14068	4.5	.30	.84	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.7	66.9	14276	3.1	.17	.53	.7
FLOAT-1.40	86.0	90.5	14085	4.4	.22	.57	.8
FLOAT-1.60	92.2	96.5	13996	5.0	.27	.62	.9
FLOAT-1.90	94.4	97.9	13878	5.8	.32	.67	1.0
TOTAL	100.0	100.0	13377	9.2	1.40	1.75	2.6
EPA STANDARD	99.8	98.2	13807	7.8	.47	.82	1.20

STATE: OHIO
COUNTY: COSHOCTON

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 4.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.0	56.6	13940	2.3	.61	2.28	3.3
FLOAT-1.40	76.9	85.7	13722	3.8	1.20	2.97	4.3
FLOAT-1.60	83.7	92.4	13591	4.7	1.55	3.35	4.9
TOTAL	100.0	100.0	12314	13.5	4.51	6.36	10.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.9	58.5	13969	2.1	.47	2.19	3.1
FLOAT-1.40	75.1	83.7	13809	3.2	.95	2.75	4.0
FLOAT-1.60	83.7	92.2	13649	4.3	1.37	3.20	4.7
TOTAL	100.0	100.0	12386	13.0	4.34	6.17	10.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.2	59.8	13998	1.9	.40	2.13	3.0
FLOAT-1.40	71.4	81.1	13882	2.7	.73	2.54	3.7
FLOAT-1.60	83.3	93.1	13664	4.2	1.12	2.90	4.2
TOTAL	100.0	100.0	12227	14.1	4.60	6.39	10.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: COSHOCTON

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 5.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.7	56.0	13592	2.7	.53	2.31	3.4
FLOAT-1.40	84.2	90.1	13424	3.9	.85	2.61	3.9
FLOAT-1.60	90.3	95.7	13299	4.8	1.05	2.81	4.2
FLOAT-1.90	92.3	97.2	13215	5.4	1.15	2.92	4.4
TOTAL	100.0	100.0	12544	10.2	2.29	4.19	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.3	56.8	13648	2.3	.51	2.29	3.4
FLOAT-1.40	84.3	90.5	13494	3.4	.71	2.46	3.6
FLOAT-1.60	90.3	96.1	13382	4.2	.89	2.63	3.9
FLOAT-1.90	91.7	97.2	13327	4.6	.97	2.72	4.1
TOTAL	100.0	100.0	12572	10.0	2.33	4.23	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.4	36.3	13662	2.2	.39	2.20	3.2
FLOAT-1.40	77.1	82.8	13494	3.4	.63	2.39	3.5
FLOAT-1.60	92.0	96.5	13187	5.6	1.07	2.79	4.2
FLOAT-1.90	93.9	98.0	13117	6.1	1.18	2.91	4.4
TOTAL	100.0	100.0	12572	10.0	2.24	4.08	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: MUSKINGUM

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 2.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	87.9	90.5	13632	3.6	.37	2.00	2.9
FLOAT-1.40	93.4	95.8	13575	4.0	.43	2.08	3.1
FLOAT-1.60	95.7	97.7	13519	4.4	.55	2.21	3.3
FLOAT-1.90	97.1	98.8	13462	4.8	.63	2.31	3.4
TOTAL	100.0	100.0	13236	6.4	1.20	2.99	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	75.9	78.7	13703	3.1	.26	1.93	2.8
FLOAT-1.40	92.3	95.0	13590	3.9	.36	2.05	3.0
FLOAT-1.60	95.2	97.5	13533	4.3	.45	2.16	3.2
FLOAT-1.90	96.6	98.5	13462	4.8	.53	2.24	3.3
TOTAL	100.0	100.0	13208	6.6	1.26	3.08	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.2	73.8	13717	3.0	.17	1.88	2.7
FLOAT-1.40	92.4	94.9	13590	3.9	.28	2.00	2.9
FLOAT-1.60	95.8	97.8	13519	4.4	.35	2.07	3.1
FLOAT-1.90	97.2	98.9	13462	4.8	.41	2.09	3.1
TOTAL	100.0	100.0	13236	6.4	1.02	2.85	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: PERRY

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 5.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.2	53.0	13593	3.5	.59	1.71	2.5
FLOAT-1.40	65.0	74.7	13324	5.4	.83	1.97	3.0
FLOAT-1.60	85.1	92.5	12602	10.5	1.11	2.22	3.5
TOTAL	100.0	100.0	11597	17.6	3.32	4.49	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.0	53.0	13636	3.2	.56	1.63	2.4
FLOAT-1.40	67.1	77.4	13367	5.1	.80	1.92	2.9
FLOAT-1.60	81.9	90.9	12857	8.7	.99	2.10	3.3
TOTAL	100.0	100.0	11583	17.7	3.16	4.23	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.6	42.9	13706	2.7	.36	1.48	2.2
FLOAT-1.40	59.3	70.3	13494	4.2	.57	1.63	2.4
FLOAT-1.60	76.8	87.7	12999	7.7	.77	1.82	2.8
TOTAL	100.0	100.0	11385	19.1	3.47	4.47	7.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: PERRY

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 5.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.5	35.2	13385	3.3	.45	1.61	2.4
FLOAT-1.40	63.3	73.4	13012	6.0	.99	2.15	3.3
FLOAT-1.60	81.3	90.5	12499	9.7	1.33	2.47	4.0
FLOAT-1.90	86.0	94.0	12264	11.4	1.61	2.74	4.5
TOTAL	100.0	100.0	11226	18.9	3.70	4.82	8.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.1	56.9	13413	3.1	.39	1.54	2.3
FLOAT-1.40	66.7	77.9	13233	4.4	.65	1.82	2.8
FLOAT-1.60	79.4	89.8	12818	7.4	.88	2.03	3.2
FLOAT-1.90	84.8	93.8	12541	9.4	1.15	2.28	3.6
TOTAL	100.0	100.0	11337	18.1	3.47	4.54	8.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.3	37.9	13496	2.5	.41	1.52	2.3
FLOAT-1.40	58.6	69.3	13178	4.8	.69	1.88	2.9
FLOAT-1.60	77.5	88.1	12666	8.5	1.01	2.19	3.5
FLOAT-1.90	84.6	93.7	12347	10.8	1.26	2.41	3.9
TOTAL	100.0	100.0	11143	19.5	3.58	4.62	8.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: PERRY

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 5.5 %
BENCH: TOP

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.5	39.0	13502	4.5	.05	.69	1.0
FLOAT-1.40	77.7	88.9	13274	6.1	.05	.65	1.0
FLOAT-1.60	82.8	94.2	13189	6.7	.06	.66	1.0
TOTAL	100.0	100.0	11598	17.9	.10	.65	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.1	40.1	13644	3.5	.05	.63	.9
FLOAT-1.40	76.1	87.6	13345	5.6	.04	.64	1.0
FLOAT-1.60	82.2	93.8	13232	6.4	.06	.65	1.0
TOTAL	100.0	100.0	11598	17.9	.12	.64	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.8	35.4	13743	2.8	.05	.63	.9
FLOAT-1.40	70.2	81.4	13416	5.1	.04	.72	1.1
FLOAT-1.60	81.5	93.1	13218	6.5	.06	.73	1.1
TOTAL	100.0	100.0	11570	18.1	.14	.71	1.2
EPA STANDARD	99.4	98.5	11937	14.7	.12	.72	1.20

STATE: OHIO
COUNTY: PERRY

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 6.4 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.0	19.6	13530	3.9	.19	.94	1.4
FLOAT-1.40	59.1	65.4	13000	7.7	.17	.90	1.4
FLOAT-1.60	93.4	96.4	12120	14.0	.17	.84	1.4
TOTAL	100.0	100.0	11743	16.7	.36	1.02	1.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	21.1	24.4	13684	2.8	.13	.94	1.4
FLOAT-1.40	61.5	68.6	13195	6.3	.15	.94	1.4
FLOAT-1.60	89.9	94.0	12372	12.2	.15	.85	1.4
TOTAL	100.0	100.0	11827	16.1	.30	.99	1.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.5	28.7	13782	2.1	.12	.93	1.3
FLOAT-1.40	56.4	64.0	13349	5.2	.14	.93	1.4
FLOAT-1.60	85.9	91.2	12483	11.4	.14	.88	1.4
TOTAL	100.0	100.0	11757	16.6	.38	1.07	1.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: TUSCARAWAS

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 2.5 %
CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.3	65.8	13995	3.2	.46	2.26	3.2
FLOAT-1.40	78.7	87.4	13764	4.8	.66	2.49	3.6
FLOAT-1.60	84.0	92.4	13634	5.7	.84	2.68	3.9
FLOAT-1.90	86.9	94.6	13489	6.7	1.04	2.86	4.2
TOTAL	100.0	100.0	12391	14.3	3.59	5.78	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.4	67.3	14111	2.4	.34	2.20	3.1
FLOAT-1.40	78.3	87.4	13894	3.9	.53	2.41	3.5
FLOAT-1.60	83.5	92.3	13764	4.8	.67	2.56	3.7
FLOAT-1.90	86.6	94.7	13620	5.8	.82	2.68	3.9
TOTAL	100.0	100.0	12449	13.9	3.45	5.61	9.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.8	58.1	14126	2.3	.33	2.20	3.1
FLOAT-1.40	72.6	81.8	13909	3.8	.52	2.43	3.5
FLOAT-1.60	83.5	92.6	13692	5.3	.71	2.61	3.8
FLOAT-1.90	86.4	95.0	13576	6.1	.83	2.70	4.0
TOTAL	100.0	100.0	12347	14.6	3.41	5.53	9.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: TUSCARAWAS

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 3.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.8	67.0	13875	3.2	.40	2.18	3.1
FLOAT-1.40	80.7	87.7	13689	4.5	.61	2.44	3.6
FLOAT-1.60	86.5	93.0	13546	5.5	.84	2.70	4.0
FLOAT-1.90	90.0	95.7	13403	6.5	1.12	3.02	4.5
TOTAL	100.0	100.0	12600	12.1	2.78	5.02	8.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.0	70.8	13961	2.6	.36	2.16	3.1
FLOAT-1.40	80.1	87.6	13804	3.7	.52	2.36	3.4
FLOAT-1.60	86.3	93.3	13646	4.8	.73	2.59	3.8
FLOAT-1.90	89.8	95.9	13489	5.9	.96	2.84	4.2
TOTAL	100.0	100.0	12629	11.9	2.70	4.94	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.6	58.5	14019	2.2	.31	2.12	3.0
FLOAT-1.40	75.0	82.4	13847	3.4	.48	2.32	3.4
FLOAT-1.60	85.8	92.8	13632	4.9	.68	2.58	3.8
FLOAT-1.90	90.0	96.0	13446	6.2	.88	2.81	4.2
TOTAL	100.0	100.0	12600	12.1	2.64	4.92	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: TUSCARAWAS

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 4.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.2	76.0	14192	2.7	.67	2.04	2.9
FLOAT-1.40	88.8	92.8	14090	3.4	1.05	2.48	3.5
FLOAT-1.60	92.8	96.5	14017	3.9	1.24	2.73	3.9
FLOAT-1.90	94.2	97.6	13959	4.3	1.37	2.90	4.2
TOTAL	100.0	100.0	13477	7.6	2.67	4.49	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	78.2	82.5	14250	2.3	.55	1.88	2.6
FLOAT-1.40	87.7	92.2	14192	2.7	.76	2.12	3.0
FLOAT-1.60	92.2	96.3	14105	3.3	.98	2.40	3.4
FLOAT-1.90	93.7	97.4	14046	3.7	1.11	2.57	3.7
TOTAL	100.0	100.0	13506	7.4	2.69	4.49	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.3	60.8	14280	2.1	.47	1.57	2.2
FLOAT-1.40	86.5	91.2	14192	2.7	.71	1.89	2.7
FLOAT-1.60	91.7	96.2	14119	3.2	.90	2.13	3.0
FLOAT-1.90	93.3	97.3	14046	3.7	1.01	2.27	3.2
TOTAL	100.0	100.0	13463	7.7	2.70	4.35	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: VINTON
COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 7.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	84.6	86.0	13854	2.2	.17	.76	1.1
FLOAT-1.40	97.2	98.0	13746	2.9	.28	.86	1.3
FLOAT-1.60	99.1	99.6	13699	3.2	.32	.91	1.3
TOTAL	100.0	100.0	13637	3.6	.41	.99	1.5
EPA STANDARD	94.3	95.3	13782	2.7	.25	.83	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	84.1	85.4	13870	2.1	.11	.84	1.2
FLOAT-1.40	95.9	96.8	13777	2.7	.18	.89	1.3
FLOAT-1.60	99.0	99.5	13714	3.1	.23	.92	1.3
TOTAL	100.0	100.0	13652	3.5	.34	1.03	1.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	70.8	72.4	13948	1.6	.10	.84	1.2
FLOAT-1.40	94.2	95.5	13823	2.4	.17	.82	1.2
FLOAT-1.60	98.6	99.4	13746	2.9	.21	.85	1.2
TOTAL	100.0	100.0	13637	3.6	.39	1.02	1.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: JEFFERSON
COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	33.9	39.3	14156	4.2	.62	1.65	2.3
FLOAT-1.40	70.5	79.4	13756	6.9	1.23	2.44	3.5
FLOAT-1.60	84.4	92.7	13416	9.2	1.63	2.95	4.4
FLOAT-1.90	88.9	96.1	13209	10.6	1.85	3.19	4.8
TOTAL	100.0	100.0	12217	17.3	2.51	3.80	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	46.3	53.7	14200	3.9	.49	1.49	2.1
FLOAT-1.40	71.5	81.5	13948	5.6	.85	1.95	2.8
FLOAT-1.60	82.8	92.5	13667	7.5	1.20	2.39	3.5
FLOAT-1.90	87.8	96.4	13431	9.1	1.45	2.68	4.0
TOTAL	100.0	100.0	12232	17.2	2.51	3.82	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	30.2	35.2	14215	3.8	.43	1.41	2.0
FLOAT-1.40	68.7	78.5	13948	5.6	.59	1.66	2.4
FLOAT-1.60	83.1	92.9	13638	7.7	.88	2.02	3.0
FLOAT-1.90	87.6	96.4	13431	9.1	1.06	2.24	3.3
TOTAL	100.0	100.0	12202	17.4	2.69	3.93	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: LAWRENCE

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 4.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.5	35.3	13567	4.0	.70	1.38	2.0
FLOAT-1.40	74.8	81.1	13114	7.2	1.83	2.78	4.2
FLOAT-1.60	88.1	93.2	12803	9.4	2.31	3.35	5.2
FLOAT-1.90	93.0	96.8	12591	10.9	2.56	3.64	5.8
TOTAL	100.0	100.0	12097	14.4	3.54	4.72	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.0	63.7	13694	3.1	.41	1.03	1.5
FLOAT-1.40	76.6	84.2	13468	4.7	.83	1.56	2.3
FLOAT-1.60	85.8	92.6	13227	6.4	1.18	1.95	2.9
FLOAT-1.90	90.3	95.8	13001	8.0	1.39	2.19	3.4
TOTAL	100.0	100.0	12252	13.3	3.28	4.44	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.6	45.2	13779	2.5	.26	.91	1.3
FLOAT-1.40	66.6	74.6	13524	4.3	.62	1.39	2.1
FLOAT-1.60	83.9	91.3	13128	7.1	1.08	1.92	2.9
FLOAT-1.90	89.6	95.6	12874	8.9	1.29	2.16	3.4
TOTAL	100.0	100.0	12068	14.6	3.54	4.73	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: MAHONING

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 2.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	76.0	77.2	14474	2.2	.63	1.01	1.4
FLOAT-1.40	97.6	98.2	14340	3.1	1.10	1.41	2.0
FLOAT-1.60	98.9	99.4	14325	3.2	1.18	1.50	2.1
TOTAL	100.0	100.0	14251	3.7	1.40	1.72	2.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	85.4	87.2	14578	1.5	.32	.65	.9
FLOAT-1.40	95.2	96.7	14503	2.0	.53	.89	1.2
FLOAT-1.60	97.4	98.6	14459	2.3	.69	1.05	1.5
TOTAL	100.0	100.0	14280	3.5	1.40	1.75	2.5
EPA STANDARD	94.7	96.2	14509	2.0	.51	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	89.3	91.6	14607	1.3	.11	.59	.8
FLOAT-1.40	94.3	96.5	14563	1.6	.20	.68	.9
FLOAT-1.60	96.2	98.1	14518	1.9	.31	.78	1.1
TOTAL	100.0	100.0	14236	3.8	1.39	1.85	2.6
EPA STANDARD	97.7	99.4	14495	2.1	.41	.87	1.20

STATE: OHIO
COUNTY: VINTON

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 4.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.2	7.9	13296	5.2	.68	1.48	2.2
FLOAT-1.40	75.0	78.2	12662	9.7	2.24	3.00	4.7
FLOAT-1.60	94.1	96.3	12422	11.4	3.04	3.83	6.2
TOTAL	100.0	100.0	12140	13.4	4.05	4.80	7.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.3	27.7	13409	4.4	.45	1.23	1.8
FLOAT-1.40	75.2	79.5	12944	7.7	1.27	1.99	3.1
FLOAT-1.60	91.4	94.8	12690	9.5	1.99	2.70	4.3
TOTAL	100.0	100.0	12239	12.7	3.94	4.58	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.1	54.0	13366	4.7	.35	1.22	1.8
FLOAT-1.40	73.9	79.7	13113	6.5	.68	1.53	2.3
FLOAT-1.60	87.6	93.0	12901	8.0	1.13	1.96	3.0
TOTAL	100.0	100.0	12155	13.3	4.44	5.17	8.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: MUSKINGUM

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.0	42.4	13483	3.8	.92	1.79	2.7
FLOAT-1.40	82.5	86.2	12951	7.6	2.04	3.15	4.9
FLOAT-1.60	93.3	96.3	12783	8.8	2.62	3.84	6.0
FLOAT-1.90	96.2	98.4	12670	9.6	2.89	4.16	6.6
TOTAL	100.0	100.0	12390	11.6	3.47	4.85	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.6	74.3	13610	2.9	.27	.97	1.4
FLOAT-1.40	85.2	91.1	13427	4.2	.54	1.30	1.9
FLOAT-1.60	89.4	95.0	13343	4.8	.80	1.62	2.4
FLOAT-1.90	91.2	96.4	13273	5.3	1.00	1.86	2.8
TOTAL	100.0	100.0	12558	10.4	3.25	4.56	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.7	52.7	13708	2.2	.24	.89	1.3
FLOAT-1.40	83.1	89.4	13343	4.8	.58	1.32	2.0
FLOAT-1.60	88.6	94.7	13259	5.4	.74	1.50	2.3
FLOAT-1.90	90.1	95.9	13203	5.8	.87	1.66	2.5
TOTAL	100.0	100.0	12404	11.5	3.53	4.85	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: TUSCARAWAS

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.3	73.0	14019	3.8	.37	.87	1.2
FLOAT-1.40	90.4	93.2	13915	4.5	.71	1.22	1.8
FLOAT-1.60	94.7	97.2	13856	4.9	.92	1.49	2.2
FLOAT-1.90	96.2	98.3	13796	5.3	1.07	1.70	2.5
TOTAL	100.0	100.0	13500	7.3	1.72	2.51	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	83.7	87.4	14108	3.2	.12	.64	.9
FLOAT-1.40	91.5	95.2	14063	3.5	.22	.75	1.1
FLOAT-1.60	93.7	97.2	14019	3.8	.32	.88	1.3
FLOAT-1.90	94.6	97.8	13974	4.1	.41	1.00	1.4
TOTAL	100.0	100.0	13515	7.2	1.65	2.53	3.7
EPA STANDARD	93.1	96.6	14032	3.7	.29	.84	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	74.1	77.8	14137	3.0	.11	.64	.9
FLOAT-1.40	89.6	93.6	14078	3.4	.16	.70	1.0
FLOAT-1.60	93.1	96.9	14019	3.8	.22	.76	1.1
FLOAT-1.90	94.2	97.8	13989	4.0	.27	.81	1.2
TOTAL	100.0	100.0	13470	7.5	1.69	2.61	3.9
EPA STANDARD	94.8	98.3	13981	4.1	.30	.84	1.20

STATE: OHIO
COUNTY: TUSCARAWAS

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 4.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.4	40.6	13805	2.6	.73	2.40	3.5
FLOAT-1.40	71.8	78.3	13508	4.7	1.63	3.54	5.2
FLOAT-1.60	85.8	91.8	13253	6.5	2.36	4.50	6.8
FLOAT-1.90	90.8	95.6	13040	8.0	2.78	5.01	7.7
TOTAL	100.0	100.0	12388	12.6	4.35	6.75	10.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.8	56.7	13905	1.9	.49	2.14	3.1
FLOAT-1.40	76.2	83.7	13692	3.4	1.14	2.93	4.3
FLOAT-1.60	85.3	92.4	13494	4.8	1.68	3.62	5.4
FLOAT-1.90	88.9	95.2	13338	5.9	2.00	4.02	6.0
TOTAL	100.0	100.0	12459	12.1	4.11	6.34	10.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.9	44.9	13933	1.7	.44	2.12	3.0
FLOAT-1.40	74.9	83.2	13749	3.0	.97	2.79	4.1
FLOAT-1.60	84.2	91.8	13494	4.8	1.58	3.52	5.2
FLOAT-1.90	88.8	95.4	13295	6.2	1.92	3.95	5.9
TOTAL	100.0	100.0	12374	12.7	4.28	6.55	10.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: MEIGS

COALBED: CLARION
RAW COAL MOISTURE: 4.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.1	48.1	13452	3.5	.41	1.87	2.8
FLOAT-1.40	66.5	81.7	12755	8.5	.92	2.44	3.8
FLOAT-1.60	75.2	90.4	12490	10.4	1.18	2.66	4.3
FLOAT-1.90	79.6	93.9	12253	12.1	1.28	2.73	4.5
TOTAL	100.0	100.0	10385	25.5	2.14	3.52	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.0	43.5	13424	3.7	.39	2.10	3.1
FLOAT-1.40	66.8	81.5	12783	8.3	.91	2.53	4.0
FLOAT-1.60	76.8	91.0	12421	10.9	1.23	2.79	4.5
FLOAT-1.90	80.8	94.1	12211	12.4	1.36	2.88	4.7
TOTAL	100.0	100.0	10483	24.8	2.18	3.44	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.2	28.1	13382	4.0	.23	2.05	3.1
FLOAT-1.40	60.8	72.9	12685	9.0	.59	2.44	3.8
FLOAT-1.60	75.7	88.8	12407	11.0	.84	2.67	4.3
FLOAT-1.90	83.1	94.0	11975	14.1	1.07	2.83	4.7
TOTAL	100.0	100.0	10581	24.1	1.78	3.34	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: JACKSON

COALBED: BROOKVILLE
RAW COAL MOISTURE: 3.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.7	78.2	13482	3.5	.57	2.68	4.0
FLOAT-1.40	84.5	90.4	13412	4.0	.75	2.87	4.3
FLOAT-1.60	90.5	95.9	13286	4.9	1.04	3.20	4.8
FLOAT-1.90	93.0	97.7	13161	5.8	1.18	3.34	5.1
TOTAL	100.0	100.0	12532	10.3	1.91	4.03	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.7	66.6	13608	2.6	.32	2.46	3.6
FLOAT-1.40	84.4	90.3	13496	3.4	.58	2.64	3.9
FLOAT-1.60	90.0	95.5	13384	4.2	.75	2.87	4.3
FLOAT-1.90	92.8	97.5	13259	5.1	.90	3.02	4.6
TOTAL	100.0	100.0	12616	9.7	1.70	3.81	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.9	57.4	13636	2.4	.26	2.37	3.5
FLOAT-1.40	79.4	85.3	13510	3.3	.44	2.51	3.7
FLOAT-1.60	89.4	94.9	13342	4.5	.66	2.70	4.0
FLOAT-1.90	92.8	97.4	13203	5.5	.82	2.87	4.3
TOTAL	100.0	100.0	12574	10.0	1.65	3.72	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: MAHONING
COALBED: BROOKVILLE
RAW COAL MOISTURE: 3.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.6	69.6	14456	2.1	.45	1.14	1.6
FLOAT-1.40	86.2	89.7	14175	4.0	.70	1.43	2.0
FLOAT-1.60	95.3	97.7	13969	5.4	1.04	1.87	2.7
FLOAT-1.90	96.7	98.8	13925	5.7	1.19	2.06	3.0
TOTAL	100.0	100.0	13629	7.7	1.65	2.60	3.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.5	70.9	14545	1.5	.18	.85	1.2
FLOAT-1.40	86.1	90.2	14294	3.2	.34	1.04	1.5
FLOAT-1.60	93.5	96.8	14131	4.3	.61	1.35	1.9
FLOAT-1.90	95.1	98.1	14072	4.7	.75	1.52	2.2
TOTAL	100.0	100.0	13644	7.6	1.72	2.67	3.9
EPA STANDARD	69.2	73.6	14517	1.7	.20	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.7	71.2	14545	1.5	.18	.85	1.2
FLOAT-1.40	85.8	90.3	14338	2.9	.26	.93	1.3
FLOAT-1.60	92.9	96.7	14190	3.9	.39	1.07	1.5
FLOAT-1.90	94.3	97.8	14131	4.3	.49	1.19	1.7
TOTAL	100.0	100.0	13629	7.7	1.72	2.67	3.9
EPA STANDARD	72.4	76.9	14494	1.9	.20	.87	1.20

STATE: OKLAHOMA
COUNTY: CRAIG
COALBED: FORT SCOTT
RAW COAL MOISTURE: 2.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	84.0	86.6	14415	3.4	.90	2.84	3.9
FLOAT-1.40	93.3	95.6	14326	4.0	1.08	3.01	4.2
FLOAT-1.60	96.0	97.8	14253	4.5	1.19	3.09	4.3
TOTAL	100.0	100.0	13987	6.3	1.32	3.17	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	82.9	86.1	14518	2.7	.83	2.79	3.8
FLOAT-1.40	90.9	93.8	14430	3.3	1.00	2.94	4.1
FLOAT-1.60	94.5	97.0	14356	3.8	1.14	3.06	4.3
TOTAL	100.0	100.0	13987	6.3	1.29	3.15	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	81.3	85.0	14548	2.5	.75	2.75	3.8
FLOAT-1.40	89.6	93.2	14474	3.0	.90	2.88	4.0
FLOAT-1.60	93.2	96.4	14386	3.6	1.04	3.01	4.2
TOTAL	100.0	100.0	13913	6.8	1.34	3.21	4.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OKLAHOMA
COUNTY: NOWATA

COALBED: FORT SCOTT
RAW COAL MOISTURE: 3.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	77.5	81.7	14365	3.3	1.27	3.25	4.5
FLOAT-1.40	90.6	94.9	14276	3.9	1.63	3.61	5.1
FLOAT-1.60	93.4	97.5	14217	4.3	1.77	3.75	5.3
TOTAL	100.0	100.0	13625	8.3	2.53	4.45	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	75.5	79.8	14439	2.8	1.10	3.05	4.2
FLOAT-1.40	89.9	94.3	14335	3.5	1.48	3.42	4.8
FLOAT-1.60	93.4	97.4	14261	4.0	1.69	3.63	5.1
TOTAL	100.0	100.0	13669	8.0	2.40	4.27	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.6	76.9	14513	2.3	.89	2.86	3.9
FLOAT-1.40	88.1	92.7	14410	3.0	1.27	3.22	4.5
FLOAT-1.60	92.8	97.0	14321	3.6	1.54	3.48	4.9
TOTAL	100.0	100.0	13699	7.8	2.18	4.11	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OKLAHOMA
COUNTY: ROGERS

COALBED: FORT SCOTT
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.4	65.4	14215	3.5	1.34	3.30	4.6
FLOAT-1.40	87.7	93.3	13964	5.2	2.13	4.17	6.0
FLOAT-1.60	91.0	96.3	13891	5.7	2.29	4.35	6.3
FLOAT-1.90	92.2	97.2	13832	6.1	2.37	4.42	6.4
TOTAL	100.0	100.0	13125	10.9	3.72	5.72	8.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.4	77.1	14259	3.2	1.27	3.25	4.6
FLOAT-1.40	86.5	92.6	14126	4.1	1.62	3.65	5.2
FLOAT-1.60	90.2	95.9	14038	4.7	1.79	3.86	5.5
FLOAT-1.90	91.5	96.9	13979	5.1	1.88	3.97	5.7
TOTAL	100.0	100.0	13199	10.4	3.58	5.57	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.8	74.0	14288	3.0	1.17	3.22	4.5
FLOAT-1.40	82.6	89.4	14170	3.8	1.52	3.63	5.1
FLOAT-1.60	88.7	95.2	14053	4.6	1.79	3.96	5.6
FLOAT-1.90	90.9	96.9	13964	5.2	1.93	4.13	5.9
TOTAL	100.0	100.0	13095	11.1	3.78	5.86	8.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OKLAHOMA
COUNTY: CRAIG

COALBED: CAVANAL
RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	15.5	17.1	13913	5.7	1.22	2.61	3.8
FLOAT-1.40	77.1	81.9	13392	9.3	2.94	4.29	6.4
FLOAT-1.60	90.2	94.2	13175	10.8	3.66	5.00	7.6
TOTAL	100.0	100.0	12611	14.7	4.57	5.95	9.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	33.8	37.4	14014	5.0	1.08	2.50	3.6
FLOAT-1.40	75.8	81.3	13594	7.9	2.27	3.65	5.4
FLOAT-1.60	88.6	93.5	13363	9.5	3.09	4.44	6.6
TOTAL	100.0	100.0	12668	14.3	4.49	5.92	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	32.4	36.5	14101	4.4	.90	2.32	3.3
FLOAT-1.40	69.0	75.6	13710	7.1	1.71	3.09	4.5
FLOAT-1.60	84.5	90.9	13450	8.9	2.65	3.94	5.9
TOTAL	100.0	100.0	12509	15.4	4.80	6.14	9.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OKLAHOMA
COUNTY: ROGERS

COALBED: CAVANAL
RAW COAL MOISTURE: 1.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	79.0	82.0	14295	2.8	.04	.56	.8
FLOAT-1.40	94.2	96.3	14075	4.3	.05	.56	.8
FLOAT-1.60	97.5	99.0	13972	5.0	.05	.56	.8
FLOAT-1.90	98.1	99.4	13943	5.2	.06	.56	.8
TOTAL	100.0	100.0	13766	6.4	.07	.57	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	83.1	86.5	14339	2.5	.03	.56	.8
FLOAT-1.40	91.6	94.5	14222	3.3	.03	.56	.8
FLOAT-1.60	96.1	98.3	14090	4.2	.04	.56	.8
FLOAT-1.90	97.5	99.2	14016	4.7	.05	.56	.8
TOTAL	100.0	100.0	13781	6.3	.06	.57	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	77.9	81.4	14384	2.2	0.00	.55	.8
FLOAT-1.40	88.9	92.3	14295	2.8	.01	.55	.8
FLOAT-1.60	95.1	97.6	14134	3.9	.02	.55	.8
FLOAT-1.90	96.9	98.9	14045	4.5	.02	.55	.8
TOTAL	100.0	100.0	13766	6.4	.06	.58	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: OKLAHOMA
COUNTY: HASKELL

COALBED: STIGLER
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	84.4	86.0	15209	2.2	.08	.63	.8
FLOAT-1.40	95.9	97.2	15131	2.7	.11	.66	.9
FLOAT-1.60	98.2	99.1	15069	3.1	.14	.68	.9
FLOAT-1.90	98.9	99.6	15038	3.3	.15	.69	.9
TOTAL	100.0	100.0	14929	4.0	.16	.70	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	89.7	91.4	15224	2.1	.03	.58	.8
FLOAT-1.40	94.7	96.3	15193	2.3	.05	.59	.8
FLOAT-1.60	97.3	98.5	15131	2.7	.07	.61	.8
FLOAT-1.90	98.5	99.4	15085	3.0	.09	.63	.8
TOTAL	100.0	100.0	14945	3.9	.15	.69	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	88.2	90.1	15256	1.9	.01	.56	.7
FLOAT-1.40	93.8	95.7	15224	2.1	.02	.57	.7
FLOAT-1.60	96.5	98.1	15178	2.4	.04	.58	.8
FLOAT-1.90	97.8	99.0	15116	2.8	.06	.60	.8
TOTAL	100.0	100.0	14929	4.0	.16	.70	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: OKLAHOMA
COUNTY: HASKELL

COALBED: UPPER AND LOWER HARTSHORNE
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	46.6	56.6	14776	3.0	.21	.75	1.0
FLOAT-1.40	72.2	86.3	14532	4.6	.56	1.12	1.5
FLOAT-1.60	77.7	92.0	14395	5.5	.68	1.26	1.8
FLOAT-1.90	81.3	94.7	14167	7.0	.73	1.32	1.9
TOTAL	100.0	100.0	12156	20.2	.71	1.21	2.0
EPA STANDARD	57.5	69.6	14690	3.5	.34	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	56.0	68.3	14837	2.6	.18	.72	1.0
FLOAT-1.40	72.0	87.0	14685	3.6	.39	.95	1.3
FLOAT-1.60	76.9	92.0	14548	4.5	.51	1.07	1.5
FLOAT-1.90	80.1	94.6	14350	5.8	.55	1.12	1.6
TOTAL	100.0	100.0	12156	20.2	.62	1.09	1.8
EPA STANDARD	68.3	82.8	14729	3.2	.33	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	46.6	56.9	14837	2.6	.13	.69	.9
FLOAT-1.40	68.1	82.0	14639	3.9	.33	.90	1.2
FLOAT-1.60	76.6	91.0	14441	5.2	.45	1.03	1.4
FLOAT-1.90	81.6	95.2	14182	6.9	.52	1.09	1.5
TOTAL	100.0	100.0	12156	20.2	.62	1.14	1.9
EPA STANDARD	66.4	80.1	14659	3.7	.31	.88	1.20

STATE: PA. (BITUMINOUS) COALBED: SEWICKLEY
COUNTY: GREENE RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.1	26.1	14395	4.4	.52	1.76	2.4
FLOAT-1.40	83.0	86.6	13873	7.9	1.05	2.29	3.3
FLOAT-1.60	94.1	96.5	13634	9.5	1.30	2.52	3.7
TOTAL	100.0	100.0	13290	11.8	2.46	3.73	5.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.0	41.0	14410	4.3	.43	1.68	2.3
FLOAT-1.40	84.6	88.5	13962	7.3	.84	2.05	2.9
FLOAT-1.60	93.9	96.6	13738	8.8	1.13	2.32	3.4
TOTAL	100.0	100.0	13350	11.4	2.23	3.45	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.8	49.0	14530	3.5	.19	1.50	2.1
FLOAT-1.40	83.2	87.9	14037	6.8	.62	1.84	2.6
FLOAT-1.60	91.5	95.2	13828	8.2	.77	2.01	2.9
TOTAL	100.0	100.0	13290	11.8	2.45	3.68	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: SEWICKLEY
COUNTY: GREENE RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.0	21.2	13794	4.7	.30	.80	1.2
FLOAT-1.40	54.8	79.0	13099	9.5	.47	1.07	1.6
FLOAT-1.60	61.4	86.8	12853	11.2	.63	1.20	1.9
FLOAT-1.90	64.6	89.3	12563	13.2	.71	1.25	2.0
TOTAL	100.0	100.0	9090	37.2	.95	1.31	2.9
EPA STANDARD	18.9	28.3	13735	5.2	.31	.82	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.7	23.6	13779	4.8	.28	.77	1.1
FLOAT-1.40	52.8	74.7	12940	10.6	.37	.99	1.5
FLOAT-1.60	60.1	83.2	12665	12.5	.53	1.11	1.8
FLOAT-1.90	65.1	86.3	12129	16.2	.61	1.16	1.9
TOTAL	100.0	100.0	9148	36.8	.92	1.30	2.8
EPA STANDARD	25.6	37.5	13612	6.2	.28	.81	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.4	18.7	13808	4.6	.25	.48	.7
FLOAT-1.40	45.5	65.2	13113	9.4	.29	.79	1.2
FLOAT-1.60	60.6	83.4	12592	13.0	.41	.92	1.5
FLOAT-1.90	68.2	89.6	12013	17.0	.54	1.02	1.7
TOTAL	100.0	100.0	9148	36.8	.97	1.30	2.8
EPA STANDARD	45.2	64.8	13120	9.3	.29	.79	1.20

STATE: PA. (BITUMINOUS) COALBED: PITTSBURGH
COUNTY: GREENE RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.1	57.4	14426	4.5	.37	1.62	2.2
FLOAT-1.40	91.4	93.6	14191	6.1	.66	1.89	2.7
FLOAT-1.60	95.7	97.4	14103	6.7	.76	2.00	2.8
TOTAL	100.0	100.0	13854	8.4	1.42	2.67	3.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.7	64.1	14440	4.4	.26	1.58	2.2
FLOAT-1.40	91.5	93.6	14221	5.9	.48	1.83	2.6
FLOAT-1.60	96.0	97.5	14118	6.6	.63	1.98	2.8
TOTAL	100.0	100.0	13898	8.1	1.22	2.59	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.9	63.7	14514	3.9	.21	1.44	2.0
FLOAT-1.40	90.2	92.6	14250	5.7	.38	1.60	2.2
FLOAT-1.60	95.5	97.5	14177	6.2	.56	1.75	2.5
TOTAL	100.0	100.0	13884	8.2	1.30	2.60	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: PITTSBURGH
COUNTY: GREENE RAW COAL MOISTURE: 1.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.2	40.5	14601	3.9	.24	1.03	1.4
FLOAT-1.40	89.8	92.3	14146	6.9	.72	1.60	2.3
FLOAT-1.60	95.4	97.1	14010	7.8	.90	1.78	2.5
TOTAL	100.0	100.0	13768	9.4	1.34	2.21	3.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.6	42.1	14646	3.6	.20	.98	1.3
FLOAT-1.40	88.6	91.2	14192	6.6	.61	1.41	2.0
FLOAT-1.60	95.2	97.1	14056	7.5	.82	1.63	2.3
TOTAL	100.0	100.0	13783	9.3	1.32	2.15	3.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.5	52.3	14601	3.9	.11	.90	1.2
FLOAT-1.40	87.5	90.3	14252	6.2	.38	1.28	1.8
FLOAT-1.60	95.7	97.6	14086	7.3	.50	1.43	2.0
TOTAL	100.0	100.0	13813	9.1	1.26	2.19	3.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: GREENE

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.8	56.6	14462	4.1	.65	1.78	2.5
FLOAT-1.40	85.3	90.1	14250	5.5	1.15	2.26	3.2
FLOAT-1.60	92.2	96.3	14098	6.5	1.44	2.55	3.6
TOTAL	100.0	100.0	13493	10.5	2.43	3.48	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.3	63.7	14537	3.6	.41	1.62	2.2
FLOAT-1.40	84.5	89.6	14341	4.9	.77	1.94	2.7
FLOAT-1.60	91.0	95.4	14174	6.0	1.06	2.21	3.1
TOTAL	100.0	100.0	13524	10.3	2.29	3.41	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.2	66.3	14613	3.1	.32	1.52	2.1
FLOAT-1.40	85.0	90.8	14416	4.4	.21	1.57	2.2
FLOAT-1.60	89.8	95.1	14295	5.2	.65	1.79	2.5
TOTAL	100.0	100.0	13493	10.5	2.45	3.56	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: WASHINGTON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.6	57.9	14489	2.9	.11	.89	1.2
FLOAT-1.40	86.9	90.7	14252	4.5	.44	1.28	1.8
FLOAT-1.60	93.7	96.6	14090	5.6	.65	1.50	2.1
TOTAL	100.0	100.0	13661	8.5	.82	1.67	2.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.2	58.3	14429	3.3	.17	.95	1.3
FLOAT-1.40	88.8	92.4	14208	4.8	.39	1.23	1.7
FLOAT-1.60	93.2	96.3	14119	5.4	.53	1.37	1.9
TOTAL	100.0	100.0	13661	8.5	.86	1.69	2.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.3	63.5	14474	3.0	.17	1.05	1.5
FLOAT-1.40	86.1	89.8	14341	3.9	.25	1.06	1.5
FLOAT-1.60	93.8	96.7	14178	5.0	.37	1.27	1.8
TOTAL	100.0	100.0	13750	7.9	.91	1.78	2.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: PITTSBURGH
COUNTY: WASHINGTON RAW COAL MOISTURE: 2.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.8	58.8	14447	3.3	.26	1.09	1.5
FLOAT-1.40	90.3	93.8	14239	4.7	.46	1.33	1.9
FLOAT-1.60	94.3	97.3	14134	5.4	.53	1.41	2.0
TOTAL	100.0	100.0	13703	8.3	.80	1.67	2.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.9	63.0	14492	3.0	.20	1.06	1.5
FLOAT-1.40	88.6	93.2	14253	4.6	.37	1.26	1.8
FLOAT-1.60	92.8	96.8	14134	5.4	.47	1.36	1.9
TOTAL	100.0	100.0	13554	9.3	.77	1.64	2.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.9	65.1	14566	2.5	.16	.99	1.4
FLOAT-1.40	88.7	93.1	14298	4.3	.24	1.19	1.7
FLOAT-1.60	93.7	97.2	14134	5.4	.40	1.29	1.8
TOTAL	100.0	100.0	13628	8.8	.83	1.72	2.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: PITTSBURGH
COUNTY: WASHINGTON RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.8	59.7	14570	3.6	.21	.85	1.2
FLOAT-1.40	89.2	94.0	14343	5.1	.75	1.34	1.9
FLOAT-1.60	92.8	97.2	14268	5.6	.83	1.41	2.0
TOTAL	100.0	100.0	13617	9.9	.89	1.43	2.1
EPA STANDARD	57.8	61.8	14560	3.6	.24	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.3	66.0	14646	3.1	.22	.77	1.1
FLOAT-1.40	87.3	92.7	14449	4.4	.52	1.06	1.5
FLOAT-1.60	91.5	96.6	14358	5.0	.65	1.20	1.7
TOTAL	100.0	100.0	13602	10.0	.86	1.37	2.0
EPA STANDARD	73.3	78.5	14576	3.6	.33	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.7	56.1	14737	2.5	.14	.71	1.0
FLOAT-1.40	84.1	89.6	14480	4.2	.22	.80	1.1
FLOAT-1.60	91.6	96.5	14313	5.3	.34	.91	1.3
TOTAL	100.0	100.0	13587	10.1	.96	1.48	2.2
EPA STANDARD	88.4	93.5	14385	4.9	.29	.86	1.20

STATE: PA. (BITUMINOUS)
COUNTY: ALLEGHENY

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.1	34.9	14350	3.8	.34	.88	1.2
FLOAT-1.40	63.4	76.2	13903	6.8	.77	1.37	2.0
FLOAT-1.60	78.7	91.4	13425	10.0	.93	1.52	2.3
FLOAT-1.90	86.4	97.0	12978	13.0	1.01	1.59	2.5
TOTAL	100.0	100.0	11560	22.5	1.34	1.90	3.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.8	50.9	14380	3.6	.10	.59	.8
FLOAT-1.40	61.9	75.8	14126	5.3	.27	.80	1.1
FLOAT-1.60	76.3	90.2	13634	8.6	.46	1.00	1.5
FLOAT-1.90	82.8	95.1	13246	11.2	.56	1.09	1.6
TOTAL	100.0	100.0	11531	22.7	1.49	1.97	3.4
EPA STANDARD	65.5	79.8	14027	5.8	.31	.84	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.7	42.1	14469	3.0	.16	.60	.8
FLOAT-1.40	58.4	71.3	14141	5.2	.24	.68	1.0
FLOAT-1.60	75.5	88.6	13589	8.9	.35	.79	1.2
FLOAT-1.90	84.5	95.5	13082	12.3	.44	.86	1.3
TOTAL	100.0	100.0	11575	22.4	1.41	1.87	3.2
EPA STANDARD	78.0	90.8	13465	9.7	.37	.81	1.20

STATE: PA. (BITUMINOUS)
COUNTY: ARMSTRONG

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.4	52.1	14586	3.8	.20	.98	1.3
FLOAT-1.40	73.4	82.3	14252	6.0	.44	1.19	1.7
FLOAT-1.60	84.3	92.2	13887	8.4	.59	1.30	1.9
TOTAL	100.0	100.0	12703	16.2	1.05	1.70	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.2	59.0	14677	3.2	.10	.83	1.1
FLOAT-1.40	73.5	83.1	14388	5.1	.21	.95	1.3
FLOAT-1.60	83.4	92.0	14039	7.4	.32	1.04	1.5
TOTAL	100.0	100.0	12733	16.0	.99	1.63	2.6
EPA STANDARD	60.6	69.5	14572	3.8	.14	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.3	55.9	14768	2.6	.06	.83	1.1
FLOAT-1.40	70.2	79.8	14495	4.4	.11	.87	1.2
FLOAT-1.60	83.3	91.7	14039	7.4	.19	.89	1.3
TOTAL	100.0	100.0	12749	15.9	1.04	1.70	2.7
EPA STANDARD	70.1	79.7	14496	4.4	.11	.87	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER FREEPORT
COUNTY: ARMSTRONG RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.9	44.2	14459	3.5	.75	1.88	2.6
FLOAT-1.40	84.5	87.4	14161	5.5	2.14	3.16	4.5
FLOAT-1.60	95.3	97.3	13982	6.7	2.63	3.60	5.1
TOTAL	100.0	100.0	13699	8.6	3.30	4.26	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.1	68.9	14534	3.0	.58	1.71	2.4
FLOAT-1.40	85.6	89.5	14355	4.2	1.18	2.26	3.1
FLOAT-1.60	92.5	95.7	14206	5.2	1.66	2.68	3.8
TOTAL	100.0	100.0	13729	8.4	3.25	4.27	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.9	69.3	14638	2.3	.24	1.28	1.7
FLOAT-1.40	82.3	87.0	14474	3.4	.61	1.60	2.2
FLOAT-1.60	90.2	94.4	14340	4.3	.93	1.94	2.7
TOTAL	100.0	100.0	13699	8.6	3.32	4.27	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER FREEPORT
COUNTY: ARMSTRONG RAW COAL MOISTURE: 1.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.0	49.2	14557	3.3	.48	1.39	1.9
FLOAT-1.40	78.1	83.0	14140	6.1	.92	1.92	2.7
FLOAT-1.60	91.5	94.9	13797	8.4	1.33	2.34	3.4
TOTAL	100.0	100.0	13306	11.7	2.44	3.48	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.5	59.0	14646	2.7	.17	1.30	1.8
FLOAT-1.40	79.1	85.0	14274	5.2	.52	1.71	2.4
FLOAT-1.60	89.7	94.3	13976	7.2	.89	2.03	2.9
TOTAL	100.0	100.0	13291	11.8	2.52	3.55	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.7	59.5	14691	2.4	.17	.99	1.3
FLOAT-1.40	77.0	83.5	14378	4.5	.37	1.27	1.8
FLOAT-1.60	88.8	93.9	14021	6.9	.76	1.74	2.5
TOTAL	100.0	100.0	13261	12.0	2.50	3.41	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER FREEPORT
COUNTY: ARMSTRONG RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	56.9	62.6	14596	3.9	.44	1.24	1.7
FLOAT-1.40	81.3	87.7	14307	5.8	.53	1.32	1.8
FLOAT-1.60	88.3	94.0	14110	7.1	.65	1.44	2.0
FLOAT-1.90	92.9	97.3	13882	8.6	.80	1.58	2.3
TOTAL	100.0	100.0	13259	12.7	1.54	2.43	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	59.8	66.7	14732	3.0	.17	.87	1.2
FLOAT-1.40	80.2	87.8	14459	4.8	.24	.93	1.3
FLOAT-1.60	86.9	93.8	14261	6.1	.34	1.02	1.4
FLOAT-1.90	91.2	96.8	14018	7.7	.45	1.12	1.6
TOTAL	100.0	100.0	13213	13.0	1.64	2.53	3.8
EPA STANDARD	64.4	71.5	14683	3.4	.18	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	55.9	62.2	14748	2.9	.12	.82	1.1
FLOAT-1.40	79.8	87.0	14444	4.9	.20	.88	1.2
FLOAT-1.60	87.6	94.2	14246	6.2	.27	.94	1.3
FLOAT-1.90	91.6	97.0	14018	7.7	.34	1.01	1.4
TOTAL	100.0	100.0	13244	12.8	1.60	2.47	3.7
EPA STANDARD	76.8	84.0	14497	4.6	.19	.87	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER FREEPORT
COUNTY: ARMSTRONG RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	45.8	52.9	14416	3.6	.27	1.03	1.4
FLOAT-1.40	72.3	81.3	14027	6.2	.54	1.35	1.9
FLOAT-1.60	83.4	91.7	13713	8.3	.81	1.70	2.5
FLOAT-1.90	89.6	96.0	13369	10.6	1.01	1.89	2.8
TOTAL	100.0	100.0	12471	16.6	2.24	3.32	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	53.7	62.0	14460	3.3	.16	.92	1.3
FLOAT-1.40	74.2	84.0	14161	5.3	.35	1.15	1.6
FLOAT-1.60	82.6	92.0	13937	6.8	.57	1.43	2.1
FLOAT-1.90	88.2	96.0	13623	8.9	.73	1.59	2.3
TOTAL	100.0	100.0	12516	16.3	2.18	3.28	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	52.1	60.3	14460	3.3	.13	.92	1.3
FLOAT-1.40	71.1	80.7	14176	5.2	.28	1.12	1.6
FLOAT-1.60	82.1	91.5	13922	6.9	.46	1.31	1.9
FLOAT-1.90	88.0	96.1	13638	8.8	.61	1.47	2.2
TOTAL	100.0	100.0	12486	16.5	2.18	3.33	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER FREEPORT
COUNTY: ARMSTRONG RAW COAL MOISTURE: 1.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.5	45.8	14466	4.1	.25	.95	1.3
FLOAT-1.40	67.6	80.2	14043	6.9	.45	1.11	1.6
FLOAT-1.60	78.5	91.0	13726	9.0	.60	1.25	1.8
FLOAT-1.90	84.4	95.5	13395	11.2	.78	1.42	2.1
TOTAL	100.0	100.0	11841	21.5	1.62	2.23	3.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.3	57.9	14481	4.0	.17	.84	1.2
FLOAT-1.40	67.9	81.5	14194	5.9	.24	.89	1.3
FLOAT-1.60	77.6	91.2	13892	7.9	.35	.99	1.4
FLOAT-1.90	82.9	95.2	13576	10.0	.45	1.07	1.6
TOTAL	100.0	100.0	11826	21.6	1.59	2.22	3.8
EPA STANDARD	57.4	69.5	14359	4.9	.20	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.1	46.8	14601	3.2	.08	.80	1.1
FLOAT-1.40	63.1	75.5	14224	5.7	.15	.84	1.2
FLOAT-1.60	78.5	90.9	13757	8.8	.24	.90	1.3
FLOAT-1.90	84.8	95.7	13410	11.1	.36	1.00	1.5
TOTAL	100.0	100.0	11886	21.2	1.60	2.27	3.8
EPA STANDARD	67.0	79.9	14155	6.2	.16	.85	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER FREEPORT
COUNTY: ARMSTRONG RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.1	45.4	14204	4.2	.25	.99	1.4
FLOAT-1.40	54.1	70.6	13937	6.0	.41	1.19	1.7
FLOAT-1.60	66.1	83.6	13507	8.9	.57	1.36	2.0
FLOAT-1.90	76.6	92.3	12870	13.2	.76	1.52	2.4
TOTAL	100.0	100.0	10675	28.0	1.15	1.79	3.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.3	49.9	14249	3.9	.24	.96	1.3
FLOAT-1.40	56.5	74.3	13997	5.6	.29	1.03	1.5
FLOAT-1.60	66.4	84.9	13611	8.2	.37	1.11	1.6
FLOAT-1.90	75.1	91.9	13033	12.1	.45	1.16	1.8
TOTAL	100.0	100.0	10646	28.2	1.25	1.85	3.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.7	40.0	14397	2.9	.09	.79	1.1
FLOAT-1.40	55.3	72.6	14026	5.4	.12	.85	1.2
FLOAT-1.60	66.5	84.5	13582	8.4	.18	.89	1.3
FLOAT-1.90	76.5	92.4	12914	12.9	.25	.94	1.5
TOTAL	100.0	100.0	10690	27.9	1.17	1.78	3.3
EPA STANDARD	53.3	70.1	14065	5.1	.11	.84	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER FREEPORT
COUNTY: BUTLER RAW COAL MOISTURE: 1.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.4	32.1	14423	3.4	.30	.87	1.2
FLOAT-1.40	66.3	77.2	13822	7.4	.49	1.07	1.5
FLOAT-1.60	81.0	91.0	13341	10.6	.64	1.20	1.8
TOTAL	100.0	100.0	11870	20.4	.80	1.28	2.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.9	51.6	14468	3.1	.08	.69	1.0
FLOAT-1.40	66.6	78.2	14107	5.5	.26	.84	1.2
FLOAT-1.60	79.9	90.6	13627	8.7	.40	.98	1.4
TOTAL	100.0	100.0	12020	19.4	.75	1.32	2.2
EPA STANDARD	67.3	78.9	14090	5.6	.27	.85	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.2	52.8	14543	2.6	.04	.80	1.1
FLOAT-1.40	66.3	78.9	14167	5.1	.09	.73	1.0
FLOAT-1.60	77.6	89.3	13687	8.3	.18	.77	1.1
TOTAL	100.0	100.0	11900	20.2	.82	1.33	2.2
EPA STANDARD	85.5	96.4	13566	10.6	.25	.80	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER FREEPORT
COUNTY: CAMBRIA RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.4	53.6	14675	3.9	.71	1.47	2.0
FLOAT-1.40	69.4	79.8	14293	6.4	1.07	1.90	2.7
FLOAT-1.60	81.4	91.4	13957	8.6	1.41	2.30	3.3
FLOAT-1.90	85.4	94.5	13758	9.9	1.71	2.68	3.9
TOTAL	100.0	100.0	12430	18.6	3.23	4.47	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.5	57.8	14751	3.4	.38	1.15	1.6
FLOAT-1.40	69.2	80.7	14430	5.5	.53	1.32	1.8
FLOAT-1.60	79.2	90.5	14140	7.4	.71	1.53	2.2
FLOAT-1.90	83.3	93.8	13926	8.8	.92	1.78	2.6
TOTAL	100.0	100.0	12369	19.0	3.30	4.59	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.2	42.8	14766	3.3	.36	1.12	1.5
FLOAT-1.40	69.6	80.7	14476	5.2	.52	1.29	1.8
FLOAT-1.60	80.0	91.0	14201	7.0	.67	1.45	2.0
FLOAT-1.90	84.1	94.3	14003	8.3	.83	1.62	2.3
TOTAL	100.0	100.0	12491	18.2	3.18	4.40	7.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.4	36.3	14838	3.8	.11	.64	.9
FLOAT-1.40	83.7	86.7	14124	8.4	.24	.73	1.0
FLOAT-1.60	95.9	97.5	13876	10.0	.40	.87	1.3
TOTAL	100.0	100.0	13643	11.5	.96	1.43	2.1
EPA STANDARD	92.9	94.9	13937	9.6	.36	.83	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.2	47.3	14885	3.5	.07	.51	.7
FLOAT-1.40	82.7	87.0	14311	7.2	.07	.54	.8
FLOAT-1.60	93.6	96.4	14000	9.2	.11	.59	.8
TOTAL	100.0	100.0	13597	11.8	1.01	1.48	2.2
EPA STANDARD	95.3	97.3	13892	9.9	.30	.80	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.2	48.4	14962	3.0	.08	.56	.7
FLOAT-1.40	78.3	83.2	14528	5.8	.09	.52	.7
FLOAT-1.60	92.3	95.7	14171	8.1	.14	.53	.7
TOTAL	100.0	100.0	13674	11.3	.99	1.44	2.1
EPA STANDARD	94.9	97.1	14006	9.2	.70	.73	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.5	52.8	14992	2.6	.04	.66	.9
FLOAT-1.40	78.1	86.0	14545	5.5	.22	.83	1.1
FLOAT-1.60	89.4	96.2	14206	7.7	.25	.84	1.2
TOTAL	100.0	100.0	13205	14.2	.25	.81	1.2
EPA STANDARD	93.8	98.6	13812	9.7	.25	.83	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.9	53.9	15023	2.4	.04	.59	.8
FLOAT-1.40	77.4	86.3	14591	5.2	.17	.79	1.1
FLOAT-1.60	87.0	95.2	14314	7.0	.24	.86	1.2
TOTAL	100.0	100.0	13081	15.0	.26	.84	1.3
EPA STANDARD	86.9	95.1	14318	7.0	.24	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.1	52.3	14992	2.6	.04	.57	.8
FLOAT-1.40	73.0	81.2	14684	4.6	.14	.76	1.0
FLOAT-1.60	89.2	96.4	14268	7.3	.26	.83	1.2
TOTAL	100.0	100.0	13205	14.2	.27	.84	1.3
EPA STANDARD	93.1	98.5	13911	9.1	.27	.84	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.2	35.7	14601	5.3	.84	1.67	2.3
FLOAT-1.40	68.7	73.9	14184	8.0	1.08	1.96	2.8
FLOAT-1.60	90.3	94.1	13737	10.9	1.37	2.29	3.3
FLOAT-1.90	94.8	97.6	13568	12.0	1.61	2.60	3.8
TOTAL	100.0	100.0	13182	14.5	2.25	3.38	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.2	42.8	14801	4.0	.53	1.29	1.7
FLOAT-1.40	71.5	77.4	14292	7.3	.75	1.57	2.2
FLOAT-1.60	89.5	94.0	13861	10.1	1.04	1.90	2.7
FLOAT-1.90	93.7	97.0	13660	11.4	1.22	2.10	3.1
TOTAL	100.0	100.0	13197	14.4	2.06	3.21	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.9	52.5	14801	4.0	.37	1.04	1.4
FLOAT-1.40	79.0	85.3	14261	7.5	.59	1.32	1.9
FLOAT-1.60	89.1	94.2	13968	9.4	.73	1.47	2.1
FLOAT-1.90	92.8	96.8	13783	10.6	.82	1.57	2.3
TOTAL	100.0	100.0	13213	14.3	2.29	3.36	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: INDIANA

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.6	40.4	14921	3.1	.64	1.26	1.7
FLOAT-1.40	75.2	82.0	14337	6.9	1.04	1.61	2.2
FLOAT-1.60	86.4	92.3	14045	8.8	1.28	1.87	2.7
TOTAL	100.0	100.0	13153	14.6	2.13	2.67	4.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.4	51.9	14905	3.2	.51	1.10	1.5
FLOAT-1.40	74.9	82.9	14444	6.2	.71	1.31	1.8
FLOAT-1.60	84.4	91.8	14183	7.9	.89	1.48	2.1
TOTAL	100.0	100.0	13045	15.3	2.14	2.65	4.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.3	53.0	14998	2.6	.29	.90	1.2
FLOAT-1.40	74.0	82.5	14613	5.1	.42	1.07	1.5
FLOAT-1.60	85.1	92.5	14244	7.5	.56	1.18	1.7
TOTAL	100.0	100.0	13107	14.9	2.18	2.74	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: INDIANA

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	49.9	56.9	14987	3.7	.21	.74	1.0
FLOAT-1.40	78.0	86.9	14629	6.0	.51	1.06	1.4
FLOAT-1.60	85.0	93.4	14427	7.3	.65	1.19	1.6
FLOAT-1.90	88.6	95.9	14225	8.6	.75	1.29	1.8
TOTAL	100.0	100.0	13135	15.6	1.22	1.71	2.6
EPA STANDARD	64.9	73.3	14822	4.6	.34	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	61.7	70.3	15003	3.6	.20	.74	1.0
FLOAT-1.40	78.4	88.0	14785	5.0	.34	.89	1.2
FLOAT-1.60	83.9	93.1	14614	6.1	.42	.97	1.3
FLOAT-1.90	87.6	95.9	14411	7.4	.49	1.03	1.4
TOTAL	100.0	100.0	13166	15.4	1.13	1.64	2.5
EPA STANDARD	78.2	87.8	14789	5.0	.34	.89	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	51.7	59.1	15081	3.1	.13	.67	.9
FLOAT-1.40	77.3	86.6	14785	5.0	.27	.81	1.1
FLOAT-1.60	84.4	93.4	14598	6.2	.34	.88	1.2
FLOAT-1.90	88.0	96.1	14411	7.4	.40	.93	1.3
TOTAL	100.0	100.0	13198	15.2	1.20	1.71	2.6
EPA STANDARD	84.1	93.1	14608	6.1	.34	.88	1.20

STATE: PA. (BITUMINOUS)
COUNTY: INDIANA

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	34.5	45.2	14438	3.8	.24	.93	1.3
FLOAT-1.40	60.6	76.4	13882	7.5	.49	1.06	1.5
FLOAT-1.60	69.7	86.5	13672	8.9	.59	1.12	1.6
FLOAT-1.90	76.7	92.4	13267	11.6	.67	1.19	1.8
TOTAL	100.0	100.0	11016	26.6	1.10	1.51	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	37.8	49.5	14528	3.2	.21	.82	1.1
FLOAT-1.40	61.2	77.2	13987	6.8	.33	.93	1.3
FLOAT-1.60	69.0	85.6	13762	8.3	.44	1.03	1.5
FLOAT-1.90	75.6	91.5	13417	10.6	.55	1.12	1.7
TOTAL	100.0	100.0	11091	26.1	1.01	1.50	2.7
EPA STANDARD	47.8	61.5	14336	4.7	.25	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	35.8	46.5	14453	3.7	.19	.88	1.2
FLOAT-1.40	58.1	73.9	14138	5.8	.34	.98	1.4
FLOAT-1.60	70.7	87.8	13807	8.0	.50	1.10	1.6
FLOAT-1.90	76.3	92.7	13507	10.0	.58	1.17	1.7
TOTAL	100.0	100.0	11121	25.9	1.04	1.54	2.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: SOMERSET

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.0	10.5	14939	2.8	.19	.92	1.2
FLOAT-1.40	56.5	62.6	14192	7.7	.70	1.37	1.9
FLOAT-1.60	82.7	88.2	13658	11.2	1.46	2.06	3.0
TOTAL	100.0	100.0	12804	16.8	2.62	3.23	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.1	16.6	14923	2.9	.14	.89	1.2
FLOAT-1.40	57.9	65.0	14268	7.2	.47	1.13	1.6
FLOAT-1.60	80.9	87.3	13719	10.8	1.00	1.61	2.3
TOTAL	100.0	100.0	12713	17.4	2.69	3.34	5.3
EPA STANDARD	15.1	17.7	14911	3.0	.15	.89	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.7	16.1	14969	2.6	.18	.82	1.1
FLOAT-1.40	57.1	64.3	14390	6.4	.44	1.04	1.4
FLOAT-1.60	81.8	88.2	13780	10.4	.90	1.42	2.1
TOTAL	100.0	100.0	12774	17.0	2.67	3.30	5.2
EPA STANDARD	28.9	33.1	14796	3.8	.26	.89	1.20

STATE: PA. (BITUMINOUS)
COUNTY: TIOGA

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.0	51.4	15012	3.6	.05	.66	.9
FLOAT-1.40	83.9	87.0	14551	6.6	.23	.81	1.1
FLOAT-1.60	96.3	98.1	14290	8.3	.37	.98	1.4
TOTAL	100.0	100.0	14028	10.0	.92	1.55	2.2
EPA STANDARD	91.2	94.0	14463	7.4	.28	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.8	51.3	15012	3.6	.09	.68	.9
FLOAT-1.40	83.4	86.8	14566	6.5	.21	.76	1.0
FLOAT-1.60	95.9	97.8	14274	8.4	.36	.88	1.2
TOTAL	100.0	100.0	13998	10.2	.98	1.47	2.1
EPA STANDARD	93.7	95.9	14325	8.2	.34	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.8	55.0	15135	2.8	.07	.62	.8
FLOAT-1.40	80.9	85.6	14781	5.1	.08	.61	.8
FLOAT-1.60	93.9	96.9	14413	7.5	.17	.71	1.0
TOTAL	100.0	100.0	13967	10.4	1.07	1.60	2.3
EPA STANDARD	94.9	97.4	14339	10.0	.30	.85	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER FREEPORT
COUNTY: WESTMORELAND RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.2	60.0	14589	3.4	.44	1.01	1.4
FLOAT-1.40	66.8	81.8	14347	5.0	.82	1.50	2.1
FLOAT-1.60	73.3	88.4	14135	6.4	1.15	1.87	2.6
FLOAT-1.90	79.4	93.0	13728	9.1	1.47	2.19	3.2
TOTAL	100.0	100.0	11719	22.4	2.96	3.60	6.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.8	69.5	14604	3.3	.32	.87	1.2
FLOAT-1.40	69.9	85.9	14407	4.6	.57	1.16	1.6
FLOAT-1.60	73.9	90.0	14271	5.5	.73	1.35	1.9
FLOAT-1.90	77.1	92.4	14045	7.0	.89	1.51	2.2
TOTAL	100.0	100.0	11719	22.4	2.85	3.53	6.0
EPA STANDARD	56.2	70.0	14600	3.3	.33	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.3	69.6	14649	3.0	.29	.84	1.1
FLOAT-1.40	68.0	82.9	14453	4.3	.44	1.00	1.4
FLOAT-1.60	75.5	90.1	14151	6.3	.68	1.24	1.8
FLOAT-1.90	79.4	93.3	13924	7.8	.82	1.38	2.0
TOTAL	100.0	100.0	11855	21.5	2.84	3.58	6.0
EPA STANDARD	59.4	73.2	14605	3.3	.32	.88	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER FREEPORT
COUNTY: WESTMORELAND RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.6	49.2	14400	4.8	.79	1.33	1.8
FLOAT-1.40	56.5	72.1	14037	7.2	1.51	2.00	2.8
FLOAT-1.60	69.6	86.7	13704	9.4	2.28	2.78	4.1
FLOAT-1.90	74.9	92.0	13508	10.7	2.64	3.13	4.6
TOTAL	100.0	100.0	10997	27.3	4.10	4.50	8.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.1	51.1	14491	4.2	.62	1.09	1.5
FLOAT-1.40	58.6	73.7	13946	7.8	1.43	1.87	2.7
FLOAT-1.60	70.2	86.0	13583	10.2	2.05	2.50	3.7
FLOAT-1.90	75.2	90.7	13372	11.6	2.38	2.82	4.2
TOTAL	100.0	100.0	11088	26.7	4.31	4.67	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.4	53.0	14445	4.5	.41	1.14	1.6
FLOAT-1.40	60.5	77.5	14113	6.7	.74	1.48	2.1
FLOAT-1.60	68.6	86.0	13810	8.7	1.09	1.84	2.7
FLOAT-1.90	72.5	89.3	13568	10.3	1.38	2.13	3.1
TOTAL	100.0	100.0	11012	27.2	4.00	4.55	8.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: ARMSTRONG

COALBED: LOWER FREEPORT
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.4	43.1	14625	4.4	.44	1.21	1.7
FLOAT-1.40	78.2	83.5	14273	6.7	.76	1.55	2.2
FLOAT-1.60	90.5	94.6	13982	8.6	1.02	1.80	2.6
FLOAT-1.90	95.8	98.2	13707	10.4	1.18	1.96	2.9
TOTAL	100.0	100.0	13371	12.6	1.57	2.40	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.3	54.0	14671	4.1	.28	.98	1.3
FLOAT-1.40	77.9	83.8	14411	5.8	.43	1.15	1.6
FLOAT-1.60	89.3	94.2	14135	7.6	.61	1.35	1.9
FLOAT-1.90	94.7	97.7	13830	9.6	.76	1.49	2.2
TOTAL	100.0	100.0	13401	12.4	1.46	2.29	3.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.0	48.9	14870	2.8	.13	.84	1.1
FLOAT-1.40	73.3	79.8	14548	4.9	.24	.94	1.3
FLOAT-1.60	87.6	93.1	14212	7.1	.38	1.07	1.5
FLOAT-1.90	94.0	97.4	13860	9.4	.50	1.18	1.7
TOTAL	100.0	100.0	13371	12.6	1.44	2.25	3.4
EPA STANDARD	58.6	64.4	14731	3.8	.18	.88	1.20

STATE: PA. (BITUMINOUS)
COUNTY: ARMSTRONG

COALBED: LOWER FREEPORT
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.8	69.0	14465	5.2	.60	1.02	1.4
FLOAT-1.40	75.1	88.0	14190	7.0	.80	1.21	1.7
FLOAT-1.60	81.7	94.3	13976	8.4	1.03	1.43	2.0
FLOAT-1.90	85.6	97.1	13748	9.9	1.16	1.55	2.3
TOTAL	100.0	100.0	12115	20.6	1.24	1.59	2.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.3	74.5	14526	4.8	.27	.64	.9
FLOAT-1.40	76.4	88.6	14312	6.2	.37	.71	1.0
FLOAT-1.60	81.8	93.6	14129	7.4	.51	.86	1.2
FLOAT-1.90	85.5	96.2	13885	9.0	.63	.98	1.4
TOTAL	100.0	100.0	12344	19.1	1.40	1.72	2.8
EPA STANDARD	81.4	93.2	14143	7.4	.50	.85	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.4	58.3	14419	5.5	.15	.61	.8
FLOAT-1.40	72.7	84.0	14114	7.5	.23	.65	.9
FLOAT-1.60	82.9	93.8	13824	9.4	.31	.70	1.0
FLOAT-1.90	87.2	96.7	13549	11.2	.40	.78	1.2
TOTAL	100.0	100.0	12222	19.9	1.27	1.62	2.7
EPA STANDARD	88.6	97.6	13506	11.8	.43	.81	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER FREEPORT
COUNTY: BUTLER RAW COAL MOISTURE: 2.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.3	6.0	14328	3.1	.18	.88	1.2
FLOAT-1.40	73.5	77.8	13470	8.9	.90	1.75	2.6
FLOAT-1.60	94.5	96.8	13041	11.8	1.03	1.88	2.9
FLOAT-1.90	97.6	99.0	12908	12.7	1.12	1.99	3.1
TOTAL	100.0	100.0	12731	13.9	1.33	2.26	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	21.6	24.3	14372	2.8	.11	.81	1.1
FLOAT-1.40	70.2	75.4	13721	7.2	.40	1.16	1.7
FLOAT-1.60	91.9	95.1	13219	10.6	.66	1.45	2.2
FLOAT-1.90	96.5	98.4	13026	11.9	.79	1.58	2.4
TOTAL	100.0	100.0	12775	13.6	1.24	2.16	3.4
EPA STANDARD	29.3	32.6	14288	3.4	.15	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.0	30.4	14402	2.6	.09	.79	1.1
FLOAT-1.40	66.2	72.2	13928	5.8	.19	.89	1.3
FLOAT-1.60	88.1	92.8	13455	9.0	.35	1.05	1.6
FLOAT-1.90	94.7	97.7	13174	10.9	.48	1.19	1.8
TOTAL	100.0	100.0	12775	13.6	1.47	2.39	3.7
EPA STANDARD	51.7	56.9	14132	4.5	.15	.85	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER FREEPORT
COUNTY: CAMBRIA RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.8	38.0	14867	3.1	.32	.88	1.2
FLOAT-1.40	81.9	86.8	14436	5.9	.79	1.42	2.0
FLOAT-1.60	91.5	95.2	14174	7.6	1.02	1.63	2.3
TOTAL	100.0	100.0	13620	11.2	1.91	2.56	3.8
EPA STANDARD	36.1	39.4	14858	3.1	.33	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.6	56.4	14852	3.2	.16	.77	1.0
FLOAT-1.40	82.6	88.3	14528	5.3	.35	.89	1.2
FLOAT-1.60	89.9	94.7	14313	6.7	.48	1.01	1.4
TOTAL	100.0	100.0	13589	11.4	1.81	2.40	3.5
EPA STANDARD	79.8	85.5	14572	5.1	.33	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.6	56.5	14929	2.7	.21	.75	1.0
FLOAT-1.40	81.7	87.6	14621	4.7	.30	.93	1.3
FLOAT-1.60	90.4	95.3	14374	6.3	.49	1.07	1.5
TOTAL	100.0	100.0	13635	11.1	1.98	2.59	3.8
EPA STANDARD	75.7	81.6	14704	4.2	.26	.88	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER FREEPORT
COUNTY: CAMBRIA RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.9	49.1	14911	3.2	.18	.87	1.2
FLOAT-1.40	78.5	84.1	14589	5.3	.51	1.18	1.6
FLOAT-1.60	88.0	92.8	14359	6.8	.80	1.46	2.0
TOTAL	100.0	100.0	13623	11.6	2.14	2.83	4.2
EPA STANDARD	48.2	52.6	14888	3.4	.20	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.5	60.0	14942	3.0	.13	.82	1.1
FLOAT-1.40	80.9	87.5	14666	4.8	.28	.91	1.2
FLOAT-1.60	86.5	92.7	14528	5.7	.35	.98	1.3
TOTAL	100.0	100.0	13561	12.0	2.11	2.81	4.1
EPA STANDARD	75.6	82.0	14745	4.4	.24	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.3	51.1	15080	2.1	.08	.77	1.0
FLOAT-1.40	80.3	86.7	14743	4.3	.18	.83	1.1
FLOAT-1.60	88.5	94.4	14558	5.5	.28	.94	1.3
TOTAL	100.0	100.0	13653	11.4	2.14	2.89	4.2
EPA STANDARD	84.0	90.1	14660	5.2	.23	.88	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER FREEPORT
COUNTY: CLEARFIELD RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.4	67.1	14946	3.8	.18	.67	.9
FLOAT-1.40	89.3	91.8	14740	5.1	.33	.83	1.1
FLOAT-1.60	96.6	98.1	14566	6.2	.43	.92	1.3
TOTAL	100.0	100.0	14344	7.6	.99	1.50	2.1
EPA STANDARD	93.9	96.0	14646	5.7	.38	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.8	66.1	15104	2.8	.05	.53	.7
FLOAT-1.40	83.5	86.8	14914	4.0	.07	.57	.8
FLOAT-1.60	94.1	96.5	14709	5.3	.13	.59	.8
TOTAL	100.0	100.0	14344	7.6	1.10	1.59	2.2
EPA STANDARD	95.8	97.5	14606	5.9	.65	.82	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.6	67.8	15152	2.5	.05	.53	.7
FLOAT-1.40	85.2	88.3	14962	3.7	.07	.55	.7
FLOAT-1.60	95.1	97.4	14788	4.8	.10	.58	.8
TOTAL	100.0	100.0	14439	7.0	1.05	1.54	2.1
EPA STANDARD	96.6	98.2	14680	5.5	.37	.85	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: LOWER FREEPORT
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.7	56.9	14936	3.0	.47	1.32	1.8
FLOAT-1.40	83.2	89.9	14658	4.8	1.02	1.86	2.5
FLOAT-1.60	88.6	95.1	14550	5.5	1.24	2.05	2.8
TOTAL	100.0	100.0	13560	11.9	2.34	3.10	4.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.5	61.6	14936	3.0	.42	1.25	1.7
FLOAT-1.40	82.0	89.5	14704	4.5	.81	1.63	2.2
FLOAT-1.60	87.5	94.7	14581	5.3	1.03	1.83	2.5
TOTAL	100.0	100.0	13467	12.5	2.32	3.03	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.8	60.1	15029	2.4	.24	1.29	1.7
FLOAT-1.40	79.8	87.8	14797	3.9	.47	1.45	2.0
FLOAT-1.60	86.0	93.7	14658	4.8	.74	1.67	2.3
TOTAL	100.0	100.0	13452	12.6	2.36	3.19	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: LOWER FREEPORT
RAW COAL MOISTURE: .4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.3	69.2	14805	4.4	.39	1.03	1.4
FLOAT-1.40	82.0	87.4	14651	5.4	.62	1.32	1.8
FLOAT-1.60	90.1	94.8	14465	6.6	.82	1.55	2.1
FLOAT-1.90	93.5	97.8	14387	7.1	.94	1.70	2.4
TOTAL	100.0	100.0	13752	11.2	1.60	2.48	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.2	68.0	14976	3.3	.19	.85	1.1
FLOAT-1.40	81.3	87.6	14759	4.7	.33	1.01	1.4
FLOAT-1.60	87.7	93.7	14620	5.6	.48	1.19	1.6
FLOAT-1.90	91.6	96.5	14418	6.9	.63	1.35	1.9
TOTAL	100.0	100.0	13690	11.6	1.65	2.57	3.8
EPA STANDARD	68.8	74.8	14916	3.7	.23	.89	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.9	54.4	14991	3.2	.14	.78	1.0
FLOAT-1.40	80.4	86.3	14759	4.7	.28	.93	1.3
FLOAT-1.60	89.1	94.4	14573	5.9	.44	1.10	1.5
FLOAT-1.90	92.8	97.2	14403	7.0	.55	1.24	1.7
TOTAL	100.0	100.0	13752	11.2	1.70	2.63	3.8
EPA STANDARD	74.2	79.8	14823	4.3	.24	.89	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER FREEPORT
COUNTY: INDIANA RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	32.7	37.7	14901	3.1	.10	.64	.9
FLOAT-1.40	78.9	88.2	14455	6.0	.29	.83	1.1
FLOAT-1.60	86.2	95.0	14256	7.3	.34	.88	1.2
TOTAL	100.0	100.0	12935	15.9	.58	1.05	1.6
EPA STANDARD	83.6	92.7	14336	6.8	.32	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	42.9	49.9	14931	2.9	.10	.56	.8
FLOAT-1.40	77.1	87.3	14547	5.4	.17	.66	.9
FLOAT-1.60	84.2	94.1	14348	6.7	.23	.70	1.0
TOTAL	100.0	100.0	12843	16.5	.65	1.06	1.7
EPA STANDARD	89.4	96.0	13848	10.6	.40	.83	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	39.0	45.1	14978	2.6	.14	.63	.8
FLOAT-1.40	74.0	83.1	14547	5.4	.14	.67	.9
FLOAT-1.60	85.9	95.0	14317	6.9	.14	.70	1.0
TOTAL	100.0	100.0	12950	15.8	.62	1.11	1.7
EPA STANDARD	90.2	96.5	13905	11.7	.19	.82	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER FREEPORT
COUNTY: INDIANA RAW COAL MOISTURE: .4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	44.0	53.2	14700	3.8	.33	1.08	1.5
FLOAT-1.40	65.8	78.0	14395	5.8	.58	1.31	1.8
FLOAT-1.60	79.0	90.8	13967	8.6	.70	1.41	2.0
FLOAT-1.90	85.0	95.5	13646	10.7	.87	1.56	2.3
TOTAL	100.0	100.0	12149	20.5	1.55	2.18	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	49.8	61.0	14746	3.5	.14	.82	1.1
FLOAT-1.40	65.9	79.5	14532	4.9	.25	.92	1.3
FLOAT-1.60	76.8	90.4	14181	7.2	.30	.97	1.4
FLOAT-1.90	81.6	94.4	13936	8.8	.39	1.05	1.5
TOTAL	100.0	100.0	12042	21.2	1.75	2.36	3.9
EPA STANDARD	58.9	71.9	14624	4.0	.21	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	36.0	43.8	14838	2.9	.10	.74	1.0
FLOAT-1.40	63.6	75.9	14548	4.8	.20	.84	1.2
FLOAT-1.60	77.6	90.0	14150	7.4	.27	.91	1.3
FLOAT-1.90	84.0	95.4	13845	9.4	.33	.96	1.4
TOTAL	100.0	100.0	12194	20.2	1.74	2.34	3.8
EPA STANDARD	69.3	82.0	14411	5.6	.23	.87	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER KITTANNING
COUNTY: CAMBRIA RAW COAL MOISTURE: 2.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.2	9.1	15039	1.7	.04	.63	.8
FLOAT-1.40	70.9	75.7	14444	5.6	.30	.80	1.1
FLOAT-1.60	88.4	92.2	14108	7.8	.77	1.32	1.9
TOTAL	100.0	100.0	13528	11.6	2.16	2.70	4.0
EPA STANDARD	85.6	91.2	14403	6.6	.38	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.4	17.2	15039	1.7	.04	.61	.8
FLOAT-1.40	73.9	79.8	14535	5.0	.17	.65	.9
FLOAT-1.60	86.7	91.8	14261	6.8	.35	.83	1.2
TOTAL	100.0	100.0	13467	12.0	2.28	2.80	4.2
EPA STANDARD	88.3	93.3	14251	7.0	.37	.85	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.0	12.2	15039	1.7	.03	.49	.7
FLOAT-1.40	71.3	77.2	14657	4.2	.13	.55	.8
FLOAT-1.60	88.0	93.4	14368	6.1	.21	.70	1.0
TOTAL	100.0	100.0	13544	11.5	2.22	2.74	4.0
EPA STANDARD	88.9	93.8	14307	7.8	.30	.85	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER KITTANNING
COUNTY: CAMBRIA RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.8	17.5	14616	2.8	.07	.61	.8
FLOAT-1.40	48.1	69.1	14180	5.7	.12	.64	.9
FLOAT-1.60	60.5	84.0	13699	8.9	.22	.73	1.1
FLOAT-1.90	64.6	88.0	13443	10.6	.30	.80	1.2
TOTAL	100.0	100.0	9864	34.4	.80	1.18	2.4
EPA STANDARD	64.9	88.3	13414	10.7	.31	.81	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.1	22.9	14691	2.3	.04	.60	.8
FLOAT-1.40	49.3	72.6	14255	5.2	.09	.62	.9
FLOAT-1.60	58.1	83.4	13909	7.5	.13	.65	.9
FLOAT-1.90	62.1	87.7	13669	9.1	.17	.68	1.0
TOTAL	100.0	100.0	9684	35.6	.78	1.16	2.4
EPA STANDARD	74.2	99.7	13085	14.3	.30	.78	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.0	10.3	14736	2.0	.04	.60	.8
FLOAT-1.40	46.6	66.3	14180	5.7	.09	.62	.9
FLOAT-1.60	59.3	82.1	13804	8.2	.15	.66	1.0
FLOAT-1.90	67.1	90.0	13368	11.1	.20	.69	1.0
TOTAL	100.0	100.0	9970	33.7	.78	1.18	2.4
EPA STANDARD	82.0	91.2	12941	16.9	.30	.76	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: UPPER KITTANNING
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.2	46.6	14925	2.9	.05	.68	.9
FLOAT-1.40	73.7	80.3	14388	6.4	.05	.66	.9
FLOAT-1.60	89.9	94.8	13928	9.4	.07	.65	.9
TOTAL	100.0	100.0	13207	14.1	.12	.69	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.0	51.0	14940	2.8	.05	.67	.9
FLOAT-1.40	72.1	79.3	14495	5.7	.05	.64	.9
FLOAT-1.60	88.4	94.0	14005	8.9	.06	.63	.9
TOTAL	100.0	100.0	13177	14.3	.12	.68	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.2	51.3	15032	2.2	.03	.68	.9
FLOAT-1.40	68.5	75.6	14633	4.8	.04	.69	.9
FLOAT-1.60	88.2	93.7	14081	8.4	.05	.70	1.0
TOTAL	100.0	100.0	13253	13.8	.12	.75	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: UPPER KITTANNING
RAW COAL MOISTURE: 3.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.1	9.8	14482	2.8	.03	.50	.7
FLOAT-1.40	79.3	82.2	13967	6.1	.06	.48	.7
FLOAT-1.60	95.7	97.5	13718	7.7	.06	.49	.7
TOTAL	100.0	100.0	13468	9.3	.46	.89	1.3
EPA STANDARD	99.1	99.5	13518	9.0	.32	.78	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.8	12.7	14498	2.7	.03	.46	.6
FLOAT-1.40	76.7	79.9	14030	5.7	.02	.44	.6
FLOAT-1.60	95.4	97.3	13733	7.6	.04	.45	.7
TOTAL	100.0	100.0	13468	9.3	.45	.85	1.3
EPA STANDARD	99.5	99.7	13495	9.1	.41	.79	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.0	24.6	14420	3.2	.03	.45	.6
FLOAT-1.40	71.0	75.0	14232	4.4	.02	.43	.6
FLOAT-1.60	92.1	95.4	13952	6.2	.03	.44	.6
TOTAL	100.0	100.0	13468	9.3	.48	.88	1.3
EPA STANDARD	98.8	99.3	13544	8.8	.38	.79	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER KITTANNING
COUNTY: SOMERSET RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.0	15.0	15115	1.8	.07	.83	1.1
FLOAT-1.40	69.8	77.7	14545	5.5	.22	.97	1.3
FLOAT-1.60	84.3	91.3	14145	8.1	.31	1.04	1.5
TOTAL	100.0	100.0	13068	15.1	1.19	1.88	2.9
EPA STANDARD	42.5	48.2	14869	3.3	.13	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.3	31.4	15084	2.0	.09	.99	1.3
FLOAT-1.40	72.2	80.7	14668	4.7	.20	.95	1.3
FLOAT-1.60	84.2	91.7	14299	7.1	.26	.97	1.4
TOTAL	100.0	100.0	13129	14.7	1.16	1.82	2.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.7	22.7	15099	1.9	.07	1.01	1.3
FLOAT-1.40	69.5	77.6	14653	4.8	.17	.96	1.3
FLOAT-1.60	85.3	92.4	14222	7.6	.27	1.00	1.4
TOTAL	100.0	100.0	13129	14.7	1.13	1.78	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER KITTANNING
COUNTY: SOMERSET RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.2	30.2	14940	3.0	.15	.58	.8
FLOAT-1.40	73.0	81.3	14432	6.3	.37	.80	1.1
FLOAT-1.60	85.4	93.2	14139	8.2	.59	1.03	1.5
FLOAT-1.90	88.5	95.7	14000	9.1	.75	1.20	1.7
TOTAL	100.0	100.0	12953	15.9	2.05	2.53	3.9
EPA STANDARD	79.9	88.6	14355	7.0	.43	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.9	43.9	14971	2.8	.09	.58	.8
FLOAT-1.40	73.6	83.0	14586	5.3	.16	.63	.9
FLOAT-1.60	84.0	92.9	14308	7.1	.25	.72	1.0
FLOAT-1.90	87.0	95.3	14170	8.0	.35	.82	1.2
TOTAL	100.0	100.0	12938	16.0	2.07	2.58	4.0
EPA STANDARD	87.8	95.9	14151	8.2	.38	.85	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.2	43.9	14986	2.7	.09	.54	.7
FLOAT-1.40	71.8	80.7	14647	4.9	.12	.57	.8
FLOAT-1.60	84.6	93.2	14355	6.8	.18	.62	.9
FLOAT-1.90	87.4	95.4	14216	7.7	.23	.67	.9
TOTAL	100.0	100.0	13030	15.4	2.10	2.65	4.1
EPA STANDARD	95.7	95.7	14118	10.4	.39	.83	1.20

STATE: PA. (BITUMINOUS)
COUNTY: TIOGA

COALBED: UPPER KITTANNING
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.1	47.4	14981	2.6	.50	1.42	1.9
FLOAT-1.40	59.7	73.0	14734	4.2	.86	1.91	2.6
FLOAT-1.60	74.5	87.9	14226	7.5	1.33	2.39	3.4
TOTAL	100.0	100.0	12053	21.6	3.07	3.96	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.0	50.0	14996	2.5	.29	1.40	1.9
FLOAT-1.40	62.5	76.8	14749	4.1	.71	1.85	2.5
FLOAT-1.60	74.3	89.0	14380	6.5	.98	2.08	2.9
TOTAL	100.0	100.0	12007	21.9	2.92	3.85	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.6	41.8	15058	2.1	.22	1.25	1.7
FLOAT-1.40	58.4	71.6	14842	3.5	.47	1.55	2.1
FLOAT-1.60	73.5	87.6	14426	6.2	.80	1.82	2.5
TOTAL	100.0	100.0	12099	21.3	3.07	3.94	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: TIOGA

COALBED: UPPER KITTANNING
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.3	32.9	14892	3.0	.15	1.00	1.3
FLOAT-1.40	69.9	76.4	14479	5.7	.66	1.33	1.8
FLOAT-1.60	82.2	88.1	14204	7.5	1.16	1.82	2.6
TOTAL	100.0	100.0	13256	13.7	3.36	3.99	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.5	37.8	14923	2.8	.18	.66	.9
FLOAT-1.40	70.4	77.3	14541	5.3	.62	1.05	1.4
FLOAT-1.60	82.2	88.7	14281	7.0	1.03	1.50	2.1
TOTAL	100.0	100.0	13240	13.8	3.49	4.00	6.0
EPA STANDARD	57.3	63.4	14707	4.3	.44	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.8	36.9	14954	2.6	.26	.75	1.0
FLOAT-1.40	67.8	74.7	14632	4.7	.50	.99	1.4
FLOAT-1.60	87.5	93.0	14128	8.0	1.41	1.89	2.7
TOTAL	100.0	100.0	13286	13.5	3.37	3.88	5.8
EPA STANDARD	54.0	59.8	14773	3.8	.39	.89	1.20

STATE: PA. (BITUMINOUS) COALBED: MIDDLE KITTANNING
COUNTY: CLARION RAW COAL MOISTURE: 2.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	72.9	75.8	13863	4.0	.09	.82	1.2
FLOAT-1.40	89.1	91.8	13733	4.9	.10	.80	1.2
FLOAT-1.60	98.1	99.3	13487	6.6	.11	.79	1.2
FLOAT-1.90	99.1	100.0	13444	6.9	.11	.79	1.2
TOTAL	100.0	100.0	13329	7.7	.12	.80	1.2
EPA STANDARD	100.0	100.0	13331	7.7	.12	.80	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	68.3	71.9	14036	2.8	.09	.71	1.0
FLOAT-1.40	86.2	89.8	13892	3.8	.09	.70	1.0
FLOAT-1.60	97.0	98.9	13588	5.9	.10	.69	1.0
FLOAT-1.90	98.6	99.9	13502	6.5	.10	.69	1.0
TOTAL	100.0	100.0	13329	7.7	.12	.71	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	35.4	37.7	14151	2.0	.05	.71	1.0
FLOAT-1.40	83.3	87.2	13892	3.8	.06	.68	1.0
FLOAT-1.60	95.3	97.9	13632	5.6	.06	.67	1.0
FLOAT-1.90	97.9	99.7	13516	6.4	.07	.66	1.0
TOTAL	100.0	100.0	13271	8.1	.11	.70	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: PA. (BITUMINOUS) COALBED: MIDDLE KITTANNING
COUNTY: CLEARFIELD RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	44.9	50.8	14716	4.0	.31	1.03	1.4
FLOAT-1.40	66.6	73.5	14361	6.3	.43	1.11	1.5
FLOAT-1.60	87.2	91.5	13665	10.8	.60	1.22	1.8
TOTAL	100.0	100.0	13016	15.0	1.85	2.41	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	48.4	54.8	14825	3.3	.26	.93	1.3
FLOAT-1.40	68.3	75.6	14500	5.4	.36	1.02	1.4
FLOAT-1.60	86.0	91.3	13897	9.3	.51	1.12	1.6
TOTAL	100.0	100.0	13094	14.5	1.78	2.33	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	39.8	45.1	14902	2.8	.20	1.03	1.4
FLOAT-1.40	64.1	71.0	14562	5.0	.28	1.05	1.4
FLOAT-1.60	85.4	90.9	14005	8.6	.56	1.25	1.8
TOTAL	100.0	100.0	13155	14.1	1.82	2.44	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.1	52.6	14943	3.3	.24	1.15	1.5
FLOAT-1.40	82.0	87.5	14591	5.6	.43	1.30	1.8
FLOAT-1.60	88.8	93.7	14422	6.7	.59	1.43	2.0
TOTAL	100.0	100.0	13671	11.6	2.11	2.90	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.2	56.9	14974	3.1	.18	1.22	1.6
FLOAT-1.40	82.5	87.9	14652	5.2	.36	1.37	1.9
FLOAT-1.60	89.1	93.9	14483	6.3	.48	1.47	2.0
TOTAL	100.0	100.0	13748	11.1	1.98	2.88	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.2	50.7	15066	2.5	.10	1.12	1.5
FLOAT-1.40	80.0	86.0	14759	4.5	.27	1.18	1.6
FLOAT-1.60	89.3	94.4	14514	6.1	.44	1.31	1.8
TOTAL	100.0	100.0	13733	11.2	2.16	2.97	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.7	52.1	14880	3.0	.07	.88	1.2
FLOAT-1.40	88.3	90.7	14565	5.0	.19	1.00	1.4
FLOAT-1.60	97.0	98.1	14345	6.4	.30	1.10	1.5
TOTAL	100.0	100.0	14187	7.4	.63	1.42	2.0
EPA STANDARD	54.4	56.9	14852	3.2	.08	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.2	56.0	14943	2.6	.09	.93	1.2
FLOAT-1.40	87.6	90.3	14628	4.6	.18	.97	1.3
FLOAT-1.60	96.8	98.2	14392	6.1	.26	1.04	1.4
TOTAL	100.0	100.0	14187	7.4	.67	1.44	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.4	52.3	15037	2.0	.09	.93	1.2
FLOAT-1.40	81.6	84.7	14738	3.9	.14	.94	1.3
FLOAT-1.60	96.3	97.8	14423	5.9	.25	1.07	1.5
TOTAL	100.0	100.0	14203	7.3	.65	1.44	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.7	35.3	14861	3.6	.38	1.27	1.7
FLOAT-1.40	80.4	84.0	14388	6.6	1.08	1.89	2.6
FLOAT-1.60	93.0	95.3	14120	8.3	1.43	2.21	3.1
TOTAL	100.0	100.0	13774	10.5	2.21	3.02	4.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.5	44.8	14908	3.3	.38	1.21	1.6
FLOAT-1.40	82.6	86.7	14483	6.0	.81	1.64	2.3
FLOAT-1.60	92.3	95.4	14262	7.4	1.10	1.84	2.6
TOTAL	100.0	100.0	13805	10.3	2.33	3.11	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.2	45.6	14971	2.9	.35	1.11	1.5
FLOAT-1.40	79.0	83.3	14624	5.1	.60	1.67	2.3
FLOAT-1.60	91.9	95.0	14341	6.9	.92	1.85	2.6
TOTAL	100.0	100.0	13868	9.9	2.18	3.12	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: .4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	6.9	8.6	14307	4.8	1.18	2.37	3.3
FLOAT-1.40	36.5	43.1	13585	9.6	2.62	4.15	6.1
FLOAT-1.60	69.8	78.9	12999	13.5	4.18	6.08	9.4
FLOAT-1.90	80.9	89.3	12684	15.6	5.24	7.40	11.7
TOTAL	100.0	100.0	11496	23.5	6.95	9.39	16.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.5	15.6	14382	4.3	.98	2.27	3.2
FLOAT-1.40	44.8	53.3	13736	8.6	2.19	3.81	5.5
FLOAT-1.60	70.6	81.0	13240	11.9	3.36	5.19	7.8
FLOAT-1.90	79.4	89.1	12954	13.8	4.17	6.17	9.5
TOTAL	100.0	100.0	11541	23.2	6.66	9.12	15.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.6	10.8	14382	4.3	.95	2.19	3.0
FLOAT-1.40	39.6	47.7	13856	7.8	1.92	3.54	5.1
FLOAT-1.60	68.7	79.7	13330	11.3	2.96	4.78	7.2
FLOAT-1.90	78.7	89.1	13014	13.4	3.71	5.70	8.8
TOTAL	100.0	100.0	11496	23.5	6.73	9.21	16.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: MIDDLE KITTANNING
COUNTY: TIOGA RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.8	5.5	14859	2.9	.28	.74	1.0
FLOAT-1.40	65.3	70.9	14115	7.8	1.05	1.49	2.1
FLOAT-1.60	88.2	93.0	13720	10.4	1.53	2.02	2.9
TOTAL	100.0	100.0	13007	15.1	2.35	2.82	4.3
EPA STANDARD	18.4	20.5	14723	3.9	.43	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.0	9.1	14889	2.7	.22	.71	1.0
FLOAT-1.40	67.4	73.2	14145	7.6	.83	1.32	1.9
FLOAT-1.60	87.1	92.6	13842	9.6	1.31	1.75	2.5
TOTAL	100.0	100.0	13022	15.0	2.48	2.97	4.6
EPA STANDARD	27.7	30.7	14688	4.3	.38	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.4	19.8	14783	3.4	.27	1.25	1.7
FLOAT-1.40	64.1	70.8	14312	6.5	.56	1.37	1.9
FLOAT-1.60	85.5	92.4	14009	8.5	.80	1.42	2.0
TOTAL	100.0	100.0	12961	15.4	2.45	3.04	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: MIDDLE KITTANNING BENCH: FIRST
COUNTY: TIOGA RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.4	19.0	14831	3.0	.03	.72	1.0
FLOAT-1.40	48.3	57.5	14267	6.7	.23	.84	1.2
FLOAT-1.60	72.6	81.7	13504	11.7	.69	1.22	1.8
TOTAL	100.0	100.0	11994	21.6	1.63	2.05	3.4
EPA STANDARD	51.1	60.7	14239	7.0	.25	.85	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.7	24.2	14800	3.2	.04	.67	.9
FLOAT-1.40	56.4	67.0	14297	6.5	.11	.72	1.0
FLOAT-1.60	72.5	83.1	13794	9.8	.20	.78	1.1
TOTAL	100.0	100.0	12040	21.3	1.64	2.11	3.5
EPA STANDARD	80.9	91.4	13743	11.5	.25	.81	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.5	20.3	14846	2.9	.04	.62	.8
FLOAT-1.40	50.4	60.1	14404	5.8	.09	.66	.9
FLOAT-1.60	75.8	86.9	13855	9.4	.20	.71	1.0
TOTAL	100.0	100.0	12086	21.0	1.68	2.16	3.6
EPA STANDARD	77.5	87.8	13733	14.7	.37	.79	1.20

STATE: PA. (BITUMINOUS) COALBED: MIDDLE KITTANNING BENCH: SECOND
COUNTY: TIOGA RAW COAL MOISTURE: .6 %
CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.9	34.6	15051	3.2	.10	.75	1.0
FLOAT-1.40	91.6	93.9	14679	5.6	.24	.90	1.2
FLOAT-1.60	96.4	98.2	14586	6.2	.33	.98	1.3
TOTAL	100.0	100.0	14322	7.9	.62	1.26	1.8
EPA STANDARD	88.2	90.5	14721	5.4	.22	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.7	44.1	15097	2.9	.05	.70	.9
FLOAT-1.40	88.9	92.2	14803	4.8	.11	.70	.9
FLOAT-1.60	95.1	97.8	14679	5.6	.21	.79	1.1
TOTAL	100.0	100.0	14276	8.2	.70	1.27	1.8
EPA STANDARD	99.4	98.2	14608	6.3	.30	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.5	41.0	15175	2.4	.05	.68	.9
FLOAT-1.40	84.7	88.4	14865	4.4	.11	.68	.9
FLOAT-1.60	94.4	97.4	14694	5.5	.14	.71	1.0
TOTAL	100.0	100.0	14245	8.4	.68	1.24	1.7
EPA STANDARD	96.1	98.2	14559	6.4	.29	.85	1.20

STATE: PA. (BITUMINOUS) COALBED: MIDDLE KITTANNING BENCH: FOURTH
COUNTY: TIOGA RAW COAL MOISTURE: .8 %
CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.7	6.2	15027	2.5	.27	.90	1.2
FLOAT-1.40	81.5	84.2	14190	8.0	.62	1.34	1.9
FLOAT-1.60	96.6	98.0	13931	9.7	.66	1.35	1.9
TOTAL	100.0	100.0	13733	11.0	.88	1.57	2.3
EPA STANDARD	5.9	6.5	15024	2.5	.27	.90	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	18.0	19.7	15057	2.3	.17	.94	1.2
FLOAT-1.40	76.9	80.2	14357	6.9	.45	1.19	1.7
FLOAT-1.60	95.4	97.2	14022	9.1	.57	1.27	1.8
TOTAL	100.0	100.0	13764	10.8	.90	1.60	2.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	18.9	20.7	15088	2.1	.19	.92	1.2
FLOAT-1.40	74.3	78.0	14464	6.2	.33	1.03	1.4
FLOAT-1.60	93.9	96.1	14098	8.6	.47	1.14	1.6
TOTAL	100.0	100.0	13779	10.7	.93	1.60	2.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: ARMSTRONG

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.2	54.2	14527	4.1	.23	.88	1.2
FLOAT-1.40	74.4	82.2	14283	5.7	.64	1.25	1.8
FLOAT-1.60	83.0	90.2	14039	7.3	.86	1.44	2.1
TOTAL	100.0	100.0	12925	14.6	1.97	2.51	3.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.4	68.1	14604	3.6	.11	.81	1.1
FLOAT-1.40	75.3	83.7	14405	4.9	.29	.97	1.3
FLOAT-1.60	82.5	90.2	14161	6.5	.48	1.15	1.6
TOTAL	100.0	100.0	12955	14.4	1.86	2.49	3.8
EPA STANDARD	67.0	75.2	14528	4.1	.18	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.7	58.9	14772	2.5	.11	.77	1.0
FLOAT-1.40	73.7	82.5	14497	4.3	.12	.81	1.1
FLOAT-1.60	83.3	90.6	14085	7.0	.41	1.08	1.5
TOTAL	100.0	100.0	12955	14.4	2.01	2.57	4.0
EPA STANDARD	75.6	84.1	14415	5.8	.15	.86	1.20

STATE: PA. (BITUMINOUS)
COUNTY: ARMSTRONG

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.5	64.5	14600	4.0	.64	2.01	2.8
FLOAT-1.40	86.0	90.0	14327	5.8	1.07	2.40	3.4
FLOAT-1.60	91.2	94.7	14221	6.5	1.37	2.70	3.8
TOTAL	100.0	100.0	13689	10.0	3.14	4.45	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.3	70.5	14722	3.2	.38	1.77	2.4
FLOAT-1.40	85.0	90.2	14464	4.9	.74	2.07	2.9
FLOAT-1.60	90.0	94.7	14342	5.7	1.01	2.33	3.2
TOTAL	100.0	100.0	13628	10.4	3.39	4.62	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.5	64.7	14798	2.7	.29	1.73	2.3
FLOAT-1.40	83.8	89.7	14570	4.2	.53	1.86	2.6
FLOAT-1.60	89.3	94.2	14357	5.6	.86	2.19	3.1
TOTAL	100.0	100.0	13613	10.5	3.34	4.54	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: ARMSTRONG

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.8	41.0	14443	4.4	.85	1.88	2.6
FLOAT-1.40	73.3	81.6	14035	7.1	1.64	2.89	4.1
FLOAT-1.60	84.1	92.3	13839	8.4	2.07	3.42	4.9
FLOAT-1.90	88.3	95.6	13658	9.6	2.38	3.79	5.6
TOTAL	100.0	100.0	12615	16.5	3.50	5.09	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.5	51.3	14549	3.7	.73	1.75	2.4
FLOAT-1.40	71.7	81.0	14262	5.6	1.33	2.49	3.5
FLOAT-1.60	82.0	91.1	14035	7.1	1.69	2.93	4.2
FLOAT-1.90	86.7	95.1	13854	8.3	2.00	3.32	4.8
TOTAL	100.0	100.0	12630	16.4	3.55	5.11	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.6	56.0	14564	3.6	.55	1.54	2.1
FLOAT-1.40	71.8	81.4	14322	5.2	.96	2.07	2.9
FLOAT-1.60	80.9	90.3	14096	6.7	1.29	2.47	3.5
FLOAT-1.90	85.7	94.4	13914	7.9	1.59	2.82	4.1
TOTAL	100.0	100.0	12630	16.4	3.60	5.26	8.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: ARMSTRONG

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.5	51.8	14324	4.3	.58	1.44	2.0
FLOAT-1.40	60.6	74.3	14055	6.1	.85	1.77	2.5
FLOAT-1.60	68.6	82.3	13756	8.1	.99	1.88	2.7
FLOAT-1.90	83.8	93.4	12783	14.6	1.21	2.14	3.3
TOTAL	100.0	100.0	11466	23.4	2.82	3.90	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.3	58.1	14399	3.8	.33	1.17	1.6
FLOAT-1.40	60.3	74.6	14205	5.1	.52	1.39	2.0
FLOAT-1.60	68.5	82.9	13890	7.2	.68	1.51	2.2
FLOAT-1.90	81.8	92.7	13007	13.1	.89	1.74	2.7
TOTAL	100.0	100.0	11481	23.3	2.79	3.88	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.9	60.5	14459	3.4	.31	1.05	1.5
FLOAT-1.40	59.1	73.8	14294	4.5	.43	1.19	1.7
FLOAT-1.60	70.3	85.1	13860	7.4	.65	1.36	2.0
FLOAT-1.90	81.0	93.1	13157	12.1	.80	1.52	2.3
TOTAL	100.0	100.0	11451	23.5	2.92	4.05	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: BEDFORD RAW COAL MOISTURE: .4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.6	38.3	15312	1.6	.04	.76	1.0
FLOAT-1.40	71.4	79.5	14967	3.8	.10	.83	1.1
FLOAT-1.60	84.9	91.7	14528	6.6	.32	1.03	1.4
TOTAL	100.0	100.0	13446	13.5	1.39	2.06	3.1
EPA STANDARD	75.4	83.1	14838	5.1	.16	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.6	43.9	15296	1.7	.06	.74	1.0
FLOAT-1.40	74.7	83.1	14983	3.7	.10	.77	1.0
FLOAT-1.60	84.9	92.1	14606	6.1	.26	.91	1.2
TOTAL	100.0	100.0	13461	13.4	1.45	2.10	3.1
EPA STANDARD	82.7	90.2	14686	5.6	.22	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.5	45.0	15359	1.3	.04	.76	1.0
FLOAT-1.40	76.9	85.7	15030	3.4	.09	.80	1.1
FLOAT-1.60	85.4	93.6	14794	4.9	.21	.89	1.2
TOTAL	100.0	100.0	13493	13.2	1.45	2.10	3.1
EPA STANDARD	85.2	93.5	14800	4.9	.21	.89	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: CAMBRIA RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.0	64.4	15073	3.3	.15	.90	1.2
FLOAT-1.40	85.6	89.0	14858	4.7	.32	1.05	1.4
FLOAT-1.60	94.1	96.2	14611	6.3	.49	1.18	1.6
TOTAL	100.0	100.0	14288	8.4	1.31	2.01	2.8
EPA STANDARD	61.9	65.2	15068	3.3	.15	.90	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.3	69.1	15227	2.3	.20	.81	1.1
FLOAT-1.40	87.1	90.7	14996	3.8	.29	.88	1.2
FLOAT-1.60	93.3	96.0	14811	5.0	.39	.97	1.3
TOTAL	100.0	100.0	14396	7.7	1.19	1.81	2.5
EPA STANDARD	90.1	93.6	14960	4.1	.31	.90	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.2	63.4	15274	2.0	.09	.83	1.1
FLOAT-1.40	85.3	89.7	15012	3.7	.24	.85	1.1
FLOAT-1.60	92.6	96.1	14811	5.0	.35	.94	1.3
TOTAL	100.0	100.0	14272	8.5	1.29	1.90	2.7
EPA STANDARD	88.9	92.9	14913	4.3	.36	.89	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: CAMBRIA RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.4	43.0	14988	3.1	.06	.65	.9
FLOAT-1.40	72.7	79.4	14602	5.6	.09	.67	.9
FLOAT-1.60	87.3	91.9	14078	9.0	.10	.67	1.0
TOTAL	100.0	100.0	13369	13.6	.15	.68	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.5	50.4	15096	2.4	.03	.65	.9
FLOAT-1.40	71.7	79.3	14756	4.6	.04	.65	.9
FLOAT-1.60	85.1	91.0	14263	7.8	.05	.64	.9
TOTAL	100.0	100.0	13338	13.8	.14	.71	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.0	49.5	15157	2.0	.03	.63	.8
FLOAT-1.40	74.1	81.7	14834	4.1	.04	.62	.8
FLOAT-1.60	87.5	93.5	14387	7.0	.04	.63	.9
TOTAL	100.0	100.0	13462	13.0	.15	.70	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: CAMBRIA RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.5	49.3	14817	3.9	.11	.65	.9
FLOAT-1.40	56.1	70.1	14477	6.1	.20	.69	1.0
FLOAT-1.60	73.4	87.1	13737	10.9	.29	.77	1.1
FLOAT-1.90	85.5	96.1	13013	15.6	.36	.82	1.3
TOTAL	100.0	100.0	11579	24.9	.80	1.26	2.2
EPA STANDARD	80.5	92.8	13326	13.5	.33	.80	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.5	56.2	14909	3.3	.08	.60	.8
FLOAT-1.40	58.0	73.6	14632	5.1	.13	.63	.9
FLOAT-1.60	71.2	86.7	14046	8.9	.18	.66	.9
FLOAT-1.90	82.4	95.2	13321	13.6	.22	.69	1.0
TOTAL	100.0	100.0	11532	25.2	.77	1.24	2.2
EPA STANDARD	98.0	95.9	13058	20.3	.29	.75	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.8	44.9	14971	2.9	.06	.59	.8
FLOAT-1.40	57.2	72.3	14678	4.8	.10	.64	.9
FLOAT-1.60	70.3	86.0	14200	7.9	.14	.66	.9
FLOAT-1.90	80.7	94.0	13521	12.3	.17	.67	1.0
TOTAL	100.0	100.0	11609	24.7	.71	1.21	2.1
EPA STANDARD	84.4	95.1	13156	24.3	.27	.72	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CAMBRIA

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.3	62.8	15101	3.0	.10	.76	1.0
FLOAT-1.40	77.4	85.0	14867	4.5	.15	.80	1.1
FLOAT-1.60	86.1	92.5	14556	6.5	.21	.85	1.2
FLOAT-1.90	94.4	97.8	14026	9.9	.27	.91	1.3
TOTAL	100.0	100.0	13544	13.0	.89	1.60	2.4
EPA STANDARD	88.6	94.4	14425	7.3	.23	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.7	65.8	15179	2.5	.06	.71	.9
FLOAT-1.40	77.8	85.9	14961	3.9	.10	.73	1.0
FLOAT-1.60	85.1	92.3	14696	5.6	.14	.75	1.0
FLOAT-1.90	92.2	97.0	14244	8.5	.19	.79	1.1
TOTAL	100.0	100.0	13544	13.0	.85	1.53	2.3
EPA STANDARD	98.5	97.2	14189	11.1	.24	.83	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.5	48.8	15241	2.1	.06	.67	.9
FLOAT-1.40	74.2	82.0	15007	3.6	.09	.70	.9
FLOAT-1.60	86.0	92.9	14665	5.8	.15	.72	1.0
FLOAT-1.90	91.7	96.7	14322	8.0	.18	.75	1.0
TOTAL	100.0	100.0	13575	12.8	.85	1.50	2.2
EPA STANDARD	92.8	97.2	14224	12.3	.25	.83	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CENTRE

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 1.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.7	20.5	14726	3.6	.13	.85	1.2
FLOAT-1.40	47.5	55.5	14026	8.2	.21	.88	1.3
FLOAT-1.60	80.5	87.0	12977	15.1	.33	.95	1.5
TOTAL	100.0	100.0	12004	21.5	.61	1.18	2.0
EPA STANDAPD	31.9	38.0	14408	5.8	.17	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	21.2	26.8	14802	3.1	.05	.86	1.2
FLOAT-1.40	48.1	58.1	14163	7.3	.17	.88	1.2
FLOAT-1.60	74.1	83.4	13205	13.6	.26	.90	1.4
TOTAL	100.0	100.0	11730	23.3	.55	1.10	1.9
EPA STANDARD	34.8	42.9	14501	5.1	.11	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.1	25.2	14893	2.5	.13	.85	1.1
FLOAT-1.40	50.4	60.4	14270	6.6	.15	.87	1.2
FLOAT-1.60	74.4	84.4	13494	11.7	.22	.88	1.3
TOTAL	100.0	100.0	11898	22.2	.59	1.14	1.9
EPA STANDARD	43.6	52.9	14425	5.5	.14	.87	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: CLARION RAW COAL MOISTURE: 2.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.7	56.1	14280	3.6	.34	1.29	1.8
FLOAT-1.40	84.2	88.1	14028	5.3	.88	1.85	2.6
FLOAT-1.60	92.0	95.0	13851	6.5	1.22	2.24	3.2
TOTAL	100.0	100.0	13407	9.5	2.47	3.65	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.5	57.6	14339	3.2	.35	1.25	1.7
FLOAT-1.40	80.7	85.4	14088	4.9	.75	1.69	2.4
FLOAT-1.60	90.6	94.3	13866	6.4	1.17	2.11	3.0
TOTAL	100.0	100.0	13318	10.1	2.66	3.75	5.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.2	62.1	14472	2.3	.30	1.20	1.7
FLOAT-1.40	80.9	86.2	14206	4.1	.52	1.44	2.0
FLOAT-1.60	90.8	94.9	13940	5.9	.95	1.95	2.8
TOTAL	100.0	100.0	13333	10.0	2.54	3.66	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: CLARION RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.5	64.2	14249	5.1	.91	1.78	2.5
FLOAT-1.40	86.8	91.8	13964	7.0	1.63	2.42	3.5
FLOAT-1.60	92.7	96.6	13754	8.4	1.77	2.55	3.7
FLOAT-1.90	94.4	97.7	13664	9.0	1.87	2.63	3.8
TOTAL	100.0	100.0	13198	12.1	2.72	3.46	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.4	62.6	14324	4.6	.89	1.46	2.0
FLOAT-1.40	85.0	89.0	13754	8.4	1.55	2.14	3.1
FLOAT-1.60	91.9	95.2	13604	9.4	1.69	2.27	3.3
FLOAT-1.90	94.2	97.2	13559	9.7	1.76	2.34	3.5
TOTAL	100.0	100.0	13138	12.5	2.71	3.27	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.3	46.5	14474	3.6	.50	1.26	1.7
FLOAT-1.40	77.2	83.2	14189	5.5	.92	1.66	2.3
FLOAT-1.60	89.5	94.5	13904	7.4	1.21	1.90	2.7
FLOAT-1.90	93.6	97.3	13694	8.8	1.32	2.00	2.9
TOTAL	100.0	100.0	13168	12.3	2.62	3.28	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.9	46.5	14701	3.8	.36	1.42	1.9
FLOAT-1.40	77.0	81.4	14351	6.1	.91	2.04	2.8
FLOAT-1.60	90.5	93.8	14078	7.9	1.47	2.63	3.7
TOTAL	100.0	100.0	13576	11.2	3.15	4.30	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.8	54.4	14777	3.3	.27	1.32	1.8
FLOAT-1.40	77.5	82.9	14458	5.4	.67	1.76	2.4
FLOAT-1.60	89.1	93.6	14199	7.1	1.11	2.19	3.1
TOTAL	100.0	100.0	13515	11.6	3.37	4.40	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.5	51.3	14853	2.8	.26	1.12	1.5
FLOAT-1.40	75.2	81.4	14564	4.7	.49	1.44	2.0
FLOAT-1.60	87.2	92.7	14306	6.4	.86	1.79	2.5
TOTAL	100.0	100.0	13455	12.0	3.45	4.39	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.3	46.1	14658	3.9	.50	1.66	2.3
FLOAT-1.40	68.6	75.0	14352	5.9	1.09	2.25	3.1
FLOAT-1.60	84.1	89.4	13955	8.5	1.84	2.99	4.3
TOTAL	100.0	100.0	13129	13.9	5.01	6.15	9.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.4	53.3	14674	3.8	.40	1.51	2.1
FLOAT-1.40	70.7	78.0	14398	5.6	.83	1.93	2.7
FLOAT-1.60	83.2	89.6	14062	7.8	1.41	2.49	3.5
TOTAL	100.0	100.0	13052	14.4	5.27	6.30	9.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.6	30.1	14781	3.1	.33	1.51	2.0
FLOAT-1.40	65.9	73.1	14521	4.8	.64	1.67	2.3
FLOAT-1.60	81.1	87.8	14169	7.1	1.20	2.36	3.3
TOTAL	100.0	100.0	13083	14.2	5.20	6.31	9.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .6 %
CUMULATIVE WASHABILITY DATA

BENCH: TOP

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.3	38.1	14787	3.6	.84	1.56	2.1
FLOAT-1.40	73.5	79.4	14392	6.2	1.90	2.47	3.4
FLOAT-1.60	86.9	91.9	14088	8.2	2.31	2.89	4.1
TOTAL	100.0	100.0	13328	13.2	4.67	5.23	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.7	47.4	14817	3.4	.80	1.56	2.1
FLOAT-1.40	75.5	81.9	14483	5.6	1.50	2.25	3.1
FLOAT-1.60	86.1	91.7	14225	7.3	1.86	2.57	3.6
TOTAL	100.0	100.0	13358	13.0	4.44	5.08	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.1	46.9	14893	2.9	.53	1.25	1.7
FLOAT-1.40	72.4	79.3	14650	4.5	.89	1.60	2.2
FLOAT-1.60	85.1	91.4	14361	6.4	1.29	2.05	2.9
TOTAL	100.0	100.0	13374	12.9	4.58	5.29	7.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .7 %
CUMULATIVE WASHABILITY DATA

BENCH: MIDDLE

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.8	5.7	14576	3.7	.60	1.56	2.1
FLOAT-1.40	51.4	57.2	13585	10.3	1.46	2.40	3.5
FLOAT-1.60	83.0	88.7	13044	13.9	2.29	3.27	5.0
TOTAL	100.0	100.0	12203	19.5	4.02	4.91	8.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.9	11.8	14516	4.1	.56	1.90	2.6
FLOAT-1.40	57.9	65.3	13720	9.4	1.27	2.60	3.8
FLOAT-1.60	81.2	88.4	13240	12.6	1.80	2.99	4.5
TOTAL	100.0	100.0	12158	19.8	4.07	5.14	8.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.3	17.4	14636	3.3	.44	1.50	2.0
FLOAT-1.40	55.8	64.6	13945	7.9	.99	1.87	2.7
FLOAT-1.60	78.5	87.2	13390	11.6	1.51	2.26	3.4
TOTAL	100.0	100.0	12053	20.5	4.09	4.87	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING BENCH: BOTTOM
COUNTY: CLEARFIELD RAW COAL MOISTURE: .6 %
CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.6	42.0	14691	4.1	.25	1.04	1.4
FLOAT-1.40	61.7	72.9	14276	6.8	.69	1.46	2.0
FLOAT-1.60	77.9	88.7	13768	10.1	1.10	1.84	2.7
TOTAL	100.0	100.0	12090	21.0	1.85	2.50	4.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.2	46.5	14753	3.7	.25	1.05	1.4
FLOAT-1.40	63.1	74.7	14352	6.3	.56	1.36	1.9
FLOAT-1.60	77.0	88.4	13922	9.1	.86	1.62	2.3
TOTAL	100.0	100.0	12121	20.8	1.91	2.54	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.9	41.1	14845	3.1	.14	.92	1.2
FLOAT-1.40	60.0	70.8	14445	5.7	.38	1.15	1.6
FLOAT-1.60	78.6	89.4	13922	9.1	.67	1.42	2.0
TOTAL	100.0	100.0	12244	20.0	1.86	2.49	4.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: CLINTON RAW COAL MOISTURE: .5 %
CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.3	68.1	15102	2.6	.62	1.73	2.3
FLOAT-1.40	82.4	86.2	14917	3.8	1.11	2.18	2.9
FLOAT-1.60	90.6	93.6	14731	5.0	1.62	2.64	3.6
TOTAL	100.0	100.0	14252	8.1	2.87	3.82	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.0	74.5	15149	2.3	.46	1.55	2.0
FLOAT-1.40	82.5	87.0	15009	3.2	.74	1.80	2.4
FLOAT-1.60	89.1	93.0	14855	4.2	1.10	2.13	2.9
TOTAL	100.0	100.0	14237	8.2	2.93	3.90	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.3	66.0	15179	2.1	.33	1.49	2.0
FLOAT-1.40	78.9	83.0	15071	2.8	.54	1.65	2.2
FLOAT-1.60	90.7	94.5	14932	3.7	.83	1.84	2.5
TOTAL	100.0	100.0	14329	7.6	2.88	3.83	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: INDIANA

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 1.1 %
BENCH: TOP

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.3	57.3	14938	3.1	.29	1.19	1.6
FLOAT-1.40	86.5	89.6	14661	4.9	.64	1.57	2.1
FLOAT-1.60	93.8	96.0	14492	6.0	.95	1.88	2.6
TOTAL	100.0	100.0	14154	8.2	2.33	3.28	4.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.2	60.8	14968	2.9	.25	1.15	1.5
FLOAT-1.40	85.1	88.9	14707	4.6	.48	1.41	1.9
FLOAT-1.60	93.0	95.8	14507	5.9	.76	1.69	2.3
TOTAL	100.0	100.0	14077	8.7	2.45	3.45	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.8	58.6	15091	2.1	.23	1.07	1.4
FLOAT-1.40	84.1	88.3	14815	3.9	.33	1.22	1.6
FLOAT-1.60	94.0	97.4	14615	5.2	.52	1.43	2.0
TOTAL	100.0	100.0	14108	8.5	2.40	3.41	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: INDIANA

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.7	45.4	14732	3.6	.14	1.03	1.4
FLOAT-1.40	63.8	77.1	14388	5.8	.50	1.32	1.8
FLOAT-1.60	71.9	85.4	14137	7.4	.85	1.67	2.4
TOTAL	100.0	100.0	11900	21.7	3.89	4.59	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.5	51.0	14763	3.4	.22	1.06	1.4
FLOAT-1.40	65.2	78.5	14466	5.3	.42	1.25	1.7
FLOAT-1.60	73.1	86.6	14231	6.8	.65	1.47	2.1
TOTAL	100.0	100.0	12009	21.0	3.87	4.58	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.9	45.8	14842	2.9	.18	1.03	1.4
FLOAT-1.40	63.3	76.7	14497	5.1	.35	1.17	1.6
FLOAT-1.60	72.2	85.5	14169	7.2	.60	1.43	2.0
TOTAL	100.0	100.0	11962	21.3	4.04	4.72	7.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: INDIANA RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.0	73.2	14786	3.4	.01	.81	1.1
FLOAT-1.40	92.6	94.1	14578	4.7	.03	.82	1.1
FLOAT-1.60	98.7	99.2	14419	5.7	.08	.86	1.2
TOTAL	100.0	100.0	14339	6.2	.17	.95	1.3
EPA STANDARD	99.1	99.6	14415	5.8	.09	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	73.3	76.0	14850	3.0	.02	.78	1.1
FLOAT-1.40	92.7	94.8	14642	4.3	.03	.78	1.1
FLOAT-1.60	97.2	98.5	14515	5.1	.06	.80	1.1
TOTAL	100.0	100.0	14323	6.3	.20	.92	1.3
EPA STANDARD	98.7	99.3	14412	6.3	.14	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.6	68.1	14850	3.0	.02	.79	1.1
FLOAT-1.40	90.6	93.2	14722	3.8	.03	.81	1.1
FLOAT-1.60	96.5	98.2	14562	4.8	.06	.80	1.1
TOTAL	100.0	100.0	14307	6.4	.19	.92	1.3
EPA STANDARD	98.4	99.2	14424	5.7	.06	.86	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: INDIANA RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.6	47.8	14493	3.7	.20	1.30	1.8
FLOAT-1.40	50.1	69.5	14137	6.0	.41	1.40	2.0
FLOAT-1.60	60.9	82.1	13751	8.5	.89	1.79	2.6
TOTAL	100.0	100.0	10195	31.5	4.22	4.68	9.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.4	54.1	14539	3.4	.18	1.01	1.4
FLOAT-1.40	50.5	71.5	14230	5.4	.30	1.11	1.6
FLOAT-1.60	59.5	81.9	13844	7.9	.53	1.31	1.9
TOTAL	100.0	100.0	10056	32.4	4.26	4.77	9.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.7	42.1	14617	2.9	.14	1.00	1.4
FLOAT-1.40	51.1	70.9	14292	5.0	.27	1.10	1.5
FLOAT-1.60	61.7	83.2	13890	7.6	.45	1.27	1.8
TOTAL	100.0	100.0	10303	30.8	4.17	4.85	9.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: INDIANA RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	73.2	77.2	14958	3.5	.05	.79	1.1
FLOAT-1.40	85.8	89.3	14770	4.7	.07	.80	1.1
FLOAT-1.60	97.7	98.9	14361	7.3	.08	.78	1.1
TOTAL	100.0	100.0	14188	8.4	.13	.82	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.1	75.5	15021	3.1	.04	.79	1.1
FLOAT-1.40	84.4	88.5	14832	4.3	.05	.79	1.1
FLOAT-1.60	96.2	98.0	14408	7.0	.06	.77	1.1
TOTAL	100.0	100.0	14141	8.7	.13	.83	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.7	67.1	15115	2.5	.04	.80	1.1
FLOAT-1.40	84.6	89.1	14880	4.0	.05	.77	1.0
FLOAT-1.60	94.6	97.1	14502	6.4	.06	.80	1.1
TOTAL	100.0	100.0	14125	8.8	.15	.89	1.3
EPA STANDARD	97.9	98.9	14270	8.4	.10	.85	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: INDIANA RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.4	28.8	14685	3.8	.09	.86	1.2
FLOAT-1.40	66.2	72.2	14139	7.4	.20	.93	1.3
FLOAT-1.60	87.5	91.9	13608	10.9	.28	.93	1.4
TOTAL	100.0	100.0	12956	15.2	.43	1.04	1.6
EPA STANDARD	31.3	36.1	14576	3.8	.10	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.4	36.0	14731	3.5	.05	.82	1.1
FLOAT-1.40	67.1	74.5	14276	6.5	.10	.84	1.2
FLOAT-1.60	84.8	90.7	13760	9.9	.16	.84	1.2
TOTAL	100.0	100.0	12865	15.8	.46	1.07	1.7
EPA STANDARD	77.1	84.1	14005	8.2	.13	.84	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.0	38.2	14822	2.9	.07	.91	1.2
FLOAT-1.40	63.9	72.2	14473	5.2	.05	.75	1.0
FLOAT-1.60	82.0	88.9	13881	9.1	.09	.75	1.1
TOTAL	100.0	100.0	12804	16.2	.46	1.05	1.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: INDIANA RAW COAL MOISTURE: .4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.2	63.4	14767	3.7	.36	1.45	2.0
FLOAT-1.40	70.9	81.7	14537	5.2	.57	1.66	2.3
FLOAT-1.60	78.5	88.9	14291	6.8	.76	1.87	2.6
FLOAT-1.90	85.0	93.5	13877	9.5	.98	2.10	3.0
TOTAL	100.0	100.0	12620	17.7	2.85	4.31	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.5	65.6	14920	2.7	.21	1.22	1.6
FLOAT-1.40	70.2	81.7	14690	4.2	.37	1.38	1.9
FLOAT-1.60	77.4	88.6	14445	5.8	.52	1.53	2.1
FLOAT-1.90	84.0	93.3	14015	8.6	.71	1.74	2.5
TOTAL	100.0	100.0	12620	17.7	2.79	4.23	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.6	60.8	14951	2.5	.19	1.22	1.6
FLOAT-1.40	70.0	81.0	14675	4.3	.39	1.41	1.9
FLOAT-1.60	78.6	89.4	14429	5.9	.53	1.55	2.1
FLOAT-1.90	84.0	93.3	14092	8.1	.69	1.70	2.4
TOTAL	100.0	100.0	12681	17.3	2.88	4.31	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: INDIANA RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.9	69.5	14848	3.4	.52	1.42	1.9
FLOAT-1.40	79.5	86.7	14648	4.7	.68	1.60	2.2
FLOAT-1.60	86.5	93.0	14449	6.0	.86	1.80	2.5
FLOAT-1.90	91.1	96.3	14203	7.6	1.05	2.03	2.9
TOTAL	100.0	100.0	13434	12.6	2.23	3.43	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.4	70.5	14910	3.0	.27	1.17	1.6
FLOAT-1.40	79.9	87.7	14710	4.3	.42	1.35	1.8
FLOAT-1.60	85.6	93.0	14556	5.3	.56	1.50	2.1
FLOAT-1.90	89.6	95.9	14341	6.7	.72	1.67	2.3
TOTAL	100.0	100.0	13403	12.8	2.15	3.36	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.6	63.2	14956	2.7	.26	1.15	1.5
FLOAT-1.40	75.9	83.6	14771	3.9	.40	1.29	1.7
FLOAT-1.60	85.4	92.8	14572	5.2	.57	1.49	2.0
FLOAT-1.90	89.2	95.6	14372	6.5	.72	1.65	2.3
TOTAL	100.0	100.0	13403	12.8	2.36	3.59	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: INDIANA

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.3	46.9	14905	3.8	.82	1.72	2.3
FLOAT-1.40	76.8	83.4	14580	5.9	1.26	2.19	3.0
FLOAT-1.60	86.2	92.3	14379	7.2	1.60	2.59	3.6
FLOAT-1.90	90.1	95.2	14193	8.4	1.90	2.94	4.1
TOTAL	100.0	100.0	13433	13.3	3.41	4.74	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.0	54.9	15029	3.0	.64	1.56	2.1
FLOAT-1.40	76.8	84.2	14719	5.0	.95	1.87	2.5
FLOAT-1.60	84.4	91.5	14549	6.1	1.20	2.15	3.0
FLOAT-1.90	88.0	94.3	14379	7.2	1.43	2.40	3.3
TOTAL	100.0	100.0	13418	13.4	3.44	4.74	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.4	47.1	14998	3.2	.72	1.49	2.0
FLOAT-1.40	76.9	83.9	14719	5.0	.99	1.82	2.5
FLOAT-1.60	85.7	92.4	14549	6.1	1.25	2.10	2.9
FLOAT-1.90	88.7	94.7	14410	7.0	1.44	2.31	3.2
TOTAL	100.0	100.0	13495	12.9	3.38	4.68	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: INDIANA

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.4	51.4	14849	3.5	.47	1.29	1.7
FLOAT-1.40	75.5	83.7	14541	5.5	.90	1.77	2.4
FLOAT-1.60	83.8	91.9	14372	6.6	1.25	2.19	3.0
FLOAT-1.90	86.7	94.0	14218	7.6	1.64	2.68	3.8
TOTAL	100.0	100.0	13110	14.8	3.69	5.00	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.6	60.6	14849	3.5	.46	1.24	1.7
FLOAT-1.40	76.9	85.6	14633	4.9	.72	1.53	2.1
FLOAT-1.60	83.1	91.7	14495	5.8	.95	1.80	2.5
FLOAT-1.90	86.0	94.1	14372	6.6	1.19	2.09	2.9
TOTAL	100.0	100.0	13141	14.6	3.74	5.04	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.9	48.8	14941	2.9	.39	1.20	1.6
FLOAT-1.40	75.8	84.5	14649	4.8	.70	1.55	2.1
FLOAT-1.60	82.9	91.4	14495	5.8	.91	1.80	2.5
FLOAT-1.90	86.1	94.2	14372	6.6	1.11	2.04	2.8
TOTAL	100.0	100.0	13141	14.6	3.67	5.01	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: INDIANA

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.9	53.8	14776	3.8	.53	1.43	1.9
FLOAT-1.40	71.4	83.9	14500	5.6	.79	1.73	2.4
FLOAT-1.60	78.5	91.1	14316	6.8	1.04	2.03	2.8
FLOAT-1.90	81.4	93.5	14162	7.8	1.28	2.31	3.3
TOTAL	100.0	100.0	12334	19.7	3.31	4.66	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.1	61.7	14822	3.5	.37	1.25	1.7
FLOAT-1.40	70.5	84.0	14623	4.8	.56	1.44	2.0
FLOAT-1.60	77.0	90.6	14439	6.0	.75	1.66	2.3
FLOAT-1.90	79.7	92.9	14300	6.9	.90	1.83	2.6
TOTAL	100.0	100.0	12273	20.1	3.37	4.64	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.5	44.7	14853	3.3	.27	1.11	1.5
FLOAT-1.40	71.8	84.0	14592	5.0	.58	1.46	2.0
FLOAT-1.60	79.0	91.3	14408	6.2	.75	1.67	2.3
FLOAT-1.90	82.2	93.9	14254	7.2	.91	1.86	2.6
TOTAL	100.0	100.0	12473	18.8	3.19	4.55	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: JEFFERSON

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.8	48.1	14535	3.8	.24	.91	1.3
FLOAT-1.40	90.6	93.0	14198	6.0	.30	1.08	1.5
FLOAT-1.60	96.9	98.3	14030	7.1	.36	1.12	1.6
TOTAL	100.0	100.0	13831	8.4	.58	1.34	1.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.7	57.7	14596	3.4	.11	.87	1.2
FLOAT-1.40	90.2	92.8	14229	5.8	.26	1.05	1.5
FLOAT-1.60	96.1	97.8	14076	6.8	.29	1.08	1.5
TOTAL	100.0	100.0	13831	8.4	.57	1.33	1.9
EPA STANDARD	55.8	58.9	14586	3.4	.11	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.5	64.0	14672	2.9	.15	.85	1.2
FLOAT-1.40	87.9	91.1	14366	4.9	.22	.99	1.4
FLOAT-1.60	95.1	97.5	14214	5.9	.28	1.03	1.4
TOTAL	100.0	100.0	13862	8.2	.62	1.34	1.9
EPA STANDARD	66.3	70.0	14615	3.2	.15	.88	1.20

STATE: PA. (BITUMINOUS)
COUNTY: LAWRENCE

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.0	43.7	14104	3.9	.49	1.17	1.7
FLOAT-1.40	73.8	80.2	13679	6.8	1.37	1.98	2.9
FLOAT-1.60	88.5	93.9	13356	9.0	1.97	2.57	3.8
TOTAL	100.0	100.0	12594	14.2	3.18	3.73	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.9	56.5	14206	3.2	.30	.94	1.3
FLOAT-1.40	73.4	81.4	13898	5.3	.69	1.32	1.9
FLOAT-1.60	85.8	92.8	13561	7.6	1.10	1.71	2.5
TOTAL	100.0	100.0	12536	14.6	3.09	3.61	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.7	57.8	14279	2.7	.14	.88	1.2
FLOAT-1.40	71.2	79.7	14030	4.4	.41	1.13	1.6
FLOAT-1.60	84.6	92.4	13693	6.7	.66	1.39	2.0
TOTAL	100.0	100.0	12536	14.6	3.25	3.90	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: SOMEPSET

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.5	32.7	14586	3.5	.38	.84	1.2
FLOAT-1.40	58.6	76.3	14208	6.0	.98	1.41	2.0
FLOAT-1.60	68.3	87.4	13966	7.6	1.14	1.57	2.2
FLOAT-1.90	73.7	92.0	13619	9.9	1.35	1.78	2.6
TOTAL	100.0	100.0	10913	27.8	2.55	2.93	5.4
EPA STANDARD	26.6	35.6	14564	3.5	.42	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.8	27.7	14707	2.7	.26	.74	1.0
FLOAT-1.40	59.6	77.7	14405	4.7	.50	.99	1.4
FLOAT-1.60	69.2	88.8	14178	6.2	.61	1.17	1.7
FLOAT-1.90	72.7	92.2	14012	7.3	.71	1.28	1.8
TOTAL	100.0	100.0	11049	26.9	2.46	2.89	5.2
EPA STANDARD	44.9	59.0	14548	3.8	.40	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.2	32.1	14631	3.2	.26	1.06	1.4
FLOAT-1.40	59.9	77.6	14269	5.6	.56	1.22	1.7
FLOAT-1.60	68.5	87.2	14027	7.2	.75	1.40	2.0
FLOAT-1.90	71.9	90.0	13785	8.8	.89	1.52	2.2
TOTAL	100.0	100.0	11019	27.1	2.41	2.89	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: TIOGA

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.0	14.5	14562	3.2	.23	.90	1.2
FLOAT-1.40	30.6	47.4	14046	6.6	.75	1.54	2.2
FLOAT-1.60	53.6	76.7	12970	13.7	1.24	2.02	3.1
TOTAL	100.0	100.0	9060	39.5	1.57	2.07	4.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.1	19.3	14592	3.0	.35	1.18	1.6
FLOAT-1.40	33.6	51.9	14152	5.9	.73	1.49	2.1
FLOAT-1.60	51.9	75.2	13273	11.7	1.13	1.88	2.8
TOTAL	100.0	100.0	9167	38.8	1.66	2.09	4.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.5	19.2	14562	3.2	.31	1.26	1.7
FLOAT-1.40	33.9	50.8	14183	5.7	.62	1.42	2.0
FLOAT-1.60	53.4	74.9	13273	11.7	1.00	1.81	2.7
TOTAL	100.0	100.0	9470	36.8	1.62	2.12	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CENTRE

COALBED: CLARION
RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.2	57.4	15032	2.2	.07	.81	1.1
FLOAT-1.40	75.8	81.3	14662	4.6	.15	.89	1.2
FLOAT-1.60	93.4	96.7	14153	7.9	.25	.93	1.3
TOTAL	100.0	100.0	13674	11.0	.60	1.25	1.8
EPA STANDARD	73.4	79.0	14700	4.2	.14	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.8	59.3	15047	2.1	.07	.99	1.3
FLOAT-1.40	76.2	82.1	14708	4.3	.12	.98	1.3
FLOAT-1.60	92.0	95.8	14214	7.5	.18	.99	1.4
TOTAL	100.0	100.0	13643	11.2	.56	1.31	1.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.3	54.9	15109	1.7	.05	.77	1.0
FLOAT-1.40	74.0	80.7	14801	3.7	.07	.79	1.1
FLOAT-1.60	91.0	95.8	14276	7.1	.10	.81	1.1
TOTAL	100.0	100.0	13566	11.7	.70	1.34	2.0
EPA STANDARD	91.7	96.1	14221	10.0	.13	.83	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLARION

COALBED: CLARION
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.3	48.7	14530	3.8	.60	2.05	2.8
FLOAT-1.40	80.2	84.0	14153	6.3	1.37	2.94	4.2
FLOAT-1.60	94.0	96.1	13821	8.5	1.80	3.36	4.9
TOTAL	100.0	100.0	13519	10.5	2.71	4.27	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.7	51.6	14530	3.8	.51	2.03	2.8
FLOAT-1.40	79.0	83.2	14153	6.3	1.20	2.85	4.0
FLOAT-1.60	92.9	95.5	13821	8.5	1.67	3.29	4.8
TOTAL	100.0	100.0	13443	11.0	2.76	4.33	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.6	58.0	14651	3.0	.38	1.89	2.6
FLOAT-1.40	78.5	83.0	14334	5.1	.80	2.44	3.4
FLOAT-1.60	92.4	96.1	14093	6.7	1.14	2.81	4.0
TOTAL	100.0	100.0	13549	10.3	2.64	4.28	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLARION

COALBED: CLARION
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.0	54.6	15274	4.7	1.25	2.75	3.6
FLOAT-1.40	68.4	78.1	15015	6.3	1.72	3.58	4.8
FLOAT-1.60	77.2	86.9	14805	7.6	2.28	4.31	5.8
FLOAT-1.90	81.2	90.3	14626	8.7	2.73	4.87	6.7
TOTAL	100.0	100.0	13152	17.8	7.00	9.41	14.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.3	57.3	15323	4.4	.95	2.46	3.2
FLOAT-1.40	70.3	80.3	15064	6.0	1.41	3.24	4.3
FLOAT-1.60	77.8	87.8	14886	7.1	1.88	3.85	5.2
FLOAT-1.90	81.6	91.1	14724	8.1	2.32	4.40	6.0
TOTAL	100.0	100.0	13184	17.6	6.71	9.27	14.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.9	54.1	15453	3.6	.56	2.08	2.7
FLOAT-1.40	67.1	77.8	15193	5.2	.99	2.81	3.7
FLOAT-1.60	75.7	86.7	14999	6.4	1.48	3.46	4.6
FLOAT-1.90	80.1	90.5	14805	7.6	1.96	4.06	5.5
TOTAL	100.0	100.0	13103	18.1	6.92	9.51	14.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLAPION

COALBED: CLARION
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.2	73.4	14111	4.5	.18	.91	1.3
FLOAT-1.40	76.9	85.7	13963	5.5	.34	1.12	1.6
FLOAT-1.60	86.3	94.2	13683	7.4	.49	1.30	1.9
FLOAT-1.90	89.9	96.7	13476	8.8	.60	1.44	2.1
TOTAL	100.0	100.0	12530	15.2	1.57	2.51	4.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.6	73.4	14274	3.4	.12	.86	1.2
FLOAT-1.40	76.8	86.1	14082	4.7	.28	1.03	1.5
FLOAT-1.60	85.4	93.9	13816	6.5	.37	1.14	1.7
FLOAT-1.90	89.4	96.7	13579	8.1	.42	1.19	1.8
TOTAL	100.0	100.0	12560	15.0	1.48	2.38	3.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.0	73.0	14274	3.4	.12	.86	1.2
FLOAT-1.40	77.6	86.9	14008	5.2	.24	.98	1.4
FLOAT-1.60	85.4	93.8	13742	7.0	.32	1.06	1.5
FLOAT-1.90	90.1	97.0	13476	8.8	.37	1.11	1.6
TOTAL	100.0	100.0	12515	15.3	1.41	2.32	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLARION

COALBED: CLARION
RAW COAL MOISTURE: 1.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.0	43.4	14455	3.1	.98	2.44	3.4
FLOAT-1.40	62.7	70.0	14126	5.3	1.87	3.27	4.6
FLOAT-1.60	79.6	86.2	13707	8.1	3.09	4.45	6.5
TOTAL	100.0	100.0	12659	15.1	6.81	8.08	12.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.6	52.3	14560	2.4	.61	2.02	2.8
FLOAT-1.40	65.1	73.2	14276	4.3	1.26	2.63	3.7
FLOAT-1.60	79.0	86.6	13917	6.7	2.26	3.57	5.1
TOTAL	100.0	100.0	12689	14.9	6.80	8.02	12.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.3	53.6	14635	1.9	.33	1.63	2.2
FLOAT-1.40	63.7	72.5	14396	3.5	.90	2.21	3.1
FLOAT-1.60	78.5	86.9	13991	6.2	1.90	3.18	4.5
TOTAL	100.0	100.0	12644	15.2	7.01	8.19	13.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: BROOKVILLE
COUNTY: BUTLER RAW COAL MOISTURE: 3.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.5	4.8	13661	2.2	.04	1.35	2.0
FLOAT-1.40	86.8	90.3	13325	4.6	.01	.89	1.3
FLOAT-1.60	94.1	96.9	13185	5.6	.02	.87	1.3
TOTAL	100.0	100.0	12807	8.3	.03	.84	1.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.8	8.4	13731	1.7	.04	1.07	1.6
FLOAT-1.40	85.4	89.3	13409	4.0	.05	.82	1.2
FLOAT-1.60	93.2	96.4	13255	5.1	.05	.81	1.2
TOTAL	100.0	100.0	12821	8.2	.06	.78	1.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.6	11.4	13745	1.6	.04	1.07	1.6
FLOAT-1.40	83.3	87.7	13465	3.6	.04	.82	1.2
FLOAT-1.60	92.9	96.5	13283	4.9	.04	.82	1.2
TOTAL	100.0	100.0	12793	8.4	.04	.79	1.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: BROOKVILLE
COUNTY: CENTRE RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.1	56.9	15168	2.2	.07	.74	1.0
FLOAT-1.40	74.7	80.9	15028	3.1	.16	.79	1.1
FLOAT-1.60	92.0	95.4	14394	7.2	.18	.79	1.1
TOTAL	100.0	100.0	13883	10.5	.25	.83	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.1	61.7	15199	2.0	.03	.67	.9
FLOAT-1.40	73.7	80.3	15059	2.9	.07	.67	.9
FLOAT-1.60	89.3	93.9	14533	6.3	.10	.65	.9
TOTAL	100.0	100.0	13821	10.9	.24	.76	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.1	48.5	15276	1.5	.03	.66	.9
FLOAT-1.40	72.7	78.9	15090	2.7	.03	.67	.9
FLOAT-1.60	89.9	94.4	14595	5.9	.13	.72	1.0
TOTAL	100.0	100.0	13899	10.4	.26	.82	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: PA. (BITUMINOUS)
COUNTY: LAWRENCE

COALBED: BROOKVILLE
RAW COAL MOISTURE: 2.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.5	72.3	14397	2.5	.11	.72	1.0
FLOAT-1.40	90.0	93.5	14162	4.1	.43	1.10	1.6
FLOAT-1.60	94.2	97.1	14059	4.8	.60	1.28	1.8
TOTAL	100.0	100.0	13634	7.7	1.04	1.70	2.5
EPA STANDARD	78.3	82.1	14312	3.1	.22	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.9	75.0	14441	2.2	.12	.71	1.0
FLOAT-1.40	88.7	92.5	14235	3.6	.34	.89	1.3
FLOAT-1.60	93.8	96.9	14103	4.5	.54	1.11	1.6
TOTAL	100.0	100.0	13649	7.6	1.13	1.69	2.5
EPA STANDARD	86.3	90.2	14274	3.4	.30	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.5	70.5	14499	1.8	.12	.75	1.0
FLOAT-1.40	85.5	89.5	14323	3.0	.30	.98	1.4
FLOAT-1.60	93.5	96.4	14103	4.5	.56	1.23	1.7
TOTAL	100.0	100.0	13678	7.4	1.15	1.80	2.6
EPA STANDARD	77.3	81.5	14412	2.4	.20	.86	1.20

STATE: PA. (BITUMINOUS)
COUNTY: LAWRENCE

COALBED: BROOKVILLE
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	80.1	82.2	14432	2.3	.57	.95	1.3
FLOAT-1.40	94.2	95.9	14315	3.1	.94	1.37	1.9
FLOAT-1.60	96.6	98.0	14271	3.4	1.10	1.55	2.2
TOTAL	100.0	100.0	14065	4.8	1.88	2.35	3.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	86.2	88.9	14521	1.7	.18	.70	1.0
FLOAT-1.40	92.9	95.3	14447	2.2	.37	.88	1.2
FLOAT-1.60	95.0	97.2	14403	2.5	.51	1.03	1.4
TOTAL	100.0	100.0	14080	4.7	1.80	2.35	3.3
EPA STANDARD	92.6	95.0	14452	2.2	.36	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	89.2	92.9	14638	.9	.07	.52	.7
FLOAT-1.40	93.0	96.5	14579	1.3	.13	.57	.8
FLOAT-1.60	94.3	97.6	14535	1.6	.20	.64	.9
TOTAL	100.0	100.0	14051	4.9	1.85	2.50	3.6
EPA STANDARD	98.0	97.8	14477	2.5	.42	.87	1.20

STATE: PA. (BITUMINOUS) COALBED: BROOKVILLE
COUNTY: MERCER RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.1	61.5	13977	4.6	.37	2.14	3.1
FLOAT-1.40	80.1	86.5	13757	6.1	.73	2.49	3.6
FLOAT-1.60	86.0	91.9	13625	7.0	1.15	2.88	4.2
TOTAL	100.0	100.0	12743	13.0	5.12	6.61	10.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.0	66.0	14036	4.2	.33	1.96	2.8
FLOAT-1.40	79.7	86.3	13816	5.7	.60	2.21	3.2
FLOAT-1.60	85.3	91.5	13683	6.6	.96	2.55	3.7
TOTAL	100.0	100.0	12758	12.9	5.38	6.74	10.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.2	60.1	14139	3.5	.33	1.88	2.7
FLOAT-1.40	77.5	84.4	13889	5.2	.52	2.07	3.0
FLOAT-1.60	85.2	91.7	13727	6.3	.87	2.39	3.5
TOTAL	100.0	100.0	12758	12.9	5.23	6.65	10.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: UNCORRELATED BENCH: TOP
COUNTY: TIOGA RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.0	21.5	15112	2.4	.03	.54	.7
FLOAT-1.40	82.8	85.2	14446	6.6	.01	.56	.8
FLOAT-1.60	97.9	98.7	14144	8.5	.02	.58	.8
TOTAL	100.0	100.0	14033	9.2	.03	.58	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.9	30.1	15160	2.1	.01	.56	.7
FLOAT-1.40	80.8	83.7	14573	5.8	.01	.58	.8
FLOAT-1.60	96.6	98.0	14271	7.7	.01	.58	.8
TOTAL	100.0	100.0	14064	9.0	.03	.59	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.7	24.7	15240	1.6	.01	.60	.8
FLOAT-1.40	70.7	74.4	14747	4.7	.01	.61	.8
FLOAT-1.60	94.7	97.1	14366	7.1	.01	.61	.8
TOTAL	100.0	100.0	14017	9.3	.03	.62	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: PA. (BITUMINOUS) COALBED: UNCORRELATED BENCH: MIDDLE
COUNTY: TIOGA RAW COAL MOISTURE: .8 %
CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.9	12.7	14826	3.1	.07	.68	.9
FLOAT-1.40	73.5	80.9	14000	8.5	.33	.95	1.4
FLOAT-1.60	83.1	90.3	13816	9.7	.43	1.05	1.5
TOTAL	100.0	100.0	12714	16.9	.71	1.27	2.0
EPA STANDARD	57.3	63.7	14295	6.9	.24	.85	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.8	16.1	14842	3.0	.07	.67	.9
FLOAT-1.40	71.0	78.6	14107	7.8	.22	.76	1.1
FLOAT-1.60	83.3	90.6	13862	9.4	.33	.85	1.2
TOTAL	100.0	100.0	12745	16.7	.69	1.16	1.8
EPA STANDARD	81.1	88.5	13905	9.3	.31	.83	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.6	14.6	14888	2.7	.07	.86	1.2
FLOAT-1.40	60.5	67.5	14291	6.6	.11	.63	.9
FLOAT-1.60	84.4	91.6	13893	9.2	.22	.72	1.0
TOTAL	100.0	100.0	12806	16.3	.79	1.23	1.9
EPA STANDARD	87.3	93.1	13692	11.5	.33	.81	1.20

STATE: PA. (BITUMINOUS) COALBED: UNCORRELATED BENCH: BOTTOM
COUNTY: TIOGA RAW COAL MOISTURE: .8 %
CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.3	14.8	14927	3.0	.04	.70	.9
FLOAT-1.40	55.4	63.5	14251	7.4	.06	.61	.9
FLOAT-1.60	83.5	90.3	13451	12.6	.12	.70	1.0
TOTAL	100.0	100.0	12436	19.2	.27	.86	1.4
EPA STANDARD	96.9	94.8	12979	16.2	.18	.78	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	18.9	22.5	14958	2.8	.05	.73	1.0
FLOAT-1.40	62.9	72.2	14420	6.3	.08	.70	1.0
FLOAT-1.60	81.8	90.5	13897	9.7	.13	.72	1.0
TOTAL	100.0	100.0	12559	18.4	.27	.91	1.4
EPA STANDARD	89.0	94.3	13366	15.8	.22	.78	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.9	21.1	14989	2.6	.03	.71	.9
FLOAT-1.40	59.8	68.4	14527	5.6	.03	.73	1.0
FLOAT-1.60	84.5	93.0	13974	9.2	.04	.67	1.0
TOTAL	100.0	100.0	12698	17.5	.29	.90	1.4
EPA STANDARD	92.6	96.7	13303	13.6	.07	.89	1.20

STATE: PA. (BITUMINOUS) COALBED: L.KITT. " L.FREE.
COUNTY: CAMBRIA RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.5	62.6	15015	3.1	.22	.91	1.2
FLOAT-1.40	77.9	88.1	14767	4.7	.36	1.07	1.4
FLOAT-1.60	83.2	93.2	14627	5.6	.49	1.22	1.7
FLOAT-1.90	86.3	95.4	14441	6.8	.63	1.39	1.9
TOTAL	100.0	100.0	13062	15.7	1.62	2.52	3.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.6	70.1	15061	2.8	.17	.84	1.1
FLOAT-1.40	77.6	88.6	14860	4.1	.26	.93	1.3
FLOAT-1.60	82.3	93.2	14736	4.9	.35	1.03	1.4
FLOAT-1.90	85.1	95.2	14565	6.0	.43	1.13	1.6
TOTAL	100.0	100.0	13016	16.0	1.70	2.57	3.9
EPA STANDARD	72.6	83.2	14936	3.7	.23	.90	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.1	62.4	15077	2.7	.15	.80	1.1
FLOAT-1.40	76.1	86.3	14829	4.3	.23	.88	1.2
FLOAT-1.60	83.8	93.8	14643	5.5	.31	.98	1.3
FLOAT-1.90	86.4	95.8	14503	6.4	.38	1.06	1.5
TOTAL	100.0	100.0	13078	15.6	1.79	2.64	4.0
EPA STANDARD	77.6	87.9	14813	4.4	.24	.89	1.20

STATE: TENNESSEE COALBED: WALNUT MOUNTAIN
COUNTY: CAMPBELL RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.4	64.8	14238	3.4	.02	.68	1.0
FLOAT-1.40	86.9	92.2	14076	4.5	.07	.69	1.0
FLOAT-1.60	92.4	97.2	13958	5.3	.10	.71	1.0
FLOAT-1.90	94.0	98.4	13884	5.8	.12	.73	1.1
TOTAL	100.0	100.0	13265	10.0	.21	.81	1.2
EPA STANDARD	99.4	99.8	13343	9.3	.20	.80	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.3	72.5	14371	2.5	0.00	.66	.9
FLOAT-1.40	86.6	92.6	14267	3.2	.01	.66	.9
FLOAT-1.60	91.1	96.8	14179	3.8	.02	.67	.9
FLOAT-1.90	92.8	98.0	14091	4.4	.03	.67	1.0
TOTAL	100.0	100.0	13339	9.5	.21	.81	1.2
EPA STANDARD	99.6	99.9	13380	9.2	.21	.80	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.5	71.5	14385	2.4	0.00	.63	.9
FLOAT-1.40	84.0	91.0	14282	3.1	0.00	.63	.9
FLOAT-1.60	88.7	95.5	14194	3.7	.01	.64	.9
FLOAT-1.90	91.5	97.5	14046	4.7	.02	.64	.9
TOTAL	100.0	100.0	13177	10.6	.21	.82	1.2
EPA STANDARD	98.9	99.7	13293	9.8	.20	.78	1.20

STATE: TENNESSEE
COUNTY: ANDERSON

COALBED: BIG MARY
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.7	39.1	14391	3.0	.48	2.22	3.1
FLOAT-1.40	87.0	89.7	13921	6.2	.69	2.38	3.4
FLOAT-1.60	94.7	96.8	13789	7.1	1.06	2.71	3.9
TOTAL	100.0	100.0	13496	9.1	1.99	3.57	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.0	44.9	14421	2.8	.39	2.13	3.0
FLOAT-1.40	84.6	87.9	14009	5.6	.59	2.26	3.2
FLOAT-1.60	94.0	96.4	13819	6.9	.89	2.52	3.6
TOTAL	100.0	100.0	13481	9.2	2.02	3.61	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.2	51.9	14450	2.6	.30	1.97	2.7
FLOAT-1.40	81.9	86.0	14098	5.0	.51	2.15	3.1
FLOAT-1.60	93.1	95.9	13819	6.9	.71	2.30	3.3
TOTAL	100.0	100.0	13422	9.6	2.15	3.66	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: TENNESSEE
COUNTY: SCOTT

COALBED: POPLAR LICK
RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.0	27.7	14409	3.1	.06	.86	1.2
FLOAT-1.40	91.9	93.2	13745	7.5	.05	.85	1.2
FLOAT-1.60	99.2	99.8	13624	8.3	.05	.84	1.2
TOTAL	100.0	100.0	13549	8.8	.11	.90	1.3
EPA STANDARD	35.6	37.2	14312	3.7	.04	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.2	35.4	14424	3.0	.03	.91	1.3
FLOAT-1.40	87.3	89.3	13850	6.8	.05	.89	1.3
FLOAT-1.60	98.3	99.2	13654	8.1	.06	.87	1.3
TOTAL	100.0	100.0	13534	8.9	.13	.93	1.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.3	37.8	14514	2.4	.02	.93	1.3
FLOAT-1.40	82.6	85.7	14077	5.3	.02	.86	1.2
FLOAT-1.60	97.1	98.4	13745	7.5	.04	.82	1.2
TOTAL	100.0	100.0	13564	8.7	.12	.90	1.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: TENNESSEE
COUNTY: CAMPBELL

COALBED: JORDAN
RAW COAL MOISTURE: 1.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.3	57.8	14549	1.8	.05	.69	.9
FLOAT-1.40	95.8	97.4	14416	2.7	.06	.69	1.0
FLOAT-1.60	98.1	99.4	14372	3.0	.06	.69	1.0
FLOAT-1.90	98.5	99.6	14342	3.2	.07	.70	1.0
TOTAL	100.0	100.0	14179	4.3	.14	.76	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.1	73.0	14564	1.7	.03	.68	.9
FLOAT-1.40	95.1	96.9	14446	2.5	.04	.68	.9
FLOAT-1.60	97.9	99.3	14387	2.9	.04	.68	.9
FLOAT-1.90	98.4	99.7	14372	3.0	.05	.69	1.0
TOTAL	100.0	100.0	14179	4.3	.13	.76	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.7	53.3	14579	1.6	.03	.67	.9
FLOAT-1.40	92.6	94.7	14461	2.4	.04	.68	.9
FLOAT-1.60	97.3	99.0	14387	2.9	.04	.68	.9
FLOAT-1.90	98.2	99.6	14342	3.2	.05	.69	1.0
TOTAL	100.0	100.0	14135	4.6	.15	.78	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: TENNESSEE
COUNTY: CAMPBELL

COALBED: JELLICO
RAW COAL MOISTURE: 3.2 %
CUMULATIVE WASHABILITY DATA

BENCH: TOP

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	90.8	92.1	14543	1.5	.10	.79	1.1
FLOAT-1.40	97.7	98.9	14513	1.7	.12	.81	1.1
FLOAT-1.60	98.5	99.5	14484	1.9	.12	.81	1.1
TOTAL	100.0	100.0	14336	2.9	.14	.83	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	88.0	89.3	14543	1.5	.10	.79	1.1
FLOAT-1.40	97.6	98.8	14513	1.7	.11	.80	1.1
FLOAT-1.60	98.5	99.6	14499	1.8	.12	.81	1.1
TOTAL	100.0	100.0	14336	2.9	.15	.83	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.6	65.7	14543	1.5	.10	.76	1.0
FLOAT-1.40	96.9	98.4	14513	1.7	.11	.77	1.1
FLOAT-1.60	98.0	99.3	14484	1.9	.12	.78	1.1
TOTAL	100.0	100.0	14291	3.2	.18	.83	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: TENNESSEE
COUNTY: CAMPBELL
COALBED: JELLICO
RAW COAL MOISTURE: 3.0 %
BENCH: BOTTOM

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	76.8	78.6	14441	2.2	.29	.97	1.3
FLOAT-1.40	93.3	94.8	14339	2.9	.30	1.00	1.4
FLOAT-1.60	98.8	99.6	14223	3.7	.30	.98	1.4
TOTAL	100.0	100.0	14106	4.5	.31	.99	1.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	77.8	79.2	14471	2.0	.25	.95	1.3
FLOAT-1.40	95.2	96.4	14383	2.6	.26	.96	1.3
FLOAT-1.60	98.6	99.3	14310	3.1	.25	.95	1.3
TOTAL	100.0	100.0	14208	3.8	.26	.97	1.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.0	62.6	14485	1.9	.25	.93	1.3
FLOAT-1.40	89.6	91.5	14412	2.4	.28	.96	1.3
FLOAT-1.60	98.0	99.0	14266	3.4	.28	.94	1.3
TOTAL	100.0	100.0	14121	4.4	.29	.96	1.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: TENNESSEE
COUNTY: CLAIBORNE
COALBED: JELLICO
RAW COAL MOISTURE: 1.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.8	77.0	14509	2.5	.13	.73	1.0
FLOAT-1.40	84.4	93.6	14375	3.4	.17	.76	1.1
FLOAT-1.60	87.7	96.6	14271	4.1	.10	.77	1.1
FLOAT-1.90	90.0	98.1	14122	5.1	.20	.77	1.1
TOTAL	100.0	100.0	12961	12.9	.31	.83	1.3
EPA STANDARD	95.8	99.2	13454	11.6	.26	.79	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.3	80.2	14613	1.8	.09	.69	.9
FLOAT-1.40	84.0	93.8	14509	2.5	.12	.72	1.0
FLOAT-1.60	86.8	96.3	14420	3.1	.13	.73	1.0
FLOAT-1.90	89.1	97.8	14256	4.2	.14	.73	1.0
TOTAL	100.0	100.0	12991	12.7	.27	.80	1.2
EPA STANDARD	98.3	99.7	13184	11.4	.26	.78	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.3	64.8	14643	1.6	.06	.66	.9
FLOAT-1.40	80.7	89.9	14420	3.1	.12	.71	1.0
FLOAT-1.60	86.7	95.6	14271	4.1	.13	.72	1.0
FLOAT-1.90	90.0	97.9	14077	5.4	.14	.73	1.0
TOTAL	100.0	100.0	12946	13.0	.27	.80	1.2
EPA STANDARD	99.9	99.6	13151	11.8	.24	.79	1.20

STATE: TENNESSEE
COUNTY: MARION
COALBED: SEWANEE
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	8.6	9.4	14696	2.7	.03	.57	.8
FLOAT-1.40	91.5	94.7	13941	7.7	.08	.62	.9
FLOAT-1.60	96.0	98.8	13865	8.2	.13	.67	1.0
FLOAT-1.90	96.7	99.4	13850	8.3	.14	.68	1.0
TOTAL	100.0	100.0	13472	10.8	.19	.71	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	22.0	23.9	14711	2.6	.03	.53	.7
FLOAT-1.40	87.0	90.5	14107	6.6	.05	.55	.8
FLOAT-1.60	95.8	98.6	13956	7.6	.10	.59	.8
FLOAT-1.90	96.7	99.3	13926	7.8	.11	.60	.9
TOTAL	100.0	100.0	13563	10.2	.17	.64	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	26.2	28.7	14772	2.2	.03	.51	.7
FLOAT-1.40	77.1	81.3	14228	5.8	.04	.52	.7
FLOAT-1.60	95.3	98.3	13911	7.9	.09	.56	.8
FLOAT-1.90	96.7	99.6	13895	8.0	.11	.57	.8
TOTAL	100.0	100.0	13488	10.7	.18	.63	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: UTAH
COUNTY: CARBON
COALBED: UNCORRELATED
RAW COAL MOISTURE: 4.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	75.6	78.7	13836	4.5	.14	.62	.9
FLOAT-1.40	91.9	95.3	13778	4.9	.15	.63	.9
FLOAT-1.60	94.4	97.4	13706	5.4	.15	.64	.9
TOTAL	100.0	100.0	13286	8.3	.17	.67	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	73.3	76.6	13981	3.5	.09	.61	.9
FLOAT-1.40	91.6	95.1	13894	4.1	.11	.61	.9
FLOAT-1.60	94.5	97.6	13822	4.6	.12	.63	.9
TOTAL	100.0	100.0	13387	7.6	.16	.66	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	68.4	72.5	14068	2.9	.09	.54	.8
FLOAT-1.40	89.0	93.7	13967	3.6	.11	.55	.8
FLOAT-1.60	92.6	96.7	13865	4.3	.12	.57	.8
TOTAL	100.0	100.0	13272	8.4	.21	.68	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: UTAH
COUNTY: CARBON

COALBED: UNCORRELATED
RAW COAL MOISTURE: 4.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	92.3	93.3	13611	3.5	.06	.45	.7
FLOAT-1.40	98.3	98.9	13545	3.9	.06	.45	.7
FLOAT-1.60	99.2	99.7	13529	4.0	.06	.45	.7
TOTAL	100.0	100.0	13464	4.4	.08	.46	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	91.4	93.1	13692	3.0	.09	.45	.7
FLOAT-1.40	97.0	98.3	13627	3.4	.09	.45	.7
FLOAT-1.60	98.3	99.4	13594	3.6	.09	.45	.7
TOTAL	100.0	100.0	13448	4.5	.11	.46	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	89.2	91.3	13838	2.1	.08	.41	.6
FLOAT-1.40	96.1	98.0	13773	2.5	.08	.41	.6
FLOAT-1.60	97.8	99.4	13741	2.7	.08	.41	.6
TOTAL	100.0	100.0	13513	4.1	.11	.43	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: UTAH
COUNTY: CARBON

COALBED: CASTLE GATE A
RAW COAL MOISTURE: 5.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	91.0	92.3	13751	3.5	.04	.41	.6
FLOAT-1.40	96.7	97.6	13676	4.0	.04	.41	.6
FLOAT-1.60	98.5	99.0	13631	4.3	.04	.41	.6
TOTAL	100.0	100.0	13556	4.8	.05	.42	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	91.2	92.8	13781	3.3	.04	.37	.5
FLOAT-1.40	96.3	97.5	13706	3.8	.04	.37	.5
FLOAT-1.60	98.0	98.9	13661	4.1	.04	.37	.5
TOTAL	100.0	100.0	13541	4.9	.06	.38	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	86.7	89.0	13872	2.7	.04	.41	.6
FLOAT-1.40	95.1	97.1	13796	3.2	.04	.41	.6
FLOAT-1.60	97.0	98.6	13736	3.6	.04	.41	.6
TOTAL	100.0	100.0	13510	5.1	.07	.43	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: UTAH
COUNTY: CARBON

COALBED: SUBSEAM NO. 3
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.5	71.2	13890	4.2	.09	.50	.7
FLOAT-1.40	86.9	91.9	13718	5.4	.09	.49	.7
FLOAT-1.60	92.4	96.7	13575	6.4	.08	.48	.7
TOTAL	100.0	100.0	12973	10.6	.09	.45	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.3	72.2	13962	3.7	.09	.48	.7
FLOAT-1.40	86.9	92.2	13804	4.8	.09	.48	.7
FLOAT-1.60	91.9	96.7	13690	5.6	.09	.47	.7
TOTAL	100.0	100.0	13016	10.3	.11	.46	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.3	78.0	14062	3.0	.07	.46	.7
FLOAT-1.40	86.5	92.4	13919	4.0	.08	.46	.7
FLOAT-1.60	90.8	96.1	13790	4.9	.08	.45	.7
TOTAL	100.0	100.0	13030	10.2	.08	.42	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: UTAH
COUNTY: CARBON

COALBED: HIAWATHA
RAW COAL MOISTURE: 4.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.3	65.9	13665	3.8	.18	.60	.9
FLOAT-1.40	94.5	96.1	13345	6.0	.18	.60	.9
FLOAT-1.60	98.1	99.0	13244	6.7	.19	.61	.9
TOTAL	100.0	100.0	13127	7.5	.20	.62	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.2	70.2	13738	3.3	.08	.56	.8
FLOAT-1.40	92.6	94.6	13447	5.3	.16	.57	.8
FLOAT-1.60	97.6	98.8	13316	6.2	.16	.57	.9
TOTAL	100.0	100.0	13156	7.3	.19	.60	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.7	63.0	13855	2.5	.09	.53	.8
FLOAT-1.40	90.9	93.9	13564	4.5	.09	.54	.8
FLOAT-1.60	96.0	98.1	13418	5.5	.10	.54	.8
TOTAL	100.0	100.0	13127	7.5	.17	.61	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: UTAH
COUNTY: CARBON

COALBED: HIAWATHA
RAW COAL MOISTURE: 5.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.6	59.3	13409	4.2	.11	.59	.9
FLOAT-1.40	87.1	91.0	13137	6.1	.10	.58	.9
FLOAT-1.60	94.9	97.6	12937	7.5	.10	.58	.9
TOTAL	100.0	100.0	12579	10.0	.11	.58	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.5	57.4	13566	3.1	.08	.58	.9
FLOAT-1.40	84.9	89.3	13309	4.9	.08	.60	.9
FLOAT-1.60	94.5	97.6	13065	6.6	.08	.60	.9
TOTAL	100.0	100.0	12650	9.5	.09	.59	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.2	55.4	13595	2.9	.09	.57	.8
FLOAT-1.40	81.4	86.6	13366	4.5	.09	.58	.9
FLOAT-1.60	92.5	96.4	13094	6.4	.09	.58	.9
TOTAL	100.0	100.0	12565	10.1	.12	.58	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: UTAH
COUNTY: EMERY

COALBED: FERRON J
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.0	42.5	13849	3.2	.04	.42	.6
FLOAT-1.40	89.3	90.7	13575	5.1	.07	.43	.6
FLOAT-1.60	98.9	99.3	13416	6.2	.07	.42	.6
TOTAL	100.0	100.0	13359	6.6	.07	.42	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.8	45.5	13892	2.9	.03	.42	.6
FLOAT-1.40	88.3	90.0	13618	4.8	.06	.41	.6
FLOAT-1.60	97.9	98.6	13460	5.9	.05	.41	.6
TOTAL	100.0	100.0	13359	6.6	.06	.41	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.1	46.0	13978	2.3	.01	.37	.5
FLOAT-1.40	85.9	88.1	13733	4.0	.04	.37	.5
FLOAT-1.60	96.7	97.9	13560	5.2	.05	.37	.5
TOTAL	100.0	100.0	13388	6.4	.06	.38	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: UTAH
COUNTY: EMERY

COALBED: BLIND CANYON
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	91.0	92.6	14019	3.7	.11	.52	.7
FLOAT-1.40	96.4	97.6	13960	4.1	.12	.53	.8
FLOAT-1.60	98.5	99.2	13886	4.6	.13	.54	.8
TOTAL	100.0	100.0	13783	5.3	.15	.56	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	89.2	91.2	14122	3.0	.06	.51	.7
FLOAT-1.40	95.2	96.8	14048	3.5	.08	.52	.7
FLOAT-1.60	97.7	98.8	13974	4.0	.09	.53	.8
TOTAL	100.0	100.0	13812	5.1	.13	.56	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	86.4	89.6	14240	2.2	.04	.48	.7
FLOAT-1.40	93.1	96.0	14166	2.7	.05	.49	.7
FLOAT-1.60	95.9	98.4	14092	3.2	.06	.50	.7
TOTAL	100.0	100.0	13738	5.6	.15	.58	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: VIRGINIA
COUNTY: WISE

COALBED: TAGGART
RAW COAL MOISTURE: 2.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.3	69.1	14723	1.9	.09	.71	1.0
FLOAT-1.40	97.9	98.5	14626	2.6	.14	.76	1.0
FLOAT-1.60	99.4	99.8	14598	2.8	.15	.77	1.1
TOTAL	100.0	100.0	14542	3.2	.19	.81	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.6	71.3	14736	1.8	.09	.71	1.0
FLOAT-1.40	97.3	97.9	14667	2.3	.12	.73	1.0
FLOAT-1.60	99.4	99.7	14626	2.6	.13	.75	1.0
TOTAL	100.0	100.0	14584	2.9	.16	.77	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.7	65.6	14792	1.4	.09	.72	1.0
FLOAT-1.40	95.6	96.3	14695	2.1	.11	.73	1.0
FLOAT-1.60	99.3	99.7	14639	2.5	.13	.74	1.0
TOTAL	100.0	100.0	14584	2.9	.17	.79	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: VIRGINIA
COUNTY: WISE

COALBED: KELLY
RAW COAL MOISTURE: 1.5 %
CUMULATIVE WASHABILITY DATA

BENCH: TOP

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.3	62.6	14725	3.6	.07	.63	.9
FLOAT-1.40	87.7	91.3	14528	4.9	.07	.62	.9
FLOAT-1.60	95.1	97.4	14286	6.5	.08	.61	.9
TOTAL	100.0	100.0	13952	8.7	.11	.62	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.9	61.5	14801	3.1	.07	.68	.9
FLOAT-1.40	86.9	90.8	14558	4.7	.07	.65	.9
FLOAT-1.60	94.8	97.3	14301	6.4	.07	.64	.9
TOTAL	100.0	100.0	13937	8.8	.10	.64	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.9	59.4	14892	2.5	.12	.68	.9
FLOAT-1.40	84.8	88.7	14665	4.0	.10	.64	.9
FLOAT-1.60	94.1	97.1	14452	5.4	.12	.62	.9
TOTAL	100.0	100.0	14013	8.3	.15	.63	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: VIRGINIA
COUNTY: WISE

COALBED: IMBODEN
RAW COAL MOISTURE: 1.8 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	81.1	82.8	14967	1.6	.12	.90	1.2
FLOAT-1.40	96.0	96.9	14799	2.7	.22	.98	1.3
FLOAT-1.60	98.9	99.3	14722	3.2	.31	1.07	1.5
TOTAL	100.0	100.0	14661	3.6	.43	1.20	1.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	81.4	83.2	14982	1.5	.14	.88	1.2
FLOAT-1.40	95.8	96.9	14829	2.5	.23	.95	1.3
FLOAT-1.60	98.7	99.3	14753	3.0	.27	.99	1.3
TOTAL	100.0	100.0	14661	3.6	.47	1.18	1.6
EPA STANDARD	85.9	87.5	14946	1.8	.16	.90	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	80.7	82.5	15013	1.3	.14	.86	1.1
FLOAT-1.40	94.7	95.9	14860	2.3	.20	.92	1.2
FLOAT-1.60	98.9	99.4	14753	3.0	.26	.97	1.3
TOTAL	100.0	100.0	14676	3.5	.43	1.13	1.5
EPA STANDARD	90.1	91.6	14923	1.9	.17	.90	1.20

STATE: VIRGINIA
COUNTY: WISE
COALBED: DORCHESTER
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	95.2	96.0	14930	1.3	.15	.86	1.2
FLOAT-1.40	98.5	99.2	14914	1.4	.17	.88	1.2
FLOAT-1.60	99.0	99.6	14899	1.5	.17	.88	1.2
TOTAL	100.0	100.0	14808	2.1	.26	.97	1.3
EPA STANDARD	99.1	99.7	14886	1.6	.18	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	95.0	95.8	14960	1.1	.09	.85	1.1
FLOAT-1.40	98.2	98.9	14945	1.2	.10	.86	1.2
FLOAT-1.60	98.8	99.4	14930	1.3	.10	.86	1.2
TOTAL	100.0	100.0	14838	1.9	.23	.98	1.3
EPA STANDARD	99.1	99.6	14904	1.5	.14	.89	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	92.0	93.0	15006	.8	.09	.82	1.1
FLOAT-1.40	97.9	98.8	14975	1.0	.09	.82	1.1
FLOAT-1.60	98.6	99.5	14975	1.0	.10	.83	1.1
TOTAL	100.0	100.0	14838	1.9	.27	.99	1.3
EPA STANDARD	99.2	99.7	14920	1.2	.17	.90	1.20

STATE: VIRGINIA
COUNTY: DICKENSON
COALBED: SPLASH DAM
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	52.8	66.1	15035	2.3	.06	.79	1.1
FLOAT-1.40	67.6	83.4	14819	3.7	.12	.83	1.1
FLOAT-1.60	76.2	92.0	14495	5.8	.15	.83	1.1
TOTAL	100.0	100.0	12006	21.9	.25	.80	1.3
EPA STANDARD	90.5	94.3	13768	10.4	.20	.83	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	49.1	63.5	15035	2.3	.03	.79	1.1
FLOAT-1.40	63.3	80.7	14819	3.7	.09	.82	1.1
FLOAT-1.60	71.0	88.7	14510	5.7	.11	.82	1.1
TOTAL	100.0	100.0	11620	24.4	.27	.81	1.4
EPA STANDARD	88.9	91.7	13746	11.3	.16	.82	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	42.9	54.0	15082	2.0	.07	.80	1.1
FLOAT-1.40	62.9	77.8	14835	3.6	.09	.79	1.1
FLOAT-1.60	74.3	89.7	14479	5.9	.10	.79	1.1
TOTAL	100.0	100.0	11991	22.0	.27	.84	1.4
EPA STANDARD	83.3	93.3	13606	13.9	.15	.80	1.20

STATE: VIRGINIA
COUNTY: DICKENSON
COALBED: UPPER BANNER
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.9	68.6	14901	3.5	.01	.59	.8
FLOAT-1.40	82.1	89.8	14714	4.7	.05	.59	.8
FLOAT-1.60	87.7	95.3	14621	5.3	.13	.66	.9
TOTAL	100.0	100.0	13454	12.8	.20	.69	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.3	72.0	14963	3.1	.04	.55	.7
FLOAT-1.40	81.8	90.5	14777	4.3	.08	.58	.8
FLOAT-1.60	87.2	95.3	14606	5.4	.16	.66	.9
TOTAL	100.0	100.0	13361	13.4	.24	.70	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.9	70.2	15041	2.6	.04	.63	.8
FLOAT-1.40	81.7	89.9	14839	3.9	.08	.66	.9
FLOAT-1.60	88.4	95.8	14621	5.3	.13	.70	1.0
TOTAL	100.0	100.0	13486	12.6	.22	.74	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: VIRGINIA
COUNTY: RUSSELL
COALBED: JAWBONE
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.2	26.8	14588	3.6	.07	.70	1.0
FLOAT-1.40	61.1	71.7	14180	6.3	.06	.63	.9
FLOAT-1.60	84.2	94.6	13576	10.3	.06	.58	.9
TOTAL	100.0	100.0	12080	20.2	.09	.54	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.5	38.9	14513	4.1	.08	.54	.7
FLOAT-1.40	63.0	74.0	14241	5.9	.08	.59	.8
FLOAT-1.60	83.3	93.9	13666	9.7	.08	.57	.8
TOTAL	100.0	100.0	12125	19.9	.12	.54	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.9	29.8	14633	3.3	.08	.70	1.0
FLOAT-1.40	61.1	71.4	14286	5.6	.05	.64	.9
FLOAT-1.60	83.0	93.3	13742	9.2	.05	.62	.9
TOTAL	100.0	100.0	12231	19.2	.09	.60	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: VIRGINIA
COUNTY: RUSSELL
COALBED: TILLER
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	64.2	67.5	14999	2.8	.01	.49	.7
FLOAT-1.40	88.9	92.5	14844	3.8	.01	.48	.6
FLOAT-1.60	95.2	98.0	14689	4.8	.01	.48	.7
TOTAL	100.0	100.0	14271	7.5	.01	.47	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	70.0	73.6	15015	2.7	.01	.49	.7
FLOAT-1.40	87.9	91.6	14891	3.5	.01	.48	.6
FLOAT-1.60	94.3	97.4	14751	4.4	.01	.48	.7
TOTAL	100.0	100.0	14287	7.4	.01	.47	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	67.6	72.0	15076	2.3	.01	.52	.7
FLOAT-1.40	80.0	84.5	14968	3.0	.01	.52	.7
FLOAT-1.60	91.2	95.5	14829	3.9	.01	.51	.7
TOTAL	100.0	100.0	14163	8.2	.02	.50	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: WEST VIRGINIA
COUNTY: MONONGALIA
COALBED: WAYNESBURG
RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	4.7	5.3	14194	4.1	.20	.92	1.3
FLOAT-1.40	71.4	75.5	13218	10.7	.50	1.21	1.8
FLOAT-1.60	95.2	97.1	12744	13.9	.55	1.24	1.9
TOTAL	100.0	100.0	12493	15.6	.60	1.27	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	10.5	12.0	14239	3.8	.21	.98	1.4
FLOAT-1.40	69.8	74.6	13351	9.8	.49	1.24	1.9
FLOAT-1.60	93.6	96.3	12848	13.2	.54	1.26	2.0
TOTAL	100.0	100.0	12493	15.6	.63	1.33	2.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	20.6	23.6	14342	3.1	.08	.92	1.3
FLOAT-1.40	67.6	73.4	13603	8.1	.29	1.06	1.6
FLOAT-1.60	91.3	94.8	12996	12.2	.44	1.08	1.7
TOTAL	100.0	100.0	12523	15.4	.64	1.27	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MONONGALIA
COALBED: SEWICKLEY
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.7	22.8	14362	4.4	.50	2.56	3.6
FLOAT-1.40	74.7	79.3	13845	7.9	1.20	3.07	4.4
FLOAT-1.60	92.9	95.9	13476	10.4	1.78	3.56	5.3
TOTAL	100.0	100.0	13047	13.3	2.84	4.53	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.4	34.1	14421	4.0	.34	2.35	3.3
FLOAT-1.40	72.9	79.3	13978	7.0	.82	2.78	4.0
FLOAT-1.60	85.7	91.2	13682	9.0	1.26	3.16	4.6
TOTAL	100.0	100.0	12855	14.6	3.05	4.76	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.9	45.5	14495	3.5	.25	2.20	3.0
FLOAT-1.40	75.5	81.3	14037	6.6	.63	2.50	3.6
FLOAT-1.60	89.2	93.7	13697	8.9	1.03	2.63	3.8
TOTAL	100.0	100.0	13033	13.4	2.88	4.41	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: BROOKE
COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.3	22.6	13908	3.3	.53	2.44	3.5
FLOAT-1.40	50.0	71.4	13457	6.4	1.86	3.82	5.7
FLOAT-1.60	65.6	90.6	13020	9.4	2.63	4.53	7.0
TOTAL	100.0	100.0	9426	34.1	2.69	4.04	8.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.2	34.3	13835	3.8	.48	2.49	3.6
FLOAT-1.40	49.2	71.0	13501	6.1	1.40	3.40	5.0
FLOAT-1.60	63.6	89.0	13093	8.9	2.31	4.23	6.5
TOTAL	100.0	100.0	9353	34.6	2.63	4.01	8.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.8	21.6	13952	3.0	.27	2.32	3.3
FLOAT-1.40	44.1	62.8	13588	5.5	.93	2.95	4.3
FLOAT-1.60	61.1	84.0	13122	8.7	1.63	3.60	5.5
TOTAL	100.0	100.0	9542	33.3	2.62	4.02	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: HARRISON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.0	31.6	14347	4.0	.48	1.86	2.6
FLOAT-1.40	85.4	87.8	14001	6.3	1.54	2.87	4.1
FLOAT-1.60	97.1	98.4	13806	7.6	1.98	3.30	4.8
TOTAL	100.0	100.0	13626	8.8	2.48	3.78	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.0	36.1	14377	3.8	.31	1.65	2.3
FLOAT-1.40	84.9	87.8	14001	6.3	1.31	2.51	3.6
FLOAT-1.60	94.3	96.3	13821	7.5	1.67	3.03	4.4
TOTAL	100.0	100.0	13536	9.4	2.70	3.85	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.5	67.4	14377	3.8	.31	1.56	2.2
FLOAT-1.40	82.8	87.0	14242	4.7	.41	1.63	2.3
FLOAT-1.60	91.7	95.3	14076	5.8	.77	2.05	2.9
TOTAL	100.0	100.0	13551	9.3	2.89	3.96	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: HARRISON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.0	39.2	14243	4.2	.42	2.93	4.1
FLOAT-1.40	83.2	86.6	14000	5.9	1.00	3.44	4.9
FLOAT-1.60	92.3	95.1	13857	6.9	1.43	3.87	5.6
TOTAL	100.0	100.0	13443	9.8	2.76	5.13	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.2	31.8	14271	4.0	.41	2.99	4.2
FLOAT-1.40	86.1	89.1	14014	5.8	.88	3.41	4.9
FLOAT-1.60	93.3	95.8	13900	6.6	1.32	3.81	5.5
TOTAL	100.0	100.0	13543	9.1	2.64	5.04	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.4	61.8	14314	3.7	.35	2.79	3.9
FLOAT-1.40	85.3	87.7	13914	6.5	.91	3.33	4.8
FLOAT-1.60	94.1	96.4	13857	6.9	1.24	3.57	5.2
TOTAL	100.0	100.0	13529	9.2	2.53	4.78	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: HARRISON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.1	37.9	14178	4.3	.72	2.31	3.3
FLOAT-1.40	83.4	87.7	13824	6.7	1.61	3.10	4.5
FLOAT-1.60	91.1	94.9	13691	7.6	2.04	3.52	5.1
TOTAL	100.0	100.0	13144	11.3	4.53	6.13	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.5	38.5	14237	3.9	.35	2.00	2.8
FLOAT-1.40	79.1	83.7	13897	6.2	1.20	2.78	4.0
FLOAT-1.60	87.1	91.3	13764	7.1	1.68	3.26	4.7
TOTAL	100.0	100.0	13129	11.4	4.91	6.54	10.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.3	57.1	14296	3.5	.30	2.00	2.8
FLOAT-1.40	79.3	85.3	14075	5.0	.63	2.20	3.1
FLOAT-1.60	87.6	93.4	13957	5.8	.98	2.54	3.6
TOTAL	100.0	100.0	13085	11.7	4.69	6.32	9.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MARION

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.0	58.8	14062	6.2	.49	1.84	2.6
FLOAT-1.40	86.3	91.5	13943	7.0	.89	2.21	3.2
FLOAT-1.60	92.8	97.2	13778	8.1	1.09	2.50	3.6
FLOAT-1.90	94.4	98.5	13718	8.5	1.21	2.61	3.8
TOTAL	100.0	100.0	13148	12.3	2.03	3.36	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.4	52.5	14452	3.6	.20	1.72	2.4
FLOAT-1.40	85.6	90.7	13823	7.8	.95	2.44	3.5
FLOAT-1.60	92.7	96.9	13628	9.1	1.38	2.82	4.1
FLOAT-1.90	94.6	98.4	13568	9.5	1.52	2.95	4.3
TOTAL	100.0	100.0	13043	13.0	2.21	3.56	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.3	55.2	14347	4.3	.24	1.69	2.4
FLOAT-1.40	84.4	90.9	14077	6.1	.47	1.95	2.8
FLOAT-1.60	90.1	96.0	13928	7.1	.69	2.15	3.1
FLOAT-1.90	92.4	97.6	13808	7.9	.88	2.32	3.4
TOTAL	100.0	100.0	13073	12.8	2.00	3.44	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MARION

COALBED: PITTSBURGH
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.9	68.7	14332	4.2	.36	2.09	2.9
FLOAT-1.40	93.5	94.7	14140	5.5	.72	2.41	3.4
FLOAT-1.60	98.5	98.9	14022	6.3	.91	2.58	3.7
TOTAL	100.0	100.0	13963	6.7	1.01	2.68	3.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.5	72.4	14347	4.1	.35	2.01	2.8
FLOAT-1.40	93.2	94.6	14185	5.2	.50	2.25	3.2
FLOAT-1.60	97.8	98.5	14081	5.9	.67	2.41	3.4
TOTAL	100.0	100.0	13978	6.6	.90	2.63	3.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.5	72.8	14435	3.5	.16	1.95	2.7
FLOAT-1.40	92.3	94.1	14244	4.8	.32	2.14	3.0
FLOAT-1.60	96.7	97.9	14155	5.4	.53	2.28	3.2
TOTAL	100.0	100.0	13978	6.6	1.01	2.74	3.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MARION

COALBED: PITTSBURGH
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.7	69.7	14487	4.1	.40	1.93	2.7
FLOAT-1.40	86.2	91.6	14292	5.4	.55	2.10	2.9
FLOAT-1.60	90.2	95.1	14187	6.1	.65	2.19	3.1
TOTAL	100.0	100.0	13453	11.0	2.44	3.90	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.4	71.4	14457	4.3	.55	2.04	2.8
FLOAT-1.40	86.7	92.1	14292	5.4	.65	2.10	2.9
FLOAT-1.60	90.6	95.6	14202	6.0	.74	2.17	3.1
TOTAL	100.0	100.0	13453	11.0	2.39	3.80	5.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.1	70.2	14502	4.0	.39	1.90	2.6
FLOAT-1.40	86.8	92.9	14397	4.7	.47	1.97	2.7
FLOAT-1.60	91.0	96.2	14217	5.9	.55	2.15	3.0
TOTAL	100.0	100.0	13453	11.0	2.16	3.69	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MARION

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.2	64.3	14433	4.5	.34	1.55	2.1
FLOAT-1.40	87.8	92.6	14251	5.7	.54	1.79	2.5
FLOAT-1.60	92.7	97.0	14130	6.5	.66	1.90	2.7
FLOAT-1.90	94.9	98.5	14025	7.2	.72	1.95	2.8
TOTAL	100.0	100.0	13511	10.6	1.17	2.35	3.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.2	68.9	14539	3.8	.24	1.48	2.0
FLOAT-1.40	88.1	93.3	14357	5.0	.42	1.67	2.3
FLOAT-1.60	92.3	97.0	14251	5.7	.53	1.78	2.5
FLOAT-1.90	94.3	98.4	14146	6.4	.60	1.84	2.6
TOTAL	100.0	100.0	13556	10.3	1.17	2.36	3.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.6	72.1	14644	3.1	.16	1.40	1.9
FLOAT-1.40	87.1	93.2	14478	4.2	.26	1.50	2.1
FLOAT-1.60	90.8	96.5	14372	4.9	.32	1.56	2.2
FLOAT-1.90	92.6	97.8	14282	5.5	.39	1.62	2.3
TOTAL	100.0	100.0	13526	10.5	1.22	2.40	3.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MARSHALL

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.9	31.9	14236	4.0	.75	2.46	3.5
FLOAT-1.40	77.2	83.0	13865	6.4	1.65	3.37	4.9
FLOAT-1.60	89.7	94.5	13587	8.2	2.11	3.75	5.5
TOTAL	100.0	100.0	12892	12.7	2.33	3.84	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.3	36.9	14298	3.6	.55	2.34	3.3
FLOAT-1.40	76.4	82.5	13943	5.9	1.38	3.20	4.6
FLOAT-1.60	89.1	94.3	13665	7.7	1.95	3.73	5.5
TOTAL	100.0	100.0	12908	12.6	2.39	4.05	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.0	50.2	14360	3.2	.42	2.24	3.1
FLOAT-1.40	77.5	84.3	13989	5.6	.85	2.87	4.1
FLOAT-1.60	88.5	94.2	13696	7.5	1.54	3.36	4.9
TOTAL	100.0	100.0	12861	12.9	2.40	4.13	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MARSHALL

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.0	48.9	14279	3.2	.36	3.56	5.0
FLOAT-1.40	81.4	84.9	14015	5.0	1.14	4.20	6.0
FLOAT-1.60	94.6	96.9	13752	6.8	1.85	4.82	7.0
TOTAL	100.0	100.0	13431	9.0	2.06	4.94	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.7	53.8	14235	3.5	.38	3.56	5.0
FLOAT-1.40	83.3	86.9	14001	5.1	.95	4.03	5.8
FLOAT-1.60	93.3	96.0	13811	6.4	1.52	4.51	6.5
TOTAL	100.0	100.0	13416	9.1	1.97	4.84	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.8	53.2	14322	2.9	.36	3.52	4.9
FLOAT-1.40	84.3	88.5	14088	4.5	.77	3.81	5.4
FLOAT-1.60	93.1	96.7	13928	5.6	1.27	4.31	6.2
TOTAL	100.0	100.0	13416	9.1	1.98	4.90	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MONONGALIA

COALBED: PITTSBURGH
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.5	53.7	14358	4.8	.31	1.23	1.7
FLOAT-1.40	92.3	93.9	14014	7.1	.57	1.46	2.1
FLOAT-1.60	97.1	98.1	13909	7.8	.65	1.54	2.2
TOTAL	100.0	100.0	13774	8.7	.91	1.79	2.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.3	60.9	14283	5.3	.31	1.17	1.6
FLOAT-1.40	91.2	93.5	14014	7.1	.48	1.33	1.9
FLOAT-1.60	96.4	98.0	13894	7.9	.58	1.42	2.0
TOTAL	100.0	100.0	13669	9.4	.98	1.83	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.7	63.1	14523	3.7	.09	1.07	1.5
FLOAT-1.40	90.0	92.6	14134	6.3	.21	1.14	1.6
FLOAT-1.60	96.0	97.8	13999	7.2	.24	1.25	1.8
TOTAL	100.0	100.0	13744	8.9	.87	1.87	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MONONGALIA

COALBED: PITTSBURGH
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.3	59.7	14450	4.8	.42	1.62	2.2
FLOAT-1.40	91.3	93.3	14179	6.6	.71	1.90	2.7
FLOAT-1.60	96.7	98.0	14059	7.4	.87	2.05	2.9
TOTAL	100.0	100.0	13878	8.6	1.30	2.46	3.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.8	66.6	14495	4.5	.23	1.52	2.1
FLOAT-1.40	90.6	93.0	14239	6.2	.51	1.80	2.5
FLOAT-1.60	96.0	97.7	14119	7.0	.67	1.94	2.7
TOTAL	100.0	100.0	13878	8.6	1.21	2.44	3.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.3	64.5	14616	3.7	.19	1.44	2.0
FLOAT-1.40	89.2	91.9	14315	5.7	.38	1.62	2.3
FLOAT-1.60	95.5	97.1	14119	7.0	.60	1.81	2.6
TOTAL	100.0	100.0	13893	8.5	1.22	2.41	3.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MONONGALIA

COALBED: PITTSBURGH
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.8	60.4	14413	5.1	.43	2.60	3.6
FLOAT-1.40	87.6	91.1	14109	7.1	.74	2.87	4.1
FLOAT-1.60	94.6	97.4	13956	8.1	.97	3.08	4.4
TOTAL	100.0	100.0	13560	10.7	1.61	3.71	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.9	61.9	14474	4.7	.35	2.65	3.7
FLOAT-1.40	86.3	90.6	14200	6.5	.60	2.81	4.0
FLOAT-1.60	93.3	96.8	14033	7.6	.83	3.02	4.3
TOTAL	100.0	100.0	13530	10.9	1.68	3.87	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.5	65.9	14520	4.4	.24	2.49	3.4
FLOAT-1.40	86.0	90.3	14231	6.3	.35	2.59	3.6
FLOAT-1.60	93.1	96.7	14078	7.3	.57	2.76	3.9
TOTAL	100.0	100.0	13560	10.7	1.44	3.65	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MONONGALIA

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.8	69.3	14433	4.6	.44	1.61	2.2
FLOAT-1.40	88.5	91.9	14236	5.9	.69	1.84	2.6
FLOAT-1.60	92.7	95.5	14115	6.7	.80	1.94	2.7
FLOAT-1.90	95.6	97.6	13994	7.5	.87	2.00	2.9
TOTAL	100.0	100.0	13707	9.4	1.20	2.30	3.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.5	72.7	14478	4.3	.49	1.73	2.4
FLOAT-1.40	86.4	90.7	14327	5.3	.73	1.92	2.7
FLOAT-1.60	90.3	94.1	14221	6.0	.85	2.02	2.8
FLOAT-1.90	94.2	96.9	14040	7.2	.93	2.08	3.0
TOTAL	100.0	100.0	13646	9.8	1.36	2.47	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.9	59.5	14554	3.8	.41	1.46	2.0
FLOAT-1.40	87.6	91.7	14312	5.4	.63	1.63	2.3
FLOAT-1.60	93.8	97.1	14161	6.4	.81	1.82	2.6
FLOAT-1.90	95.6	98.4	14070	7.0	.90	1.90	2.7
TOTAL	100.0	100.0	13676	9.6	1.29	2.48	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: OHIO

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.8	46.4	14191	3.5	.48	1.92	2.7
FLOAT-1.40	83.0	86.3	13932	5.3	1.22	2.67	3.8
FLOAT-1.60	94.0	96.2	13716	6.8	1.80	3.20	4.7
TOTAL	100.0	100.0	13400	9.0	2.09	3.43	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.0	55.0	14177	3.6	.48	1.97	2.8
FLOAT-1.40	85.0	88.5	13946	5.2	1.05	2.53	3.6
FLOAT-1.60	93.7	96.3	13774	6.4	1.55	2.98	4.3
TOTAL	100.0	100.0	13400	9.0	2.10	3.49	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.6	61.5	14263	3.0	.33	1.92	2.7
FLOAT-1.40	83.8	88.2	14061	4.4	.74	2.22	3.2
FLOAT-1.60	92.4	96.0	13875	5.7	1.27	2.66	3.8
TOTAL	100.0	100.0	13357	9.3	2.24	3.60	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: OHIO

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.9	42.7	14175	3.6	.58	1.99	2.8
FLOAT-1.40	84.0	88.1	13882	5.6	1.25	2.68	3.9
FLOAT-1.60	91.3	94.9	13765	6.4	1.62	3.06	4.4
TOTAL	100.0	100.0	13238	10.0	2.38	3.78	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.1	49.7	14205	3.4	.39	1.89	2.7
FLOAT-1.40	82.2	86.9	13941	5.2	.95	2.48	3.6
FLOAT-1.60	90.3	94.4	13780	6.3	1.37	2.90	4.2
TOTAL	100.0	100.0	13180	10.4	2.24	3.74	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.9	52.2	14293	2.8	.24	1.77	2.5
FLOAT-1.40	78.1	83.6	14029	4.6	.71	2.17	3.1
FLOAT-1.60	87.8	92.7	13839	5.9	1.10	2.59	3.7
TOTAL	100.0	100.0	13106	10.9	2.50	3.96	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: GRANT

COALBED: BAKERSTOWN
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.3	22.2	14620	3.5	.18	.78	1.1
FLOAT-1.40	43.6	57.2	14090	7.0	.47	1.06	1.5
FLOAT-1.60	63.1	78.1	13287	12.3	.78	1.36	2.0
FLOAT-1.90	81.3	92.5	12226	19.3	1.12	1.68	2.7
TOTAL	100.0	100.0	10741	29.1	2.37	3.01	5.6
EPA STANDARD	25.7	34.5	14459	4.5	.27	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.8	26.8	14635	3.4	.16	.78	1.1
FLOAT-1.40	46.8	61.1	14135	6.7	.29	.85	1.2
FLOAT-1.60	65.2	80.8	13423	11.4	.41	.95	1.4
FLOAT-1.90	80.2	92.5	12499	17.5	.55	1.05	1.7
TOTAL	100.0	100.0	10832	28.5	2.38	3.03	5.6
EPA STANDARD	46.4	60.6	14145	6.6	.29	.85	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.9	30.6	14650	3.3	.20	.73	1.0
FLOAT-1.40	47.6	61.8	14226	6.1	.28	.76	1.1
FLOAT-1.60	68.2	83.6	13423	11.4	.41	.86	1.3
FLOAT-1.90	80.5	93.0	12650	16.5	.50	.92	1.5
TOTAL	100.0	100.0	10954	27.7	2.35	2.99	5.5
EPA STANDARD	60.3	75.3	13730	9.9	.38	.82	1.20

STATE: WEST VIRGINIA
COUNTY: GRANT

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.3	10.8	14584	2.8	.13	.83	1.1
FLOAT-1.40	42.0	58.6	13744	8.4	.49	1.19	1.7
FLOAT-1.60	61.8	82.8	13189	12.1	.80	1.54	2.3
FLOAT-1.90	72.2	91.5	12468	16.9	.96	1.68	2.7
TOTAL	100.0	100.0	9843	34.4	1.81	2.42	4.9
EPA STANDARD	11.6	16.9	14496	3.5	.17	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.2	16.8	14584	2.8	.12	.81	1.1
FLOAT-1.40	42.8	61.3	13909	7.3	.39	1.09	1.6
FLOAT-1.60	61.1	83.5	13264	11.6	.60	1.31	2.0
FLOAT-1.90	69.1	90.4	12694	15.4	.70	1.39	2.2
TOTAL	100.0	100.0	9708	35.3	1.75	2.36	4.9
EPA STANDARD	18.3	27.2	14452	3.7	.18	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.7	15.7	14599	2.7	.11	.79	1.1
FLOAT-1.40	37.8	53.3	14044	6.4	.30	1.00	1.4
FLOAT-1.60	60.8	80.0	13114	12.6	.60	1.27	1.9
FLOAT-1.90	73.2	91.6	12468	16.9	.73	1.38	2.2
TOTAL	100.0	100.0	9963	33.6	1.83	2.42	4.9
EPA STANDARD	21.1	30.4	14408	3.9	.17	.87	1.20

STATE: WEST VIRGINIA
COUNTY: PRESTON

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.1	30.1	14555	4.3	.21	.74	1.0
FLOAT-1.40	81.0	87.7	14205	6.6	.42	.95	1.3
FLOAT-1.60	89.2	95.2	14007	7.9	.54	1.08	1.5
FLOAT-1.90	92.5	97.5	13840	9.0	.65	1.19	1.7
TOTAL	100.0	100.0	13125	13.7	.98	1.53	2.3
EPA STANDARD	64.0	69.8	14355	5.7	.33	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.9	37.8	14646	3.7	.14	.66	.9
FLOAT-1.40	80.2	87.3	14296	6.0	.20	.72	1.0
FLOAT-1.60	88.7	95.2	14099	7.3	.29	.81	1.1
FLOAT-1.90	91.7	97.3	13947	8.3	.36	.88	1.3
TOTAL	100.0	100.0	13140	13.6	1.09	1.64	2.5
EPA STANDARD	90.5	96.6	14030	7.8	.32	.84	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.8	42.1	14661	3.6	.09	.61	.8
FLOAT-1.40	79.7	87.0	14357	5.6	.16	.67	.9
FLOAT-1.60	88.5	95.2	14144	7.0	.21	.72	1.0
FLOAT-1.90	92.1	97.7	13962	8.2	.26	.76	1.1
TOTAL	100.0	100.0	13156	13.5	.98	1.59	2.4
EPA STANDARD	97.1	97.9	13894	9.9	.34	.82	1.20

STATE: WEST VIRGINIA
COUNTY: PRESTON

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.5	46.8	14875	3.8	.33	.93	1.3
FLOAT-1.40	69.5	82.1	14473	6.4	.64	1.34	1.9
FLOAT-1.60	78.3	90.8	14195	8.2	.83	1.54	2.2
FLOAT-1.90	84.6	95.4	13808	10.7	1.06	1.80	2.6
TOTAL	100.0	100.0	12247	20.8	1.82	2.70	4.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.2	52.7	14968	3.2	.20	.80	1.1
FLOAT-1.40	68.7	81.8	14613	5.5	.34	.95	1.3
FLOAT-1.60	78.1	91.0	14303	7.5	.45	1.07	1.5
FLOAT-1.90	83.5	95.0	13963	9.7	.53	1.15	1.6
TOTAL	100.0	100.0	12278	20.6	1.83	2.76	4.5
EPA STANDARD	59.6	71.6	14767	4.5	.28	.89	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.2	55.0	14968	3.2	.13	.75	1.0
FLOAT-1.40	68.0	81.0	14659	5.2	.24	.84	1.1
FLOAT-1.60	78.1	91.1	14350	7.2	.31	.90	1.3
FLOAT-1.90	83.4	94.8	13994	9.5	.36	.95	1.4
TOTAL	100.0	100.0	12308	20.4	1.86	2.78	4.5
EPA STANDARD	73.8	87.0	14505	6.1	.28	.87	1.20

STATE: WEST VIRGINIA
COUNTY: PRESTON

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.7	62.5	14681	4.4	.18	.73	1.0
FLOAT-1.40	81.5	90.1	14466	5.8	.25	.80	1.1
FLOAT-1.60	88.0	96.1	14282	7.0	.32	.88	1.2
FLOAT-1.90	90.0	97.5	14174	7.7	.39	.96	1.4
TOTAL	100.0	100.0	13084	14.8	.89	1.43	2.2
EPA STANDARD	86.3	94.5	14329	6.7	.30	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.8	62.0	14819	3.5	.10	.05	.1
FLOAT-1.40	80.7	89.5	14528	5.4	.14	.69	.9
FLOAT-1.60	87.3	95.6	14343	6.6	.18	.73	1.0
FLOAT-1.90	89.7	97.4	14220	7.4	.23	.78	1.1
TOTAL	100.0	100.0	13099	14.7	.82	1.44	2.2
EPA STANDARD	92.5	99.4	14116	8.4	.29	.84	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.8	52.1	14896	3.0	.08	.63	.8
FLOAT-1.40	77.7	86.5	14589	5.0	.11	.65	.9
FLOAT-1.60	86.8	95.1	14359	6.5	.13	.67	.9
FLOAT-1.90	89.5	97.1	14205	7.5	.16	.68	1.0
TOTAL	100.0	100.0	13099	14.7	.90	1.51	2.3
EPA STANDARD	91.4	97.6	14006	8.8	.43	.79	1.20

STATE: WEST VIRGINIA
COUNTY: PRESTON

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.4	30.8	14513	4.4	.20	.80	1.1
FLOAT-1.40	71.4	80.7	14058	7.4	.46	1.10	1.6
FLOAT-1.60	83.7	92.7	13769	9.3	.72	1.39	2.0
FLOAT-1.90	88.9	96.4	13481	11.2	.89	1.57	2.3
TOTAL	100.0	100.0	12433	18.1	1.52	2.25	3.6
EPA STANDARD	38.6	44.5	14417	5.1	.25	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.7	38.6	14619	3.7	.14	.77	1.1
FLOAT-1.40	71.7	82.0	14149	6.8	.26	.89	1.3
FLOAT-1.60	82.5	92.3	13845	8.8	.37	.99	1.4
FLOAT-1.90	87.4	95.9	13572	10.6	.47	1.10	1.6
TOTAL	100.0	100.0	12372	18.5	1.43	2.24	3.6
EPA STANDARD	63.5	73.1	14282	6.0	.22	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.6	42.1	14634	3.6	.11	.75	1.0
FLOAT-1.40	72.1	82.7	14194	6.5	.20	.84	1.2
FLOAT-1.60	82.0	92.2	13906	8.4	.25	.88	1.3
FLOAT-1.90	86.5	95.4	13648	10.1	.32	.94	1.4
TOTAL	100.0	100.0	12372	18.5	1.61	2.44	3.9
EPA STANDARD	74.6	85.2	14137	6.9	.21	.85	1.20

STATE: WEST VIRGINIA
COUNTY: PRESTON

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.9	36.5	14625	4.3	.24	1.08	1.5
FLOAT-1.40	63.9	75.6	14182	7.2	.46	1.27	1.8
FLOAT-1.60	79.3	90.5	13677	10.5	.59	1.38	2.0
FLOAT-1.90	86.3	95.8	13295	13.0	.73	1.52	2.3
TOTAL	100.0	100.0	11981	21.6	1.35	2.16	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.3	44.4	14640	4.2	.22	1.05	1.4
FLOAT-1.40	62.4	74.6	14304	6.4	.38	1.19	1.7
FLOAT-1.60	78.3	90.1	13769	9.9	.50	1.29	1.9
FLOAT-1.90	85.0	95.1	13387	12.4	.58	1.36	2.0
TOTAL	100.0	100.0	11965	21.7	1.29	2.11	3.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.1	42.9	14747	3.5	.16	.98	1.3
FLOAT-1.40	61.1	72.9	14396	5.8	.26	1.06	1.5
FLOAT-1.60	78.3	90.1	13891	9.1	.37	1.11	1.6
FLOAT-1.90	84.7	95.0	13540	11.4	.44	1.16	1.7
TOTAL	100.0	100.0	12072	21.0	1.42	2.24	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: BARBOUR

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.5	36.6	14737	3.1	.20	.82	1.1
FLOAT-1.40	62.1	69.6	14238	6.4	.48	1.11	1.6
FLOAT-1.60	83.1	89.3	13649	10.3	.74	1.30	1.9
TOTAL	100.0	100.0	12698	16.6	1.57	2.07	3.3
EPA STANDARD	37.8	43.7	14639	3.6	.25	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.7	45.1	14676	3.5	.12	.77	1.0
FLOAT-1.40	76.0	83.4	14178	6.8	.32	.90	1.3
FLOAT-1.60	85.3	91.8	13906	8.6	.42	.97	1.4
TOTAL	100.0	100.0	12925	15.1	1.46	1.99	3.1
EPA STANDARD	67.3	74.5	14335	5.8	.26	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.5	47.6	14752	3.0	.08	.73	1.0
FLOAT-1.40	70.0	77.9	14299	6.0	.18	.80	1.1
FLOAT-1.60	84.5	91.4	13891	8.7	.26	.85	1.2
TOTAL	100.0	100.0	12849	15.6	1.45	1.98	3.1
EPA STANDARD	81.9	89.2	13984	8.1	.24	.84	1.20

STATE: WEST VIRGINIA
COUNTY: BARBOUR

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.1	30.4	14738	3.3	.26	1.00	1.4
FLOAT-1.40	55.3	64.6	14220	6.7	1.04	1.70	2.4
FLOAT-1.60	79.6	88.3	13503	11.4	1.82	2.41	3.6
TOTAL	100.0	100.0	12177	20.1	2.83	3.28	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.7	41.5	14723	3.4	.19	.90	1.2
FLOAT-1.40	62.0	72.0	14281	6.3	.56	1.24	1.7
FLOAT-1.60	78.3	87.6	13762	9.7	1.07	1.73	2.5
TOTAL	100.0	100.0	12299	19.3	2.64	3.21	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.8	52.6	14784	3.0	.19	.92	1.2
FLOAT-1.40	63.4	74.2	14403	5.5	.33	1.09	1.5
FLOAT-1.60	81.3	92.0	13915	8.7	.63	1.40	2.0
TOTAL	100.0	100.0	12299	19.3	2.77	3.43	5.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: NICHOLAS

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 1.8 %
CUMULATIVE WASHABILITY DATA

BENCH: THIRD

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.8	31.1	14448	3.5	.14	.89	1.2
FLOAT-1.40	61.7	72.8	14162	5.4	.25	1.00	1.4
FLOAT-1.60	78.4	89.2	13652	8.8	.31	1.01	1.5
TOTAL	100.0	100.0	11999	19.8	.45	1.06	1.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.2	34.3	14523	3.0	.14	.93	1.3
FLOAT-1.40	63.4	75.7	14253	4.8	.26	1.03	1.4
FLOAT-1.60	75.7	87.8	13847	7.5	.32	1.04	1.5
TOTAL	100.0	100.0	11939	20.2	.47	1.08	1.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.4	33.2	14538	2.9	.14	.91	1.3
FLOAT-1.40	64.2	76.2	14268	4.7	.28	.98	1.4
FLOAT-1.60	75.9	88.0	13922	7.0	.35	1.02	1.5
TOTAL	100.0	100.0	12014	19.7	.50	1.06	1.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: BOONE

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 1.2 %
CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.0	5.9	14467	3.2	.07	.77	1.1
FLOAT-1.40	78.7	91.6	14166	5.2	.10	.80	1.1
FLOAT-1.60	84.8	97.5	13986	6.4	.14	.82	1.2
TOTAL	100.0	100.0	12167	18.5	.19	.77	1.3
EPA STANDARD	89.0	99.6	13451	8.6	.16	.82	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYPITIC	TOTAL	
FLOAT-1.30	51.0	61.7	14512	2.9	.08	.74	1.0
FLOAT-1.40	75.5	89.7	14241	4.7	.12	.77	1.1
FLOAT-1.60	82.9	97.0	14031	6.1	.15	.80	1.1
TOTAL	100.0	100.0	11987	19.7	.19	.74	1.2
EPA STANDARD	93.0	98.9	12738	13.1	.18	.78	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.9	57.9	14557	2.6	.04	.77	1.1
FLOAT-1.40	73.7	87.1	14241	4.7	.10	.79	1.1
FLOAT-1.60	82.2	95.7	14031	6.1	.13	.81	1.2
TOTAL	100.0	100.0	12047	19.3	.20	.80	1.3
EPA STANDARD	89.1	96.9	13512	8.4	.16	.82	1.20

STATE: WEST VIRGINIA
COUNTY: LOGAN

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.3	47.8	14355	2.9	.08	.77	1.1
FLOAT-1.40	85.0	89.9	14073	4.8	.15	.82	1.2
FLOAT-1.60	93.0	97.0	13865	6.2	.18	.83	1.2
TOTAL	100.0	100.0	13299	10.0	.32	.95	1.4
EPA STANDARD	93.6	97.5	13858	6.3	.18	.83	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.2	49.9	14385	2.7	.07	.78	1.1
FLOAT-1.40	84.5	89.6	14117	4.5	.12	.80	1.1
FLOAT-1.60	92.7	96.8	13909	5.9	.15	.81	1.2
TOTAL	100.0	100.0	13314	9.9	.30	.92	1.4
EPA STANDARD	99.8	97.4	13812	7.2	.18	.82	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.9	43.2	14459	2.2	.07	.73	1.0
FLOAT-1.40	78.9	83.8	14192	4.0	.15	.78	1.1
FLOAT-1.60	92.7	96.4	13894	6.0	.18	.80	1.2
TOTAL	100.0	100.0	13359	9.6	.33	.92	1.4
EPA STANDARD	94.3	97.2	13779	7.5	.21	.82	1.20

STATE: WEST VIRGINIA
COUNTY: LOGAN

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.8	28.5	14103	4.2	.04	.71	1.0
FLOAT-1.40	75.0	81.0	13783	6.4	.07	.64	.9
FLOAT-1.60	93.5	96.7	13202	10.4	.06	.62	.9
TOTAL	100.0	100.0	12766	13.4	.07	.60	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.4	35.2	14277	3.0	.07	.70	1.0
FLOAT-1.40	73.5	80.2	13914	5.5	.05	.66	.9
FLOAT-1.60	89.5	94.3	13434	8.8	.08	.64	1.0
TOTAL	100.0	100.0	12751	13.5	.09	.61	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.6	35.6	14364	2.4	.09	.71	1.0
FLOAT-1.40	69.0	75.8	14030	4.7	.08	.63	.9
FLOAT-1.60	88.2	93.5	13536	8.1	.10	.60	.9
TOTAL	100.0	100.0	12766	13.4	.11	.56	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: WEST VIRGINIA
COUNTY: LOGAN

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 2.2 %
BENCH: MIDDLE

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	10.5	11.6	14426	3.3	.05	.72	1.0
FLOAT-1.40	75.0	79.2	13817	7.0	.08	.75	1.1
FLOAT-1.60	97.1	98.6	13275	10.3	.14	.79	1.2
TOTAL	100.0	100.0	13078	11.5	.17	.81	1.2
EPA STANDARD	98.1	99.2	13235	10.6	.15	.79	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	20.5	22.6	14459	3.1	.07	.78	1.1
FLOAT-1.40	76.2	81.0	13916	6.4	.10	.79	1.1
FLOAT-1.60	95.3	97.7	13423	9.4	.15	.81	1.2
TOTAL	100.0	100.0	13094	11.4	.21	.84	1.3
EPA STANDARD	93.5	96.1	13470	9.2	.14	.81	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	17.5	19.3	14524	2.7	.08	.81	1.1
FLOAT-1.40	72.7	77.6	14048	5.6	.13	.80	1.1
FLOAT-1.60	94.0	97.1	13587	8.4	.14	.81	1.2
TOTAL	100.0	100.0	13160	11.0	.20	.85	1.3
EPA STANDARD	96.0	98.8	13554	8.7	.14	.81	1.20

STATE: WEST VIRGINIA
COUNTY: LOGAN

COALBED: STOCKTON-LEWISTON
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	24.4	28.4	14372	3.3	.05	.82	1.1
FLOAT-1.40	66.4	74.8	13897	6.5	.05	.79	1.1
FLOAT-1.60	86.1	92.6	13274	10.7	.05	.75	1.1
TOTAL	100.0	100.0	12339	17.0	.05	.71	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	29.8	34.8	14431	2.9	.06	.82	1.1
FLOAT-1.40	66.7	75.4	13986	5.9	.07	.78	1.1
FLOAT-1.60	83.3	90.7	13467	9.4	.08	.73	1.1
TOTAL	100.0	100.0	12369	16.8	.09	.69	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	30.6	35.9	14461	2.7	.06	.81	1.1
FLOAT-1.40	64.6	73.5	14030	5.6	.06	.78	1.1
FLOAT-1.60	83.5	91.3	13481	9.3	.07	.74	1.1
TOTAL	100.0	100.0	12324	17.1	.08	.69	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: WEST VIRGINIA
COUNTY: BOONE
COALBED: WINIFREDE
RAW COAL MOISTURE: 1.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.8	68.1	14641	2.3	.12	.78	1.1
FLOAT-1.40	65.7	85.3	14457	3.5	.20	.86	1.2
FLOAT-1.60	71.1	90.6	14181	5.3	.22	.86	1.2
TOTAL	100.0	100.0	11132	25.2	.21	.72	1.3
EPA STANDARD	68.0	87.6	14335	4.2	.21	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.6	71.0	14687	2.0	.13	.70	1.0
FLOAT-1.40	64.0	85.4	14534	3.0	.17	.77	1.1
FLOAT-1.60	69.1	90.6	14273	4.7	.19	.78	1.1
TOTAL	100.0	100.0	10887	26.8	.21	.65	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.0	67.2	14748	1.6	.12	.79	1.1
FLOAT-1.40	60.7	80.7	14595	2.6	.17	.83	1.1
FLOAT-1.60	68.1	88.5	14273	4.7	.20	.83	1.2
TOTAL	100.0	100.0	10979	26.2	.19	.65	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: WEST VIRGINIA
COUNTY: KANAWHA
COALBED: WINIFREDE
RAW COAL MOISTURE: 3.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.6	68.1	14643	1.9	.07	.69	.9
FLOAT-1.40	90.8	93.1	14462	3.1	.07	.68	.9
FLOAT-1.60	97.6	99.0	14296	4.2	.07	.67	.9
TOTAL	100.0	100.0	14099	5.5	.08	.66	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	69.7	72.5	14673	1.7	.07	.72	1.0
FLOAT-1.40	91.5	94.0	14507	2.8	.06	.69	1.0
FLOAT-1.60	97.0	98.8	14371	3.7	.06	.67	.9
TOTAL	100.0	100.0	14114	5.4	.07	.66	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.2	66.3	14719	1.4	.09	.69	.9
FLOAT-1.40	89.6	92.9	14552	2.5	.09	.67	.9
FLOAT-1.60	95.8	98.3	14401	3.5	.09	.66	.9
TOTAL	100.0	100.0	14039	5.9	.09	.64	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: WEST VIRGINIA
COUNTY: KANAWHA

COALBED: WINIFREDE
RAW COAL MOISTURE: 1.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.9	70.5	14517	2.2	.02	.63	.9
FLOAT-1.40	87.6	90.1	14369	3.2	.02	.62	.9
FLOAT-1.60	97.9	98.8	14104	5.0	.02	.59	.8
TOTAL	100.0	100.0	13971	5.9	.03	.60	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.3	65.3	14605	1.6	.02	.63	.9
FLOAT-1.40	87.2	90.0	14384	3.1	.02	.61	.8
FLOAT-1.60	97.5	98.6	14104	5.0	.02	.62	.9
TOTAL	100.0	100.0	13942	6.1	.03	.64	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.9	69.1	14561	1.9	.02	.62	.9
FLOAT-1.40	84.9	88.4	14458	2.6	.02	.61	.8
FLOAT-1.60	95.5	97.4	14163	4.6	.02	.60	.8
TOTAL	100.0	100.0	13883	6.5	.07	.64	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: WEST VIRGINIA
COUNTY: LOGAN

COALBED: WINIFREDE
RAW COAL MOISTURE: 3.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.4	32.6	14161	3.0	.03	.68	1.0
FLOAT-1.40	75.0	84.1	13854	5.1	.04	.66	1.0
FLOAT-1.60	87.1	95.9	13591	6.9	.03	.64	.9
TOTAL	100.0	100.0	12349	15.4	.04	.58	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.8	38.0	14220	2.6	.04	.70	1.0
FLOAT-1.40	72.7	82.5	13927	4.6	.04	.69	1.0
FLOAT-1.60	85.9	95.4	13635	6.6	.04	.66	1.0
TOTAL	100.0	100.0	12276	15.9	.04	.60	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.8	35.8	14278	2.2	.05	.71	1.0
FLOAT-1.40	67.5	77.1	14015	4.0	.04	.69	1.0
FLOAT-1.60	84.6	94.2	13664	6.4	.04	.65	1.0
TOTAL	100.0	100.0	12276	15.9	.05	.59	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: WEST VIRGINIA
COUNTY: LOGAN

COALBED: CHILTON
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	79.0	82.4	14877	2.1	.01	.74	1.0
FLOAT-1.40	89.8	93.0	14771	2.8	.01	.73	1.0
FLOAT-1.60	96.5	98.9	14604	3.9	.01	.71	1.0
TOTAL	100.0	100.0	14256	6.2	.01	.70	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	76.8	80.5	14907	1.9	.02	.66	.9
FLOAT-1.40	89.5	93.0	14786	2.7	.02	.65	.9
FLOAT-1.60	96.1	98.8	14619	3.8	.02	.64	.9
TOTAL	100.0	100.0	14225	6.4	.03	.64	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.7	33.6	14998	1.3	.01	.72	1.0
FLOAT-1.40	87.8	92.0	14831	2.4	.01	.65	.9
FLOAT-1.60	93.9	97.3	14665	3.5	.01	.65	.9
TOTAL	100.0	100.0	14150	6.9	.03	.65	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: WEST VIRGINIA
COUNTY: LOGAN

COALBED: CEDAR GROVE
RAW COAL MOISTURE: 1.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.3	51.1	14589	3.5	.08	.86	1.2
FLOAT-1.40	78.6	90.5	14239	5.8	.17	.88	1.2
FLOAT-1.60	84.2	95.8	14071	6.9	.22	.92	1.3
TOTAL	100.0	100.0	12365	18.1	.32	.91	1.5
EPA STANDARD	59.5	69.3	14460	4.5	.12	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.0	49.0	14681	2.9	.08	.86	1.2
FLOAT-1.40	76.9	89.8	14345	5.1	.13	.87	1.2
FLOAT-1.60	82.8	95.6	14193	6.1	.18	.91	1.3
TOTAL	100.0	100.0	12289	18.6	.35	.96	1.6
EPA STANDARD	68.3	80.0	14450	4.5	.12	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.1	50.2	14757	2.4	.04	.85	1.2
FLOAT-1.40	73.1	85.1	14406	4.7	.09	.83	1.2
FLOAT-1.60	83.4	95.4	14163	6.3	.14	.86	1.2
TOTAL	100.0	100.0	12380	18.0	.35	.99	1.6
EPA STANDARD	81.0	93.0	14219	5.9	.08	.85	1.20

STATE: WEST VIRGINIA
COUNTY: LOGAN

COALBED: CEDAR GROVE
RAW COAL MOISTURE: 1.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.1	50.7	14327	3.8	.14	1.30	1.8
FLOAT-1.40	87.1	90.3	14104	5.3	.17	1.32	1.9
FLOAT-1.60	94.8	97.0	13912	6.6	.24	1.42	2.0
TOTAL	100.0	100.0	13600	8.7	.70	1.91	2.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.4	52.5	14505	2.6	.13	1.35	1.9
FLOAT-1.40	86.2	89.7	14193	4.7	.17	1.33	1.9
FLOAT-1.60	94.2	96.8	14015	5.9	.23	1.40	2.0
TOTAL	100.0	100.0	13645	8.4	.67	1.88	2.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.1	52.5	14579	2.1	.09	1.19	1.6
FLOAT-1.40	84.0	88.0	14282	4.1	.15	1.23	1.7
FLOAT-1.60	93.2	96.2	14075	5.5	.22	1.32	1.9
TOTAL	100.0	100.0	13630	8.5	.78	1.91	2.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MINGO

COALBED: NO. 2 GAS
RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	75.2	78.3	14717	1.4	.13	.89	1.2
FLOAT-1.40	90.9	93.3	14508	2.8	.21	.92	1.3
FLOAT-1.60	98.6	99.3	14240	4.6	.32	1.04	1.5
TOTAL	100.0	100.0	14135	5.3	.41	1.12	1.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	75.6	78.6	14702	1.5	.12	.89	1.2
FLOAT-1.40	90.0	92.6	14538	2.6	.28	.99	1.4
FLOAT-1.60	97.6	98.6	14284	4.3	.36	1.08	1.5
TOTAL	100.0	100.0	14135	5.3	.42	1.13	1.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	69.3	72.3	14747	1.2	.07	.76	1.0
FLOAT-1.40	87.9	90.9	14612	2.1	.14	.91	1.2
FLOAT-1.60	96.2	97.9	14389	3.6	.23	.98	1.4
TOTAL	100.0	100.0	14135	5.3	.39	1.13	1.6
EPA STANDARD	84.3	87.5	14641	1.7	.11	.88	1.20

STATE: WEST VIRGINIA
COUNTY: LOGAN

COALBED: POWELLTON
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.6	74.6	14925	2.1	.02	.68	.9
FLOAT-1.40	78.4	89.7	14787	3.0	.07	.72	1.0
FLOAT-1.60	83.9	94.8	14604	4.2	.10	.75	1.0
TOTAL	100.0	100.0	12923	15.2	.17	.74	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.4	76.3	14986	1.7	.01	.70	.9
FLOAT-1.40	79.6	90.6	14848	2.6	.04	.77	1.0
FLOAT-1.60	83.9	94.7	14726	3.4	.08	.79	1.1
TOTAL	100.0	100.0	13045	14.4	.16	.80	1.2
EPA STANDARD	97.5	99.1	13335	11.6	.16	.81	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.3	62.0	15047	1.3	.01	.69	.9
FLOAT-1.40	73.2	84.1	14863	2.5	.03	.76	1.0
FLOAT-1.60	83.8	94.5	14588	4.3	.07	.74	1.0
TOTAL	100.0	100.0	12938	15.1	.19	.79	1.2
EPA STANDARD	98.3	99.4	13107	8.6	.07	.83	1.20

STATE: WEST VIRGINIA
COUNTY: MCDOWELL

COALBED: LOWER WAR EAGLE
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.8	71.2	14974	2.8	.09	.72	1.0
FLOAT-1.40	86.5	92.3	14759	4.2	.17	.75	1.0
FLOAT-1.60	92.0	97.0	14590	5.3	.18	.78	1.1
TOTAL	100.0	100.0	13838	10.2	.73	1.28	1.8
EPA STANDARD	93.3	97.5	14464	7.6	.22	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.8	71.7	15035	2.4	.12	.71	.9
FLOAT-1.40	85.1	91.5	14836	3.7	.15	.69	.9
FLOAT-1.60	90.9	96.6	14652	4.9	.19	.72	1.0
TOTAL	100.0	100.0	13792	10.5	.75	1.23	1.8
EPA STANDARD	93.4	97.5	14419	8.8	.35	.85	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.2	63.6	15112	1.9	.08	.70	.9
FLOAT-1.40	83.6	89.9	14867	3.5	.12	.72	1.0
FLOAT-1.60	91.5	96.7	14606	5.2	.20	.78	1.1
TOTAL	100.0	100.0	13823	10.3	.77	1.30	1.9
EPA STANDARD	99.7	97.2	14479	7.1	.30	.86	1.20

STATE: WEST VIRGINIA
COUNTY: WYOMING

COALBED: GILBERT
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.0	21.8	14925	3.0	.22	1.01	1.4
FLOAT-1.40	75.5	82.0	14144	8.1	.28	.98	1.4
FLOAT-1.60	89.0	94.4	13823	10.2	.36	1.03	1.5
TOTAL	100.0	100.0	13027	15.4	.69	1.29	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.1	27.8	14940	2.9	.25	.92	1.2
FLOAT-1.40	70.9	78.0	14236	7.5	.25	.95	1.3
FLOAT-1.60	87.1	93.3	13853	10.0	.30	.94	1.4
TOTAL	100.0	100.0	12935	16.0	.74	1.30	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.8	27.4	15017	2.4	.17	.97	1.3
FLOAT-1.40	67.4	74.1	14358	6.7	.22	.96	1.3
FLOAT-1.60	87.8	93.5	13899	9.7	.29	.98	1.4
TOTAL	100.0	100.0	13057	15.2	.73	1.36	2.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WYOMING
COUNTY: SWEETWATER

COALBED: ROCK SPRINGS NO. 3
RAW COAL MOISTURE: 8.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	82.0	86.7	12879	2.5	.09	.95	1.5
FLOAT-1.40	90.8	95.3	12775	3.3	.14	1.01	1.6
FLOAT-1.60	94.2	98.3	12710	3.8	.20	1.08	1.7
TOTAL	100.0	100.0	12176	7.9	.38	1.27	2.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	73.7	77.9	12905	2.3	.07	.86	1.3
FLOAT-1.40	86.8	91.2	12840	2.8	.09	.89	1.4
FLOAT-1.60	94.5	98.4	12723	3.7	.18	1.00	1.6
TOTAL	100.0	100.0	12215	7.6	.37	1.19	1.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.7	64.4	12944	2.0	.08	.82	1.3
FLOAT-1.40	84.8	89.5	12879	2.5	.07	.85	1.3
FLOAT-1.60	94.4	98.5	12736	3.6	.16	.98	1.5
TOTAL	100.0	100.0	12202	7.7	.41	1.22	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WYOMING
COUNTY: SWEETWATER

COALBED: ROCK SPRINGS NO. 8
RAW COAL MOISTURE: 12.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	82.9	84.0	12711	1.9	.18	.97	1.5
FLOAT-1.40	97.2	98.3	12680	2.1	.22	1.02	1.6
FLOAT-1.60	98.9	99.8	12649	2.3	.23	1.03	1.6
TOTAL	100.0	100.0	12540	3.0	.28	1.09	1.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	69.1	70.0	12773	1.5	.13	.84	1.3
FLOAT-1.40	92.4	93.4	12742	1.7	.16	.89	1.4
FLOAT-1.60	98.7	99.6	12711	1.9	.17	.91	1.4
TOTAL	100.0	100.0	12602	2.6	.25	.99	1.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.1	48.0	12773	1.5	.07	.83	1.3
FLOAT-1.40	93.4	95.1	12757	1.6	.10	.85	1.3
FLOAT-1.60	97.9	99.4	12711	1.9	.12	.87	1.4
TOTAL	100.0	100.0	12524	3.1	.32	1.07	1.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WYOMING
COUNTY: SWEETWATER

COALBED: ROCK SPRINGS NO. 9
RAW COAL MOISTURE: 9.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	92.9	93.7	12831	1.6	.25	1.21	1.9
FLOAT-1.40	98.2	98.9	12815	1.7	.26	1.24	1.9
FLOAT-1.60	99.1	99.7	12800	1.8	.27	1.25	2.0
TOTAL	100.0	100.0	12722	2.3	.37	1.35	2.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	82.0	82.6	12846	1.5	.25	1.10	1.7
FLOAT-1.40	94.6	95.2	12831	1.6	.26	1.14	1.8
FLOAT-1.60	99.2	99.7	12815	1.7	.27	1.17	1.8
TOTAL	100.0	100.0	12753	2.1	.37	1.27	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.3	72.2	12877	1.3	.23	1.03	1.6
FLOAT-1.40	94.6	95.7	12877	1.3	.20	1.05	1.6
FLOAT-1.60	98.6	99.4	12831	1.6	.28	1.10	1.7
TOTAL	100.0	100.0	12722	2.3	.49	1.32	2.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WYOMING
COUNTY: SWEETWATER

COALBED: ROCK SPRINGS NO. 11
RAW COAL MOISTURE: 11.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	89.3	93.1	13088	2.1	.09	.86	1.3
FLOAT-1.40	93.2	97.0	13063	2.3	.10	.87	1.3
FLOAT-1.60	94.4	98.1	13038	2.5	.11	.89	1.4
TOTAL	100.0	100.0	12552	6.4	.20	.96	1.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	77.5	81.0	13138	1.7	.09	.85	1.3
FLOAT-1.40	92.2	96.2	13125	1.8	.10	.85	1.3
FLOAT-1.60	94.3	98.1	13088	2.1	.11	.86	1.3
TOTAL	100.0	100.0	12577	6.2	.23	.96	1.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	69.5	72.7	13125	1.8	.06	.80	1.2
FLOAT-1.40	91.1	95.3	13113	1.9	.07	.81	1.2
FLOAT-1.60	94.0	98.0	13075	2.2	.08	.82	1.3
TOTAL	100.0	100.0	12540	6.5	.22	.97	1.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

** CARD MISSING OR OUT OF PLACE

-0 37 695 6455 796 255 1 ROCKY MTN ASSOCIATED COAL SWEETWATER 14

END-OF-FILE ENCOUNTERED, FILENAME - SULEPA

OUTPUT FILE LINE LIMIT EXCEEDED

ERROR NUMBER 0083 DETECTED BY SYSERR AT ADDRESS 000023
CALLED FROM SYSERR AT ADDRESS 000120
CALLED FROM INPC= AT ADDRESS 000135
CALLED FROM SULU AT LINE 110

APPENDIX B.--A STATISTICAL EVALUATION OF THE COMPOSITED WASHABILITY DATA BY REGION AND COALBED[1] [2]

Region	Coalbed	Page
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[1]All numbers in the tables are presented on a moisture-free basis unless otherwise noted. The raw coal moisture as presented in the tables is the moisture contained in the sample after being air dried at the coal preparation laboratory. The air dry loss is not included in the moisture determination.

[2]Data are included only for coalbeds where 10 or more samples were collected.

APPENDIX B.--A STATISTICAL EVALUATION OF THE COMPOSITED WASHABILITY DATA
BY REGION AND COALBED[1] [2]

NORTHERN APPALACHIAN REGION

NUMBER OF SAMPLES: 227
RAW COAL MOISTURE, PERCENT: 1.7
SIGMA: 1.4

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 15.1		SIGMA: 6.5		PYRITIC SULFUR, PERCENT RAW: 2.01		SIGMA: 1.3		TOTAL SULFUR, PERCENT RAW: 3.01		SIGMA: 1.6	
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	224	3.6	.8	73	12	.37	.3	78	18	1.41	.7	48	21
FLOAT-1.40	227	6.5	1.7	52	15	.80	.5	57	18	1.82	1.0	34	19
FLOAT-1.60	227	8.8	2.8	37	17	1.11	.7	42	18	2.12	1.2	26	17
TOTAL	227	15.2	6.6	0	0	2.00	1.3	0	0	3.00	1.7	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	224	3.3	.8	75	10	.30	.2	82	22	1.34	.8	50	23
FLOAT-1.40	227	5.9	1.7	57	14	.60	.5	67	24	1.62	.9	41	22
FLOAT-1.60	227	8.0	2.6	43	17	.86	.6	55	20	1.86	1.1	34	20
TOTAL	227	15.1	6.6	0	0	1.99	1.3	0	0	2.99	1.6	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	222	2.9	.9	78	9	.23	.2	86	12	1.28	.7	53	21
FLOAT-1.40	227	5.2	1.5	62	12	.43	.3	76	18	1.46	.9	46	22
FLOAT-1.60	227	7.6	2.4	46	14	.66	.5	65	17	1.66	1.0	41	20
TOTAL	227	15.1	6.4	0	0	2.02	1.3	0	0	3.03	1.7	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0		SIGMA: 0.0		BTU PER POUND RAW: 12693		SIGMA: 1076		POUNDS OF SO2/M BTU RAW: 4.8		SIGMA: 2.7	
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	224	37.5	22.3	63	22	14433	490	14	10	2.0	1.1	54	20
FLOAT-1.40	227	78.8	14.9	21	15	13978	523	11	9	2.6	1.5	40	18
FLOAT-1.60	227	93.0	5.2	7	5	13640	612	8	8	3.2	1.8	31	17
TOTAL	227	100.0	0.0	0	0	12686	1085	0	0	4.8	2.7	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	224	44.4	21.9	56	22	14475	488	15	10	1.9	1.1	56	21
FLOAT-1.40	227	80.0	13.1	20	13	14075	513	12	9	2.3	1.4	46	20
FLOAT-1.60	227	92.5	4.9	7	5	13766	592	9	9	2.7	1.7	39	19
TOTAL	227	100.0	0.0	0	0	12693	1082	0	0	4.8	2.7	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	222	43.3	19.2	57	19	14539	494	15	10	1.8	1.1	59	19
FLOAT-1.40	227	77.3	13.9	23	14	14173	505	12	9	2.1	1.3	52	20
FLOAT-1.60	227	92.1	5.3	8	5	13821	582	9	8	2.4	1.5	46	19
TOTAL	227	100.0	0.0	0	0	12700	1067	0	0	4.8	2.7	0	0

COALBED: SEWICKLEY
STATE: OHIO
NUMBER OF SAMPLES: 10
RAW COAL MOISTURE,PERCENT: 2.4
SIGMA: .6

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 14.9 SIGMA: 4.4				PYRITIC SULFUR, PERCENT RAW: 2.42 SIGMA: .8				TOTAL SULFUR, PERCENT RAW: 4.45 SIGMA: 1.5			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	10	4.4	.7	68	11	.43	.2	81	6	2.80	1.2	39	8
FLOAT-1.40	10	9.2	1.1	35	15	1.18	.3	49	9	3.40	1.3	24	6
FLOAT-1.60	10	12.1	2.5	17	8	1.68	.6	30	7	3.80	1.4	15	5
TOTAL	10	14.8	4.2	0	0	2.41	.8	0	0	4.45	1.6	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	10	4.5	1.5	69	6	.57	.5	77	12	2.93	1.3	36	9
FLOAT-1.40	10	8.8	2.3	39	12	1.05	.7	58	14	3.26	1.4	28	9
FLOAT-1.60	10	11.6	3.1	21	9	1.48	.7	40	11	3.59	1.5	21	8
TOTAL	10	15.0	4.6	0	0	2.44	.9	0	0	4.45	1.6	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	10	4.1	1.9	73	7	.38	.2	84	7	2.76	1.3	40	11
FLOAT-1.40	10	7.8	1.6	45	11	.71	.4	71	11	3.05	1.4	34	10
FLOAT-1.60	10	10.7	2.5	26	10	1.09	.6	55	14	3.25	1.4	29	11
TOTAL	10	14.9	4.7	0	0	2.41	.8	0	0	4.45	1.6	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 12251 SIGMA: 751				POUNDS OF SO2/M BTU RAW: 7.4 SIGMA: 2.8			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	10	11.0	10.3	89	10	13748	191	12	6	4.1	1.8	46	7
FLOAT-1.40	10	73.9	17.1	26	17	13057	235	7	5	5.2	2.0	29	7
FLOAT-1.60	10	95.0	3.3	5	3	12647	478	3	3	6.1	2.4	18	6
TOTAL	10	100.0	0.0	0	0	12258	741	0	0	7.4	2.8	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	10	18.3	11.7	82	12	13725	346	12	5	4.3	2.0	43	7
FLOAT-1.40	10	75.8	10.8	24	11	13113	427	7	4	5.0	2.3	33	8
FLOAT-1.60	10	94.0	3.6	6	4	12717	571	4	3	5.7	2.5	24	8
TOTAL	10	100.0	0.0	0	0	12241	785	0	0	7.4	2.9	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	10	32.0	13.8	68	14	13792	419	13	5	4.0	1.9	47	9
FLOAT-1.40	10	74.3	10.8	26	11	13258	351	8	5	4.6	2.1	39	9
FLOAT-1.60	10	93.1	4.7	7	5	12845	491	5	4	5.1	2.3	32	10
TOTAL	10	100.0	0.0	0	0	12254	807	0	0	7.4	2.9	0	0

COALBED: SEWICKLEY
STATES: 2 MARYLAND
NUMBER OF SAMPLES: 15
RAW COAL MOISTURE, PERCENT: 2.0
SIGMA: .8

SEWICKLEY
10 OHIO

SEWICKLEY
2 PA. (BITUMINOUS)

SEWICKLEY
1 WEST VIRGINIA

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 16.3 SIGMA: 7.5 AVERAGE	ASH SIGMA	ASH REDUCTION	ASH SIGMA	PYRITIC SULFUR, PERCENT RAW: 2.09 SIGMA: 1.0 AVERAGE	PYRITIC SULFUR SIGMA	PYRITIC SULFUR REDUCTION	PYRITIC SULFUR SIGMA	TOTAL SULFUR, PERCENT RAW: 3.78 SIGMA: 1.8 AVERAGE	TOTAL SULFUR SIGMA	TOTAL SULFUR REDUCTION	TOTAL SULFUR SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	15	4.2	.6	70	11	.38	.2	82	7	2.35	1.2	38	10
FLOAT-1.40	15	8.6	1.6	41	18	.99	.5	54	13	2.84	1.4	25	7
FLOAT-1.60	15	11.2	2.6	24	19	1.40	.7	34	9	3.17	1.6	16	7
TOTAL	15	16.4	7.7	0	0	2.09	1.0	0	0	3.78	1.8	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	15	4.3	1.3	71	9	.46	.4	80	12	2.42	1.3	36	12
FLOAT-1.40	15	8.3	2.3	44	15	.86	.6	61	14	2.72	1.4	28	10
FLOAT-1.60	15	10.7	3.1	28	18	1.21	.7	43	11	3.00	1.6	21	9
TOTAL	15	16.3	7.5	0	0	2.10	1.1	0	0	3.78	1.8	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	15	3.8	1.6	74	8	.31	.2	86	7	2.27	1.3	41	14
FLOAT-1.40	15	7.4	1.7	49	14	.60	.4	73	11	2.53	1.4	34	11
FLOAT-1.60	15	10.2	2.6	32	16	.91	.6	58	13	2.70	1.5	29	12
TOTAL	15	16.4	7.7	0	0	2.10	1.0	0	0	3.78	1.8	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	BTU RECOVERY SIGMA	BTU REDUCTION	BTU REDUCTION SIGMA	BTU PER POUND RAW: 12230 SIGMA: 1219 AVERAGE	BTU PER POUND SIGMA	%INCREASE	%INCREASE SIGMA	POUNDS OF SO2/M BTU RAW: 6.2 SIGMA: 3.0 AVERAGE	SO2/M BTU SIGMA	%REDUCTION	%REDUCTION SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	15	16.1	12.2	84	12	13990	463	16	12	3.4	1.8	46	10
FLOAT-1.40	15	76.8	14.6	23	15	13352	568	10	11	4.3	2.2	31	8
FLOAT-1.60	15	94.6	3.5	5	4	12982	696	7	11	5.0	2.6	21	8
TOTAL	15	100.0	0.0	0	0	12223	1243	0	0	6.2	3.1	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	15	23.7	13.8	76	14	13980	533	15	12	3.5	2.0	44	11
FLOAT-1.40	15	78.1	9.9	22	10	13398	644	10	10	4.1	2.3	34	10
FLOAT-1.60	15	93.5	4.3	6	4	13049	759	7	10	4.7	2.6	26	9
TOTAL	15	100.0	0.0	0	0	12243	1245	0	0	6.2	3.1	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	15	34.7	15.2	65	15	14043	559	16	12	3.3	1.9	49	13
FLOAT-1.40	15	76.0	10.6	24	11	13523	579	12	11	3.8	2.2	40	11
FLOAT-1.60	15	92.7	4.7	7	5	13131	692	8	10	4.2	2.4	34	11
TOTAL	15	100.0	0.0	0	0	12223	1256	0	0	6.2	3.1	0	0

COALBED: PITTSBURGH
STATE: OHIO
NUMBER OF SAMPLES: 18
RAW COAL MOISTURE,PERCENT: 2.2
SIGMA: 1.1

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 15.9 SIGMA: 7.6				PYRITIC SULFUR, PERCENT RAW: 2.69 SIGMA: .8				TOTAL SULFUR, PERCENT RAW: 4.19 SIGMA: .9			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	18	4.2	.5	70	8	.68	.2	74	6	2.34	.5	44	7
FLOAT-1.40	18	6.9	.9	51	14	1.50	.3	43	9	3.17	.6	24	7
FLOAT-1.60	18	8.6	1.7	40	15	1.95	.4	26	9	3.61	.7	13	7
TOTAL	18	16.0	7.7	0	0	2.69	.8	0	0	4.20	1.0	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	18	4.0	.5	71	8	.64	.2	75	6	2.31	.5	44	6
FLOAT-1.40	18	6.4	1.0	54	13	1.29	.4	50	8	2.96	.6	28	6
FLOAT-1.60	18	7.9	1.4	44	14	1.70	.4	35	9	3.35	.7	19	7
TOTAL	18	15.9	7.7	0	0	2.63	.7	0	0	4.14	.9	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	18	3.7	1.0	74	7	.53	.2	81	4	2.21	.6	48	7
FLOAT-1.40	18	5.9	1.1	59	10	1.02	.4	63	5	2.69	.6	36	6
FLOAT-1.60	18	7.8	1.8	46	12	1.46	.6	47	8	3.06	.7	28	6
TOTAL	18	15.9	7.8	0	0	2.75	.8	0	0	4.24	1.0	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 12177 SIGMA: 1228				POUNDS OF SO2/M BTU RAW: 7.0 SIGMA: 1.9			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	18	27.7	10.3	72	10	13863	297	15	12	3.4	.8	51	6
FLOAT-1.40	18	82.3	8.6	18	9	13467	341	12	11	4.7	.9	31	8
FLOAT-1.60	18	94.3	3.9	6	4	13222	434	10	10	5.5	1.1	20	8
TOTAL	18	100.0	0.0	0	0	12171	1249	0	0	7.0	2.0	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	18	39.3	10.6	61	11	13892	275	15	12	3.3	.7	51	6
FLOAT-1.40	18	83.8	6.5	16	6	13538	348	12	11	4.4	.9	36	7
FLOAT-1.60	18	93.9	3.2	6	3	13318	390	10	11	5.0	1.1	26	7
TOTAL	18	100.0	0.0	0	0	12184	1251	0	0	6.9	1.9	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	18	38.4	14.3	62	14	13936	341	16	12	3.2	.8	55	6
FLOAT-1.40	18	80.4	8.4	20	8	13617	344	13	11	4.0	.9	43	7
FLOAT-1.60	18	92.6	4.4	7	4	13332	443	10	10	4.6	1.2	35	7
TOTAL	18	100.0	0.0	0	0	12175	1256	0	0	7.1	1.9	0	0

COALBED: PITTSBURGH
STATE: WEST VIRGINIA
NUMBER OF SAMPLES: 16
RAW COAL MOISTURE, PERCENT: 1.2
SIGMA: .3

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 11.5 SIGMA: 6.1 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 2.07 SIGMA: .9 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 3.64 SIGMA: 1.1 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	16	4.3	.8	58	12	.47	.1	75	7	2.12	.6	39	11
FLOAT-1.40	16	6.1	.7	40	15	1.04	.4	47	14	2.67	.8	24	12
FLOAT-1.60	16	7.3	.9	29	16	1.38	.6	31	20	2.99	1.0	16	14
TOTAL	16	11.4	6.2	0	0	2.06	.9	0	0	3.60	1.1	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	16	4.0	.5	61	12	.38	.1	79	9	2.08	.6	41	12
FLOAT-1.40	16	5.9	.8	43	14	.87	.3	56	10	2.54	.7	29	11
FLOAT-1.60	16	7.0	1.0	33	15	1.23	.5	40	16	2.88	.9	20	13
TOTAL	16	11.6	6.3	0	0	2.09	1.0	0	0	3.66	1.2	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	16	3.5	.5	65	10	.28	.1	85	6	1.97	.6	45	11
FLOAT-1.40	16	5.3	.8	49	15	.57	.2	71	9	2.23	.7	38	12
FLOAT-1.60	16	6.4	1.0	39	15	.88	.4	56	16	2.53	.8	30	13
TOTAL	16	11.5	6.0	0	0	2.07	.9	0	0	3.65	1.1	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 13212 SIGMA: 1025 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 5.6 SIGMA: 1.9 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	16	50.4	14.9	50	15	14283	157	9	10	3.0	.8	44	11
FLOAT-1.40	16	88.5	5.7	11	6	14009	205	7	10	3.8	1.2	29	11
FLOAT-1.60	16	96.2	2.0	4	2	13835	279	5	9	4.3	1.5	20	12
TOTAL	16	100.0	0.0	0	0	13225	1052	0	0	5.5	1.9	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	16	54.0	14.7	46	15	14323	174	9	11	2.9	.9	46	12
FLOAT-1.40	16	88.4	5.8	12	6	14043	220	7	10	3.6	1.1	33	11
FLOAT-1.60	16	95.5	2.5	4	2	13877	289	6	9	4.2	1.4	24	11
TOTAL	16	100.0	0.0	0	0	13201	1065	0	0	5.6	2.0	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	16	59.3	12.2	41	12	14395	169	10	10	2.7	.9	49	11
FLOAT-1.40	16	87.8	7.4	12	7	14136	212	8	9	3.2	1.0	42	12
FLOAT-1.60	16	95.2	3.3	5	3	13961	280	6	9	3.6	1.2	34	12
TOTAL	16	100.0	0.0	0	0	13209	1024	0	0	5.6	1.9	0	0

COALBED:PITTSBURGH — PITTSBURGH — PITTSBURGH — PITTSBURGH
STATES: 1 MARYLAND — 18 OHIO — 6 PA. (BITUMINOUS) — 16 WEST VIRGINIA
NUMBER OF SAMPLES: 41
RAW COAL MOISTURE,PERCENT: 1.8
SIGMA: 1.0

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 13.1 SIGMA: 6.8 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 2.17 SIGMA: 1.0 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 3.60 SIGMA: 1.3 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	41	4.2	.7	63	11	.53	.2	71	23	2.06	.7	40	15
FLOAT-1.40	41	6.3	1.0	45	15	1.17	.5	44	14	2.70	.9	23	13
FLOAT-1.60	41	7.7	1.6	35	16	1.52	.7	29	15	3.03	1.0	14	11
TOTAL	41	13.1	6.9	0	0	2.17	1.0	0	0	3.59	1.3	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	41	4.0	.6	65	11	.46	.2	71	44	2.03	.6	41	18
FLOAT-1.40	41	6.0	1.0	48	14	.98	.4	47	41	2.53	.8	27	13
FLOAT-1.60	41	7.2	1.4	39	15	1.33	.6	37	14	2.85	1.0	19	11
TOTAL	41	13.1	6.9	0	0	2.15	1.0	0	0	3.58	1.3	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	40	3.5	.8	69	10	.38	.2	83	5	1.95	.7	47	9
FLOAT-1.40	41	5.4	1.1	54	14	.71	.4	64	28	2.26	.8	36	13
FLOAT-1.60	41	6.9	1.6	42	14	1.06	.6	53	13	2.56	.9	29	11
TOTAL	41	13.1	6.8	0	0	2.20	1.0	0	0	3.63	1.3	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 12805 SIGMA: 1192 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 5.8 SIGMA: 2.3 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	41	39.9	17.9	60	18	14109	348	11	11	2.9	1.0	46	14
FLOAT-1.40	41	84.3	15.0	16	15	13792	405	9	10	3.9	1.3	28	12
FLOAT-1.60	41	94.4	7.1	6	7	13597	487	7	9	4.5	1.6	20	10
TOTAL	41	100.0	0.0	0	0	12806	1205	0	0	5.7	2.3	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	41	47.1	16.2	53	16	14140	353	11	11	2.9	.9	46	18
FLOAT-1.40	41	84.8	14.5	15	14	13842	400	9	10	3.7	1.2	33	12
FLOAT-1.60	41	94.0	6.9	6	7	13662	456	8	9	4.2	1.5	25	10
TOTAL	41	100.0	0.0	0	0	12804	1202	0	0	5.7	2.3	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	40	50.1	16.4	50	16	14217	365	12	10	2.8	1.0	52	9
FLOAT-1.40	41	82.9	15.5	17	15	13931	393	10	10	3.3	1.2	42	12
FLOAT-1.60	41	93.2	8.0	7	8	13707	490	8	9	3.8	1.5	34	10
TOTAL	41	100.0	0.0	0	0	12806	1197	0	0	5.8	2.3	0	0

COALBED: UPPER FREEPORT
STATE: PA. (BITUMINOUS)
NUMBER OF SAMPLES: 20
RAW COAL MOISTURE, PERCENT: .9
SIGMA: .4

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 17.5 SIGMA: 5.5				PYRITIC SULFUR, PERCENT RAW: 1.87 SIGMA: 1.0				TOTAL SULFUR, PERCENT RAW: 2.57 SIGMA: 1.1			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	20	3.7	.6	77	8	.38	.2	80	9	1.08	.3	54	14
FLOAT-1.40	20	6.6	.9	58	14	.73	.5	58	16	1.43	.6	40	16
FLOAT-1.60	20	8.7	1.3	45	17	1.00	.6	45	17	1.69	.7	31	14
TOTAL	20	17.5	5.7	0	0	1.86	1.0	0	0	2.56	1.1	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	20	3.4	.5	79	7	.24	.2	87	6	.92	.3	60	12
FLOAT-1.40	20	5.8	1.0	64	12	.46	.3	74	13	1.14	.4	52	15
FLOAT-1.60	20	7.8	1.5	51	16	.67	.5	63	17	1.35	.6	44	15
TOTAL	20	17.6	5.6	0	0	1.87	1.0	0	0	2.58	1.2	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	20	3.0	.5	81	5	.18	.1	91	4	.85	.2	63	13
FLOAT-1.40	20	5.3	.9	67	10	.31	.2	82	10	.99	.3	58	14
FLOAT-1.60	20	7.6	1.4	53	13	.48	.3	72	18	1.14	.4	52	15
TOTAL	20	17.4	5.6	0	0	1.87	1.0	0	0	2.57	1.1	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 12540 SIGMA: 949				POUNDS OF SO2/M BTU RAW: 4.1 SIGMA: 1.9			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	20	45.6	11.8	54	12	14622	244	17	8	1.5	.5	60	12
FLOAT-1.40	20	80.1	6.6	20	7	14186	227	14	8	2.0	.8	47	15
FLOAT-1.60	20	92.0	3.9	8	4	13860	287	11	8	2.4	1.0	37	14
TOTAL	20	100.0	0.0	0	0	12535	982	0	0	4.1	1.9	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	20	54.4	11.9	46	12	14678	230	18	8	1.3	.4	66	11
FLOAT-1.40	20	81.5	6.2	18	6	14305	216	15	8	1.6	.6	58	13
FLOAT-1.60	20	91.6	3.6	8	4	13995	286	12	8	1.9	.8	50	14
TOTAL	20	100.0	0.0	0	0	12528	957	0	0	4.1	1.9	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	20	51.9	11.7	48	12	14728	232	18	8	1.2	.3	68	11
FLOAT-1.40	20	80.0	6.0	20	6	14387	226	15	8	1.4	.4	63	13
FLOAT-1.60	20	91.6	3.4	8	3	14030	285	12	7	1.6	.6	57	14
TOTAL	20	100.0	0.0	0	0	12555	958	0	0	4.1	1.9	0	0

COALBED: UPPER FREEPORT
STATE: 7 MARYLAND
NUMBER OF SAMPLES: 33
RAW COAL MOISTURE,PERCENT: .9
SIGMA: .4

UPPER FREEPORT
20 PA. (BITUMINOUS)

UPPER FREEPORT
6 WEST VIRGINIA

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 17.8 SIGMA: 5.5 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 1.77 SIGMA: 1.0 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 2.45 SIGMA: 1.1 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	33	3.5	.8	79	8	.29	.2	83	9	.97	.3	55	13
FLOAT-1.40	33	6.8	1.0	58	12	.63	.4	62	15	1.30	.5	42	15
FLOAT-1.60	33	9.2	1.9	45	16	.91	.5	46	16	1.58	.6	31	14
TOTAL	33	17.8	5.6	0	0	1.76	1.0	0	0	2.43	1.1	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	33	3.3	.6	80	6	.21	.2	88	6	.86	.3	61	14
FLOAT-1.40	33	6.2	1.1	63	11	.41	.3	75	11	1.07	.4	52	14
FLOAT-1.60	33	8.4	2.0	50	15	.62	.4	63	16	1.27	.5	44	15
TOTAL	33	17.8	5.6	0	0	1.76	1.1	0	0	2.44	1.2	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	33	2.9	.6	82	5	.15	.1	91	4	.81	.2	63	12
FLOAT-1.40	33	5.5	.9	67	9	.27	.2	84	9	.94	.3	57	14
FLOAT-1.60	33	8.1	1.8	52	13	.43	.3	74	16	1.08	.4	52	14
TOTAL	33	17.6	5.4	0	0	1.78	1.1	0	0	2.47	1.2	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 12535 SIGMA: 929 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 3.9 SIGMA: 1.9 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	33	36.9	17.9	63	18	14696	245	18	9	1.3	.4	62	12
FLOAT-1.40	33	77.3	11.3	23	11	14191	240	14	8	1.8	.7	49	14
FLOAT-1.60	33	91.9	4.2	8	4	13835	353	11	8	2.3	.9	38	14
TOTAL	33	100.0	0.0	0	0	12531	943	0	0	3.9	1.9	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	33	44.4	19.3	56	19	14723	233	18	9	1.2	.4	67	13
FLOAT-1.40	33	79.1	9.4	21	9	14294	237	15	8	1.5	.5	58	13
FLOAT-1.60	33	91.6	3.8	8	4	13950	354	12	8	1.8	.7	49	14
TOTAL	33	100.0	0.0	0	0	12522	949	0	0	3.9	1.9	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	33	43.3	17.4	57	17	14789	225	18	8	1.1	.3	68	10
FLOAT-1.40	33	77.0	9.5	23	10	14399	220	15	8	1.3	.4	63	12
FLOAT-1.60	33	91.3	3.7	9	4	13998	339	12	7	1.5	.5	57	13
TOTAL	33	100.0	0.0	0	0	12553	924	0	0	4.0	1.9	0	0

COALBED: LOWER FREEPORT
STATE: PA. (BITUMINOUS)
NUMBER OF SAMPLES: 10
RAW COAL MOISTURE,PERCENT: 1.0
SIGMA: .5

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 13.7 SIGMA: 4.0 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 1.55 SIGMA: .5 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 2.22 SIGMA: .6 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	10	3.7	.8	71	10	.32	.2	78	11	.96	.2	54	11
FLOAT-1.40	10	6.1	1.2	53	13	.66	.2	55	13	1.33	.3	38	12
FLOAT-1.60	10	7.7	1.8	41	16	.84	.3	43	15	1.50	.4	30	12
TOTAL	10	13.7	4.2	0	0	1.53	.5	0	0	2.20	.6	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	10	3.3	.6	74	6	.19	.1	88	6	.80	.2	63	7
FLOAT-1.40	10	5.3	.9	60	10	.35	.2	78	9	.96	.3	56	10
FLOAT-1.60	10	6.8	1.6	48	14	.48	.3	69	13	1.09	.4	50	12
TOTAL	10	13.8	4.0	0	0	1.55	.5	0	0	2.20	.6	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	10	2.9	.9	77	7	.13	.1	91	5	.77	.2	64	9
FLOAT-1.40	10	5.0	1.1	62	8	.23	.1	85	5	.87	.2	60	9
FLOAT-1.60	10	6.7	1.6	49	11	.35	.2	78	7	.98	.3	56	9
TOTAL	10	13.5	4.1	0	0	1.58	.5	0	0	2.26	.6	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 13223 SIGMA: 684 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 3.4 SIGMA: .9 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	10	48.9	19.3	51	19	14748	215	12	5	1.3	.3	59	8
FLOAT-1.40	10	85.5	4.7	14	5	14386	366	9	5	1.8	.5	43	10
FLOAT-1.60	10	94.7	2.0	5	2	14134	448	7	5	2.1	.6	35	11
TOTAL	10	100.0	0.0	0	0	13220	722	0	0	3.3	.9	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	10	57.6	13.7	42	14	14806	226	12	5	1.1	.3	67	6
FLOAT-1.40	10	85.4	4.6	15	5	14510	327	10	5	1.3	.4	60	9
FLOAT-1.60	10	94.0	1.6	6	2	14276	426	8	5	1.5	.5	53	11
TOTAL	10	100.0	0.0	0	0	13206	693	0	0	3.3	.9	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	10	51.6	10.4	48	10	14869	259	12	5	1.0	.3	68	7
FLOAT-1.40	10	83.2	5.5	17	6	14557	315	10	5	1.2	.3	64	7
FLOAT-1.60	10	94.0	1.9	6	2	14291	406	8	4	1.4	.4	59	8
TOTAL	10	100.0	0.0	0	0	13244	709	0	0	3.4	1.0	0	0

COALBED: LOWER FREEPORT
STATE: 1 MARYLAND
NUMBER OF SAMPLES: 13
RAW COAL MOISTURE,PERCENT: 1.1
SIGMA: .7

LOWER FREEPORT
2 OHIO

LOWER FREEPORT
10 PA. (BITUMINOUS)

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 13.5 SIGMA: 3.9 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 1.70 SIGMA: .7 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 2.39 SIGMA: .7 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	13	3.6	.7	71	9	.34	.1	78	11	1.00	.2	55	11
FLOAT-1.40	13	6.1	1.2	52	11	.68	.2	56	15	1.38	.3	39	14
FLOAT-1.60	13	7.7	1.7	41	14	.89	.3	44	15	1.59	.4	30	13
TOTAL	13	13.5	4.0	0	0	1.68	.7	0	0	2.38	.8	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	13	3.2	.6	75	7	.20	.1	87	7	.83	.2	63	8
FLOAT-1.40	13	5.3	1.1	59	8	.38	.2	77	9	1.02	.3	55	10
FLOAT-1.60	13	6.7	1.7	48	13	.53	.2	67	13	1.17	.4	49	13
TOTAL	13	13.5	4.0	0	0	1.69	.7	0	0	2.35	.7	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	13	2.8	.9	78	6	.14	.1	91	5	.81	.2	65	8
FLOAT-1.40	13	4.9	1.1	62	7	.25	.1	85	5	.91	.2	61	9
FLOAT-1.60	13	6.6	1.6	49	10	.38	.2	78	6	1.03	.3	56	9
TOTAL	13	13.4	4.0	0	0	1.74	.7	0	0	2.43	.8	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 13185 SIGMA: 617 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 3.6 SIGMA: 1.2 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	13	46.8	21.1	53	21	14682	266	12	5	1.4	.3	60	9
FLOAT-1.40	13	85.4	6.1	15	6	14309	353	9	5	1.9	.5	44	13
FLOAT-1.60	13	94.6	2.8	5	3	14070	407	7	4	2.3	.6	35	12
TOTAL	13	100.0	0.0	0	0	13182	644	0	0	3.6	1.2	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	13	55.5	19.7	44	20	14750	267	12	5	1.1	.3	67	8
FLOAT-1.40	13	85.7	5.0	14	5	14436	316	10	5	1.4	.4	59	10
FLOAT-1.60	13	93.9	2.4	6	2	14216	387	8	4	1.7	.5	52	12
TOTAL	13	100.0	0.0	0	0	13180	622	0	0	3.6	1.1	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	13	49.7	15.0	50	15	14814	282	12	5	1.1	.3	69	7
FLOAT-1.40	13	82.8	6.6	17	7	14495	302	10	4	1.3	.3	64	8
FLOAT-1.60	13	93.9	2.2	6	2	14234	368	8	4	1.5	.4	59	8
TOTAL	13	100.0	0.0	0	0	13195	637	0	0	3.7	1.2	0	0

COALBED: UPPER KITTANNING
STATE: 2 MARYLAND
NUMBER OF SAMPLES: 10
RAW COAL MOISTURE,PERCENT: 1.3
SIGMA: 1.0

UPPER KITTANNING
8 PA. (BITUMINOUS)

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 16.5 SIGMA: 6.9 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 1.62 SIGMA: 1.2 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 2.21 SIGMA: 1.3 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	10	2.6	.6	83	6	.12	.1	85	18	.77	.3	53	29
FLOAT-1.40	10	6.0	1.0	59	15	.33	.3	74	17	.95	.4	48	24
FLOAT-1.60	10	8.5	1.1	43	17	.58	.5	64	14	1.21	.6	39	19
TOTAL	10	16.6	7.0	0	0	1.62	1.2	0	0	2.21	1.3	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	10	2.5	.4	83	6	.10	.1	84	23	.76	.3	52	30
FLOAT-1.40	10	5.4	.8	63	13	.26	.2	77	22	.87	.4	49	27
FLOAT-1.60	10	7.7	1.2	48	18	.40	.4	72	16	1.01	.5	46	23
TOTAL	10	16.7	7.4	0	0	1.61	1.2	0	0	2.20	1.3	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	10	2.3	.5	84	8	.10	.1	83	30	.74	.3	55	27
FLOAT-1.40	10	4.8	.7	67	9	.20	.2	80	22	.83	.3	52	27
FLOAT-1.60	10	7.4	1.1	50	14	.38	.4	75	15	.98	.5	47	24
TOTAL	10	16.2	6.9	0	0	1.64	1.3	0	0	2.22	1.3	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 12752 SIGMA: 1069 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 3.5 SIGMA: 2.0 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	10	22.9	15.3	77	15	14881	224	18	12	1.0	.4	59	26
FLOAT-1.40	10	77.0	4.0	23	4	14350	258	14	12	1.3	.6	53	22
FLOAT-1.60	10	91.7	4.0	8	4	13976	262	11	11	1.7	.9	44	18
TOTAL	10	100.0	0.0	0	0	12740	1094	0	0	3.5	2.0	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	10	29.1	15.8	71	16	14896	204	18	13	1.0	.4	59	27
FLOAT-1.40	10	78.1	3.9	22	4	14443	238	15	12	1.2	.6	55	25
FLOAT-1.60	10	91.5	3.8	8	4	14097	291	12	12	1.4	.7	51	22
TOTAL	10	100.0	0.0	0	0	12724	1152	0	0	3.4	2.0	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	10	26.3	16.0	74	16	14913	229	17	12	1.0	.4	61	23
FLOAT-1.40	10	73.5	5.4	26	5	14540	223	14	11	1.1	.5	58	24
FLOAT-1.60	10	91.6	3.9	8	4	14134	256	11	10	1.4	.7	52	23
TOTAL	10	100.0	0.0	0	0	12791	1076	0	0	3.5	2.0	0	0

COALBED: MIDDLE KITTANNING
STATE: OHIO
NUMBER OF SAMPLES: 14
RAW COAL MOISTURE, PERCENT: 4.3
SIGMA: 1.7

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 12.0 SIGMA: 4.6				PYRITIC SULFUR, PERCENT RAW: 2.09 SIGMA: 1.3				TOTAL SULFUR, PERCENT RAW: 3.35 SIGMA: 1.8			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	14	3.4	.8	67	15	.43	.2	72	14	1.55	.6	45	23
FLOAT-1.40	14	5.0	1.3	54	16	.67	.4	61	16	1.81	.8	38	20
FLOAT-1.60	14	6.7	2.9	42	17	.84	.5	54	16	1.99	.9	34	18
TOTAL	14	12.0	4.7	0	0	2.13	1.4	0	0	3.39	1.9	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	14	2.7	.5	73	13	.30	.2	80	12	1.44	.7	49	24
FLOAT-1.40	14	4.1	1.1	61	15	.47	.3	72	12	1.63	.8	44	22
FLOAT-1.60	14	5.7	2.4	49	17	.62	.4	64	14	1.78	.9	40	20
TOTAL	14	11.8	4.6	0	0	2.05	1.3	0	0	3.32	1.8	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	14	2.4	.4	77	11	.25	.1	84	9	1.37	.7	52	24
FLOAT-1.40	14	3.8	.9	65	14	.39	.2	78	10	1.53	.8	48	24
FLOAT-1.60	14	5.6	2.3	51	15	.56	.4	70	12	1.69	.9	44	22
TOTAL	14	12.3	4.9	0	0	2.10	1.4	0	0	3.34	1.8	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 12598 SIGMA: 803				POUNDS OF SO2/M BTU RAW: 5.4 SIGMA: 3.0			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	14	60.5	19.7	40	20	13830	298	10	6	2.2	.9	50	21
FLOAT-1.40	14	86.9	9.4	13	9	13602	351	8	5	2.7	1.1	43	19
FLOAT-1.60	14	95.1	2.6	5	3	13368	572	6	4	3.0	1.3	38	17
TOTAL	14	100.0	0.0	0	0	12596	815	0	0	5.4	3.1	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	14	64.5	17.4	36	17	13926	322	11	5	2.1	1.0	54	22
FLOAT-1.40	14	87.3	7.9	13	8	13725	365	9	5	2.4	1.1	48	21
FLOAT-1.60	14	94.6	2.7	5	3	13509	528	7	4	2.6	1.3	44	19
TOTAL	14	100.0	0.0	0	0	12635	806	0	0	5.3	3.0	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	14	55.9	16.6	44	17	13977	311	12	6	2.0	1.0	57	21
FLOAT-1.40	14	83.2	9.7	17	10	13775	364	10	6	2.2	1.1	52	22
FLOAT-1.60	14	94.0	3.4	6	3	13514	537	8	4	2.5	1.3	48	21
TOTAL	14	100.0	0.0	0	0	12562	848	0	0	5.4	3.0	0	0

COALBED: MIDDLE KITTANNING
STATE: PA. (BITUMINOUS)
NUMBER OF SAMPLES: 10
RAW COAL MOISTURE, PERCENT: .8
SIGMA: .6

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 13.0 SIGMA: 5.4				PYRITIC SULFUR, PERCENT RAW: 1.93 SIGMA: 1.8				TOTAL SULFUR, PERCENT RAW: 2.77 SIGMA: 2.3			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	10	3.4	.7	70	12	.30	.3	79	20	1.06	.5	51	23
FLOAT-1.40	10	6.6	1.5	45	14	.70	.8	59	22	1.48	1.0	38	20
FLOAT-1.60	10	9.0	2.6	27	13	1.04	1.2	44	19	1.84	1.6	29	15
TOTAL	10	13.1	5.7	0	0	1.94	1.9	0	0	2.76	2.4	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	10	3.1	.5	74	8	.25	.3	82	21	1.03	.5	52	23
FLOAT-1.40	10	5.9	1.5	51	12	.55	.6	69	20	1.34	.9	44	19
FLOAT-1.60	10	8.1	2.1	33	13	.81	1.0	57	21	1.59	1.3	38	17
TOTAL	10	13.0	5.6	0	0	1.93	1.8	0	0	2.75	2.4	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	10	2.7	.7	77	5	.23	.3	85	12	1.06	.4	51	23
FLOAT-1.40	10	5.3	1.3	56	10	.44	.6	76	14	1.28	.9	47	19
FLOAT-1.60	10	7.6	1.9	37	12	.68	.8	65	14	1.49	1.2	42	18
TOTAL	10	13.0	5.5	0	0	1.94	1.9	0	0	2.79	2.4	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 13271 SIGMA: 871				POUNDS OF SO2/M BTU RAW: 4.4 SIGMA: 4.1			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	10	34.0	23.9	66	24	14734	370	12	7	1.4	.7	55	23
FLOAT-1.40	10	77.7	16.6	22	17	14247	359	8	6	2.1	1.5	42	21
FLOAT-1.60	10	92.8	7.1	7	7	13878	496	5	4	2.7	2.4	32	17
TOTAL	10	100.0	0.0	0	0	13253	912	0	0	4.4	4.4	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	10	39.7	21.2	60	21	14791	331	12	7	1.4	.7	56	23
FLOAT-1.40	10	79.6	12.5	20	12	14349	341	8	6	1.9	1.4	48	20
FLOAT-1.60	10	92.9	6.3	7	6	14020	440	6	5	2.3	2.0	41	18
TOTAL	10	100.0	0.0	0	0	13280	895	0	0	4.3	4.2	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	10	34.4	15.0	66	15	14840	329	12	7	1.4	.6	56	22
FLOAT-1.40	10	75.7	13.4	24	13	14448	346	9	6	1.8	1.2	51	20
FLOAT-1.60	10	92.8	5.8	7	6	14090	418	6	5	2.1	1.8	44	19
TOTAL	10	100.0	0.0	0	0	13280	901	0	0	4.4	4.3	0	0

COALBED: MIDDLE KITTANNING
STATE: 14 OHIO
NUMBER OF SAMPLES: 27
RAW COAL MOISTURE, PERCENT: 2.7
SIGMA: 2.1

MIDDLE KITTANNING
10 PA. (BITUMINOUS)

MIDDLE KITTANNING
3 WEST VIRGINIA

ASH, PERCENT — RAW: 13.1 SIGMA: 5.1
PYRITIC SULFUR, PERCENT — RAW: 1.97 SIGMA: 1.5
TOTAL SULFUR, PERCENT — RAW: 3.00 SIGMA: 2.0

PRODUCT	NO OF SAMPLES	ASH AVERAGE	ASH SIGMA	ASH REDUCTION	ASH SIGMA	PYRITIC SULFUR AVERAGE	PYRITIC SULFUR SIGMA	PYRITIC SULFUR REDUCTION	PYRITIC SULFUR SIGMA	TOTAL SULFUR AVERAGE	TOTAL SULFUR SIGMA	TOTAL SULFUR REDUCTION	TOTAL SULFUR SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	27	3.4	.7	70	14	.35	.3	76	17	1.30	.6	48	23
FLOAT-1.40	27	5.7	1.5	52	16	.67	.5	60	18	1.63	.8	38	19
FLOAT-1.60	27	7.9	2.9	37	17	.93	.8	49	18	1.89	1.1	31	17
TOTAL	27	13.2	5.2	0	0	2.00	1.5	0	0	3.02	2.0	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	27	2.9	.5	74	11	.26	.2	82	15	1.22	.6	50	23
FLOAT-1.40	27	5.0	1.5	57	14	.49	.4	70	16	1.46	.8	43	21
FLOAT-1.60	27	6.9	2.5	43	16	.69	.7	60	17	1.65	1.0	38	19
TOTAL	27	12.9	5.1	0	0	1.95	1.5	0	0	2.98	2.0	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	27	2.6	.6	78	9	.23	.2	85	10	1.19	.6	52	23
FLOAT-1.40	27	4.5	1.3	62	13	.39	.4	77	13	1.37	.8	47	22
FLOAT-1.60	27	6.7	2.3	46	15	.59	.6	68	15	1.55	1.0	43	21
TOTAL	27	13.2	5.1	0	0	1.98	1.5	0	0	3.00	2.0	0	0

BTU RECOVERY, PERCENT — RAW: 100.0 SIGMA: 0.0
BTU PER POUND — RAW: 12820 SIGMA: 864
POUNDS OF SO2/M BTU — RAW: 4.8 SIGMA: 3.4

PRODUCT	NO OF SAMPLES	BTU RECOVERY AVERAGE	BTU RECOVERY SIGMA	BTU RECOVERY REDUCTION	BTU RECOVERY SIGMA	BTU PER POUND AVERAGE	BTU PER POUND SIGMA	BTU PER POUND %INCREASE	BTU PER POUND SIGMA	POUNDS OF SO2/M BTU AVERAGE	POUNDS OF SO2/M BTU SIGMA	POUNDS OF SO2/M BTU %REDUCTION	POUNDS OF SO2/M BTU SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	27	47.6	24.1	52	24	14255	545	12	7	1.8	.9	53	21
FLOAT-1.40	27	81.5	13.4	18	13	13908	460	9	6	2.4	1.2	42	19
FLOAT-1.60	27	93.6	5.0	6	5	13583	555	6	4	2.8	1.7	35	16
TOTAL	27	100.0	0.0	0	0	12806	873	0	0	4.8	3.5	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	27	52.6	21.6	47	22	14326	521	12	6	1.7	.9	55	22
FLOAT-1.40	27	83.3	10.3	17	10	14013	448	9	6	2.1	1.2	48	20
FLOAT-1.60	27	93.4	4.6	7	5	13735	516	7	5	2.4	1.5	42	18
TOTAL	27	100.0	0.0	0	0	12847	861	0	0	4.7	3.4	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	27	46.7	18.1	53	18	14376	517	13	6	1.7	.8	57	21
FLOAT-1.40	27	79.6	11.1	20	11	14085	466	10	6	2.0	1.1	52	21
FLOAT-1.60	27	93.2	4.4	7	4	13771	531	8	5	2.3	1.5	46	20
TOTAL	27	100.0	0.0	0	0	12809	890	0	0	4.8	3.4	0	0

COALBED: LOWER KITTANNING
STATE: PA. (BITUMINOUS)
NUMBER OF SAMPLES: 33
RAW COAL MOISTURE,PERCENT: .8
SIGMA: .4

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 16.0 SIGMA: 7.2 AVERAGE	ASH SIGMA	ASH REDUCTION	ASH SIGMA	PYRITIC SULFUR, PERCENT RAW: 2.38 SIGMA: 1.4 AVERAGE	PYRITIC SULFUR SIGMA	PYRITIC SULFUR REDUCTION	PYRITIC SULFUR SIGMA	TOTAL SULFUR, PERCENT RAW: 3.23 SIGMA: 1.6 AVERAGE	TOTAL SULFUR SIGMA	TOTAL SULFUR REDUCTION	TOTAL SULFUR SIGMA
.....		SAMPLE CRUSHED TO PASS 1-1/2 INCHES											
FLOAT-1.30	33	3.6	.6	73	11	.37	.3	83	10	1.21	.4	55	20
FLOAT-1.40	33	5.9	1.3	58	15	.74	.5	67	14	1.58	.6	44	18
FLOAT-1.60	33	8.2	2.4	43	17	1.03	.7	54	15	1.87	.8	37	17
TOTAL	33	16.0	7.4	0	0	2.36	1.4	0	0	3.22	1.6	0	0
.....		SAMPLE CRUSHED TO PASS 3/8 INCH											
FLOAT-1.30	33	3.2	.6	77	9	.30	.2	87	7	1.13	.4	57	21
FLOAT-1.40	33	5.2	1.3	63	14	.55	.4	76	11	1.38	.5	50	20
FLOAT-1.60	33	7.3	2.2	49	16	.77	.5	66	13	1.59	.7	45	18
TOTAL	33	16.1	7.3	0	0	2.38	1.4	0	0	3.23	1.6	0	0
.....		SAMPLE CRUSHED TO PASS 14 MESH											
FLOAT-1.30	33	2.8	.5	80	8	.24	.2	88	6	1.08	.3	58	21
FLOAT-1.40	33	4.7	1.0	67	11	.43	.3	81	9	1.24	.4	54	19
FLOAT-1.60	33	6.9	1.9	52	13	.65	.4	72	11	1.46	.5	48	18
TOTAL	33	15.9	7.0	0	0	2.39	1.4	0	0	3.25	1.6	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	BTU RECOVERY SIGMA	BTU REDUCTION	BTU SIGMA	BTU PER POUND RAW: 12822 SIGMA: 1170 AVERAGE	BTU SIGMA	BTU %INCREASE	BTU SIGMA	POUNDS OF SO2/M BTU RAW: 5.1 SIGMA: 2.5 AVERAGE	SO2 SIGMA	SO2 %REDUCTION	SO2 SIGMA
.....		SAMPLE CRUSHED TO PASS 1-1/2 INCHES											
FLOAT-1.30	33	48.8	16.3	51	16	14711	266	16	12	1.6	.5	60	19
FLOAT-1.40	33	79.6	10.7	20	11	14363	339	13	11	2.2	.9	50	18
FLOAT-1.60	33	91.2	4.9	9	5	14015	459	10	10	2.7	1.2	42	17
TOTAL	33	100.0	0.0	0	0	12823	1202	0	0	5.1	2.5	0	0
.....		SAMPLE CRUSHED TO PASS 3/8 INCH											
FLOAT-1.30	33	54.4	15.7	46	16	14777	266	16	12	1.5	.5	63	19
FLOAT-1.40	33	80.9	9.3	19	9	14464	338	14	11	1.9	.8	56	19
FLOAT-1.60	33	90.8	5.0	9	5	14147	435	11	10	2.3	1.0	50	18
TOTAL	33	100.0	0.0	0	0	12803	1196	0	0	5.1	2.6	0	0
.....		SAMPLE CRUSHED TO PASS 14 MESH											
FLOAT-1.30	33	49.6	13.7	50	14	14842	257	17	11	1.5	.4	64	20
FLOAT-1.40	33	79.6	9.1	20	9	14547	294	14	10	1.7	.6	60	18
FLOAT-1.60	33	90.9	4.9	9	5	14211	406	11	9	2.1	.8	53	17
TOTAL	33	100.0	0.0	0	0	12839	1147	0	0	5.1	2.6	0	0

COALBED:LOWER KITTANNING — LOWER KITTANNING — LOWER KITTANNING — LOWER KITTANNING
STATES: 3 MARYLAND — 7 OHIO — 33 PA. (BITUMINOUS) — 4 WEST VIRGINIA
NUMBER OF SAMPLES: 47
RAW COAL MOISTURE,PERCENT: 1.5
SIGMA: 1.4

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 15.0 SIGMA: 6.5 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 2.16 SIGMA: 1.5 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 3.01 SIGMA: 1.7 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	45	3.6	.6	72	12	.38	.3	80	12	1.21	.4	51	24
FLOAT-1.40	47	5.9	1.4	55	16	.77	.6	60	19	1.59	.8	37	23
FLOAT-1.60	47	8.3	2.4	39	18	1.05	.8	47	18	1.88	1.0	30	20
TOTAL	47	15.0	6.7	0	0	2.15	1.5	0	0	3.01	1.7	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	45	3.2	.6	76	9	.28	.2	84	13	1.09	.4	54	25
FLOAT-1.40	47	5.1	1.4	62	14	.51	.4	73	13	1.32	.6	44	27
FLOAT-1.60	47	7.2	2.2	47	16	.73	.6	61	19	1.53	.8	39	23
TOTAL	47	15.0	6.7	0	0	2.14	1.5	0	0	2.98	1.7	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	45	2.7	.6	79	8	.23	.2	86	13	1.05	.3	56	26
FLOAT-1.40	47	4.6	1.1	66	11	.39	.3	77	15	1.19	.5	49	26
FLOAT-1.60	47	6.8	1.9	51	13	.60	.4	68	16	1.40	.6	44	23
TOTAL	47	14.9	6.4	0	0	2.18	1.5	0	0	3.04	1.8	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 12783 SIGMA: 1042 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 4.8 SIGMA: 2.8 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	45	45.4	18.9	55	19	14539	428	14	11	1.7	.6	57	22
FLOAT-1.40	47	78.8	14.5	21	14	14152	504	11	10	2.3	1.2	43	22
FLOAT-1.60	47	92.4	4.8	8	5	13798	606	9	9	2.7	1.5	35	20
TOTAL	47	100.0	0.0	0	0	12781	1066	0	0	4.8	2.8	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	45	54.5	17.2	46	17	14610	415	15	11	1.5	.5	60	23
FLOAT-1.40	47	80.2	13.3	20	13	14274	463	12	10	1.9	.9	50	25
FLOAT-1.60	47	91.8	4.7	8	5	13955	554	10	9	2.2	1.1	44	22
TOTAL	47	100.0	0.0	0	0	12776	1058	0	0	4.7	2.8	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	45	49.5	15.3	50	15	14672	419	15	10	1.4	.5	61	24
FLOAT-1.40	47	78.3	13.8	22	14	14354	444	13	9	1.7	.7	54	24
FLOAT-1.60	47	91.6	4.7	8	5	14016	529	10	8	2.0	.9	49	22
TOTAL	47	100.0	0.0	0	0	12791	1024	0	0	4.8	2.9	0	0

SOUTHERN APPALACHIAN REGION

NUMBER OF SAMPLES: 35
RAW COAL MOISTURE, PERCENT: 1.8
SIGMA: .8

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 11.0 SIGMA: 6.0				PYRITIC SULFUR, PERCENT RAW: .37 SIGMA: .4				TOTAL SULFUR, PERCENT RAW: 1.04 SIGMA: .6			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	35	2.6	.7	70	13	.11	.1	54	29	.86	.3	10	17
FLOAT-1.40	35	4.3	1.7	53	19	.17	.2	40	24	.90	.4	7	14
FLOAT-1.60	35	5.6	2.3	41	21	.21	.2	33	21	.93	.5	6	12
TOTAL	35	10.9	5.9	0	0	.36	.4	0	0	1.04	.6	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	35	2.4	.7	72	13	.11	.1	57	29	.85	.3	11	16
FLOAT-1.40	35	3.9	1.6	57	18	.15	.2	47	26	.88	.4	9	15
FLOAT-1.60	35	5.1	2.2	45	21	.19	.2	39	23	.91	.4	8	12
TOTAL	35	11.0	6.2	0	0	.37	.4	0	0	1.04	.7	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	35	2.0	.7	77	11	.10	.1	63	28	.84	.3	12	19
FLOAT-1.40	35	3.5	1.4	62	15	.14	.1	57	24	.87	.3	11	16
FLOAT-1.60	35	5.0	2.1	47	19	.18	.2	47	23	.89	.4	10	13
TOTAL	35	11.0	5.9	0	0	.38	.5	0	0	1.05	.7	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 13314 SIGMA: 926				POUNDS OF SO2/M BTU RAW: 1.6 SIGMA: 1.0			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	35	58.8	22.1	41	22	14574	294	10	7	1.2	.5	18	15
FLOAT-1.40	35	90.2	6.2	10	6	14316	374	8	7	1.3	.6	14	13
FLOAT-1.60	35	96.5	2.6	3	3	14132	429	6	7	1.3	.7	12	10
TOTAL	35	100.0	0.0	0	0	13321	921	0	0	1.6	1.0	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	35	62.2	19.1	38	19	14612	293	10	8	1.2	.5	19	15
FLOAT-1.40	35	89.5	6.3	11	6	14383	354	9	8	1.2	.5	16	13
FLOAT-1.60	35	96.1	2.9	4	3	14197	413	7	7	1.3	.6	14	11
TOTAL	35	100.0	0.0	0	0	13309	960	0	0	1.6	1.0	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	35	56.9	16.7	43	17	14659	304	11	8	1.2	.4	20	16
FLOAT-1.40	35	86.9	7.0	13	7	14436	339	9	7	1.2	.5	18	14
FLOAT-1.60	35	95.8	2.8	4	3	14211	401	7	7	1.3	.6	16	11
TOTAL	35	100.0	0.0	0	0	13312	923	0	0	1.6	1.0	0	0

ALABAMA REGION

NUMBER OF SAMPLES: 10
RAW COAL MOISTURE, PERCENT: 1.4
SIGMA: .8

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 9.5 SIGMA: 6.2				PYRITIC SULFUR, PERCENT RAW: .69 SIGMA: .8				TOTAL SULFUR, PERCENT RAW: 1.33 SIGMA: .9			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	10	2.7	1.3	62	19	.17	.1	59	23	.87	.2	21	23
FLOAT-1.40	10	4.7	3.3	46	17	.41	.5	37	18	1.10	.6	11	11
FLOAT-1.60	10	6.1	4.5	34	17	.53	.7	26	16	1.21	.8	7	8
TOTAL	10	9.5	6.4	0	0	.68	.8	0	0	1.33	.9	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	10	2.6	1.3	64	19	.17	.1	61	21	.87	.2	20	23
FLOAT-1.40	10	4.4	3.1	49	17	.38	.5	42	16	1.08	.6	13	11
FLOAT-1.60	10	5.8	4.3	37	17	.49	.7	31	19	1.16	.8	9	8
TOTAL	10	9.4	6.3	0	0	.68	.8	0	0	1.32	1.0	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	10	2.2	1.1	69	15	.15	.1	69	21	.85	.2	24	22
FLOAT-1.40	10	4.0	2.7	54	14	.28	.3	55	15	.97	.4	19	16
FLOAT-1.60	10	5.6	4.1	41	14	.39	.5	43	17	1.06	.7	16	12
TOTAL	10	9.6	6.4	0	0	.71	.8	0	0	1.35	1.0	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 13696 SIGMA: 883				POUNDS OF SO2/M BTU RAW: 2.0 SIGMA: 1.5			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	10	60.2	32.7	40	33	14727	331	8	6	1.2	.3	26	23
FLOAT-1.40	10	87.6	11.3	12	11	14423	499	6	4	1.5	.9	16	12
FLOAT-1.60	10	96.4	3.1	4	3	14213	657	4	3	1.7	1.3	11	8
TOTAL	10	100.0	0.0	0	0	13699	915	0	0	2.0	1.5	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	10	63.2	29.2	37	29	14750	344	8	6	1.2	.3	26	23
FLOAT-1.40	10	87.9	10.1	12	10	14475	484	6	4	1.5	.9	17	12
FLOAT-1.60	10	96.4	3.0	4	3	14264	637	4	3	1.7	1.2	13	9
TOTAL	10	100.0	0.0	0	0	13705	909	0	0	2.0	1.5	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	10	62.2	24.1	38	24	14805	347	9	7	1.2	.3	30	22
FLOAT-1.40	10	85.8	11.1	14	11	14539	443	7	5	1.4	.6	24	16
FLOAT-1.60	10	95.8	3.3	4	3	14294	613	5	3	1.5	1.0	20	13
TOTAL	10	100.0	0.0	0	0	13683	923	0	0	2.0	1.5	0	0

EASTERN MIDWEST REGION

NUMBER OF SAMPLES: 95
RAW COAL MOISTURE, PERCENT: 4.9
SIGMA: 2.6

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 14.2 SIGMA: 4.8				PYRITIC SULFUR, PERCENT RAW: 2.29 SIGMA: 1.0				TOTAL SULFUR, PERCENT RAW: 3.92 SIGMA: 1.2			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	95	4.5	1.1	65	15	.61	.3	70	13	2.35	.7	38	13
FLOAT-1.40	95	6.8	1.4	48	17	.92	.3	57	15	2.64	.7	31	12
FLOAT-1.60	95	8.2	1.8	38	19	1.18	.5	45	17	2.89	.8	25	12
TOTAL	95	14.2	4.8	0	0	2.29	1.0	0	0	3.92	1.2	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	95	3.9	.9	69	13	.54	.2	73	13	2.29	.7	40	13
FLOAT-1.40	95	5.9	1.3	54	16	.80	.3	62	15	2.53	.7	33	12
FLOAT-1.60	95	7.5	1.7	42	18	1.03	.4	51	17	2.74	.8	28	13
TOTAL	95	14.1	4.7	0	0	2.27	.9	0	0	3.89	1.2	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	95	3.2	.8	75	10	.45	.2	78	11	2.19	.7	43	14
FLOAT-1.40	95	5.3	1.1	60	14	.67	.2	68	12	2.41	.7	37	13
FLOAT-1.60	95	7.3	1.5	45	16	.92	.3	57	14	2.62	.8	32	12
TOTAL	95	14.3	4.8	0	0	2.32	1.0	0	0	3.94	1.2	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 12189 SIGMA: 749				POUNDS OF SO2/M BTU RAW: 6.5 SIGMA: 2.1			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	95	53.6	16.9	46	17	13560	293	12	8	3.5	1.0	44	14
FLOAT-1.40	95	87.1	5.5	13	6	13236	293	9	7	4.0	1.1	36	13
FLOAT-1.60	95	95.2	2.4	5	2	13041	342	7	7	4.4	1.3	30	13
TOTAL	95	100.0	0.0	0	0	12186	759	0	0	6.5	2.1	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	95	53.6	14.4	46	14	13655	253	12	7	3.4	1.0	46	14
FLOAT-1.40	95	85.8	5.3	14	5	13358	267	10	7	3.8	1.1	39	13
FLOAT-1.60	95	94.9	2.4	5	2	13138	321	8	7	4.2	1.2	33	14
TOTAL	95	100.0	0.0	0	0	12209	737	0	0	6.4	2.1	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	95	41.5	17.3	59	17	13747	237	13	7	3.2	1.0	49	14
FLOAT-1.40	95	80.7	7.0	19	7	13454	257	11	7	3.6	1.1	43	13
FLOAT-1.60	95	93.9	3.0	6	3	13163	306	9	6	4.0	1.2	37	13
TOTAL	95	100.0	0.0	0	0	12172	758	0	0	6.5	2.2	0	0

COALBED: NO. VI
STATE: 6 INDIANA
NUMBER OF SAMPLES: 12
RAW COAL MOISTURE, PERCENT: 4.8
SIGMA: 2.9

NO. 12
6 KENTUCKY (WEST)

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 15.9 SIGMA: 2.4 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 2.48 SIGMA: .5 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 3.87 SIGMA: .6 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	12	4.7	.5	70	6	.74	.2	69	12	2.18	.5	43	12
FLOAT-1.40	12	8.1	1.2	49	7	1.10	.3	54	14	2.57	.5	33	12
FLOAT-1.60	12	10.2	1.8	36	10	1.34	.3	45	16	2.81	.5	27	12
TOTAL	12	16.0	2.6	0	0	2.51	.6	0	0	3.90	.7	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	12	3.9	.5	75	4	.65	.2	72	9	2.12	.5	44	10
FLOAT-1.40	12	7.2	1.2	54	6	1.02	.2	57	12	2.50	.5	34	10
FLOAT-1.60	12	9.4	1.5	41	8	1.26	.3	47	14	2.73	.5	28	10
TOTAL	12	15.9	2.3	0	0	2.45	.5	0	0	3.83	.6	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	12	3.1	.6	80	5	.54	.2	77	8	1.96	.6	50	13
FLOAT-1.40	12	6.0	1.4	62	7	.83	.2	65	10	2.36	.5	38	10
FLOAT-1.60	12	8.8	1.3	44	8	1.14	.2	52	13	2.61	.5	32	10
TOTAL	12	15.9	2.5	0	0	2.48	.5	0	0	3.86	.6	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 11906 SIGMA: 274 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 6.5 SIGMA: 1.1 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	12	37.4	18.4	63	18	13496	121	14	3	3.2	.7	50	12
FLOAT-1.40	12	83.1	5.0	17	5	13005	129	9	3	4.0	.7	39	12
FLOAT-1.60	12	94.3	1.7	6	2	12716	210	7	2	4.4	.8	32	12
TOTAL	12	100.0	0.0	0	0	11897	297	0	0	6.6	1.2	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	12	40.8	12.1	59	12	13605	85	14	3	3.1	.7	51	9
FLOAT-1.40	12	81.7	4.3	18	4	13136	128	10	2	3.8	.8	40	10
FLOAT-1.60	12	93.8	1.7	6	2	12830	167	8	2	4.3	.8	33	10
TOTAL	12	100.0	0.0	0	0	11913	264	0	0	6.4	1.1	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	12	32.1	10.5	68	10	13722	92	15	3	2.9	.9	56	12
FLOAT-1.40	12	76.1	4.9	24	5	13300	149	12	3	3.5	.7	45	10
FLOAT-1.60	12	92.6	2.5	7	2	12917	114	9	2	4.0	.7	37	10
TOTAL	12	100.0	0.0	0	0	11908	284	0	0	6.5	1.1	0	0

COALBED: NO. 6
STATE: ILLINOIS
NUMBER OF SAMPLES: 28
RAW COAL MOISTURE, PERCENT: 5.6
SIGMA: 2.7

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 15.3 SIGMA: 4.3 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 2.14 SIGMA: 1.1 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 3.74 SIGMA: 1.5 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	28	4.5	.7	68	12	.57	.2	68	15	2.33	.8	34	13
FLOAT-1.40	28	6.9	1.0	51	15	.78	.3	57	18	2.51	.8	29	13
FLOAT-1.60	28	8.3	1.3	41	18	1.01	.4	46	19	2.71	.9	24	13
TOTAL	28	15.3	4.3	0	0	2.13	1.1	0	0	3.72	1.5	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	28	3.8	.7	72	12	.51	.2	70	18	2.29	.8	35	14
FLOAT-1.40	28	5.8	1.0	59	14	.68	.2	62	19	2.42	.8	32	14
FLOAT-1.60	28	7.5	1.3	47	17	.86	.3	53	19	2.57	.9	28	14
TOTAL	28	15.2	4.3	0	0	2.13	1.1	0	0	3.73	1.5	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	28	3.5	.7	75	10	.43	.1	75	13	2.23	.8	38	13
FLOAT-1.40	28	5.2	1.1	64	13	.58	.2	67	15	2.34	.8	34	13
FLOAT-1.60	28	7.3	1.4	49	15	.78	.3	58	16	2.47	.9	31	13
TOTAL	28	15.5	4.5	0	0	2.17	1.1	0	0	3.76	1.6	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 11923 SIGMA: 695 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 6.3 SIGMA: 2.8 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	28	53.1	15.9	47	16	13446	284	13	6	3.5	1.2	41	14
FLOAT-1.40	28	86.5	4.6	14	5	13108	241	10	6	3.8	1.3	35	14
FLOAT-1.60	28	94.9	2.3	5	2	12906	274	8	5	4.2	1.5	30	14
TOTAL	28	100.0	0.0	0	0	11934	698	0	0	6.3	2.8	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	28	52.9	13.1	47	13	13541	242	14	6	3.4	1.2	43	14
FLOAT-1.40	28	84.7	4.6	15	5	13265	230	11	6	3.7	1.3	38	14
FLOAT-1.60	28	94.4	2.2	6	2	13029	266	9	6	4.0	1.4	34	15
TOTAL	28	100.0	0.0	0	0	11939	688	0	0	6.3	2.7	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	28	38.0	18.2	62	18	13585	251	15	6	3.3	1.2	45	13
FLOAT-1.40	28	78.2	7.3	22	7	13352	260	13	6	3.5	1.3	41	13
FLOAT-1.60	28	93.4	2.9	7	3	13047	304	10	5	3.8	1.4	37	13
TOTAL	28	100.0	0.0	0	0	11897	722	0	0	6.4	2.9	0	0

COALBED: NO. 6 NO. 11
STATE: 28 ILLINOIS 7 KENTUCKY (WEST)
NUMBER OF SAMPLES: 35
RAW COAL MOISTURE,PERCENT: 5.0
SIGMA: 2.7

		ASH, PERCENT RAW: 14.7 SIGMA: 4.3				PYRITIC SULFUR, PERCENT RAW: 2.22 SIGMA: 1.0				TOTAL SULFUR, PERCENT RAW: 3.88 SIGMA: 1.4			
PRODUCT	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	35	4.3	.8	68	12	.58	.2	69	14	2.42	.7	35	12
FLOAT-1.40	35	6.5	1.3	52	16	.81	.3	57	18	2.62	.8	29	13
FLOAT-1.60	35	7.8	1.6	43	18	1.02	.4	47	19	2.81	.9	24	13
TOTAL	35	14.7	4.3	0	0	2.20	1.0	0	0	3.86	1.4	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	35	3.7	.7	72	12	.52	.2	71	17	2.38	.7	36	13
FLOAT-1.40	35	5.5	1.0	59	14	.72	.2	61	18	2.54	.8	31	13
FLOAT-1.60	35	7.0	1.4	48	17	.90	.3	53	19	2.69	.9	28	13
TOTAL	35	14.6	4.3	0	0	2.21	1.0	0	0	3.87	1.4	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	35	3.4	.7	75	10	.44	.1	76	13	2.31	.7	38	12
FLOAT-1.40	35	5.0	1.0	64	13	.60	.2	68	15	2.43	.8	35	13
FLOAT-1.60	35	6.9	1.5	50	15	.81	.3	58	16	2.59	.8	31	13
TOTAL	35	14.8	4.5	0	0	2.24	1.1	0	0	3.90	1.5	0	0

		BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 12052 SIGMA: 711				POUNDS OF SO2/M BTU RAW: 6.5 SIGMA: 2.6			
PRODUCT	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	35	56.7	16.2	43	16	13522	300	12	6	3.6	1.1	41	13
FLOAT-1.40	35	87.6	4.8	12	5	13216	310	10	5	4.0	1.2	35	14
FLOAT-1.60	35	95.2	2.3	5	2	13031	356	8	5	4.3	1.4	30	14
TOTAL	35	100.0	0.0	0	0	12057	710	0	0	6.5	2.5	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	35	56.8	14.6	43	15	13603	254	13	6	3.5	1.1	43	14
FLOAT-1.40	35	86.1	5.1	14	5	13349	270	11	6	3.8	1.2	38	14
FLOAT-1.60	35	94.7	2.2	5	2	13135	325	9	5	4.1	1.3	33	14
TOTAL	35	100.0	0.0	0	0	12063	704	0	0	6.5	2.5	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	35	43.8	20.7	56	21	13648	261	14	6	3.4	1.1	45	13
FLOAT-1.40	35	80.1	7.7	20	8	13428	283	12	6	3.6	1.2	41	13
FLOAT-1.60	35	93.9	2.9	6	3	13150	349	10	5	3.9	1.3	37	13
TOTAL	35	100.0	0.0	0	0	12035	740	0	0	6.5	2.7	0	0

COALBED: NO. 5
STATE: ILLINOIS
NUMBER OF SAMPLES: 10
RAW COAL MOISTURE, PERCENT: 4.7
SIGMA: 2.7

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 14.9 AVERAGE	SIGMA	SIGMA: 4.8 REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 2.08 AVERAGE	SIGMA	SIGMA: .7 REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 3.92 AVERAGE	SIGMA	SIGMA: .8 REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	10	5.7	2.0	58	21	.52	.2	72	14	2.49	.5	36	13
FLOAT-1.40	10	7.9	1.1	43	17	.84	.2	58	12	2.77	.5	29	10
FLOAT-1.60	10	9.4	1.3	33	18	1.17	.4	42	17	3.08	.7	21	10
TOTAL	10	14.9	5.0	0	0	2.09	.7	0	0	3.92	.8	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	10	4.7	1.6	64	19	.42	.1	77	9	2.46	.5	36	13
FLOAT-1.40	10	6.9	1.0	49	16	.69	.2	64	8	2.68	.5	31	11
FLOAT-1.60	10	8.8	1.4	36	17	1.00	.4	49	16	2.95	.6	24	11
TOTAL	10	14.6	4.9	0	0	2.03	.7	0	0	3.89	.8	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	10	3.3	.8	76	10	.35	.1	81	11	2.28	.5	41	13
FLOAT-1.40	10	6.1	.8	56	13	.60	.2	70	7	2.54	.4	35	11
FLOAT-1.60	10	8.4	1.1	41	13	.89	.3	57	10	2.81	.5	28	10
TOTAL	10	15.1	5.0	0	0	2.12	.8	0	0	3.94	.8	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 AVERAGE	SIGMA	SIGMA: 0.0 REDUCTION	SIGMA	BTU PER POUND RAW: 12046 AVERAGE	SIGMA	SIGMA: 615 %INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 6.5 AVERAGE	SIGMA	SIGMA: 1.3 %REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	10	50.8	15.7	49	16	13347	429	11	8	3.7	.8	41	15
FLOAT-1.40	10	86.5	5.2	13	5	13032	263	9	7	4.3	.8	34	13
FLOAT-1.60	10	95.3	2.1	5	2	12824	277	7	6	4.8	1.1	25	13
TOTAL	10	100.0	0.0	0	0	12039	641	0	0	6.5	1.4	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	10	46.2	11.2	54	11	13475	381	12	8	3.7	.8	42	15
FLOAT-1.40	10	84.2	5.2	16	5	13165	252	9	6	4.1	.8	36	13
FLOAT-1.60	10	95.1	1.9	5	2	12907	252	7	6	4.6	1.0	28	13
TOTAL	10	100.0	0.0	0	0	12083	627	0	0	6.5	1.4	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	10	28.5	17.0	71	17	13674	255	14	7	3.3	.8	48	14
FLOAT-1.40	10	79.3	5.4	21	5	13277	233	11	7	3.8	.7	40	13
FLOAT-1.60	10	94.3	2.6	6	3	12952	199	8	6	4.3	.8	33	12
TOTAL	10	100.0	0.0	0	0	12015	642	0	0	6.6	1.4	0	0

COALBED: NO. 9
STATE: KENTUCKY (WEST)
NUMBER OF SAMPLES: 14
RAW COAL MOISTURE, PERCENT: 3.9
SIGMA: 1.5

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 12.0 SIGMA: 3.0 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 2.28 SIGMA: .4 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 4.17 SIGMA: .3 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	14	4.3	.5	63	7	.56	.1	74	6	2.58	.3	38	8
FLOAT-1.40	14	6.7	.6	41	13	.90	.2	59	10	2.90	.3	30	8
FLOAT-1.60	14	7.9	.8	32	15	1.19	.3	46	13	3.17	.3	24	8
TOTAL	14	12.0	3.1	0	0	2.25	.4	0	0	4.18	.3	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	14	3.7	.4	67	8	.48	.1	78	6	2.52	.3	39	8
FLOAT-1.40	14	6.0	.6	47	12	.77	.1	65	8	2.78	.3	33	8
FLOAT-1.60	14	7.3	.8	36	14	1.03	.2	53	11	3.00	.3	27	8
TOTAL	14	11.9	3.1	0	0	2.26	.4	0	0	4.16	.3	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	14	3.2	.7	72	9	.45	.2	80	9	2.50	.3	40	8
FLOAT-1.40	14	5.4	.5	53	10	.69	.2	70	8	2.70	.3	35	8
FLOAT-1.60	14	7.2	.8	39	11	.95	.2	58	10	2.90	.3	30	8
TOTAL	14	12.2	3.1	0	0	2.32	.4	0	0	4.18	.3	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 12612 SIGMA: 522 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 6.6 SIGMA: .6 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	14	51.8	10.6	48	11	13717	209	9	4	3.8	.4	43	8
FLOAT-1.40	14	89.0	3.1	11	3	13370	189	6	4	4.3	.4	34	9
FLOAT-1.60	14	96.1	1.6	4	2	13208	212	5	4	4.8	.4	27	9
TOTAL	14	100.0	0.0	0	0	12614	532	0	0	6.6	.7	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	14	54.8	9.5	45	9	13800	175	9	4	3.6	.4	44	8
FLOAT-1.40	14	88.0	3.2	12	3	13477	179	7	4	4.1	.3	37	9
FLOAT-1.60	14	95.7	1.6	4	2	13287	215	5	4	4.5	.4	31	9
TOTAL	14	100.0	0.0	0	0	12629	537	0	0	6.6	.7	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	14	49.8	10.6	50	11	13680	171	10	4	3.6	.4	45	9
FLOAT-1.40	14	84.4	4.5	16	4	13555	178	8	4	4.0	.4	40	9
FLOAT-1.60	14	95.0	2.0	5	2	13306	222	6	3	4.4	.4	34	9
TOTAL	14	100.0	0.0	0	0	12591	536	0	0	6.7	.6	0	0

COALBED: NO. 5 NO. V NO. 9
STATE: 10 ILLINOIS 8 INDIANA 14 KENTUCKY (WEST)
NUMBER OF SAMPLES: 32
RAW COAL MOISTURE, PERCENT: 4.8
SIGMA: 2.2

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 12.6 SIGMA: 4.2				PYRITIC SULFUR, PERCENT RAW: 2.17 SIGMA: .7				TOTAL SULFUR, PERCENT RAW: 4.00 SIGMA: .7			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	32	4.9	1.3	58	15	.57	.2	72	11	2.51	.4	37	11
FLOAT-1.40	32	7.2	.9	39	15	.89	.2	57	12	2.81	.4	29	10
FLOAT-1.60	32	8.4	1.3	29	16	1.20	.4	43	15	3.10	.5	22	10
TOTAL	32	12.6	4.2	0	0	2.17	.7	0	0	4.01	.7	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	32	4.2	1.1	63	14	.49	.1	75	11	2.46	.4	37	12
FLOAT-1.40	32	6.3	.9	45	15	.76	.2	62	11	2.69	.4	31	10
FLOAT-1.60	32	7.8	1.2	33	15	1.03	.3	50	15	2.94	.5	25	10
TOTAL	32	12.4	4.1	0	0	2.14	.7	0	0	3.98	.7	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	32	3.2	.8	72	11	.42	.1	79	12	2.37	.4	40	11
FLOAT-1.40	32	5.7	.8	52	12	.66	.2	68	10	2.60	.4	34	10
FLOAT-1.60	32	7.6	1.2	37	13	.93	.3	55	12	2.83	.5	29	10
TOTAL	32	12.7	4.3	0	0	2.19	.7	0	0	4.02	.7	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 12474 SIGMA: 625				POUNDS OF SO2/M BTU RAW: 6.5 SIGMA: 1.3			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	32	52.2	13.7	48	14	13565	323	9	6	3.7	.7	41	12
FLOAT-1.40	32	88.3	5.4	12	5	13241	255	6	5	4.3	.7	33	11
FLOAT-1.60	32	96.0	2.0	4	2	13069	288	5	5	4.8	.9	26	11
TOTAL	32	100.0	0.0	0	0	12469	633	0	0	6.5	1.3	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	32	52.3	12.6	48	13	13669	285	10	6	3.6	.6	42	13
FLOAT-1.40	32	86.7	5.3	13	5	13361	243	7	5	4.0	.6	35	12
FLOAT-1.60	32	95.7	2.0	4	2	13152	277	5	5	4.5	.8	29	12
TOTAL	32	100.0	0.0	0	0	12497	620	0	0	6.4	1.3	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	32	40.6	16.4	59	16	13804	215	11	6	3.4	.6	46	12
FLOAT-1.40	32	82.5	6.1	18	6	13454	230	8	5	3.9	.6	39	11
FLOAT-1.60	32	95.0	2.4	5	2	13178	265	6	4	4.3	.7	33	11
TOTAL	32	100.0	0.0	0	0	12454	642	0	0	6.5	1.3	0	0

WESTERN MIDWEST REGION

NUMBER OF SAMPLES: 44
RAW COAL MOISTURE, PERCENT: 4.0
SIGMA: 3.7

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 16.2 SIGMA: 6.6				PYRITIC SULFUR, PERCENT RAW: 3.58 SIGMA: 1.9				TOTAL SULFUR, PERCENT RAW: 5.25 SIGMA: 2.3			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	44	5.5	1.8	63	12	1.14	.6	66	11	2.93	1.3	42	15
FLOAT-1.40	44	7.7	2.3	49	13	1.66	.8	50	16	3.45	1.4	31	14
FLOAT-1.60	44	9.6	3.2	38	14	2.13	1.0	37	17	3.89	1.5	23	13
TOTAL	44	16.2	6.7	0	0	3.58	1.9	0	0	5.26	2.3	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	44	4.4	1.2	69	10	.94	.4	71	11	2.77	1.3	44	15
FLOAT-1.40	44	6.4	2.0	56	12	1.39	.7	58	16	3.20	1.3	35	14
FLOAT-1.60	44	8.3	3.0	45	13	1.80	.9	46	17	3.59	1.4	28	14
TOTAL	44	16.0	6.7	0	0	3.53	1.9	0	0	5.19	2.3	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	44	3.6	1.2	75	9	.75	.4	79	11	2.61	1.2	48	16
FLOAT-1.40	44	5.6	1.8	62	11	1.16	.6	67	15	3.00	1.2	40	15
FLOAT-1.60	44	7.7	2.6	50	11	1.59	.8	55	17	3.39	1.3	33	14
TOTAL	44	16.4	6.7	0	0	3.63	1.9	0	0	5.30	2.3	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 12072 SIGMA: 1223				POUNDS OF SO2/M BTU RAW: 9.0 SIGMA: 4.5			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	44	45.5	24.8	54	25	13613	747	14	9	4.4	2.1	48	15
FLOAT-1.40	44	79.3	12.6	21	13	13292	736	11	8	5.3	2.2	38	14
FLOAT-1.60	44	92.5	4.5	8	5	13026	829	8	7	6.1	2.5	29	13
TOTAL	44	100.0	0.0	0	0	12069	1233	0	0	9.0	4.6	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	44	47.2	22.7	53	23	13765	649	15	9	4.1	2.0	51	15
FLOAT-1.40	44	79.6	11.4	20	11	13471	676	12	9	4.8	2.0	42	14
FLOAT-1.60	44	91.7	4.6	8	5	13209	776	10	7	5.5	2.3	34	14
TOTAL	44	100.0	0.0	0	0	12101	1231	0	0	8.9	4.5	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	44	38.4	22.6	62	23	13875	602	16	10	3.8	1.8	55	15
FLOAT-1.40	44	75.7	12.0	24	12	13584	630	14	9	4.5	1.8	47	15
FLOAT-1.60	44	90.3	5.3	10	5	13293	733	11	8	5.2	2.1	40	14
TOTAL	44	100.0	0.0	0	0	12045	1235	0	0	9.1	4.6	0	0

WESTERN REGION

NUMBER OF SAMPLES: 44

RAW COAL MOISTURE, PERCENT: 8.5
SIGMA: 5.4

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 8.9 AVERAGE	ASH SIGMA	ASH REDUCTION	ASH SIGMA (SIGMA: 4.3)	PYRITIC SULFUR, PERCENT RAW: .23 AVERAGE	PYRITIC SULFUR SIGMA	PYRITIC SULFUR REDUCTION	PYRITIC SULFUR SIGMA (SIGMA: .3)	TOTAL SULFUR, PERCENT RAW: .68 AVERAGE	TOTAL SULFUR SIGMA	TOTAL SULFUR REDUCTION	TOTAL SULFUR SIGMA (SIGMA: .3)
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	44	4.1	1.3	50	16	.09	.1	40	30	.55	.2	12	19
FLOAT-1.40	44	5.7	2.1	35	14	.10	.1	32	28	.56	.2	10	18
FLOAT-1.60	44	6.9	2.7	22	14	.11	.1	29	26	.57	.2	10	18
TOTAL	44	9.3	4.6	0	0	.23	.3	0	0	.68	.3	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	44	3.6	1.1	56	15	.08	.0	44	30	.55	.2	11	18
FLOAT-1.40	44	5.0	1.8	41	14	.09	.0	38	28	.55	.2	11	18
FLOAT-1.60	44	6.3	2.6	26	14	.10	.1	34	26	.56	.2	10	17
TOTAL	44	9.0	4.5	0	0	.23	.3	0	0	.67	.3	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	34	3.0	.9	61	12	.07	.0	54	28	.53	.2	16	19
FLOAT-1.40	34	4.1	1.4	49	12	.07	.0	50	26	.53	.2	15	19
FLOAT-1.60	34	5.5	2.1	33	13	.08	.0	45	25	.54	.2	15	19
TOTAL	34	8.3	3.4	0	0	.25	.3	0	0	.69	.4	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 AVERAGE	BTU RECOVERY SIGMA	BTU REDUCTION	BTU RECOVERY SIGMA (SIGMA: 0.0)	BTU PER POUND RAW: 12437 AVERAGE	BTU PER POUND SIGMA	BTU %INCREASE	BTU PER POUND SIGMA (SIGMA: 803)	POUNDS OF SO2/M BTU RAW: 1.1 AVERAGE	POUNDS OF SO2/M BTU SIGMA	POUNDS OF SO2/M BTU %REDUCTION	POUNDS OF SO2/M BTU SIGMA (SIGMA: .6)
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	44	60.8	25.1	39	25	13091	637	6	5	.8	.3	16	18
FLOAT-1.40	44	91.9	5.3	8	5	12872	651	4	4	.9	.3	14	18
FLOAT-1.60	44	98.0	1.8	2	2	12701	683	3	3	.9	.3	12	18
TOTAL	44	100.0	0.0	0	0	12373	833	0	0	1.1	.6	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	44	55.2	23.3	45	23	13171	632	6	5	.8	.3	16	17
FLOAT-1.40	44	89.3	6.5	11	6	12972	633	5	4	.9	.3	15	18
FLOAT-1.60	44	97.6	1.9	2	2	12779	672	3	3	.9	.3	13	17
TOTAL	44	100.0	0.0	0	0	12408	823	0	0	1.1	.6	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	34	45.7	27.5	54	27	13318	668	6	3	.8	.3	21	18
FLOAT-1.40	34	87.7	7.9	12	8	13161	648	5	3	.8	.3	19	18
FLOAT-1.60	34	97.5	1.8	3	2	12967	679	3	2	.8	.3	17	18
TOTAL	34	100.0	0.0	0	0	12559	744	0	0	1.1	.6	0	0

SUMMARY

NUMBER OF SAMPLES: 455
RAW COAL MOISTURE, PERCENT: 3.2
SIGMA: 3.4

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 14.0 SIGMA: 6.3 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 1.91 SIGMA: 1.5 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 3.02 SIGMA: 1.9 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	452	3.9	1.3	67	15	.45	.4	69	22	1.62	1.0	38	23
FLOAT-1.40	455	6.4	2.0	49	17	.78	.6	52	21	1.94	1.2	28	19
FLOAT-1.60	455	8.3	2.8	36	18	1.04	.8	40	20	2.19	1.4	22	17
TOTAL	455	14.1	6.4	0	0	1.89	1.5	0	0	3.00	1.9	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	452	3.5	1.0	71	13	.37	.3	73	24	1.56	1.0	40	24
FLOAT-1.40	455	5.7	1.8	54	16	.63	.5	60	24	1.79	1.1	33	22
FLOAT-1.60	455	7.5	2.7	42	17	.85	.7	50	21	2.00	1.3	27	20
TOTAL	455	14.0	6.4	0	0	1.88	1.5	0	0	2.98	1.9	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	440	3.0	1.0	76	11	.31	.3	79	18	1.51	.9	44	23
FLOAT-1.40	445	5.0	1.6	60	13	.50	.4	69	20	1.69	1.0	38	22
FLOAT-1.60	445	7.1	2.4	45	15	.72	.6	59	19	1.88	1.2	33	20
TOTAL	445	14.1	6.3	0	0	1.95	1.5	0	0	3.07	1.9	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 12574 SIGMA: 1058 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 4.9 SIGMA: 3.4 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	452	46.1	23.8	54	24	14057	707	12	9	2.3	1.5	44	22
FLOAT-1.40	455	82.9	12.9	17	13	13685	684	9	8	2.9	1.8	34	19
FLOAT-1.60	455	94.2	4.6	6	5	13415	717	7	7	3.3	2.1	27	17
TOTAL	455	100.0	0.0	0	0	12563	1064	0	0	4.9	3.4	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	452	49.4	21.5	51	22	14123	674	13	9	2.2	1.5	46	23
FLOAT-1.40	455	83.0	11.3	17	11	13793	658	10	8	2.6	1.7	38	21
FLOAT-1.60	455	93.8	4.5	6	4	13530	698	8	8	3.0	2.0	32	19
TOTAL	455	100.0	0.0	0	0	12577	1057	0	0	4.9	3.3	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	440	44.1	20.4	56	20	14223	641	14	9	2.1	1.4	50	22
FLOAT-1.40	445	79.6	12.2	20	12	13913	625	11	8	2.5	1.6	44	21
FLOAT-1.60	445	93.1	4.8	7	5	13605	667	9	7	2.8	1.8	38	20
TOTAL	445	100.0	0.0	0	0	12582	1055	0	0	5.0	3.4	0	0

APPENDIX C.--A STATISTICAL EVALUATION OF THE COMPOSITED WASHABILITY DATA INTERPOLATED AT VARIOUS LEVELS OF BTU RECOVERY BY REGION AND COALBED[1] [2]

Region	Coalbed	Page
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[1]All numbers in the tables are presented on a moisture-free basis unless otherwise noted. The raw coal moisture as presented in the tables is the moisture contained in the sample after being air dried at the coal preparation laboratory. The air dry loss is not included in the moisture determination.

[2]Data are included only for coalbeds where 10 or more samples were collected.

APPENDIX C.--A STATISTICAL EVALUATION OF THE COMPOSITED WASHABILITY DATA
INTERPOLATED AT VARIOUS LEVELS OF BTU RECOVERY BY REGION AND COALBED[1 2]

NORTHERN APPALACHIAN REGION

NUMBER OF SAMPLES: 227
RAW COAL MOISTURE, PERCENT: 1.7
SIGMA: 1.4

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT RAW: 15.1 SIGMA: 6.5 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 2.01 SIGMA: 1.3 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 3.01 SIGMA: 1.6 AVERAGE	SIGMA	REDUCTION	SIGMA
						SAMPLE CRUSHED TO PASS 1-1/2 INCHES							
50.0	156	5.2	2.3	67	13	.54	.5	71	19	1.60	.9	42	21
60.0	189	5.5	2.4	63	13	.59	.5	69	19	1.63	.9	41	20
70.0	212	6.0	2.7	60	14	.67	.6	65	19	1.71	1.0	40	20
80.0	224	7.0	3.1	53	14	.81	.6	59	19	1.83	1.0	36	19
90.0	226	8.6	3.6	42	14	1.06	.8	47	18	2.06	1.2	28	16
100.0	227	15.2	6.6	0	0	2.00	1.3	0	0	3.00	1.7	0	0
						SAMPLE CRUSHED TO PASS 3/8 INCH							
50.0	119	4.8	2.1	70	11	.42	.4	75	19	1.50	.9	42	24
60.0	167	4.9	2.3	68	12	.45	.4	76	17	1.51	.9	45	22
70.0	199	5.4	2.5	64	13	.50	.5	74	17	1.54	.9	44	22
80.0	221	6.1	2.9	58	14	.59	.5	69	18	1.61	1.0	42	21
90.0	227	7.8	3.6	47	14	.81	.7	59	20	1.81	1.1	36	20
100.0	227	15.1	6.6	0	0	1.99	1.3	0	0	2.99	1.6	0	0
						SAMPLE CRUSHED TO PASS 14 MESH							
50.0	135	4.2	1.8	75	9	.31	.3	81	16	1.37	.9	47	24
60.0	179	4.4	2.0	72	10	.33	.3	81	15	1.37	.8	49	23
70.0	213	4.8	2.3	68	11	.37	.4	80	15	1.40	.8	49	22
80.0	225	5.8	2.7	61	12	.45	.4	76	16	1.48	.9	46	21
90.0	225	7.7	3.6	49	12	.66	.6	67	18	1.67	1.0	41	20
100.0	227	15.1	6.4	0	0	2.02	1.3	0	0	3.03	1.7	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 12693 SIGMA: 1076 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 4.8 SIGMA: 2.7 AVERAGE	SIGMA	%REDUCTION	SIGMA
						SAMPLE CRUSHED TO PASS 1-1/2 INCHES							
50.0	156	43.4	3.4	57	3	14088	580	14	10	2.3	1.4	49	20
60.0	189	52.9	3.8	47	4	14068	600	13	9	2.3	1.4	48	19
70.0	212	62.6	4.2	37	4	14013	622	12	9	2.5	1.5	46	18
80.0	224	72.7	4.5	27	5	13885	649	10	8	2.7	1.6	41	17
90.0	226	83.5	4.6	17	5	13652	722	8	7	3.1	1.8	34	16
100.0	227	100.0	0.0	0	0	12686	1085	0	0	4.8	2.7	0	0
						SAMPLE CRUSHED TO PASS 3/8 INCH							
50.0	119	43.1	3.5	57	3	14131	583	15	11	2.2	1.4	50	22
60.0	167	52.3	3.9	48	4	14140	593	14	10	2.2	1.4	51	21
70.0	199	62.0	4.3	38	4	14106	609	13	9	2.2	1.4	50	20
80.0	221	72.1	4.7	28	5	14007	632	11	8	2.3	1.5	48	19
90.0	227	82.9	4.7	17	5	13760	723	9	7	2.7	1.7	41	18
100.0	227	100.0	0.0	0	0	12693	1082	0	0	4.8	2.7	0	0
						SAMPLE CRUSHED TO PASS 14 MESH							
50.0	135	42.8	3.2	57	3	14252	593	16	10	1.9	1.3	54	21
60.0	179	52.1	3.5	48	4	14243	596	15	9	2.0	1.3	55	20
70.0	213	62.0	3.9	38	4	14199	604	13	8	2.0	1.3	54	20
80.0	225	71.9	4.3	28	4	14057	631	11	8	2.1	1.4	52	19
90.0	225	82.7	4.1	17	4	13787	747	9	6	2.5	1.6	46	18
100.0	227	100.0	0.0	0	0	12700	1067	0	0	4.8	2.7	0	0

COALBED: SEWICKLEY
STATE: OHIO
NUMBER OF SAMPLES: 10
RAW COAL MOISTURE,PERCENT: 2.4
SIGMA: .6

ASH, PERCENT — RAW: 14.9 SIGMA: 4.4

PYRITIC SULFUR, PERCENT — RAW: 2.42 SIGMA: .8

TOTAL SULFUR, PERCENT — RAW: 4.45 SIGMA: 1.5

BTU RECOVERY	NO OF SAMPLES	ASH AVERAGE	ASH SIGMA	ASH REDUCTION	ASH SIGMA	PYRITIC SULFUR AVERAGE	PYRITIC SULFUR SIGMA	PYRITIC SULFUR REDUCTION	PYRITIC SULFUR SIGMA	TOTAL SULFUR AVERAGE	TOTAL SULFUR SIGMA	TOTAL SULFUR REDUCTION	TOTAL SULFUR SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	10	7.1	2.3	52	9	.80	.4	69	10	3.08	1.3	33	8
60.0	10	7.9	2.6	47	7	.95	.5	63	9	3.20	1.4	30	7
70.0	10	8.9	2.8	40	6	1.12	.5	55	8	3.34	1.4	27	7
80.0	10	10.1	2.9	32	5	1.32	.6	47	6	3.50	1.4	23	7
90.0	10	11.4	2.9	22	5	1.54	.6	38	8	3.67	1.5	19	8
100.0	10	14.8	4.2	0	0	2.41	.8	0	0	4.45	1.6	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	10	6.2	2.9	59	8	.77	.7	70	16	3.07	1.4	33	10
60.0	10	7.1	3.2	53	8	.87	.7	66	15	3.11	1.4	33	11
70.0	10	8.2	3.3	46	8	.95	.7	64	17	3.21	1.5	31	11
80.0	10	9.5	3.4	37	7	1.13	.8	57	15	3.30	1.5	29	11
90.0	10	11.1	3.6	26	6	1.39	.7	45	11	3.52	1.5	23	9
100.0	10	15.0	4.6	0	0	2.44	.9	0	0	4.45	1.6	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	10	5.2	2.5	66	7	.48	.4	81	10	2.88	1.4	38	12
60.0	10	6.2	2.7	59	7	.56	.4	78	12	2.94	1.4	37	12
70.0	10	7.3	2.8	51	7	.67	.5	74	13	3.01	1.4	35	12
80.0	10	8.7	3.0	41	7	.80	.5	69	15	3.08	1.4	33	12
90.0	10	10.4	3.3	30	6	1.05	.6	58	13	3.23	1.4	30	10
100.0	10	14.9	4.7	0	0	2.41	.8	0	0	4.45	1.6	0	0

WEIGHT, PERCENT — RAW: 100.0 SIGMA: 0.0

BTU PER POUND — RAW: 12251 SIGMA: 751

POUNDS OF SO2/M BTU — RAW: 7.4 SIGMA: 2.8

BTU RECOVERY	NO OF SAMPLES	WEIGHT AVERAGE	WEIGHT SIGMA	WEIGHT REDUCTION	WEIGHT SIGMA	BTU/LB AVERAGE	BTU/LB SIGMA	BTU/LB %INCREASE	BTU/LB SIGMA	LB SO2/M BTU AVERAGE	LB SO2/M BTU SIGMA	LB SO2/M BTU %REDUCTION	LB SO2/M BTU SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	10	45.3	1.2	55	1	13269	382	8	4	4.6	2.1	39	6
60.0	10	55.2	1.4	45	1	13157	415	8	4	4.9	2.2	36	6
70.0	10	65.3	1.5	35	2	13039	456	7	3	5.1	2.2	32	6
80.0	10	75.7	1.6	24	2	12898	496	5	3	5.5	2.3	27	6
90.0	10	86.5	1.8	13	2	12735	534	4	2	5.8	2.4	23	7
100.0	10	100.0	0.0	0	0	12258	741	0	0	7.4	2.8	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	10	44.9	1.3	55	1	13371	487	9	4	4.6	2.1	39	8
60.0	10	54.6	1.5	45	1	13262	511	9	4	4.7	2.3	39	10
70.0	10	64.7	1.6	35	2	13143	552	8	3	4.9	2.4	36	10
80.0	10	75.2	1.8	25	2	12989	596	6	3	5.1	2.5	33	10
90.0	10	86.1	1.8	14	2	12787	640	5	2	5.6	2.6	27	8
100.0	10	100.0	0.0	0	0	12241	785	0	0	7.4	2.9	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	10	44.7	1.6	55	2	13578	483	11	4	4.3	2.1	45	11
60.0	10	54.3	1.8	46	2	13442	495	10	4	4.4	2.2	43	11
70.0	10	64.3	1.9	36	2	13294	526	9	4	4.6	2.2	41	11
80.0	10	74.6	2.1	25	2	13113	561	7	3	4.8	2.3	38	11
90.0	10	85.6	2.0	14	2	12877	619	5	2	5.1	2.4	33	10
100.0	10	100.0	0.0	0	0	12254	807	0	0	7.4	2.9	0	0

COALBED:SEWICKLEY
STATES: 2 MARYLAND
NUMBER OF SAMPLES: 15
RAW COAL MOISTURE,PERCENT: 2.0
SIGMA: .8

SEWICKLEY
10 OHIO

SEWICKLEY
2 PA. (BITUMINOUS)

SEWICKLEY
1 WEST VIRGINIA

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT RAW: 16.3 SIGMA: 7.5 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 2.09 SIGMA: 1.0 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 3.78 SIGMA: 1.8 AVERAGE	SIGMA	REDUCTION	SIGMA
						SAMPLE CRUSHED TO PASS 1-1/2 INCHES							
50.0	15	6.2	2.4	58	14	.65	.4	72	11	2.54	1.4	34	10
60.0	15	7.0	2.6	54	14	.76	.5	66	11	2.63	1.4	31	9
70.0	15	8.0	2.8	47	14	.90	.6	61	11	2.75	1.5	28	9
80.0	15	9.1	3.0	40	16	1.08	.6	52	12	2.89	1.5	24	8
90.0	15	10.6	3.1	30	15	1.28	.7	42	14	3.06	1.6	20	9
100.0	15	16.4	7.7	0	0	2.09	1.0	0	0	3.78	1.8	0	0
						SAMPLE CRUSHED TO PASS 3/8 INCH							
50.0	14	5.8	2.6	63	11	.64	.6	72	15	2.62	1.4	35	11
60.0	15	6.4	2.9	59	12	.69	.6	70	15	2.56	1.5	33	12
70.0	15	7.4	3.2	53	13	.74	.7	69	16	2.63	1.5	31	12
80.0	15	8.6	3.4	44	13	.90	.7	61	15	2.74	1.5	28	12
90.0	15	10.7	4.5	32	12	1.14	.7	49	16	2.93	1.6	23	11
100.0	15	16.3	7.5	0	0	2.10	1.1	0	0	3.78	1.8	0	0
						SAMPLE CRUSHED TO PASS 14 MESH							
50.0	14	5.0	2.3	69	9	.40	.3	82	10	2.46	1.4	40	13
60.0	14	5.9	2.5	63	10	.47	.4	79	11	2.51	1.4	39	13
70.0	15	6.8	2.8	56	11	.54	.4	76	13	2.48	1.4	36	13
80.0	15	8.1	3.1	48	12	.66	.5	71	15	2.55	1.4	33	13
90.0	15	10.0	3.8	36	12	.87	.5	61	15	2.68	1.5	29	12
100.0	15	16.4	7.7	0	0	2.10	1.0	0	0	3.78	1.8	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 12230 SIGMA: 1219 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 6.2 SIGMA: 3.0 AVERAGE	SIGMA	%REDUCTION	SIGMA
						SAMPLE CRUSHED TO PASS 1-1/2 INCHES							
50.0	15	44.1	3.9	56	4	13593	642	12	12	3.8	2.2	41	10
60.0	15	53.5	4.6	46	5	13488	666	11	12	3.9	2.3	38	10
70.0	15	63.4	5.4	37	5	13378	695	10	11	4.2	2.4	35	9
80.0	15	73.5	6.1	26	6	13251	733	9	11	4.5	2.5	31	8
90.0	15	84.2	6.4	16	6	13046	775	7	10	4.8	2.6	25	8
100.0	15	100.0	0.0	0	0	12223	1243	0	0	6.2	3.1	0	0
						SAMPLE CRUSHED TO PASS 3/8 INCH							
50.0	14	43.7	3.5	56	4	13583	590	13	11	3.9	2.2	43	10
60.0	15	53.3	4.2	47	4	13575	708	12	10	3.8	2.3	40	12
70.0	15	63.1	4.8	37	5	13459	739	11	10	4.0	2.4	38	12
80.0	15	73.3	5.4	27	5	13315	785	10	10	4.2	2.5	35	11
90.0	15	84.4	4.8	16	5	13040	940	7	7	4.6	2.6	28	9
100.0	15	100.0	0.0	0	0	12243	1245	0	0	6.2	3.1	0	0
						SAMPLE CRUSHED TO PASS 14 MESH							
50.0	14	43.5	3.6	56	4	13759	572	15	11	3.6	2.1	48	11
60.0	14	52.8	4.2	47	4	13624	584	14	11	3.7	2.2	46	11
70.0	15	62.7	4.8	37	5	13577	708	12	10	3.7	2.2	42	12
80.0	15	72.8	5.4	27	5	13399	748	10	10	3.9	2.3	40	12
90.0	15	83.6	5.5	16	5	13138	846	8	8	4.2	2.4	35	10
100.0	15	100.0	0.0	0	0	12223	1256	0	0	6.2	3.1	0	0

COALBED: PITTSBURGH
STATE: OHIO
NUMBER OF SAMPLES: 18
RAW COAL MOISTURE, PERCENT: 2.2
SIGMA: 1.1

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT RAW: 15.9 SIGMA: 7.6				PYRITIC SULFUR, PERCENT RAW: 2.69 SIGMA: .8				TOTAL SULFUR, PERCENT RAW: 4.19 SIGMA: .9			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
		SAMPLE CRUSHED TO PASS 1-1/2 INCHES											
50.0	18	4.8	1.1	66	9	.86	.2	67	8	2.53	.5	39	6
60.0	18	5.2	1.3	64	10	1.01	.3	61	8	2.67	.6	36	7
70.0	18	5.7	1.7	61	9	1.18	.4	56	9	2.85	.6	32	7
80.0	18	6.7	2.0	54	10	1.41	.4	48	11	3.08	.7	27	9
90.0	18	8.1	2.4	45	11	1.77	.5	34	9	3.43	.7	18	8
100.0	18	16.0	7.7	0	0	2.69	.8	0	0	4.20	1.0	0	0
		SAMPLE CRUSHED TO PASS 3/8 INCH											
50.0	16	4.4	.8	70	9	.72	.2	73	7	2.46	.5	42	6
60.0	18	4.7	1.0	67	9	.79	.3	70	8	2.46	.5	40	7
70.0	18	5.1	1.4	65	8	.96	.3	64	8	2.63	.6	36	7
80.0	18	6.0	1.7	59	9	1.16	.4	56	10	2.84	.7	32	8
90.0	18	7.5	2.3	49	10	1.53	.5	42	10	3.19	.7	23	9
100.0	18	15.9	7.7	0	0	2.63	.7	0	0	4.14	.9	0	0
		SAMPLE CRUSHED TO PASS 14 MESH											
50.0	15	4.4	1.1	72	7	.62	.3	79	4	2.41	.5	45	6
60.0	16	4.7	1.3	69	7	.72	.3	75	5	2.44	.5	44	6
70.0	17	4.9	1.9	68	7	.82	.4	72	8	2.52	.6	41	7
80.0	18	6.0	2.2	61	7	1.03	.5	64	10	2.69	.7	37	8
90.0	18	7.9	3.5	49	7	1.38	.6	51	11	2.98	.8	30	8
100.0	18	15.9	7.8	0	0	2.75	.8	0	0	4.24	1.0	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 12177 SIGMA: 1228				POUNDS OF SO2/M BTU RAW: 7.0 SIGMA: 1.9			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
		SAMPLE CRUSHED TO PASS 1-1/2 INCHES											
50.0	18	43.5	3.6	56	4	13693	356	14	11	3.7	.8	46	6
60.0	18	52.7	4.2	47	4	13619	371	13	11	3.9	.8	43	6
70.0	18	62.1	4.9	38	5	13536	406	12	10	4.2	1.0	40	6
80.0	18	72.0	5.5	28	5	13444	450	11	10	4.6	1.2	34	7
90.0	18	82.2	6.0	18	6	13289	523	10	9	5.2	1.2	25	6
100.0	18	100.0	0.0	0	0	12171	1249	0	0	7.0	2.0	0	0
		SAMPLE CRUSHED TO PASS 3/8 INCH											
50.0	16	43.3	3.9	57	4	13800	333	15	12	3.6	.7	49	6
60.0	18	52.5	4.4	48	4	13718	349	14	11	3.6	.8	47	6
70.0	18	61.7	5.0	38	5	13636	378	13	11	3.8	.9	44	6
80.0	18	71.5	5.6	29	6	13547	408	12	11	4.2	1.1	39	5
90.0	18	81.8	6.1	18	6	13373	510	11	9	4.8	1.2	30	6
100.0	18	100.0	0.0	0	0	12184	1251	0	0	6.9	1.9	0	0
		SAMPLE CRUSHED TO PASS 14 MESH											
50.0	15	42.7	3.7	57	4	13788	384	16	12	3.5	.8	53	6
60.0	16	51.8	4.2	48	4	13740	393	15	11	3.7	.8	50	5
70.0	17	61.4	4.8	39	5	13683	440	14	11	3.7	1.0	49	5
80.0	18	71.4	5.2	29	5	13565	489	12	10	4.0	1.1	44	5
90.0	18	82.1	4.9	18	5	13312	715	10	7	4.5	1.3	36	6
100.0	18	100.0	0.0	0	0	12175	1256	0	0	7.1	1.9	0	0

COALBED: PITTSBURGH
STATE: WEST VIRGINIA
NUMBER OF SAMPLES: 16
RAW COAL MOISTURE,PERCENT: 1.2
SIGMA: .3

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT RAW: 11.5 SIGMA: 6.1 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 2.07 SIGMA: .9 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 3.64 SIGMA: 1.1 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	8	4.2	.6	62	12	.70	.3	74	9	2.60	.6	40	12
60.0	11	4.6	.8	57	12	.72	.4	69	11	2.41	.8	37	11
70.0	16	4.8	.8	54	11	.65	.4	68	13	2.31	.7	34	13
80.0	16	5.4	.9	48	11	.82	.5	61	16	2.45	.9	31	14
90.0	16	6.3	1.1	40	12	1.13	.6	45	18	2.75	.9	23	14
100.0	16	11.4	6.2	0	0	2.06	.9	0	0	3.60	1.1	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	6	4.2	.4	65	14	.53	.1	81	6	2.37	.5	46	12
60.0	9	4.1	.5	63	11	.57	.2	77	9	2.53	.6	41	12
70.0	13	4.5	.8	59	10	.58	.3	73	11	2.25	.8	40	13
80.0	16	5.1	.8	52	10	.65	.4	69	15	2.33	.8	35	13
90.0	16	6.2	1.4	42	11	.98	.6	54	17	2.64	.9	27	13
100.0	16	11.6	6.3	0	0	2.09	1.0	0	0	3.66	1.2	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	1	4.2	0.0	87	0	.63	0.0	76	0	2.66	0.0	34	0
60.0	7	3.8	.8	70	8	.43	.2	80	10	2.24	.7	45	15
70.0	13	4.2	.9	62	9	.43	.3	79	11	2.15	.7	43	13
80.0	16	4.5	1.1	58	9	.46	.3	78	11	2.14	.8	40	13
90.0	16	6.0	2.7	47	10	.68	.5	68	16	2.33	.8	36	14
100.0	16	11.5	6.0	0	0	2.07	.9	0	0	3.65	1.1	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 13212 SIGMA: 1025 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 5.6 SIGMA: 1.9 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	8	44.9	4.5	55	4	14105	192	11	14	3.7	.9	46	9
60.0	11	54.8	4.6	45	5	14100	219	9	12	3.4	1.1	43	8
70.0	16	64.8	4.4	35	4	14143	252	8	10	3.3	1.1	39	10
80.0	16	74.6	4.9	25	5	14063	272	7	9	3.5	1.3	36	11
90.0	16	85.0	5.5	15	5	13959	308	6	9	4.0	1.4	28	11
100.0	16	100.0	0.0	0	0	13225	1052	0	0	5.5	1.9	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	6	44.0	5.1	56	5	14118	212	14	16	3.4	.7	53	9
60.0	9	53.9	5.0	46	5	14104	202	11	13	3.6	.9	47	10
70.0	13	64.1	4.8	36	5	14138	253	9	11	3.2	1.1	45	11
80.0	16	74.3	4.9	26	5	14105	282	8	9	3.3	1.2	40	10
90.0	16	84.8	5.2	15	5	13974	382	6	8	3.8	1.4	32	10
100.0	16	100.0	0.0	0	0	13201	1065	0	0	5.6	2.0	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	1	34.5	0.0	66	0	13701	0	44	0	3.9	0.0	54	0
60.0	7	53.1	5.0	47	5	14215	287	13	13	3.2	1.1	51	12
70.0	13	64.0	4.4	36	4	14234	280	9	10	3.0	1.1	47	11
80.0	16	73.9	4.5	26	5	14192	311	8	8	3.0	1.1	45	12
90.0	16	84.7	3.4	15	3	14000	622	6	5	3.4	1.4	40	12
100.0	16	100.0	0.0	0	0	13209	1024	0	0	5.6	1.9	0	0

COALBED:PITTSBURGH — PITTSBURGH — PITTSBURGH — PITTSBURGH
STATES: 1 MARYLAND — 18 OHIO — 6 PA. (BITUMINOUS) — 16 WEST VIRGINIA
NUMBER OF SAMPLES: 41
RAW COAL MOISTURE,PERCENT: 1.8
SIGMA: 1.0

		ASH, PERCENT RAW: 13.1 SIGMA: 6.8				PYRITIC SULFUR, PERCENT RAW: 2.17 SIGMA: 1.0				TOTAL SULFUR, PERCENT RAW: 3.60 SIGMA: 1.3			
BTU RECOVERY	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
						SAMPLE CRUSHED TO PASS 1-1/2 INCHES							
50.0	28	4.7	1.0	64	10	.77	.3	68	11	2.45	.6	38	12
60.0	36	4.8	1.2	61	11	.78	.4	65	12	2.30	.8	36	11
70.0	41	5.2	1.4	57	10	.82	.5	62	14	2.35	.9	34	12
80.0	41	5.9	1.8	51	11	1.00	.6	55	16	2.52	1.0	29	12
90.0	41	7.0	2.2	42	12	1.31	.7	40	16	2.83	1.0	21	12
100.0	41	13.1	6.9	0	0	2.17	1.0	0	0	3.59	1.3	0	0
						SAMPLE CRUSHED TO PASS 3/8 INCH							
50.0	24	4.4	.7	67	10	.62	.2	71	24	2.31	.6	41	13
60.0	30	4.5	1.0	65	10	.66	.3	70	15	2.33	.7	39	12
70.0	38	4.8	1.2	61	10	.70	.4	67	13	2.23	.8	37	12
80.0	41	5.4	1.5	55	11	.81	.5	62	15	2.35	.9	34	12
90.0	41	6.7	2.1	45	12	1.12	.6	49	15	2.66	1.0	26	11
100.0	41	13.1	6.9	0	0	2.15	1.0	0	0	3.58	1.3	0	0
						SAMPLE CRUSHED TO PASS 14 MESH							
50.0	17	4.4	1.0	72	8	.59	.3	77	8	2.34	.6	42	14
60.0	26	4.4	1.3	69	8	.57	.3	77	9	2.20	.8	43	13
70.0	37	4.5	1.6	64	9	.56	.4	76	10	2.12	.8	42	12
80.0	41	5.2	2.0	58	10	.66	.5	71	13	2.21	.9	39	12
90.0	41	6.7	3.2	47	10	.91	.7	61	17	2.42	1.0	33	12
100.0	41	13.1	6.8	0	0	2.20	1.0	0	0	3.63	1.3	0	0

		WEIGHT, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 12805 SIGMA: 1192				POUNDS OF SO2/M BTU RAW: 5.8 SIGMA: 2.3			
BTU RECOVERY	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
						SAMPLE CRUSHED TO PASS 1-1/2 INCHES							
50.0	28	44.1	3.8	56	4	13831	384	12	11	3.5	1.0	45	11
60.0	36	54.0	4.1	46	4	13896	446	10	10	3.3	1.2	42	9
70.0	41	63.8	4.4	36	4	13886	482	9	9	3.4	1.3	39	10
80.0	41	73.6	4.9	26	5	13798	516	9	9	3.7	1.5	35	10
90.0	41	84.0	5.4	16	5	13673	578	7	8	4.2	1.7	26	9
100.0	41	100.0	0.0	0	0	12806	1205	0	0	5.7	2.3	0	0
						SAMPLE CRUSHED TO PASS 3/8 INCH							
50.0	24	43.7	4.0	56	4	13895	363	14	13	3.3	.9	48	12
60.0	30	53.3	4.4	47	4	13868	386	12	11	3.4	1.0	46	11
70.0	38	63.3	4.6	37	5	13921	456	10	10	3.2	1.2	43	10
80.0	41	73.3	5.1	27	5	13868	484	9	9	3.4	1.4	40	10
90.0	41	83.7	5.4	16	5	13724	571	8	8	3.9	1.6	31	9
100.0	41	100.0	0.0	0	0	12804	1202	0	0	5.7	2.3	0	0
						SAMPLE CRUSHED TO PASS 14 MESH							
50.0	17	42.4	4.1	58	4	13763	368	17	13	3.4	.9	50	13
60.0	26	52.6	4.3	47	4	13916	465	14	11	3.2	1.1	49	12
70.0	37	63.1	4.4	37	4	13993	500	11	9	3.0	1.2	47	11
80.0	41	73.1	4.7	27	5	13918	543	9	9	3.2	1.3	44	11
90.0	41	83.8	4.2	16	4	13715	749	8	6	3.6	1.6	38	11
100.0	41	100.0	0.0	0	0	12806	1197	0	0	5.8	2.3	0	0

COALBED: UPPER FREEPORT
STATE: PA. (BITUMINOUS)
NUMBER OF SAMPLES: 20
RAW COAL MOISTURE,PERCENT: .9
SIGMA: .4

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT AVERAGE	ASH, PERCENT SIGMA	ASH, PERCENT REDUCTION	ASH, PERCENT SIGMA	PYRITIC SULFUR, PERCENT AVERAGE	PYRITIC SULFUR, PERCENT SIGMA	PYRITIC SULFUR, PERCENT REDUCTION	PYRITIC SULFUR, PERCENT SIGMA	TOTAL SULFUR, PERCENT AVERAGE	TOTAL SULFUR, PERCENT SIGMA	TOTAL SULFUR, PERCENT REDUCTION	TOTAL SULFUR, PERCENT SIGMA
		RAW: 17.5	SIGMA: 5.5			RAW: 1.87	SIGMA: 1.0			RAW: 2.57	SIGMA: 1.1		
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	12	4.3	.9	74	10	.49	.3	74	9	1.20	.4	51	12
60.0	18	4.6	1.1	71	10	.48	.3	73	11	1.18	.4	49	15
70.0	20	5.3	1.4	67	12	.58	.4	68	14	1.27	.5	46	16
80.0	20	6.6	1.6	59	13	.74	.5	59	16	1.43	.6	40	16
90.0	20	8.5	1.8	48	13	.97	.6	47	17	1.66	.7	32	14
100.0	20	17.5	5.7	0	0	1.86	1.0	0	0	2.56	1.1	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	5	4.1	.8	77	9	.26	.2	84	8	.90	.3	58	11
60.0	15	4.0	1.1	77	9	.27	.2	85	7	.93	.3	57	13
70.0	19	4.5	1.4	73	10	.33	.3	83	9	1.02	.3	57	14
80.0	20	5.6	1.7	66	11	.44	.4	76	12	1.12	.4	53	14
90.0	20	7.7	2.1	54	12	.64	.5	65	16	1.33	.6	45	15
100.0	20	17.6	5.6	0	0	1.87	1.0	0	0	2.58	1.2	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	7	3.6	.6	81	6	.17	.1	90	5	.81	.2	63	11
60.0	16	3.6	.9	79	6	.18	.1	89	6	.84	.2	60	14
70.0	20	4.0	1.2	76	7	.22	.2	88	8	.90	.2	61	14
80.0	20	5.3	1.5	68	8	.31	.2	83	11	.98	.3	58	15
90.0	20	7.5	2.1	55	9	.48	.3	73	15	1.14	.4	53	15
100.0	20	17.4	5.6	0	0	1.87	1.0	0	0	2.57	1.1	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT AVERAGE	WEIGHT, PERCENT SIGMA	WEIGHT, PERCENT REDUCTION	WEIGHT, PERCENT SIGMA	BTU PER POUND AVERAGE	BTU PER POUND SIGMA	BTU PER POUND %INCREASE	BTU PER POUND SIGMA	POUNDS OF SO2/M BTU AVERAGE	POUNDS OF SO2/M BTU SIGMA	POUNDS OF SO2/M BTU %REDUCTION	POUNDS OF SO2/M BTU SIGMA
		RAW: 100.0	SIGMA: 0.0			RAW: 12540	SIGMA: 949			RAW: 4.1	SIGMA: 1.9		
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	12	42.3	3.5	58	3	14408	188	18	10	1.7	.5	59	9
60.0	18	51.7	3.5	48	4	14417	286	16	8	1.6	.6	56	13
70.0	20	60.8	4.0	39	4	14307	281	15	8	1.8	.7	53	14
80.0	20	70.6	4.5	29	5	14152	317	13	8	2.0	.8	47	14
90.0	20	81.2	4.8	19	5	13880	393	11	7	2.4	1.0	39	13
100.0	20	100.0	0.0	0	0	12535	982	0	0	4.1	1.9	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	5	41.8	3.8	58	4	14556	227	20	12	1.2	.4	66	7
60.0	15	50.9	3.4	49	3	14538	247	18	8	1.3	.4	64	11
70.0	19	60.2	3.9	40	4	14423	243	16	8	1.4	.5	63	12
80.0	20	69.9	4.3	30	4	14291	313	15	7	1.6	.6	59	12
90.0	20	80.4	4.6	20	5	14014	412	12	7	1.9	.8	51	13
100.0	20	100.0	0.0	0	0	12528	957	0	0	4.1	1.9	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	7	40.9	3.0	59	3	14550	223	22	9	1.1	.2	70	8
60.0	16	50.8	3.3	49	3	14618	288	18	8	1.1	.3	66	12
70.0	20	60.1	3.7	40	4	14506	270	16	8	1.2	.3	66	12
80.0	20	69.8	4.1	30	4	14346	324	15	7	1.4	.4	63	13
90.0	20	80.4	4.2	20	4	14029	435	12	6	1.6	.6	58	13
100.0	20	100.0	0.0	0	0	12555	958	0	0	4.1	1.9	0	0

COALBED: UPPER FREEPORT
STATE: 7 MARYLAND
NUMBER OF SAMPLES: 33
RAW COAL MOISTURE,PERCENT: .9
SIGMA: .4

UPPER FREEPORT
20 PA. (BITUMINOUS)

UPPER FREEPORT
6 WEST VIRGINIA

ASH, PERCENT — RAW: 17.8 SIGMA: 5.5

PYRITIC SULFUR, PERCENT — RAW: 1.77 SIGMA: 1.0

TOTAL SULFUR, PERCENT — RAW: 2.45 SIGMA: 1.1

BTU RECOVERY	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
						SAMPLE CRUSHED TO PASS 1-1/2 INCHES							
50.0	24	4.9	1.9	71	12	.41	.3	76	11	1.09	.4	52	13
60.0	30	5.3	2.1	69	13	.45	.3	74	12	1.12	.4	49	15
70.0	33	6.0	2.3	65	14	.54	.4	69	14	1.20	.4	46	15
80.0	33	7.2	2.4	57	14	.68	.5	61	16	1.35	.5	41	15
90.0	33	9.1	2.6	47	14	.92	.6	48	15	1.59	.7	32	13
100.0	33	17.8	5.6	0	0	1.76	1.0	0	0	2.43	1.1	0	0
						SAMPLE CRUSHED TO PASS 3/8 INCH							
50.0	16	4.6	1.8	74	10	.23	.2	85	7	.88	.2	57	13
60.0	27	4.6	1.9	74	11	.27	.2	84	7	.92	.3	56	13
70.0	32	5.2	2.1	70	12	.33	.3	81	9	.98	.3	56	14
80.0	33	6.3	2.4	63	13	.42	.3	76	12	1.08	.4	52	14
90.0	33	8.3	2.8	52	13	.63	.5	65	15	1.29	.6	44	14
100.0	33	17.8	5.6	0	0	1.76	1.1	0	0	2.44	1.2	0	0
						SAMPLE CRUSHED TO PASS 14 MESH							
50.0	18	4.0	1.1	78	7	.15	.1	90	4	.82	.2	61	12
60.0	29	4.1	1.4	76	8	.18	.1	89	5	.83	.2	60	13
70.0	33	4.7	1.9	73	9	.21	.1	87	7	.88	.2	60	14
80.0	33	6.0	2.2	65	10	.29	.2	83	10	.95	.3	57	14
90.0	33	8.1	2.6	53	11	.46	.4	74	14	1.11	.4	52	13
100.0	33	17.6	5.4	0	0	1.78	1.1	0	0	2.47	1.2	0	0

WEIGHT, PERCENT — RAW: 100.0 SIGMA: 0.0

BTU PER POUND — RAW: 12535 SIGMA: 929

POUNDS OF SO2/M BTU — RAW: 3.9 SIGMA: 1.9

BTU RECOVERY	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
						SAMPLE CRUSHED TO PASS 1-1/2 INCHES							
50.0	24	42.5	3.1	57	3	14397	303	17	9	1.5	.5	59	12
60.0	30	51.7	3.4	48	3	14357	350	15	8	1.6	.6	56	13
70.0	33	61.1	3.9	39	4	14257	364	14	8	1.7	.7	53	14
80.0	33	70.9	4.4	29	4	14108	396	13	8	1.9	.8	48	14
90.0	33	81.4	4.6	19	5	13841	487	11	7	2.3	1.0	39	12
100.0	33	100.0	0.0	0	0	12531	943	0	0	3.9	1.9	0	0
						SAMPLE CRUSHED TO PASS 3/8 INCH							
50.0	16	42.3	3.2	58	3	14487	323	18	10	1.2	.4	63	11
60.0	27	51.1	3.5	49	3	14471	328	17	9	1.3	.4	63	12
70.0	32	60.5	3.9	40	4	14370	344	16	8	1.4	.5	62	12
80.0	33	70.2	4.3	30	4	14232	397	14	8	1.5	.6	58	13
90.0	33	80.7	4.6	19	5	13955	497	12	7	1.9	.9	50	13
100.0	33	100.0	0.0	0	0	12522	949	0	0	3.9	1.9	0	0
						SAMPLE CRUSHED TO PASS 14 MESH							
50.0	18	41.9	2.9	58	3	14568	255	19	9	1.1	.3	67	11
60.0	29	51.1	3.1	49	3	14571	316	17	8	1.1	.3	65	12
70.0	33	60.4	3.6	40	4	14453	339	16	7	1.2	.3	65	12
80.0	33	70.1	3.9	30	4	14287	396	14	7	1.3	.4	62	12
90.0	33	80.7	4.1	19	4	13988	497	12	6	1.6	.7	57	12
100.0	33	100.0	0.0	0	0	12553	924	0	0	4.0	1.9	0	0

COALBED: LOWER FREEPORT
STATE: PA. (BITUMINOUS)
NUMBER OF SAMPLES: 10
RAW COAL MOISTURE,PERCENT: 1.0
SIGMA: .5

		ASH, PERCENT RAW: 13.7 SIGMA: 4.0				PYRITIC SULFUR, PERCENT RAW: 1.55 SIGMA: .5				TOTAL SULFUR, PERCENT RAW: 2.22 SIGMA: .6			
BTU RECOVERY	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	5	4.3	1.0	67	7	.34	.2	76	16	1.02	.3	51	16
60.0	7	4.3	1.2	68	10	.39	.2	74	15	1.11	.3	50	15
70.0	10	4.5	1.4	65	12	.44	.2	69	15	1.11	.3	47	14
80.0	10	5.4	1.6	59	12	.55	.2	62	15	1.22	.3	43	13
90.0	10	6.9	1.8	48	13	.73	.3	51	14	1.40	.4	35	12
100.0	10	13.7	4.2	0	0	1.53	.5	0	0	2.20	.6	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	2	3.6	.9	76	10	.14	.1	85	0	.74	.2	52	7
60.0	4	4.2	.8	69	7	.18	.1	85	6	.82	.2	57	9
70.0	9	3.8	1.1	70	10	.20	.1	87	7	.85	.2	61	9
80.0	10	4.6	1.3	65	11	.27	.1	82	9	.89	.3	59	10
90.0	10	6.1	1.5	54	12	.40	.2	74	12	1.02	.3	53	11
100.0	10	13.8	4.0	0	0	1.55	.5	0	0	2.20	.6	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	4	3.1	.4	79	5	.12	.0	89	8	.76	.1	60	11
60.0	8	3.5	1.0	75	6	.13	.0	90	6	.75	.1	64	10
70.0	10	3.7	1.2	72	7	.16	.1	89	6	.80	.2	63	9
80.0	10	4.6	1.5	65	8	.18	.1	87	6	.83	.2	62	9
90.0	10	6.0	1.7	54	9	.29	.1	82	6	.93	.3	58	9
100.0	10	13.5	4.1	0	0	1.58	.5	0	0	2.26	.6	0	0

		WEIGHT, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 13223 SIGMA: 684				POUNDS OF SO2/M BTU RAW: 3.4 SIGMA: .9			
BTU RECOVERY	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	5	44.8	1.2	55	1	14565	444	10	3	1.4	.5	56	14
60.0	7	53.4	2.1	47	2	14554	408	11	5	1.5	.4	55	12
70.0	10	63.1	2.9	37	3	14536	383	10	5	1.5	.5	53	12
80.0	10	72.9	3.3	27	3	14430	403	9	5	1.7	.5	48	11
90.0	10	83.4	3.5	17	4	14258	449	8	5	2.0	.5	40	10
100.0	10	100.0	0.0	0	0	13220	722	0	0	3.3	.9	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	2	43.8	1.2	56	1	14487	626	13	4	1.0	.4	58	5
60.0	4	53.7	1.6	46	2	14545	429	11	3	1.1	.3	62	7
70.0	9	62.9	2.7	37	3	14682	372	11	5	1.2	.3	64	8
80.0	10	72.2	3.2	28	3	14559	378	10	5	1.2	.4	63	9
90.0	10	82.6	3.5	17	3	14383	424	9	5	1.4	.5	57	10
100.0	10	100.0	0.0	0	0	13206	693	0	0	3.3	.9	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	4	43.4	1.8	57	2	14686	342	15	5	1.0	.1	65	10
60.0	8	53.0	2.0	47	2	14695	315	13	4	1.0	.1	69	8
70.0	10	62.7	2.5	37	2	14683	345	11	4	1.1	.3	67	8
80.0	10	72.5	2.7	28	3	14567	379	10	4	1.1	.3	66	8
90.0	10	82.8	2.9	17	3	14387	425	9	4	1.3	.4	61	8
100.0	10	100.0	0.0	0	0	13244	709	0	0	3.4	1.0	0	0

COALBED: LOWER FREEPORT
STATE: 1 MARYLAND
NUMBER OF SAMPLES: 13
RAW COAL MOISTURE, PERCENT: 1.1
SIGMA: .7

LOWER FREEPORT
2 OHIO

LOWER FREEPORT
10 PA. (BITUMINOUS)

ASH, PERCENT — RAW: 13.5 SIGMA: 3.9

PYRITIC SULFUR, PERCENT — RAW: 1.70 SIGMA: .7

TOTAL SULFUR, PERCENT — RAW: 2.39 SIGMA: .7

BTU RECOVERY	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
						SAMPLE CRUSHED TO PASS 1-1/2 INCHES							
50.0	6	4.4	1.0	68	6	.37	.2	77	15	1.06	.3	54	16
60.0	10	4.4	1.2	67	8	.41	.2	75	13	1.14	.3	52	14
70.0	13	4.6	1.5	65	11	.45	.2	71	14	1.14	.3	49	14
80.0	13	5.4	1.7	58	11	.58	.2	63	13	1.28	.3	44	13
90.0	13	6.9	2.0	47	12	.80	.3	51	13	1.50	.4	35	11
100.0	13	13.5	4.0	0	0	1.68	.7	0	0	2.38	.8	0	0
						SAMPLE CRUSHED TO PASS 3/8 INCH							
50.0	3	3.8	.8	76	7	.24	.2	86	2	.76	.2	62	17
60.0	5	4.4	.9	69	6	.20	.1	87	6	.84	.2	61	12
70.0	11	3.9	1.3	70	9	.22	.1	87	7	.87	.2	62	9
80.0	13	4.6	1.6	65	10	.30	.2	82	9	.93	.3	59	10
90.0	13	6.0	1.9	54	11	.46	.3	73	11	1.10	.4	52	10
100.0	13	13.5	4.0	0	0	1.69	.7	0	0	2.35	.7	0	0
						SAMPLE CRUSHED TO PASS 14 MESH							
50.0	5	3.4	.6	79	4	.15	.1	90	7	.80	.1	63	12
60.0	10	3.6	1.1	75	5	.14	.1	91	5	.77	.1	66	9
70.0	13	3.7	1.4	73	7	.17	.1	90	5	.83	.2	64	9
80.0	13	4.6	1.6	66	7	.20	.1	88	5	.87	.2	63	9
90.0	13	5.9	1.8	55	8	.32	.2	82	5	.98	.3	58	8
100.0	13	13.4	4.0	0	0	1.74	.7	0	0	2.43	.8	0	0

WEIGHT, PERCENT — RAW: 100.0 SIGMA: 0.0

BTU PER POUND — RAW: 13185 SIGMA: 617

POUNDS OF SO2/M BTU — RAW: 3.6 SIGMA: 1.2

BTU RECOVERY	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
						SAMPLE CRUSHED TO PASS 1-1/2 INCHES							
50.0	6	44.5	1.2	55	1	14540	401	11	3	1.5	.5	59	14
60.0	10	53.7	2.0	46	2	14467	362	10	4	1.6	.4	57	12
70.0	13	63.3	2.6	37	3	14453	368	10	5	1.6	.4	54	12
80.0	13	73.1	2.9	27	3	14345	385	9	5	1.8	.5	49	11
90.0	13	83.7	3.1	16	3	14171	430	8	4	2.1	.6	40	10
100.0	13	100.0	0.0	0	0	13182	644	0	0	3.6	1.2	0	0
						SAMPLE CRUSHED TO PASS 3/8 INCH							
50.0	3	43.4	1.1	57	1	14499	443	14	3	1.0	.3	67	15
60.0	5	53.3	1.7	47	2	14520	376	11	3	1.1	.3	65	11
70.0	11	62.9	2.5	37	3	14618	362	11	4	1.2	.3	66	8
80.0	13	72.5	2.9	28	3	14485	357	10	5	1.3	.4	63	9
90.0	13	82.9	3.1	17	3	14305	407	9	4	1.5	.5	56	10
100.0	13	100.0	0.0	0	0	13180	622	0	0	3.6	1.1	0	0
						SAMPLE CRUSHED TO PASS 14 MESH							
50.0	5	43.3	1.6	57	2	14675	297	15	4	1.1	.2	68	11
60.0	10	53.0	1.9	47	2	14650	295	13	4	1.0	.2	70	8
70.0	13	62.8	2.3	37	2	14612	329	11	4	1.1	.3	68	7
80.0	13	72.5	2.4	27	2	14497	354	10	4	1.2	.3	66	8
90.0	13	82.9	2.7	17	3	14326	387	9	4	1.4	.4	62	8
100.0	13	100.0	0.0	0	0	13195	637	0	0	3.7	1.2	0	0

COALBED: UPPER KITTANNING
STATE: 2 MARYLAND
NUMBER OF SAMPLES: 10
RAW COAL MOISTURE, PERCENT: 1.3
SIGMA: 1.0

UPPER KITTANNING
8 PA. (BITUMINOUS)

ASH, PERCENT — RAW: 16.5 SIGMA: 6.9
PYRITIC SULFUR, PERCENT — RAW: 1.62 SIGMA: 1.2
TOTAL SULFUR, PERCENT — RAW: 2.21 SIGMA: 1.3

BTU RECOVERY	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
						SAMPLE CRUSHED TO PASS 1-1/2 INCHES							
50.0	10	3.4	.7	77	9	.20	.2	80	22	.83	.3	51	26
60.0	10	4.1	.9	72	11	.15	.2	82	23	.82	.3	52	27
70.0	10	5.1	.9	65	12	.25	.2	77	20	.87	.4	50	26
80.0	10	6.5	.9	56	12	.39	.3	71	16	1.01	.5	45	23
90.0	10	8.6	1.6	44	11	.61	.6	62	14	1.23	.7	38	19
100.0	10	16.6	7.0	0	0	1.62	1.2	0	0	2.21	1.3	0	0
						SAMPLE CRUSHED TO PASS 3/8 INCH							
50.0	9	3.1	.7	79	9	.13	.1	85	27	.79	.3	57	25
60.0	10	3.4	1.0	76	11	.15	.1	82	25	.78	.3	52	29
70.0	10	4.4	1.1	70	12	.17	.2	81	24	.80	.4	51	29
80.0	10	5.7	1.1	62	13	.27	.3	77	20	.88	.4	49	27
90.0	10	7.8	1.7	49	13	.42	.4	71	17	1.03	.6	45	23
100.0	10	16.7	7.4	0	0	1.61	1.2	0	0	2.20	1.3	0	0
						SAMPLE CRUSHED TO PASS 14 MESH							
50.0	9	3.0	.8	80	8	.11	.1	86	27	.78	.3	59	24
60.0	10	3.5	1.0	77	9	.13	.1	84	24	.78	.3	53	28
70.0	10	4.4	1.1	71	9	.16	.1	83	21	.80	.3	53	27
80.0	10	5.6	1.2	62	10	.25	.2	80	18	.87	.4	51	26
90.0	10	7.5	1.7	51	9	.39	.4	75	16	.99	.5	47	24
100.0	10	16.2	6.9	0	0	1.64	1.3	0	0	2.22	1.3	0	0

WEIGHT, PERCENT — RAW: 100.0 SIGMA: 0.0
BTU PER POUND — RAW: 12752 SIGMA: 1069
POUNDS OF SO2/M BTU — RAW: 3.5 SIGMA: 2.0

BTU RECOVERY	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
						SAMPLE CRUSHED TO PASS 1-1/2 INCHES							
50.0	10	42.8	3.7	57	4	14624	267	16	11	1.1	.4	58	23
60.0	10	51.9	4.4	48	4	14523	259	15	11	1.1	.5	58	24
70.0	10	61.4	5.1	39	5	14420	255	14	11	1.2	.5	56	23
80.0	10	71.4	5.7	29	6	14259	258	13	11	1.4	.7	51	21
90.0	10	82.2	5.6	18	6	13902	417	10	8	1.8	1.0	43	18
100.0	10	100.0	0.0	0	0	12740	1094	0	0	3.5	2.0	0	0
						SAMPLE CRUSHED TO PASS 3/8 INCH							
50.0	9	42.4	4.1	58	4	14686	279	17	13	1.1	.4	63	23
60.0	10	51.5	4.7	49	5	14617	269	16	12	1.1	.4	58	26
70.0	10	60.9	5.4	39	5	14520	263	15	12	1.1	.5	58	26
80.0	10	70.7	6.2	29	6	14382	295	14	12	1.2	.6	55	24
90.0	10	81.4	6.1	19	6	14021	457	11	9	1.5	.8	50	22
100.0	10	100.0	0.0	0	0	12724	1152	0	0	3.4	2.0	0	0
						SAMPLE CRUSHED TO PASS 14 MESH							
50.0	9	42.7	3.6	57	4	14703	273	16	11	1.0	.4	64	21
60.0	10	51.8	4.1	48	4	14654	267	15	11	1.1	.4	59	24
70.0	10	61.2	4.7	39	5	14555	282	15	10	1.1	.5	59	25
80.0	10	71.0	5.4	29	5	14394	300	13	10	1.2	.5	56	24
90.0	10	81.5	5.6	18	6	14102	345	11	9	1.4	.8	52	22
100.0	10	100.0	0.0	0	0	12791	1076	0	0	3.5	2.0	0	0

COALBED: MIDDLE KITTANNING
STATE: OHIO
NUMBER OF SAMPLES: 14
RAW COAL MOISTURE, PERCENT: 4.3
SIGMA: 1.7

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT RAW: 12.0 SIGMA: 4.6 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 2.09 SIGMA: 1.3 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 3.35 SIGMA: 1.8 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	3	4.7	1.1	74	8	.28	.3	67	16	1.12	.6	24	34
60.0	7	4.1	1.5	72	9	.49	.3	73	12	1.59	.6	41	25
70.0	9	4.3	1.8	70	9	.53	.3	74	12	1.80	.7	44	23
80.0	12	4.9	2.2	63	12	.58	.3	71	12	1.71	.7	46	20
90.0	13	6.0	2.9	51	14	.73	.4	62	12	1.83	.9	40	18
100.0	14	12.0	4.7	0	0	2.13	1.4	0	0	3.39	1.9	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	2	3.9	.1	77	1	.08	.1	66	20	.79	.2	3	0
60.0	6	3.3	1.0	78	5	.35	.2	80	15	1.55	.7	41	30
70.0	7	3.6	1.5	76	8	.41	.3	79	14	1.71	.7	42	27
80.0	11	4.0	1.8	68	11	.40	.3	80	11	1.63	.7	47	22
90.0	14	4.9	2.5	58	12	.50	.4	73	11	1.66	.8	44	21
100.0	14	11.8	4.6	0	0	2.05	1.3	0	0	3.32	1.8	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	5	2.9	.3	82	4	.30	.2	79	9	1.40	.6	39	28
60.0	8	3.0	.9	80	5	.35	.2	83	9	1.71	.6	46	25
70.0	10	3.5	1.3	75	8	.37	.2	82	8	1.62	.7	50	23
80.0	14	3.9	1.9	67	11	.35	.3	82	9	1.48	.8	49	24
90.0	14	5.2	2.8	56	11	.51	.4	75	10	1.63	.9	46	22
100.0	14	12.3	4.9	0	0	2.10	1.4	0	0	3.34	1.8	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 12598 SIGMA: 803 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 5.4 SIGMA: 3.0 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	3	42.6	1.1	57	1	13290	143	15	3	1.7	.9	34	30
60.0	7	52.9	2.1	47	2	13559	436	13	4	2.4	1.0	47	23
70.0	9	62.3	2.0	38	2	13559	442	12	4	2.6	1.0	49	21
80.0	12	73.0	2.5	27	2	13583	529	9	4	2.5	1.1	51	18
90.0	13	83.8	2.8	16	3	13458	597	7	4	2.7	1.3	44	16
100.0	14	100.0	0.0	0	0	12596	815	0	0	5.4	3.1	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	2	42.6	.6	57	1	13491	128	15	3	1.2	.4	16	2
60.0	6	52.2	1.8	48	2	13558	232	14	4	2.3	1.0	48	26
70.0	7	61.3	1.9	39	2	13560	328	13	3	2.5	1.0	49	24
80.0	11	72.4	2.7	28	3	13650	468	10	4	2.4	1.1	51	20
90.0	14	83.4	2.9	17	3	13604	555	8	4	2.4	1.2	48	19
100.0	14	100.0	0.0	0	0	12635	806	0	0	5.3	3.0	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	5	42.5	1.7	58	2	13559	116	16	5	2.1	.9	47	25
60.0	8	52.0	1.7	48	2	13688	310	15	4	2.5	.9	53	21
70.0	10	62.1	2.5	38	2	13725	410	12	5	2.4	1.0	55	20
80.0	14	72.9	3.0	27	3	13740	512	10	5	2.2	1.1	53	22
90.0	14	83.2	2.9	17	3	13561	613	8	4	2.4	1.3	50	21
100.0	14	100.0	0.0	0	0	12562	848	0	0	5.4	3.0	0	0

COALBED: MIDDLE KITTANNING
STATE: PA. (BITUMINOUS)
NUMBER OF SAMPLES: 10
RAW COAL MOISTURE,PERCENT: .8
SIGMA: .6

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT RAW: 13.0 SIGMA: 5.4 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 1.93 SIGMA: 1.8 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 2.77 SIGMA: 2.3 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	6	5.7	2.5	61	8	.81	1.1	70	17	1.62	1.4	48	16
60.0	9	5.7	2.6	58	9	.71	1.0	72	18	1.53	1.3	47	13
70.0	9	6.4	3.0	54	9	.84	1.1	67	19	1.65	1.5	44	13
80.0	10	7.1	3.4	46	8	.89	1.2	57	22	1.70	1.6	36	18
90.0	10	8.9	4.2	33	7	1.13	1.6	47	23	1.96	2.0	29	16
100.0	10	13.1	5.7	0	0	1.94	1.9	0	0	2.76	2.4	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	6	4.7	1.9	67	7	.54	.8	82	12	1.38	1.1	56	14
60.0	9	4.7	2.1	64	8	.49	.8	82	12	1.34	1.1	53	12
70.0	9	5.5	2.4	58	9	.58	.9	79	14	1.43	1.2	51	12
80.0	10	6.1	2.9	53	8	.65	1.0	69	21	1.47	1.3	43	18
90.0	10	7.9	3.7	40	7	.88	1.3	59	21	1.70	1.7	37	16
100.0	10	13.0	5.6	0	0	1.93	1.8	0	0	2.75	2.4	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	8	4.1	1.9	71	5	.41	.7	81	15	1.26	1.0	49	22
60.0	10	4.2	2.1	68	5	.38	.7	82	15	1.27	1.0	49	20
70.0	10	4.7	2.6	64	8	.45	.8	79	16	1.33	1.1	47	19
80.0	10	5.8	2.7	55	8	.55	.9	74	15	1.40	1.2	45	18
90.0	10	7.5	3.2	42	7	.75	1.1	66	14	1.60	1.5	41	16
100.0	10	13.0	5.5	0	0	1.94	1.9	0	0	2.79	2.4	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 13271 SIGMA: 871 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 4.4 SIGMA: 4.1 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	6	44.7	2.2	55	2	14405	509	11	6	2.3	2.2	53	16
60.0	9	54.4	2.1	46	2	14439	495	9	5	2.2	2.1	51	14
70.0	9	64.2	2.2	36	2	14306	536	8	5	2.4	2.3	48	13
80.0	10	74.7	2.3	25	2	14116	564	7	4	2.5	2.5	39	18
90.0	10	85.8	1.9	14	2	13879	711	5	2	2.9	3.2	32	15
100.0	10	100.0	0.0	0	0	13253	912	0	0	4.4	4.4	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	6	44.4	2.5	56	3	14555	441	12	7	1.9	1.7	60	14
60.0	9	54.1	2.4	46	2	14581	436	10	5	1.9	1.6	57	13
70.0	9	63.7	2.5	36	3	14459	467	9	5	2.0	1.8	54	13
80.0	10	74.0	2.6	26	3	14273	494	8	4	2.1	2.0	47	18
90.0	10	85.1	2.2	15	2	14023	652	6	3	2.5	2.6	40	15
100.0	10	100.0	0.0	0	0	13280	895	0	0	4.3	4.2	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	8	44.6	2.1	55	2	14572	438	12	6	1.7	1.5	54	22
60.0	10	54.2	2.2	46	2	14571	452	10	5	1.8	1.5	53	19
70.0	10	63.8	2.5	36	2	14462	472	9	5	1.9	1.7	51	19
80.0	10	73.8	2.8	26	3	14333	496	8	4	2.0	1.9	49	18
90.0	10	84.6	2.6	15	3	14099	600	6	3	2.3	2.4	44	16
100.0	10	100.0	0.0	0	0	13280	901	0	0	4.4	4.3	0	0

COALBED: MIDDLE KITTANNING
STATE: 14 OHIO
NUMBER OF SAMPLES: 27
RAW COAL MOISTURE,PERCENT: 2.7
SIGMA: 2.1

MIDDLE KITTANNING
10 PA. (BITUMINOUS)

MIDDLE KITTANNING
3 WEST VIRGINIA

ASH, PERCENT — RAW: 13.1 SIGMA: 5.1
PYRITIC SULFUR, PERCENT — RAW: 1.97 SIGMA: 1.5
TOTAL SULFUR, PERCENT — RAW: 3.00 SIGMA: 2.0

BTU RECOVERY	NO OF SAMPLES	ASH AVERAGE	ASH SIGMA	ASH REDUCTION	ASH SIGMA	PYRITIC SULFUR AVERAGE	PYRITIC SULFUR SIGMA	PYRITIC SULFUR REDUCTION	PYRITIC SULFUR SIGMA	TOTAL SULFUR AVERAGE	TOTAL SULFUR SIGMA	TOTAL SULFUR REDUCTION	TOTAL SULFUR SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	12	5.1	1.9	68	10	.57	.8	70	14	1.36	1.0	40	24
60.0	19	5.0	2.1	66	11	.59	.7	71	15	1.50	1.0	43	19
70.0	21	5.5	2.5	62	12	.68	.8	69	16	1.67	1.1	42	19
80.0	25	6.2	2.9	55	13	.73	.8	63	18	1.68	1.1	40	20
90.0	26	7.7	3.7	43	14	.92	1.0	54	19	1.85	1.4	33	18
100.0	27	13.2	5.2	0	0	2.00	1.5	0	0	3.02	2.0	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	11	4.3	1.5	72	8	.36	.6	79	14	1.14	.9	44	27
60.0	18	4.2	1.7	71	9	.40	.5	81	13	1.34	.8	47	22
70.0	19	4.7	2.1	67	12	.48	.6	78	14	1.47	.9	46	21
80.0	24	5.2	2.5	61	12	.51	.7	73	17	1.50	1.0	44	21
90.0	27	6.5	3.3	50	13	.66	.8	65	18	1.63	1.2	40	19
100.0	27	12.9	5.1	0	0	1.95	1.5	0	0	2.98	2.0	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	15	3.6	1.4	76	7	.34	.5	80	13	1.25	.8	44	24
60.0	21	3.7	1.6	74	8	.34	.5	82	13	1.38	.8	48	22
70.0	23	4.2	2.0	70	9	.39	.5	80	13	1.41	.9	48	22
80.0	27	4.8	2.3	62	11	.42	.6	78	14	1.40	.9	47	22
90.0	27	6.4	3.0	52	11	.59	.7	70	15	1.56	1.1	43	21
100.0	27	13.2	5.1	0	0	1.98	1.5	0	0	3.00	2.0	0	0

WEIGHT, PERCENT — RAW: 100.0 SIGMA: 0.0
BTU PER POUND — RAW: 12820 SIGMA: 864
POUNDS OF SO2/M BTU — RAW: 4.8 SIGMA: 3.4

BTU RECOVERY	NO OF SAMPLES	WEIGHT AVERAGE	WEIGHT SIGMA	WEIGHT REDUCTION	WEIGHT SIGMA	BTU/LB AVERAGE	BTU/LB SIGMA	%INCREASE	%INCREASE SIGMA	LB SO2/M BTU AVERAGE	LB SO2/M BTU SIGMA	%REDUCTION	%REDUCTION SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	12	43.5	2.1	57	2	14133	618	14	6	1.9	1.6	48	21
60.0	19	53.3	2.3	47	2	14094	593	12	5	2.2	1.5	49	18
70.0	21	62.9	2.3	37	2	13964	570	11	5	2.4	1.6	47	17
80.0	25	73.4	2.6	27	3	13831	560	9	4	2.5	1.7	44	18
90.0	26	84.3	2.7	16	3	13622	631	7	3	2.8	2.2	38	16
100.0	27	100.0	0.0	0	0	12806	873	0	0	4.8	3.5	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	11	43.4	2.3	57	2	14358	534	14	6	1.6	1.3	51	23
60.0	18	52.9	2.5	47	2	14215	581	13	5	1.9	1.3	53	19
70.0	19	62.3	2.6	38	3	14105	564	12	5	2.1	1.4	52	18
80.0	24	72.8	2.8	27	3	13968	532	10	5	2.2	1.5	49	19
90.0	27	83.8	2.7	16	3	13764	590	7	4	2.4	1.8	44	18
100.0	27	100.0	0.0	0	0	12847	861	0	0	4.7	3.4	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	15	43.5	2.1	56	2	14235	589	14	6	1.8	1.2	51	22
60.0	21	52.8	2.3	47	2	14229	563	13	5	2.0	1.2	54	20
70.0	23	62.6	2.7	37	3	14134	543	11	5	2.0	1.3	53	19
80.0	27	72.9	3.0	27	3	14012	548	10	5	2.0	1.4	52	21
90.0	27	83.4	2.9	17	3	13791	617	8	4	2.3	1.7	47	19
100.0	27	100.0	0.0	0	0	12809	890	0	0	4.8	3.4	0	0

COALBED: LOWER KITTANNING
STATE: PA. (BITUMINOUS)
NUMBER OF SAMPLES: 33
RAW COAL MOISTURE,PERCENT: .8
SIGMA: .4

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT RAW: 16.0 SIGMA: 7.2 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 2.38 SIGMA: 1.4 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 3.23 SIGMA: 1.6 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	18	4.6	1.7	73	10	.46	.4	77	14	1.27	.5	52	22
60.0	24	4.9	1.9	70	11	.52	.4	76	15	1.34	.5	53	21
70.0	31	5.3	2.4	66	11	.62	.4	73	15	1.45	.5	51	19
80.0	33	6.3	3.0	59	11	.73	.5	68	16	1.57	.6	45	20
90.0	33	8.6	4.5	45	11	1.03	.7	56	17	1.86	.8	37	17
100.0	33	16.0	7.4	0	0	2.36	1.4	0	0	3.22	1.6	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	8	4.4	1.8	76	8	.42	.4	81	12	1.21	.6	49	22
60.0	20	4.2	1.7	76	9	.39	.3	83	11	1.21	.5	55	22
70.0	28	4.6	2.1	72	10	.44	.4	81	13	1.24	.5	56	20
80.0	33	5.5	2.9	65	11	.52	.4	77	15	1.35	.5	51	21
90.0	33	7.9	4.5	51	11	.79	.6	67	16	1.61	.7	44	18
100.0	33	16.1	7.3	0	0	2.38	1.4	0	0	3.23	1.6	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	18	3.5	1.2	81	6	.29	.2	87	9	1.08	.3	58	22
60.0	23	3.7	1.5	79	6	.31	.3	87	10	1.10	.3	60	20
70.0	33	3.9	1.9	74	8	.33	.3	85	10	1.15	.4	57	21
80.0	33	5.1	2.7	67	9	.44	.3	81	12	1.25	.4	54	20
90.0	33	7.5	4.3	53	9	.70	.5	71	14	1.50	.6	48	18
100.0	33	15.9	7.0	0	0	2.39	1.4	0	0	3.25	1.6	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 12822 SIGMA: 1170 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 5.1 SIGMA: 2.5 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	18	42.2	4.0	58	4	14503	369	19	13	1.7	.7	59	19
60.0	24	51.4	4.3	49	4	14414	392	16	11	1.9	.7	60	18
70.0	31	61.4	4.6	39	5	14395	463	14	10	2.0	.8	57	16
80.0	33	71.6	4.9	28	5	14260	564	12	9	2.2	.9	51	18
90.0	33	82.8	4.0	17	4	13901	845	9	6	2.7	1.2	42	16
100.0	33	100.0	0.0	0	0	12823	1202	0	0	5.1	2.5	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	8	40.8	4.2	59	4	14542	400	23	15	1.7	.8	59	17
60.0	20	50.6	4.5	49	5	14512	356	19	12	1.7	.7	62	19
70.0	28	60.4	4.7	40	5	14490	432	16	10	1.7	.7	62	17
80.0	33	70.9	4.9	29	5	14385	558	13	9	1.9	.8	56	19
90.0	33	82.1	4.1	18	4	14007	862	10	6	2.3	1.1	49	18
100.0	33	100.0	0.0	0	0	12803	1196	0	0	5.1	2.6	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	18	41.6	3.5	58	3	14742	327	20	11	1.5	.5	65	18
60.0	23	50.8	3.8	49	4	14641	352	18	10	1.5	.5	66	17
70.0	33	61.0	4.3	39	4	14608	397	15	9	1.6	.5	62	19
80.0	33	70.8	4.4	29	4	14441	527	13	8	1.7	.6	59	19
90.0	33	81.9	3.7	18	4	14074	825	10	5	2.2	.9	52	17
100.0	33	100.0	0.0	0	0	12839	1147	0	0	5.1	2.6	0	0

COALBED:LOWER KITTANNING
STATES: 3 MARYLAND
NUMBER OF SAMPLES: 47
RAW COAL MOISTURE,PERCENT: 1.5
SIGMA: 1.4

LOWER KITTANNING
7 OHIO

LOWER KITTANNING
33 PA. (BITUMINOUS)

LOWER KITTANNING
4 WEST VIRGINIA

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT AVERAGE	ASH, PERCENT SIGMA	ASH REDUCTION	ASH REDUCTION SIGMA	PYRITIC SULFUR, PERCENT AVERAGE	PYRITIC SULFUR, PERCENT SIGMA	PYRITIC SULFUR REDUCTION	PYRITIC SULFUR REDUCTION SIGMA	TOTAL SULFUR, PERCENT AVERAGE	TOTAL SULFUR, PERCENT SIGMA	TOTAL SULFUR REDUCTION	TOTAL SULFUR REDUCTION SIGMA
		RAW: 15.0	SIGMA: 6.5			RAW: 2.16	SIGMA: 1.5			RAW: 3.01	SIGMA: 1.7		
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	30	4.6	1.6	70	11	.45	.4	69	27	1.25	.6	43	29
60.0	36	5.1	1.9	67	12	.51	.5	68	27	1.33	.6	45	27
70.0	43	5.5	2.3	63	13	.62	.5	66	24	1.45	.7	44	24
80.0	47	6.3	2.9	56	14	.74	.6	62	22	1.56	.8	39	23
90.0	47	8.3	4.0	43	12	1.01	.8	51	19	1.83	1.0	32	19
100.0	47	15.0	6.7	0	0	2.15	1.5	0	0	3.01	1.7	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	15	4.4	1.5	72	10	.28	.3	74	18	.99	.5	33	35
60.0	29	4.3	1.7	73	11	.34	.3	79	17	1.14	.5	46	31
70.0	39	4.7	2.0	70	12	.39	.4	77	17	1.18	.5	48	28
80.0	45	5.5	2.7	63	13	.49	.4	73	18	1.30	.6	45	26
90.0	47	7.4	4.1	50	13	.71	.6	64	19	1.50	.8	41	23
100.0	47	15.0	6.7	0	0	2.14	1.5	0	0	2.98	1.7	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	27	3.5	1.2	79	7	.26	.2	80	20	1.04	.4	48	31
60.0	35	3.7	1.4	76	8	.28	.2	81	18	1.06	.4	52	30
70.0	45	4.0	1.8	72	10	.31	.3	80	17	1.10	.4	51	28
80.0	46	5.1	2.4	65	10	.40	.3	77	17	1.20	.5	49	26
90.0	46	7.3	3.8	52	11	.63	.5	68	18	1.42	.7	43	24
100.0	47	14.9	6.4	0	0	2.18	1.5	0	0	3.04	1.8	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT AVERAGE	WEIGHT, PERCENT SIGMA	WEIGHT REDUCTION	WEIGHT REDUCTION SIGMA	BTU PER POUND AVERAGE	BTU PER POUND SIGMA	BTU %INCREASE	BTU %INCREASE SIGMA	POUNDS OF SO2/M BTU AVERAGE	POUNDS OF SO2/M BTU SIGMA	SO2 %REDUCTION	SO2 %REDUCTION SIGMA
		RAW: 100.0	SIGMA: 0.0			RAW: 12783	SIGMA: 1042			RAW: 4.8	SIGMA: 2.8		
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	30	43.1	3.5	57	3	14200	570	15	11	1.8	.8	50	27
60.0	36	52.3	3.9	48	4	14159	573	14	10	1.9	.9	51	25
70.0	43	62.1	4.2	38	4	14160	620	12	9	2.1	1.0	50	23
80.0	47	72.5	4.6	28	5	14053	659	10	8	2.2	1.2	44	21
90.0	47	83.5	3.9	16	4	13750	818	8	5	2.7	1.5	37	19
100.0	47	100.0	0.0	0	0	12781	1066	0	0	4.8	2.8	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	15	42.8	3.8	57	4	14228	588	17	12	1.4	.7	41	32
60.0	29	51.6	4.2	48	4	14297	526	16	11	1.6	.7	53	28
70.0	39	61.2	4.3	39	4	14289	564	14	9	1.7	.7	54	25
80.0	45	71.5	4.5	29	4	14192	636	12	8	1.8	.9	51	25
90.0	47	82.7	3.9	17	4	13884	810	9	5	2.2	1.2	45	22
100.0	47	100.0	0.0	0	0	12776	1058	0	0	4.7	2.8	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	27	42.5	3.2	58	3	14499	507	17	10	1.4	.6	55	28
60.0	35	51.7	3.5	48	3	14387	534	15	9	1.5	.6	58	27
70.0	45	61.5	3.9	38	4	14395	554	14	8	1.6	.6	56	25
80.0	46	71.4	4.1	29	4	14241	610	12	7	1.7	.7	54	24
90.0	46	82.4	3.5	18	4	13918	791	9	5	2.1	1.0	48	22
100.0	47	100.0	0.0	0	0	12791	1024	0	0	4.8	2.9	0	0

SOUTHERN APPALACHIAN REGION
NUMBER OF SAMPLES: 35
RAW COAL MOISTURE, PERCENT: 1.8
SIGMA: .8

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT RAW: 11.0 SIGMA: 6.0 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: .37 SIGMA: .4 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 1.04 SIGMA: .6 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	10	3.8	.4	70	7	.18	.2	45	31	1.09	.6	6	22
60.0	15	4.0	.8	67	10	.16	.2	53	30	1.03	.5	10	19
70.0	23	3.9	1.3	65	14	.14	.2	51	30	.91	.4	7	16
80.0	30	4.0	1.8	62	16	.14	.1	50	29	.88	.4	9	16
90.0	33	4.7	2.3	55	16	.17	.2	44	26	.90	.4	9	15
100.0	35	10.9	5.9	0	0	.36	.4	0	0	1.04	.6	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	11	3.5	.6	73	7	.18	.2	56	30	1.04	.5	9	20
60.0	13	3.7	.7	71	9	.17	.2	57	29	1.05	.5	10	19
70.0	17	3.7	1.2	70	12	.15	.2	56	28	.97	.5	10	18
80.0	29	3.7	1.7	65	15	.12	.1	55	32	.86	.4	11	17
90.0	34	4.3	2.3	58	17	.16	.2	48	26	.88	.4	10	15
100.0	35	11.0	6.2	0	0	.37	.4	0	0	1.04	.7	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	9	3.0	.7	77	7	.07	.1	61	30	.81	.2	2	18
60.0	17	3.0	.9	74	9	.11	.1	65	26	.93	.4	11	20
70.0	27	2.9	1.3	71	13	.11	.1	62	27	.87	.3	10	19
80.0	33	3.3	1.7	68	13	.11	.1	62	26	.85	.3	12	18
90.0	34	4.3	2.2	60	13	.15	.2	55	25	.87	.4	11	15
100.0	35	11.0	5.9	0	0	.38	.5	0	0	1.05	.7	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 13314 SIGMA: 926 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 1.6 SIGMA: 1.0 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	10	44.2	1.9	56	2	14183	216	11	5	1.5	.8	16	17
60.0	15	53.4	2.8	47	3	14182	235	11	6	1.5	.7	19	16
70.0	23	63.0	4.1	37	4	14315	380	10	8	1.3	.6	17	14
80.0	30	73.1	4.3	27	4	14315	389	9	7	1.2	.6	17	14
90.0	33	83.5	4.5	16	5	14237	434	8	6	1.3	.6	15	13
100.0	35	100.0	0.0	0	0	13321	921	0	0	1.6	1.0	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	11	44.1	2.0	56	2	14299	253	12	5	1.5	.7	20	16
60.0	13	53.3	2.4	47	2	14216	235	11	5	1.5	.7	19	15
70.0	17	62.3	3.7	38	4	14260	323	12	7	1.4	.7	19	16
80.0	29	72.8	4.7	27	5	14375	382	10	8	1.2	.6	18	15
90.0	34	83.3	4.8	17	5	14293	418	8	7	1.2	.6	16	13
100.0	35	100.0	0.0	0	0	13309	960	0	0	1.6	1.0	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	9	44.0	1.7	56	2	14385	330	12	5	1.1	.3	13	15
60.0	17	53.5	2.7	47	3	14408	340	11	6	1.3	.6	20	17
70.0	27	63.0	4.0	37	4	14461	340	11	8	1.2	.5	19	16
80.0	33	72.9	4.1	27	4	14427	357	10	7	1.2	.5	20	15
90.0	34	83.3	4.3	17	4	14297	413	8	6	1.2	.5	18	13
100.0	35	100.0	0.0	0	0	13312	923	0	0	1.6	1.0	0	0

ALABAMA REGION
NUMBER OF SAMPLES: 10
RAW COAL MOISTURE, PERCENT: 1.4
SIGMA: .8

ASH, PERCENT — RAW: 9.5 SIGMA: 6.2 | PYRITIC SULFUR, PERCENT — RAW: .69 SIGMA: .8 | TOTAL SULFUR, PERCENT — RAW: 1.33 SIGMA: .9

BTU RECOVERY	NO OF SAMPLES	ASH AVERAGE	ASH SIGMA	ASH REDUCTION	ASH SIGMA	PYRITIC SULFUR AVERAGE	PYRITIC SULFUR SIGMA	PYRITIC SULFUR REDUCTION	PYRITIC SULFUR SIGMA	TOTAL SULFUR AVERAGE	TOTAL SULFUR SIGMA	TOTAL SULFUR REDUCTION	TOTAL SULFUR SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	4	5.4	1.7	66	9	.43	.3	57	13	1.17	.5	23	27
60.0	5	5.5	2.2	65	13	.45	.4	60	15	1.25	.5	22	20
70.0	5	6.5	2.5	58	14	.56	.6	51	12	1.36	.7	17	18
80.0	5	7.8	2.5	50	14	.69	.7	40	7	1.47	.8	13	13
90.0	7	7.3	4.1	44	16	.64	.8	38	21	1.38	.9	12	9
100.0	10	9.5	6.4	0	0	.68	.8	0	0	1.33	.9	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	4	4.8	1.8	70	10	.35	.3	62	18	1.12	.4	23	29
60.0	5	4.9	2.2	68	13	.39	.4	61	18	1.19	.5	23	23
70.0	5	5.8	2.4	62	14	.50	.5	52	14	1.30	.6	19	19
80.0	5	7.1	2.5	54	14	.63	.6	42	10	1.41	.7	16	14
90.0	9	5.6	4.2	49	16	.49	.6	40	18	1.18	.8	12	9
100.0	10	9.4	6.3	0	0	.68	.8	0	0	1.32	1.0	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	5	3.8	1.7	76	10	.22	.2	80	11	1.04	.3	32	26
60.0	5	4.4	2.2	72	12	.27	.2	75	10	1.08	.3	30	25
70.0	5	5.3	2.4	66	14	.35	.3	69	9	1.15	.4	28	23
80.0	6	5.9	3.0	56	12	.42	.4	59	7	1.18	.5	25	17
90.0	10	5.0	4.1	50	14	.36	.5	51	14	1.03	.6	17	12
100.0	10	9.6	6.4	0	0	.71	.8	0	0	1.35	1.0	0	0

WEIGHT, PERCENT — RAW: 100.0 SIGMA: 0.0 | BTU PER POUND — RAW: 13696 SIGMA: 883 | POUNDS OF SO2/M BTU — RAW: 2.0 SIGMA: 1.5

BTU RECOVERY	NO OF SAMPLES	WEIGHT AVERAGE	WEIGHT SIGMA	WEIGHT REDUCTION	WEIGHT SIGMA	BTU/LB AVERAGE	BTU/LB SIGMA	%INCREASE	%INCREASE SIGMA	SO2/M BTU AVERAGE	SO2/M BTU SIGMA	%REDUCTION	%REDUCTION SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	4	44.1	1.0	56	1	14351	135	11	2	1.6	.7	31	25
60.0	5	53.5	1.1	46	1	14266	153	11	2	1.7	.8	30	19
70.0	5	63.3	1.5	37	1	14143	181	10	2	1.9	.9	25	16
80.0	5	73.5	1.7	27	2	13991	225	9	2	2.1	1.2	21	11
90.0	7	85.0	2.3	15	2	14050	585	6	3	2.0	1.3	17	7
100.0	10	100.0	0.0	0	0	13699	915	0	0	2.0	1.5	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	4	44.0	.8	56	1	14459	153	12	2	1.5	.6	32	26
60.0	5	53.2	1.1	47	1	14363	154	11	2	1.6	.6	32	20
70.0	5	62.8	1.5	37	1	14241	171	11	2	1.8	.8	28	16
80.0	5	73.0	1.7	27	2	14098	226	9	2	2.0	1.0	23	12
90.0	9	85.5	2.7	15	3	14290	637	5	3	1.7	1.1	17	9
100.0	10	100.0	0.0	0	0	13705	909	0	0	2.0	1.5	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	5	43.8	.5	56	1	14589	143	14	1	1.4	.4	40	23
60.0	5	52.8	.9	47	1	14458	152	12	1	1.5	.4	38	22
70.0	5	62.4	1.2	38	1	14316	188	11	2	1.6	.5	35	20
80.0	6	73.6	2.7	26	3	14188	219	9	4	1.7	.7	31	15
90.0	10	85.6	2.9	14	3	14367	619	5	4	1.5	.9	21	13
100.0	10	100.0	0.0	0	0	13683	923	0	0	2.0	1.5	0	0

EASTERN MIDWEST REGION
NUMBER OF SAMPLES: 95
RAW COAL MOISTURE,PERCENT: 4.9
SIGMA: 2.6

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT AVERAGE	ASH, PERCENT SIGMA	ASH REDUCTION	ASH REDUCTION SIGMA	PYRITIC SULFUR, PERCENT AVERAGE	PYRITIC SULFUR, PERCENT SIGMA	PYRITIC SULFUR REDUCTION	PYRITIC SULFUR REDUCTION SIGMA	TOTAL SULFUR, PERCENT AVERAGE	TOTAL SULFUR, PERCENT SIGMA	TOTAL SULFUR REDUCTION	TOTAL SULFUR REDUCTION SIGMA
		RAW: 14.2	SIGMA: 4.8			RAW: 2.29	SIGMA: 1.0			RAW: 3.92	SIGMA: 1.2		
		SAMPLE CRUSHED TO PASS 1-1/2 INCHES											
50.0	42	4.7	.9	67	11	.62	.2	73	12	2.39	.5	41	11
60.0	60	5.0	1.0	65	11	.68	.3	70	13	2.40	.7	39	12
70.0	75	5.5	1.2	59	12	.73	.3	67	13	2.51	.7	36	12
80.0	91	6.1	1.6	54	14	.81	.4	63	13	2.57	.7	34	12
90.0	95	7.4	2.0	45	16	1.01	.5	54	14	2.73	.8	29	11
100.0	95	14.2	4.8	0	0	2.29	1.0	0	0	3.92	1.2	0	0
		SAMPLE CRUSHED TO PASS 3/8 INCH											
50.0	35	4.2	1.1	71	12	.57	.2	73	14	2.35	.6	40	13
60.0	65	4.4	1.0	69	11	.59	.2	73	13	2.39	.7	40	12
70.0	79	4.7	1.2	66	12	.63	.3	71	13	2.40	.7	38	13
80.0	92	5.4	1.4	59	13	.72	.3	66	14	2.47	.7	36	12
90.0	95	6.7	1.9	50	15	.90	.4	58	15	2.63	.8	31	12
100.0	95	14.1	4.7	0	0	2.27	.9	0	0	3.89	1.2	0	0
		SAMPLE CRUSHED TO PASS 14 MESH											
50.0	67	3.6	.9	75	10	.48	.2	78	10	2.17	.7	43	12
60.0	80	3.9	1.0	72	10	.51	.2	76	10	2.24	.7	42	13
70.0	86	4.5	1.1	68	10	.58	.2	74	11	2.32	.7	40	12
80.0	94	5.3	1.5	61	11	.66	.3	69	12	2.40	.7	38	12
90.0	95	6.8	2.0	51	12	.85	.4	61	12	2.56	.7	34	12
100.0	95	14.3	4.8	0	0	2.32	1.0	0	0	3.94	1.2	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT AVERAGE	WEIGHT, PERCENT SIGMA	WEIGHT REDUCTION	WEIGHT REDUCTION SIGMA	BTU PER POUND AVERAGE	BTU PER POUND SIGMA	%INCREASE	%INCREASE SIGMA	POUNDS OF SO2/M BTU AVERAGE	POUNDS OF SO2/M BTU SIGMA	%REDUCTION	%REDUCTION SIGMA
		RAW: 100.0	SIGMA: 0.0			RAW: 12189	SIGMA: 749			RAW: 6.5	SIGMA: 2.1		
		SAMPLE CRUSHED TO PASS 1-1/2 INCHES											
50.0	42	43.9	3.0	56	3	13464	251	13	9	3.6	.8	47	12
60.0	60	53.1	3.2	47	3	13412	285	12	8	3.6	1.0	46	12
70.0	75	63.0	3.6	37	4	13334	294	10	7	3.7	1.0	42	13
80.0	91	73.0	3.9	27	4	13288	319	9	7	3.9	1.1	39	12
90.0	95	83.4	4.0	17	4	13140	397	8	6	4.2	1.3	34	12
100.0	95	100.0	0.0	0	0	12186	759	0	0	6.5	2.1	0	0
		SAMPLE CRUSHED TO PASS 3/8 INCH											
50.0	35	43.5	2.9	57	3	13498	267	14	9	3.5	.9	47	14
60.0	65	52.9	3.1	47	3	13498	265	13	7	3.5	1.0	46	13
70.0	79	62.4	3.4	38	3	13437	267	12	7	3.6	1.0	45	13
80.0	92	72.5	3.8	28	4	13387	287	10	7	3.7	1.1	42	13
90.0	95	82.9	3.9	17	4	13236	381	9	5	4.0	1.2	37	12
100.0	95	100.0	0.0	0	0	12209	737	0	0	6.4	2.1	0	0
		SAMPLE CRUSHED TO PASS 14 MESH											
50.0	67	43.3	2.6	57	3	13593	252	14	8	3.2	1.1	50	12
60.0	80	52.7	3.0	47	3	13558	268	13	7	3.3	1.1	48	13
70.0	86	62.2	3.3	38	3	13497	271	12	7	3.4	1.1	47	12
80.0	94	72.2	3.6	28	4	13421	303	11	6	3.6	1.1	44	12
90.0	95	82.7	3.6	17	4	13225	398	9	5	3.9	1.2	39	12
100.0	95	100.0	0.0	0	0	12172	758	0	0	6.5	2.2	0	0

COALBED: NO. VI
STATE: 6 INDIANA
NUMBER OF SAMPLES: 12
RAW COAL MOISTURE, PERCENT: 4.8
SIGMA: 2.9

NO. 12
6 KENTUCKY (WEST)

ASH, PERCENT — RAW: 15.9 SIGMA: 2.4
PYRITIC SULFUR, PERCENT — RAW: 2.48 SIGMA: .5
TOTAL SULFUR, PERCENT — RAW: 3.87 SIGMA: .6

BTU RECOVERY	NO OF SAMPLES	ASH AVERAGE	ASH SIGMA	ASH REDUCTION	ASH SIGMA	PYRITIC SULFUR AVERAGE	PYRITIC SULFUR SIGMA	PYRITIC SULFUR REDUCTION	PYRITIC SULFUR SIGMA	TOTAL SULFUR AVERAGE	TOTAL SULFUR SIGMA	TOTAL SULFUR REDUCTION	TOTAL SULFUR SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	9	5.3	.7	67	5	.79	.3	68	14	2.25	.5	43	13
60.0	10	6.0	.8	63	5	.84	.3	66	14	2.31	.4	41	12
70.0	12	6.6	1.2	59	7	.90	.3	63	13	2.37	.5	39	12
80.0	12	7.8	1.6	51	8	1.04	.3	57	14	2.51	.5	35	11
90.0	12	9.4	1.9	41	9	1.23	.3	49	14	2.70	.5	30	11
100.0	12	16.0	2.6	0	0	2.51	.6	0	0	3.90	.7	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	9	4.5	.7	72	4	.71	.2	71	11	2.21	.5	44	11
60.0	11	5.1	.9	68	5	.74	.2	69	12	2.27	.5	42	11
70.0	12	5.8	1.3	64	7	.83	.2	65	12	2.32	.5	39	11
80.0	12	7.0	1.5	56	8	.98	.3	59	12	2.46	.5	35	10
90.0	12	8.7	1.7	45	8	1.18	.3	51	13	2.65	.5	30	10
100.0	12	15.9	2.3	0	0	2.45	.5	0	0	3.83	.6	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	11	3.8	.8	76	7	.56	.1	77	7	2.04	.5	47	10
60.0	12	4.2	.9	73	5	.65	.2	73	9	2.17	.5	43	11
70.0	12	5.2	1.1	67	6	.74	.2	69	10	2.27	.5	41	10
80.0	12	6.6	1.2	58	6	.89	.2	63	10	2.41	.5	37	10
90.0	12	8.4	1.5	47	7	1.10	.2	54	11	2.58	.4	33	10
100.0	12	15.9	2.5	0	0	2.48	.5	0	0	3.86	.6	0	0

WEIGHT, PERCENT — RAW: 100.0 SIGMA: 0.0
BTU PER POUND — RAW: 11906 SIGMA: 274
POUNDS OF SO2/M BTU — RAW: 6.5 SIGMA: 1.1

BTU RECOVERY	NO OF SAMPLES	WEIGHT AVERAGE	WEIGHT SIGMA	WEIGHT REDUCTION	WEIGHT SIGMA	BTU/LB AVERAGE	BTU/LB SIGMA	%INCREASE	%INCREASE SIGMA	SO2/M BTU AVERAGE	SO2/M BTU SIGMA	%REDUCTION	%REDUCTION SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	9	43.8	1.3	56	1	13287	96	12	3	3.3	.7	50	12
60.0	10	53.0	1.4	47	1	13208	122	12	3	3.5	.6	47	11
70.0	12	62.8	1.5	37	1	13144	153	11	2	3.6	.7	45	11
80.0	12	72.9	1.6	27	2	13017	170	9	2	3.8	.7	41	11
90.0	12	83.5	1.8	16	2	12822	224	8	2	4.2	.8	35	11
100.0	12	100.0	0.0	0	0	11897	297	0	0	6.6	1.2	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	9	43.7	1.1	56	1	13432	82	13	3	3.3	.7	51	10
60.0	11	52.9	1.2	47	1	13358	116	12	2	3.4	.8	48	11
70.0	12	62.4	1.3	38	1	13266	140	11	2	3.5	.8	46	10
80.0	12	72.4	1.5	28	1	13135	155	10	2	3.7	.8	41	10
90.0	12	83.0	1.6	17	2	12921	197	8	2	4.1	.8	36	10
100.0	12	100.0	0.0	0	0	11913	264	0	0	6.4	1.1	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	11	43.1	1.0	57	1	13556	94	14	3	3.0	.7	54	9
60.0	12	52.4	1.3	48	1	13459	98	13	3	3.2	.8	50	10
70.0	12	62.0	1.4	38	1	13352	99	12	2	3.4	.7	47	10
80.0	12	72.1	1.5	28	2	13209	122	11	2	3.6	.7	43	10
90.0	12	82.7	1.6	17	2	12954	158	9	2	4.0	.7	38	10
100.0	12	100.0	0.0	0	0	11908	284	0	0	6.5	1.1	0	0

COALBED: NO. 6
STATE: ILLINOIS
NUMBER OF SAMPLES: 28
RAW COAL MOISTURE, PERCENT: 5.6
SIGMA: 2.7

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT RAW: 15.3 SIGMA: 4.3 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 2.14 SIGMA: 1.1 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 3.74 SIGMA: 1.5 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	14	4.8	.8	67	12	.54	.1	71	14	2.47	.7	36	12
60.0	20	4.9	.8	66	12	.60	.2	67	15	2.38	.8	34	13
70.0	23	5.4	.9	62	12	.61	.2	65	15	2.42	.8	31	13
80.0	26	6.2	1.2	56	13	.71	.3	60	15	2.45	.9	30	12
90.0	28	7.5	1.5	48	15	.89	.4	53	16	2.61	.9	27	12
100.0	28	15.3	4.3	0	0	2.13	1.1	0	0	3.72	1.5	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	10	4.3	.9	68	14	.54	.2	67	21	2.64	.8	31	13
60.0	19	4.2	.8	71	12	.53	.2	70	18	2.43	.8	35	14
70.0	24	4.5	1.0	69	12	.55	.2	69	17	2.37	.8	34	13
80.0	28	5.2	1.1	63	13	.63	.2	64	18	2.39	.8	33	13
90.0	28	6.6	1.3	53	14	.78	.3	57	18	2.51	.9	30	13
100.0	28	15.2	4.3	0	0	2.13	1.1	0	0	3.73	1.5	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	23	3.8	1.0	75	10	.49	.2	75	11	2.31	.8	38	13
60.0	25	4.1	1.1	73	11	.51	.2	73	12	2.30	.8	37	13
70.0	25	4.6	1.2	70	11	.55	.2	70	13	2.33	.9	36	13
80.0	28	5.4	1.4	64	11	.61	.2	67	14	2.36	.8	34	13
90.0	28	6.8	1.6	54	11	.75	.3	61	14	2.46	.9	32	12
100.0	28	15.5	4.5	0	0	2.17	1.1	0	0	3.76	1.6	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 11923 SIGMA: 695 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 6.3 SIGMA: 2.8 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	14	44.0	2.2	56	2	13341	272	13	5	3.7	1.1	42	13
60.0	20	52.8	2.8	47	3	13300	284	13	6	3.6	1.2	41	14
70.0	23	62.4	3.3	38	3	13237	293	11	6	3.6	1.3	38	14
80.0	26	72.4	3.6	28	4	13170	294	10	6	3.7	1.4	37	13
90.0	28	82.4	4.0	18	4	13022	316	9	5	4.0	1.5	33	13
100.0	28	100.0	0.0	0	0	11934	698	0	0	6.3	2.8	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	10	44.0	2.5	56	2	13347	237	13	6	4.0	1.2	39	14
60.0	19	52.3	2.9	48	3	13389	255	14	6	3.7	1.3	42	14
70.0	24	61.4	3.1	39	3	13351	257	13	6	3.5	1.3	42	13
80.0	28	71.4	3.7	29	4	13308	273	12	6	3.6	1.3	40	14
90.0	28	81.7	4.0	18	4	13138	302	10	5	3.8	1.4	36	14
100.0	28	100.0	0.0	0	0	11939	688	0	0	6.3	2.7	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	23	43.1	2.3	57	2	13476	271	15	6	3.4	1.3	46	12
60.0	25	52.1	2.7	48	3	13417	267	14	6	3.4	1.3	45	12
70.0	25	61.4	3.0	39	3	13351	273	14	6	3.5	1.3	44	13
80.0	28	71.4	3.4	29	3	13300	328	12	6	3.6	1.3	41	13
90.0	28	81.6	3.8	18	4	13107	343	10	5	3.8	1.4	38	12
100.0	28	100.0	0.0	0	0	11897	722	0	0	6.4	2.9	0	0

COALBED: NO. 6 — NO. 11
STATE: 28 ILLINOIS — 7 KENTUCKY (WEST)
NUMBER OF SAMPLES: 35
RAW COAL MOISTURE, PERCENT: 5.0
SIGMA: 2.7

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT RAW: 14.7 SIGMA: 4.3 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 2.22 SIGMA: 1.0 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 3.88 SIGMA: 1.4 AVERAGE	SIGMA	REDUCTION	SIGMA
						SAMPLE CRUSHED TO PASS 1-1/2 INCHES							
50.0	14	4.8	.8	67	12	.54	.1	71	14	2.47	.7	36	12
60.0	21	4.8	.8	67	12	.60	.2	67	15	2.40	.8	34	13
70.0	25	5.3	1.0	62	12	.61	.2	65	15	2.47	.8	31	12
80.0	33	5.7	1.5	58	14	.69	.3	63	15	2.53	.8	31	12
90.0	35	6.8	1.8	51	15	.88	.4	55	16	2.69	.8	28	12
100.0	35	14.7	4.3	0	0	2.20	1.0	0	0	3.86	1.4	0	0
						SAMPLE CRUSHED TO PASS 3/8 INCH							
50.0	10	4.3	.9	68	14	.54	.2	67	21	2.64	.8	31	13
60.0	20	4.2	.8	71	12	.54	.2	70	18	2.47	.8	35	13
70.0	26	4.4	1.0	70	12	.56	.2	69	17	2.41	.8	35	13
80.0	33	4.9	1.2	65	12	.64	.2	66	17	2.46	.8	34	13
90.0	35	6.2	1.5	55	14	.80	.3	59	17	2.61	.8	30	13
100.0	35	14.6	4.3	0	0	2.21	1.0	0	0	3.87	1.4	0	0
						SAMPLE CRUSHED TO PASS 14 MESH							
50.0	24	3.7	1.1	75	10	.49	.2	75	11	2.32	.8	39	12
60.0	26	4.0	1.1	73	11	.51	.2	73	12	2.30	.8	37	13
70.0	29	4.4	1.2	70	11	.54	.2	72	13	2.38	.8	37	12
80.0	34	5.0	1.4	65	11	.60	.2	69	14	2.43	.8	35	12
90.0	35	6.3	1.7	55	11	.75	.3	62	14	2.54	.8	32	12
100.0	35	14.8	4.5	0	0	2.24	1.1	0	0	3.90	1.5	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 12052 SIGMA: 711 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 6.5 SIGMA: 2.6 AVERAGE	SIGMA	%REDUCTION	SIGMA
						SAMPLE CRUSHED TO PASS 1-1/2 INCHES							
50.0	14	44.0	2.2	56	2	13341	272	13	5	3.7	1.1	42	13
60.0	21	52.8	2.8	47	3	13331	311	13	6	3.6	1.2	41	13
70.0	25	62.4	3.2	38	3	13287	330	11	6	3.7	1.3	39	13
80.0	33	72.4	3.4	28	3	13293	357	10	5	3.8	1.2	37	12
90.0	35	82.4	3.8	18	4	13151	386	9	5	4.1	1.3	34	13
100.0	35	100.0	0.0	0	0	12057	710	0	0	6.5	2.5	0	0
						SAMPLE CRUSHED TO PASS 3/8 INCH							
50.0	10	44.0	2.5	56	2	13347	237	13	6	4.0	1.2	39	14
60.0	20	52.4	2.8	48	3	13416	275	14	6	3.7	1.3	42	14
70.0	26	61.5	3.0	39	3	13383	271	13	5	3.6	1.3	42	13
80.0	33	71.5	3.4	28	3	13373	298	12	5	3.7	1.2	40	13
90.0	35	81.9	3.8	18	4	13249	355	10	5	3.9	1.3	36	13
100.0	35	100.0	0.0	0	0	12063	704	0	0	6.5	2.5	0	0
						SAMPLE CRUSHED TO PASS 14 MESH							
50.0	24	43.0	2.2	57	2	13494	281	15	6	3.5	1.3	46	12
60.0	26	52.1	2.6	48	3	13435	277	14	6	3.4	1.3	45	12
70.0	29	61.5	2.9	39	3	13415	304	13	5	3.6	1.2	44	12
80.0	34	71.5	3.2	29	3	13382	349	12	5	3.6	1.2	42	12
90.0	35	81.8	3.6	18	4	13222	390	10	5	3.9	1.3	38	12
100.0	35	100.0	0.0	0	0	12035	740	0	0	6.5	2.7	0	0

COALBED: NO. 5
STATE: ILLINOIS
NUMBER OF SAMPLES: 10
RAW COAL MOISTURE, PERCENT: 4.7
SIGMA: 2.7

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT RAW: 14.9 SIGMA: 4.8 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 2.08 SIGMA: .7 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 3.92 SIGMA: .8 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	4	4.3	.7	75	6	.53	.1	80	7	2.45	.6	45	6
60.0	6	5.0	1.6	70	8	.60	.1	76	6	2.44	.6	42	5
70.0	9	6.2	1.6	56	17	.58	.2	71	14	2.58	.5	34	11
80.0	10	7.2	1.4	48	16	.72	.3	65	10	2.65	.6	32	11
90.0	10	8.5	1.4	39	16	.98	.4	53	12	2.90	.6	26	9
100.0	10	14.9	5.0	0	0	2.09	.7	0	0	3.92	.8	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	6	4.6	1.8	70	18	.44	.1	77	9	2.24	.5	40	12
60.0	9	5.1	1.5	63	15	.44	.1	77	8	2.47	.5	37	12
70.0	10	5.6	1.3	59	15	.52	.1	73	8	2.53	.5	34	12
80.0	10	6.5	1.3	53	14	.63	.2	69	3	2.64	.6	32	11
90.0	10	7.9	1.5	42	14	.86	.3	57	9	2.82	.6	27	10
100.0	10	14.6	4.9	0	0	2.03	.7	0	0	3.89	.8	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	8	3.9	.8	73	11	.44	.1	76	10	2.22	.4	40	12
60.0	10	4.4	.8	69	10	.44	.1	77	10	2.40	.4	38	12
70.0	10	5.0	1.1	65	9	.53	.2	73	8	2.46	.4	37	10
80.0	10	6.2	1.2	57	10	.63	.3	70	9	2.55	.4	35	9
90.0	10	7.7	1.3	46	11	.81	.3	61	7	2.73	.5	30	9
100.0	10	15.1	5.0	0	0	2.12	.8	0	0	3.94	.8	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 12046 SIGMA: 615 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 6.5 SIGMA: 1.3 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	4	42.4	2.8	58	3	13640	90	16	7	3.6	1.0	53	6
60.0	6	51.8	2.9	48	3	13379	310	14	6	3.6	.9	49	5
70.0	9	63.1	4.0	37	4	13193	298	10	7	3.9	.8	40	13
80.0	10	73.3	4.2	27	4	13076	281	9	7	4.0	1.0	37	13
90.0	10	83.7	4.5	16	4	12936	286	8	6	4.5	1.0	31	12
100.0	10	100.0	0.0	0	0	12039	641	0	0	6.5	1.4	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	6	43.3	3.0	57	3	13496	356	14	7	3.3	.8	47	14
60.0	9	53.3	3.2	47	3	13384	298	12	7	3.7	.8	42	14
70.0	10	63.2	3.6	37	4	13272	276	10	6	3.8	.8	40	14
80.0	10	73.1	3.8	27	4	13181	257	9	6	4.0	.9	37	12
90.0	10	83.5	4.1	16	4	13015	262	8	6	4.3	1.0	32	12
100.0	10	100.0	0.0	0	0	12083	627	0	0	6.5	1.4	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	8	43.1	2.5	57	3	13482	274	14	7	3.3	.6	47	13
60.0	10	52.8	2.9	47	3	13435	241	12	7	3.6	.7	45	13
70.0	10	62.4	3.3	38	3	13348	224	11	6	3.7	.6	43	12
80.0	10	72.5	3.6	28	4	13226	200	10	6	3.8	.7	41	10
90.0	10	82.9	4.0	17	4	13039	200	9	6	4.2	.8	35	10
100.0	10	100.0	0.0	0	0	12015	642	0	0	6.6	1.4	0	0

COALBED: NO. 9
STATE: KENTUCKY (WEST)
NUMBER OF SAMPLES: 14
RAW COAL MOISTURE, PERCENT: 3.9
SIGMA: 1.5

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT AVERAGE	ASH SIGMA	ASH REDUCTION	ASH REDUCTION SIGMA	PYRITIC SULFUR, PERCENT AVERAGE	PYRITIC SULFUR SIGMA	PYRITIC SULFUR REDUCTION	PYRITIC SULFUR REDUCTION SIGMA	TOTAL SULFUR, PERCENT AVERAGE	TOTAL SULFUR SIGMA	TOTAL SULFUR REDUCTION	TOTAL SULFUR REDUCTION SIGMA
		RAW: 12.0	SIGMA: 3.0			RAW: 2.28	SIGMA: .4			RAW: 4.17	SIGMA: .3		
		SAMPLE CRUSHED TO PASS 1-1/2 INCHES											
50.0	8	4.3	.2	62	7	.52	.1	77	5	2.46	.2	41	6
60.0	11	4.5	.3	61	8	.62	.2	73	6	2.53	.2	39	5
70.0	13	4.9	.5	56	8	.65	.1	70	8	2.65	.3	36	8
80.0	14	5.7	.7	50	10	.71	.2	68	6	2.72	.2	35	7
90.0	14	6.9	1.0	40	13	.94	.2	58	8	2.93	.3	30	7
100.0	14	12.0	3.1	0	0	2.25	.4	0	0	4.18	.3	0	0
		SAMPLE CRUSHED TO PASS 3/8 INCH											
50.0	4	3.5	.5	71	8	.41	.0	81	3	2.44	.1	39	7
60.0	11	3.9	.5	68	8	.52	.1	78	4	2.47	.1	41	6
70.0	13	4.3	.4	63	8	.52	.1	77	5	2.51	.1	39	6
80.0	14	5.0	.6	56	9	.61	.1	72	6	2.63	.2	37	7
90.0	14	6.3	.9	45	11	.83	.2	63	8	2.82	.2	32	7
100.0	14	11.9	3.1	0	0	2.26	.4	0	0	4.16	.3	0	0
		SAMPLE CRUSHED TO PASS 14 MESH											
50.0	7	2.6	.3	76	6	.36	.1	85	3	2.37	.1	43	4
60.0	12	3.4	.4	71	7	.44	.1	80	9	2.50	.3	40	8
70.0	13	4.0	.5	66	6	.52	.2	78	9	2.55	.3	39	9
80.0	14	4.9	.8	59	7	.61	.1	74	6	2.65	.3	36	8
90.0	14	6.3	1.0	47	8	.81	.2	65	8	2.79	.3	33	8
100.0	14	12.2	3.1	0	0	2.32	.4	0	0	4.18	.3	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT AVERAGE	WEIGHT SIGMA	WEIGHT REDUCTION	WEIGHT REDUCTION SIGMA	BTU PER POUND AVERAGE	BTU PER POUND SIGMA	BTU PER POUND %INCREASE	BTU PER POUND %INCREASE SIGMA	POUNDS OF SO2/M BTU AVERAGE	POUNDS OF SO2/M BTU SIGMA	POUNDS OF SO2/M BTU %REDUCTION	POUNDS OF SO2/M BTU %REDUCTION SIGMA
		RAW: 100.0	SIGMA: 0.0			RAW: 12612	SIGMA: 522			RAW: 6.6	SIGMA: .6		
		SAMPLE CRUSHED TO PASS 1-1/2 INCHES											
50.0	8	46.1	1.2	54	1	13685	151	8	3	3.6	.3	45	6
60.0	11	55.1	1.3	45	1	13614	131	8	3	3.7	.3	44	5
70.0	13	64.9	1.5	35	2	13567	188	7	2	3.9	.4	40	9
80.0	14	74.5	2.4	26	2	13453	199	7	4	4.0	.4	39	8
90.0	14	85.0	2.7	15	3	13335	215	6	4	4.4	.3	34	7
100.0	14	100.0	0.0	0	0	12614	532	0	0	6.6	.7	0	0
		SAMPLE CRUSHED TO PASS 3/8 INCH											
50.0	4	45.1	1.2	55	1	13808	200	10	3	3.5	.2	44	9
60.0	11	54.3	1.9	46	2	13704	141	10	4	3.6	.2	46	6
70.0	13	64.0	2.2	36	2	13614	129	8	4	3.6	.2	45	6
80.0	14	74.1	2.4	26	2	13554	194	7	4	3.9	.3	41	8
90.0	14	84.6	2.6	15	3	13421	223	6	3	4.2	.3	36	8
100.0	14	100.0	0.0	0	0	12629	537	0	0	6.6	.7	0	0
		SAMPLE CRUSHED TO PASS 14 MESH											
50.0	7	44.3	1.9	56	2	13819	193	12	5	3.4	.2	49	4
60.0	12	54.2	2.0	46	2	13790	198	10	4	3.6	.4	45	9
70.0	13	63.7	2.0	36	2	13686	200	9	4	3.7	.4	44	9
80.0	14	73.8	2.1	26	2	13590	209	8	3	3.9	.4	41	8
90.0	14	84.4	2.3	16	2	13421	253	7	3	4.2	.4	37	8
100.0	14	100.0	0.0	0	0	12591	536	0	0	6.7	.6	0	0

COALBED: NO. 5 — NO. V — NO. 9
STATE: 10 ILLINOIS — 8 INDIANA — 14 KENTUCKY (WEST)
NUMBER OF SAMPLES: 32
RAW COAL MOISTURE, PERCENT: 4.8
SIGMA: 2.2

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT AVERAGE	ASH SIGMA	ASH REDUCTION	ASH SIGMA	PYRITIC SULFUR, PERCENT AVERAGE	PYRITIC SULFUR SIGMA	PYRITIC SULFUR REDUCTION	PYRITIC SULFUR SIGMA	TOTAL SULFUR, PERCENT AVERAGE	TOTAL SULFUR SIGMA	TOTAL SULFUR REDUCTION	TOTAL SULFUR SIGMA
		RAW: 12.6	SIGMA: 4.2			RAW: 2.17	SIGMA: .7			RAW: 4.00	SIGMA: .7		
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	16	4.6	.7	64	10	.58	.1	76	7	2.49	.3	42	7
60.0	21	4.9	1.0	62	10	.66	.2	72	7	2.54	.3	40	6
70.0	28	5.5	1.2	54	12	.67	.2	69	11	2.64	.3	35	10
80.0	32	6.3	1.3	47	12	.73	.3	65	9	2.67	.5	33	10
90.0	32	7.4	1.5	38	13	.97	.3	55	10	2.88	.5	28	9
100.0	32	12.6	4.2	0	0	2.17	.7	0	0	4.01	.7	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	13	4.2	1.3	70	13	.47	.1	78	8	2.35	.4	40	11
60.0	25	4.4	1.1	65	11	.52	.1	77	7	2.48	.3	39	9
70.0	29	4.9	1.0	60	11	.56	.1	74	9	2.53	.3	37	10
80.0	32	5.6	1.2	52	11	.64	.2	69	9	2.60	.4	34	10
90.0	32	6.8	1.4	42	12	.86	.3	59	10	2.78	.5	29	9
100.0	32	12.4	4.1	0	0	2.14	.7	0	0	3.98	.7	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	22	3.4	.8	72	10	.42	.1	79	9	2.27	.4	42	9
60.0	29	3.9	.8	68	9	.46	.1	78	10	2.41	.4	39	10
70.0	30	4.5	1.0	64	8	.54	.2	74	9	2.47	.4	38	9
80.0	32	5.4	1.2	55	9	.63	.2	70	10	2.58	.4	35	9
90.0	32	6.8	1.5	44	10	.82	.3	61	9	2.74	.5	31	9
100.0	32	12.7	4.3	0	0	2.19	.7	0	0	4.02	.7	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT AVERAGE	WEIGHT SIGMA	WEIGHT REDUCTION	WEIGHT SIGMA	BTU PER POUND AVERAGE	BTU PER POUND SIGMA	BTU PER POUND %INCREASE	BTU PER POUND SIGMA	POUNDS OF SO2/M BTU AVERAGE	POUNDS OF SO2/M BTU SIGMA	POUNDS OF SO2/M BTU %REDUCTION	POUNDS OF SO2/M BTU SIGMA
		RAW: 100.0	SIGMA: 0.0			RAW: 12474	SIGMA: 625			RAW: 6.5	SIGMA: 1.3		
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	16	45.0	2.4	55	2	13622	162	10	6	3.7	.5	47	8
60.0	21	54.1	2.4	46	2	13506	225	10	5	3.8	.5	45	7
70.0	28	64.4	2.8	36	3	13399	272	8	5	3.9	.5	40	11
80.0	32	74.5	3.1	26	3	13310	284	7	5	4.0	.8	37	11
90.0	32	85.0	3.4	15	3	13188	298	6	5	4.4	.8	32	10
100.0	32	100.0	0.0	0	0	12469	633	0	0	6.5	1.3	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	13	44.2	2.4	56	2	13623	302	12	6	3.4	.6	46	12
60.0	25	54.1	2.5	46	3	13564	252	10	5	3.7	.5	44	10
70.0	29	63.9	2.8	36	3	13469	244	9	5	3.7	.5	42	11
80.0	32	74.1	3.0	26	3	13416	269	8	5	3.9	.7	39	11
90.0	32	84.6	3.3	15	3	13276	292	6	4	4.2	.7	33	10
100.0	32	100.0	0.0	0	0	12497	620	0	0	6.4	1.3	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	22	44.2	2.3	56	2	13669	261	11	6	3.3	.6	48	10
60.0	29	53.9	2.4	46	2	13635	259	10	5	3.5	.6	45	11
70.0	30	63.6	2.6	36	3	13548	253	9	5	3.6	.6	44	10
80.0	32	73.8	2.8	26	3	13451	261	8	5	3.8	.6	40	10
90.0	32	84.3	3.1	16	3	13285	293	7	4	4.1	.7	36	10
100.0	32	100.0	0.0	0	0	12454	642	0	0	6.5	1.3	0	0

WESTERN MIDWEST REGION
NUMBER OF SAMPLES: 44
RAW COAL MOISTURE, PERCENT: 4.0
SIGMA: 3.7

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT RAW: 16.2 SIGMA: 6.6 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 3.58 SIGMA: 1.9 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 5.25 SIGMA: 2.3 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	22	7.0	2.7	60	11	1.58	.9	62	13	3.17	1.2	43	8
60.0	32	7.3	2.7	58	13	1.58	.9	61	13	3.33	1.2	41	9
70.0	38	7.7	2.8	55	13	1.66	.9	58	13	3.55	1.3	37	11
80.0	39	8.6	3.1	49	13	1.90	1.0	51	14	3.76	1.4	33	11
90.0	44	9.5	4.0	41	13	2.15	1.3	41	16	3.91	1.8	25	12
100.0	44	16.2	6.7	0	0	3.58	1.9	0	0	5.26	2.3	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	26	5.7	1.9	67	11	1.26	.6	69	12	3.04	1.1	47	9
60.0	32	6.0	2.1	64	10	1.31	.6	67	12	3.24	1.2	44	11
70.0	37	6.5	2.4	62	12	1.38	.7	64	13	3.29	1.2	41	11
80.0	40	7.2	2.9	56	12	1.57	.8	58	14	3.45	1.3	37	11
90.0	43	8.6	3.9	47	13	1.93	1.2	48	17	3.74	1.7	29	13
100.0	44	16.0	6.7	0	0	3.53	1.9	0	0	5.19	2.3	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	33	4.6	1.6	73	9	.92	.4	77	9	2.96	1.2	49	12
60.0	37	5.2	1.8	69	10	1.02	.6	74	11	2.97	1.2	47	11
70.0	38	6.0	2.2	64	10	1.18	.6	70	12	3.08	1.2	45	11
80.0	41	6.9	2.8	59	11	1.41	.8	64	13	3.28	1.3	41	11
90.0	43	8.7	4.2	49	11	1.87	1.2	52	17	3.67	1.7	32	13
100.0	44	16.4	6.7	0	0	3.63	1.9	0	0	5.30	2.3	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 12072 SIGMA: 1223 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 9.0 SIGMA: 4.5 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	22	43.5	3.1	56	3	13507	704	14	9	4.8	2.0	50	8
60.0	32	52.6	3.5	47	4	13307	736	14	9	5.1	2.1	48	8
70.0	38	62.2	3.8	38	4	13210	716	12	8	5.5	2.2	44	10
80.0	39	72.2	4.2	28	4	13078	744	11	7	5.8	2.3	39	10
90.0	44	83.3	4.5	17	4	13016	939	8	6	6.2	3.2	30	11
100.0	44	100.0	0.0	0	0	12069	1233	0	0	9.0	4.6	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	26	42.9	3.3	57	3	13545	647	16	10	4.5	1.8	55	8
60.0	32	52.3	3.6	48	4	13404	615	15	9	4.9	1.9	51	10
70.0	37	61.5	3.9	39	4	13372	662	14	8	5.0	2.0	48	9
80.0	40	71.5	4.3	28	4	13303	723	12	7	5.3	2.2	44	10
90.0	43	82.4	4.4	18	4	13114	879	9	6	5.9	3.0	35	12
100.0	44	100.0	0.0	0	0	12101	1231	0	0	8.9	4.5	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	33	42.6	3.0	57	3	13597	554	17	9	4.4	1.8	57	10
60.0	37	51.7	3.4	48	3	13541	594	16	9	4.4	1.9	54	10
70.0	38	61.1	3.8	39	4	13428	616	14	8	4.6	2.0	52	10
80.0	41	71.0	4.1	29	4	13346	700	13	7	5.0	2.1	47	10
90.0	43	82.2	3.7	18	4	13084	923	10	5	5.8	3.0	38	11
100.0	44	100.0	0.0	0	0	12045	1235	0	0	9.1	4.6	0	0

WESTERN REGION
NUMBER OF SAMPLES: 44
RAW COAL MOISTURE,PERCENT: 8.5
SIGMA: 5.4

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT RAW: 8.9 AVERAGE	ASH SIGMA: 4.3 SIGMA	ASH REDUCTION	ASH SIGMA	PYRITIC SULFUR, PERCENT RAW: .23 AVERAGE	PYRITIC SIGMA: .3 SIGMA	PYRITIC REDUCTION	PYRITIC SIGMA	TOTAL SULFUR, PERCENT RAW: .68 AVERAGE	TOTAL SIGMA: .3 SIGMA	TOTAL REDUCTION	TOTAL SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	14	5.1	1.5	58	9	.09	.1	33	24	.55	.1	3	6
60.0	16	5.4	1.4	55	10	.09	.1	27	24	.55	.1	2	6
70.0	25	5.4	1.7	50	9	.10	.1	40	33	.52	.1	12	23
80.0	34	5.4	2.1	46	12	.09	.1	33	29	.51	.1	10	20
90.0	39	6.1	2.6	37	11	.10	.1	33	29	.54	.1	11	20
100.0	44	9.3	4.6	0	0	.23	.3	0	0	.68	.3	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	16	4.7	1.2	58	12	.07	.0	46	31	.53	.1	4	8
60.0	24	4.6	1.3	55	11	.07	.0	47	33	.50	.1	13	22
70.0	28	4.8	1.6	52	11	.08	.0	42	32	.50	.1	11	21
80.0	39	4.6	2.1	50	12	.08	.0	41	29	.53	.1	12	20
90.0	41	5.4	2.6	41	11	.09	.0	38	28	.56	.2	11	19
100.0	44	9.0	4.5	0	0	.23	.3	0	0	.67	.3	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	19	3.8	1.1	56	13	.06	.0	64	27	.50	.1	21	22
60.0	20	4.0	1.2	55	12	.06	.0	61	27	.50	.1	20	22
70.0	25	3.9	1.2	55	11	.06	.0	58	26	.51	.1	18	21
80.0	31	3.9	1.6	54	12	.07	.0	53	26	.53	.2	17	20
90.0	33	4.5	2.0	47	11	.07	.0	50	26	.53	.2	16	19
100.0	34	8.3	3.4	0	0	.25	.3	0	0	.69	.4	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT RAW: 100.0 AVERAGE	WEIGHT SIGMA: 0.0 SIGMA	WEIGHT REDUCTION	WEIGHT SIGMA	BTU PER POUND RAW: 12437 AVERAGE	BTU PER POUND SIGMA: 803 SIGMA	BTU PER POUND %INCREASE	BTU PER POUND SIGMA	POUNDS OF SO2/M BTU RAW: 1.1 AVERAGE	POUNDS OF SO2/M BTU SIGMA: .6 SIGMA	POUNDS OF SO2/M BTU %REDUCTION	POUNDS OF SO2/M BTU SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	14	44.2	2.3	56	2	12926	414	9	5	.8	.2	12	9
60.0	16	54.0	2.6	46	3	12976	549	8	5	.8	.2	11	9
70.0	25	64.8	2.6	35	3	12837	629	6	4	.8	.2	19	21
80.0	34	75.3	2.4	25	2	12900	656	5	4	.8	.2	15	19
90.0	39	86.1	2.2	14	2	12775	678	4	3	.8	.2	15	19
100.0	44	100.0	0.0	0	0	12373	833	0	0	1.1	.6	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	16	44.6	2.3	55	2	12941	420	9	6	.8	.2	13	9
60.0	24	54.8	2.4	45	2	12833	465	7	5	.8	.2	20	21
70.0	28	64.8	2.4	35	2	12881	582	7	4	.8	.2	18	20
80.0	39	75.4	2.3	25	2	12947	664	5	3	.8	.2	16	18
90.0	41	86.1	2.2	14	2	12852	663	4	3	.9	.3	15	18
100.0	44	100.0	0.0	0	0	12408	823	0	0	1.1	.6	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	19	45.9	1.8	54	2	12865	528	6	4	.8	.2	27	21
60.0	20	55.4	1.7	45	2	12870	528	6	3	.8	.2	25	21
70.0	25	65.4	1.7	35	2	13017	644	6	3	.8	.2	23	20
80.0	31	75.5	1.6	24	2	13103	675	5	2	.8	.3	21	19
90.0	33	86.1	1.6	14	2	13077	708	4	2	.8	.3	19	19
100.0	34	100.0	0.0	0	0	12559	744	0	0	1.1	.6	0	0

S U M M A R Y

NUMBER OF SAMPLES: 455
RAW COAL MOISTURE, PERCENT: 3.2
SIGMA: 3.4

BTU RECOVERY	NO OF SAMPLES	ASH, PERCENT RAW: 14.0 SIGMA: 6.3				PYRITIC SULFUR, PERCENT RAW: 1.91 SIGMA: 1.5				TOTAL SULFUR, PERCENT RAW: 3.02 SIGMA: 1.9			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	248	5.2	2.2	66	12	.61	.6	67	21	1.79	1.0	38	22
60.0	317	5.5	2.3	63	13	.66	.6	65	21	1.86	1.1	37	20
70.0	378	5.9	2.4	59	13	.71	.6	62	21	1.92	1.2	35	20
80.0	423	6.6	2.8	53	14	.80	.7	56	21	1.99	1.2	31	19
90.0	444	7.9	3.5	43	15	1.00	.9	46	20	2.16	1.4	25	17
100.0	455	14.1	6.4	0	0	1.89	1.5	0	0	3.00	1.9	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	211	4.7	1.9	69	11	.51	.5	71	21	1.73	1.1	37	23
60.0	306	4.8	2.0	67	12	.52	.5	71	20	1.78	1.1	39	22
70.0	365	5.2	2.2	64	13	.57	.5	69	20	1.79	1.1	38	22
80.0	426	5.8	2.6	58	14	.63	.6	64	21	1.82	1.2	35	21
90.0	449	7.1	3.4	48	15	.82	.8	55	21	1.97	1.3	30	20
100.0	455	14.0	6.4	0	0	1.88	1.5	0	0	2.98	1.9	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	268	4.0	1.5	73	10	.40	.4	78	16	1.68	1.1	43	22
60.0	338	4.3	1.8	71	11	.42	.4	77	16	1.67	1.0	43	22
70.0	394	4.7	2.1	67	11	.46	.4	75	17	1.67	1.0	42	22
80.0	430	5.5	2.5	61	12	.54	.5	70	18	1.73	1.1	39	21
90.0	440	7.0	3.4	50	12	.73	.7	62	19	1.89	1.3	34	20
100.0	445	14.1	6.3	0	0	1.95	1.5	0	0	3.07	1.9	0	0

BTU RECOVERY	NO OF SAMPLES	WEIGHT, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 12574 SIGMA: 1058				POUNDS OF SO2/M BTU RAW: 4.9 SIGMA: 3.4			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	248	43.6	3.2	56	3	13873	635	14	10	2.6	1.6	45	20
60.0	317	53.0	3.5	47	4	13821	663	12	9	2.7	1.7	44	19
70.0	378	62.8	3.9	37	4	13740	705	11	8	2.8	1.8	41	19
80.0	423	73.0	4.3	27	4	13635	710	10	7	3.0	1.9	37	18
90.0	444	83.7	4.3	16	4	13452	770	8	6	3.3	2.2	30	16
100.0	455	100.0	0.0	0	0	12563	1064	0	0	4.9	3.4	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	211	43.4	3.2	57	3	13879	652	14	10	2.5	1.7	45	22
60.0	306	52.7	3.6	47	4	13831	669	13	9	2.6	1.7	46	21
70.0	365	62.2	4.0	38	4	13802	683	12	8	2.6	1.7	45	20
80.0	426	72.5	4.4	28	4	13736	700	10	8	2.7	1.8	41	20
90.0	449	83.2	4.4	17	4	13555	765	8	6	3.0	2.1	35	19
100.0	455	100.0	0.0	0	0	12577	1057	0	0	4.9	3.3	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	268	43.2	3.0	57	3	13919	665	15	9	2.4	1.6	50	21
60.0	338	52.5	3.3	48	3	13934	669	14	8	2.4	1.6	50	20
70.0	394	62.2	3.8	38	4	13916	679	12	8	2.4	1.6	48	20
80.0	430	72.3	4.1	28	4	13811	684	11	7	2.5	1.7	45	20
90.0	440	83.0	4.0	17	4	13596	777	9	6	2.9	2.1	39	19
100.0	445	100.0	0.0	0	0	12582	1055	0	0	5.0	3.4	0	0

INT.-BU.OF MINES,PGH.,PA. 20924

TECHNICAL REPORT DATA *(Please read Instructions on the reverse before completing)*		
1. REPORT NO. EPA-600/2-76-091	2.	3. RECIPIENT'S ACCESSION NO.
4. TITLE AND SUBTITLE Sulfur Reduction Potential of U.S. Coals: A Revised Report of Investigations		5. REPORT DATE April 1976 6. PERFORMING ORGANIZATION CODE
7. AUTHOR(S) J.A. Cavallaro, M.T. Johnston, and A.W. Deurbrouck		8. PERFORMING ORGANIZATION REPORT NO. RI 8118
9. PERFORMING ORGANIZATION NAME AND ADDRESS U.S. Department of the Interior Bureau of Mines 4800 Forbes Avenue Pittsburgh, Pennsylvania 15213		10. PROGRAM ELEMENT NO. EHB-527; ROAP AAL 11. CONTRACT/GRANT NO. EPA IAG-P5-0685
12. SPONSORING AGENCY NAME AND ADDRESS EPA, Office of Research and Development Industrial Environmental Research Laboratory Research Triangle Park, NC 27711		13. TYPE OF REPORT AND PERIOD COVERED Progress; 12/65-1/76 14. SPONSORING AGENCY CODE EPA-ORD

15. SUPPLEMENTARY NOTES Project officer for this report is J.D. Kilgroe, Mail Drop 61, Ext 2851. EPA report APTD 1365 (Bureau of Mines RI 7633, 1972) was the first of this series.

16. ABSTRACT The report gives results of a washability study of 455 raw coal channel samples with special emphasis on sulfur (S) reduction. These raw coals contained on the average 14.0% ash, 1.91% pyritic S, and 3.02% total S. Complete washability data are presented for each sample processed. A statistical evaluation is included for coalbeds from which more than 10 samples were collected and for the geographical coal producing regions. A graphical summation is given for the coal producing regions and selected coalbeds. A similar statistical evaluation is included showing composited data interpolated at Btu recovery levels of 50, 60, 70, 80, 90, and 100%. Graphical summations are given for the various coal producing regions. Generally, significant S reduction is achieved if the coals are crushed to a finer size and the higher specific gravity increments are removed. If a 50% Btu recovery were acceptable, then 32% of the samples tested could be upgraded to meet the current EPA standard of 1.2 lbs of SO2 emission per million Btu when crushed to 14-mesh top size and separated gravimetrically.

17. KEY WORDS AND DOCUMENT ANALYSIS		
a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Air Pollution Sulfur Oxides Coal Coal Preparation Washing Sulfur Reduction	Air Pollution Control Coal Washability Sulfur Reduction	13B 08G,21D 08I 13H,07A 07B
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