# COAL MINE COMPENSATION RATING BUREAU OF PENNSYLVANIA

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CHARLES A. ROMBERGER EXECUTIVE DIRECTOR **TELEPHONE/FAX** 717-238-5020

November 23, 2020

The Honorable Jessica K. Altman Insurance Commissioner Pennsylvania Insurance Department 1311 Strawberry Square Harrisburg, PA 17120

Attention: Michael McKenney, Actuarial Supervisor, Property & Casualty Bureau

RE: Proposal CM-5-2020

Revised Loss Costs for Traumatic, State Occupational Disease
And Federal Occupational Disease
To Be Effective: April 1, 2021

To Be Effective: April 1, 2021

Dear Commissioner Altman:

Enclosed for your review and approval is the annual filing of Loss Costs by the Coal Mine Compensation Rating Bureau of Pennsylvania ("Bureau"). This filing is made in accordance with Article VII of the Pennsylvania Workers' Compensation Act.

Exhibit I-A-M displays the proposed changes by classification and by coverage. Overall, the proposed change in Manual Loss Costs is -1.3%. By coverage, the proposal requests a change of -1.8% for Traumatic, a change of 0.0% for State Occupational Disease ("SOD") and a change of 1.5% for Federal Occupational Disease ("FOD").

The Proposed Traumatic Loss Costs are decreasing overall by \$0.10 from \$5.61 to \$5.51. The overall experience is being driven by the following considerations:

- Indemnity Loss Development Factors changed modestly
  - o The first to ultimate factor (i.e., for Accident Year 2019) changed by -2.5% and
  - o The other factors changed between -0.2% and 0.1%.
- Indemnity Loss Trend Annual Factor decreased from 1.1% to 0.2%. Consequently, Indemnity Loss Trend Factors changed by -2.4% to -5.9% from newer to older Accident Years.
- The HB 1840 Adjustment Factors that vary by Accident Year decreased modestly. These adjustments are included with the Indemnity Loss Trend Factors. On a combined basis, the changes to the Indemnity Loss Trend Factors range from -3.3% to -6.0% from newer to older Accident Years.
- Medical Loss Development Factors decreased for all years ranging from -0.9% for Accident Year 2015 to -2.6% for Accident Year 2019.
- Medical Loss Trend Annual Factor remained the same at 2.1%.
- The replacement of Accident Year 2014 experience with Accident Year 2019 experience in the five (5) year Traumatic Loss Cost analysis.

- o For the April 1, 2020 filing, the Accident Year 2014 Loss Cost was estimated to be \$5.00.
- o For the April 1, 2021 filing, the Accident Year 2019 Loss Cost is estimated to be \$4.46 with both Indemnity and Medical components decreasing when compared to Accident Year 2014 from the April 1, 2020 filing.

The Proposed SOD Loss Costs are not changing overall remaining at \$0.59. The overall experience is being driven by the following considerations:

- For all classes combined, claim frequency changed by 0.3%.
- For all classes combined, claim severity changed by 0.7%.
- Note that the overall change is less than the combined frequency-severity change due to individual class capping at +/-25%.

The Proposed FOD Loss Costs are increasing overall by \$0.01 from \$0.65 to \$0.66. The overall experience is being driven by the following considerations:

- For all classes combined, Basic claim frequency changed by -1.2%.
- For all classes combined, Excess claim frequency changed by -1.4%.
- For all classes combined, Basic claim severity changed by 1.4%.
- For all classes combined, Excess claim severity changed by 4.0%.

This Proposal consists of this cover letter, the enclosed Actuarial Report with Appendices A and B and Filing Exhibits. The Filing Exhibits were prepared for the Bureau by Mr. Peter A. Bennett who has extensive experience in this regard. This cover letter and Actuarial Report follow the organization that was used in last year's filing. The Filing Exhibits are unchanged from last year's filing, except where noted in the Summary of Significant Changes section of the Actuarial Report.

We ask for your approval of this filing on or before February 1, 2021. An approval in this timeframe facilitates the required notices and advanced issuance of revised employer rate cards, noting the applicable loss costs and rating plan values.

The Bureau and its consultant will be pleased to discuss any issues raised by the Department. Please feel free to contact me if additional information or discussion is necessary.

Sincerely,

Charles A. Romberger Executive Director

Challe A Rockey

# Actuarial Report Regarding the CMCRB's April 1, 2021 Loss Cost Filing

#### Introduction

I, Charles A. ("Chuck") Romberger, am the Executive Director of the Coal Mine Compensation Rating Bureau of Pennsylvania ("CMCRB"). I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. I offer this report in support of the CMCRB's proposed April 1, 2021 Loss Cost Filing. In this filing, the CMCRB proposes revisions to Loss Costs for Traumatic, State Occupational Disease ("SOD") and Federal Occupational Disease ("FOD") classifications under the CMCRB's jurisdiction to be effective April 1, 2021.

This report and the associated filing exhibits present information that demonstrate the fairness and reasonability of the proposed loss costs and show the CMCRB's continued use of accepted actuarial procedures and application of sound actuarial judgment.

I note that Mr. Peter A. Bennett participated in the preparation of this report and the associated Filing Exhibits. Mr. Bennett has extensive experience in this regard.

The remainder of this report consists of the following sections:

- The Executive Summary provides a discussion about the overall changes in Loss Costs and the sources of those changes contained in this filing by coverage (i.e., Traumatic, SOD and FOD). It also identifies "Other Items" that are typically of interest (e.g., the Employer Assessment Factor).
- The Summary of Significant Changes identifies and briefly discusses the significant changes in methods and assumptions from the CMCRB's prior loss cost filing.
- The Discussion of Filing Exhibits addresses the content of all of the Filing Exhibits and is arranged in Filing Exhibit order.
- The Disclosures section identifies and briefly discusses topics that broadly apply to all
  areas of this report and that present considerations or limitations related to the use of
  these findings.
- Appendix A provides a discussion and exhibits in support of the CMCRB's adjustments for House Bill 1846 of 2014 (HB 1846).
- Appendix B provides a discussion and exhibits in support of the CMCRB's adjustments concerning House Bill 1840 (HB 1840 or Act 111 of 2018), the legislative response to the Pennsylvania Supreme Court's decision in Protz v. WCAB.

Sincerely,

Charles A. Romberger, ACAS, MAAA, CPCU, ARM

Executive Director, CMCRB

Challe A Rockey

#### **Executive Summary**

This report and the associated filing exhibits provide the CMCRB's proposal for loss costs to be effective on April 1, 2021, which is twelve (12) months from the last approved loss costs. The proposed loss costs are based on the annual review of data by coverage (i.e., Traumatic, SOD, and FOD – Basic and Excess) and by classification for the ten (10) coal mine classifications under the CMCRB's jurisdiction.

For all classifications combined, this filing proposes the following changes in loss costs by coverage and in Total (i.e., all coverages combined). This information can also be found on Exhibit I-A-M, Page 2 (Grand Total section).

	Current	Proposed	Change in
	Loss Cost	Loss Cost	Loss Costs
Traumatic	\$ 5.61	\$ 5.51	-1.8%
SOD	0.59	0.59	0.0%
FOD (Basic & Excess)	<u>0.65</u>	<u>0.66</u>	1.5%
Total	\$6.85	\$6.76	-1.3%

The remainder of this Executive Summary provides a discussion section for each type of coverage and a discussion section for "Other Items".

#### **Traumatic Loss Costs**

The Current Traumatic Loss Cost for all classes combined is \$5.61 based on 2019 payroll distribution. The Proposed level is \$5.51 or a change of -1.8%.

The key drivers of the change to Traumatic Loss Costs can be identified by comparing Exhibit V-B Page 1 for the April 1, 2021 filing to the April 1, 2020 filing. These drivers include:

- Indemnity Loss Development Factors changed modestly
  - o The first to ultimate factor (i.e., for Accident Year 2019) changed by -2.5% and
  - o The other factors changed between -0.2% and 0.1%.
- Indemnity Loss Trend Annual Factor decreased from 1.1% to 0.2%. Consequently, Indemnity Loss Trend Factors changed by -2.4% to -5.9% from newer to older Accident Years.
- The HB 1840 Adjustment Factors that vary by Accident Year decreased modestly. These adjustments are included with the Indemnity Loss Trend Factors. On a combined basis, the changes to the Indemnity Loss Trend Factors range from -3.3% to -6.0% from newer to older Accident Years.
- Medical Loss Development Factors decreased
  - o The first to ultimate factor (i.e., for Accident Year 2019) changed by -2.6% and
  - o The other factors changed by -0.9%.
- Since the Medical Loss Trend Annual Factor did not change, Medical Loss Trend Factors changed only modestly due to the phase-out of the HB 1846 Adjustment Factors that vary by Accident Year that are included with the Medical Loss Trend Factors.

- The replacement of Accident Year 2014 experience with Accident Year 2019 experience in the five (5) year Traumatic Loss Cost analysis.
  - o For the April 1, 2020 filing, the Accident Year 2014 Loss Cost was estimated to be \$5.00.
  - o For the April 1, 2021 filing, the Accident Year 2019 Loss Cost is estimated to be \$4.46 with both Indemnity and Medical components decreasing.

These drivers generally decrease both the Indemnity and Medical indications. The Indemnity indication changed by -3.6%, from \$3.59 to \$3.46; while the Medical indication changed by -2.6%, from \$1.93 to \$1.88. Prior to the application of credibility and capping changes at +/-25% by class, the Total Traumatic indication changed by -3.1%, from \$5.51 to \$5.34. The Total indication may not equal the sum of the parts due to rounding.

Credibility and capping procedures are applied on Exhibit V-A Page 1 to the Indicated Unloaded Loss Costs to produce the Proposed Unloaded Loss Costs which are also displayed on Exhibit II. Exhibit II shows the Proposed Unloaded Loss Costs Percent Change (after Credibility and Capping) for all classes combined is -1.7%. Also, the totals on Exhibit II are the result of using payroll for the most recent accident year as weights while the totals on Exhibit V-B Page 1 are the result of using payroll for the most recent five (5) accident years as weights. Capping changes at +/-25% by class was not required given the indicated changes.

## State Occupational Disease (SOD) Loss Costs

The Current State Occupational Disease Loss Cost for all classes combined is \$0.59 based on 2019 payroll distribution. The Proposed level is \$0.59 or a change of 0.0%.

The key drivers of this change can be identified by comparing Exhibit III for the April 1, 2021 filing to the April 1, 2020 filing. These drivers include:

- For all classes combined, claim frequency changed by 0.3%. By class, frequency changes varied from -10.8% to 18.0%.
- For all classes combined, claim severity changed by 0.7%. By class, severity changes varied from -1.8% to 3.6%.
- The Proposed Loss Costs for Anthracite Underground and Bituminous Surface are capped at +25%. Also, the net change in Proposed Loss Costs does not equal the product of the claim frequency change and claim severity change because of the capping at +/-25%.

#### Federal Occupational Disease (FOD) – Basic/Excess – Loss Costs

The Current Federal Occupational Disease Basic/Excess Loss Cost for all classes combined is \$0.65 based on 2019 payroll distribution. The Proposed level is \$0.66 or a change of 1.5%.

The Federal component of the filing consists of two parts, the Federal Basic and the Federal Excess as follows:

	Current	Proposed	Change in
	Loss Cost	Loss Cost	Loss Costs
Basic	\$ 0.52	\$ 0.52	0.0%
Excess	<u>0.13</u>	0.14	<u>+7.7%</u>
Total	\$0.65	\$0.66	+1.5%

The Proposed Loss Costs are shown in Column (5) of Exhibit IV-A separately for Basic and Excess and in Total. The Currently Approved Unloaded Loss Costs are shown in Total (i.e., Basic and Excess combined) in Column (2) of Exhibit IV-A. The Total Current Loss Cost is split between Basic and Excess components using the Basic and Excess Loss Costs from Column (5) of Exhibit IV-A from the prior filing as weights.

The key drivers of this change can be identified by comparing Exhibit IV-A for the April 1, 2021 filing to the April 1, 2020 filing. These drivers include:

- For all classes combined, Basic claim frequency changed by -1.2%.
- For all classes combined, Excess claim frequency changed by -1.4%.
- For all classes combined, Basic claim severity changed by 1.4%.
- For all classes combined, Excess claim severity changed by 4.0%.
- The net change in Proposed Loss Costs does not equal the product of the claim frequency change and claim severity change because these three values do not all carry the same number of significant digits.

#### Other Items

- The Small Business Advocate Assessment Ratio remains at 0.0001. (See Exhibit XI.) This amount is loaded into the CMCRB's Manual Loss Costs.
- The Employer Assessment Factor changes from 2.03% (or 0.0203) to 2.48% (or 0.0248). (See Exhibit XI-B.) This amount is not loaded into the CMCRB's Manual Loss Costs, but is treated as a separate calculation in the determination of policy premium. This amount is the estimated provision for Pennsylvania's Administrative Fund, Subsequent Injury Fund, Supersedeas Fund and Uninsured Employer Guaranty Fund.
- The overall Catastrophe Loss Cost provision did not change from \$0.12. (See Exhibit XII-A.) While the provisions for the Surface Classes and Auger remain the same, the provision for the Underground Classes decreased from 0.19 to 0.18. These amounts are loaded into the CMCRB's Manual Loss Costs.
- The Experience Rating Plan parameters require a change to the Off-Balance Factor from 1.0003 to 0.9973. This factor is not included in the CMCRB's Manual Loss Costs, but is incorporated into the Experience Rating Plan's Rating Formula.
- The Merit Rating Plan Off-Balance Factor remains at 1.0002. (See Exhibit XIV-A, Page 1.) This amount is loaded into the CMCRB's Manual Loss Costs.
- The Safety Committee Credit Off-Balance Factor changes from 1.0174 to 1.0182. (See Exhibit XIV-B.) This amount is loaded into the CMCRB's Manual Loss Costs.

#### Summary of Significant Changes from Last Year's Filing

Concerning Exhibit V-J, for the April 1, 2020 Filing, four claims for Accident Year 2018 individually exceeded the catastrophe limit (\$1,250,000) and were listed on a single Exhibit V-J page. For the April 1, 2021 Filing, these four claims now individually do not exceed the catastrophe limit, so a page for these claims is not included with the filing. However, one claim for Accident Year 2019 exceeds the catastrophe limit and is listed on Exhibit V-J.

On Exhibit VI-B, some notes concerning Act 44 (of 1993) were removed since they were deemed to no longer be relevant.

On Exhibit VIII-C-7 and VIII-C-8, the Classification Adjustment Factors (line B) were revised based on an updated review of claim counts by classification as follows:

			Anthracite	Bituminous	Anthracite	Bituminous
	<u>Coke</u>	<u>Auger</u>	Co-Gen	Co-Gen	Prep Plant	Prep Plant
	<u>0154</u>	<u>0157</u>	<u>0181</u>	<u>0182</u>	<u>0183</u>	<u>0184</u>
Proposed Factor	0.2000	0.5000	0.5000	0.4000	0.9000	0.4000
Prior Factor	0.2000	0.4000	0.5000	0.5000	1.0000	0.5000

Most Filing Exhibits were updated from the CMCRB's prior loss cost filing either by adding the data for the newest available Accident Year and deleting the data for the oldest Accident Year or by just adding the data for the newest available Accident Year.

#### Discussion of Filing Exhibits

Many of the Filing Exhibits provide various totals and subtotals that are derived using current estimates of Developed Payrolls and/or Miner Years as weights. These totals and subtotals may differ from totals and subtotals shown in prior filings as the weights can and do change.

#### Exhibit I – Current and Proposed Loss Costs

The I-A-M pages provide comparisons of the currently Approved Manual Loss Costs and the Proposed Manual Loss Costs by classification.

The I-A-UL pages provide comparisons of the currently Approved Unloaded Loss Costs and the Proposed Unloaded Loss Costs in the same format as the I-A-M pages. However, I-A-UL also includes a third page that presents the loss cost limitations by classification and by coverage.

The I-B pages present the Proposed Unloaded Loss Costs after limitations (see the I-A-UL discussion above), the loading of the Catastrophe Loss Costs, the application of the various Off-Balance factors and the Proposed Loaded Loss Costs (or Proposed Manual Loss Costs).

In addition to providing Loss Costs by classification and by coverage, the pages in Exhibit I also provide various totals and subtotals that are derived using the Developed Payrolls for the most recent Accident Year as weights.

#### Exhibit II – Traumatic Loss Cost Indications

This page presents the currently Approved Unloaded Loss Costs, the Indicated Unloaded Loss Costs and the Proposed Unloaded Loss Costs by classification. Changes from the currently Approved Unloaded Loss Costs to the Indicated Unloaded Loss Costs are capped or limited to +/- 25% to derive the Proposed Unloaded Loss Costs by classification.

This page also displays various totals and subtotals that are derived using the Developed Payrolls for the most recent Accident Year as weights.

#### Exhibit III – State Occupational Disease Loss Cost Indications

This page presents the currently Approved Unloaded Loss Costs, the Indicated Loss Costs (the Indicated Loss Costs are the products of the Indicated Average Frequencies and the Indicated Average Severities) and the Proposed Loss Costs by classification. The Proposed Loss Costs equal the Indicated Loss Costs except where changes are limited to +/-25%.

This page also displays various totals and subtotals that are derived using the Developed Payrolls for the most recent Accident Year as weights.

#### Exhibit IV – Federal Occupational Disease Loss Cost Indications

A. This page presents the currently Approved Unloaded Loss Costs, the Indicated Loss Costs (the Indicated Loss Costs are the sums of the products of the Indicated Average Frequencies and the Indicated Average Severities for FOD Basic and FOD Excess) and the Proposed Loss Costs (i.e., Loss Costs w/ Limitation 25%) by classification. The Proposed Loss Costs equal the Indicated Loss Costs except where changes are limited to +/-25%.

This page also displays various totals and subtotals that are derived using the Developed Payrolls for the most recent Accident Year as weights.

B. Page 1 displays the derivation of the FOD Basic Claim Frequencies. This process begins with the Indicated Claim Frequencies on a Miner Year basis developed in Exhibit IV-B Page 3. The Indicated Claim Frequencies are credibility weighted with the currently Approved FOD Basic Claim Frequencies trended (although the trend is 0%) to the current valuation level developed in Exhibit IV-B Page 4. After the application of credibility, the Credibility Weighted Indicated FOD Basic Claim Frequencies are converted to a Developed Payroll basis because the CMCRB publishes Loss Costs on a Payroll basis.

The Total of the Expected Awarded Claims for All Classes is assigned as the full credibility standard. The credibility factor for each classification is obtained as the ratio of the Expected Awarded Claims of a given class to the full credibility standard raised to the ½ power.

Page 2 displays the derivation of the FOD Excess Claim Frequencies. The Indicated Claim Frequencies are developed in Exhibit IV-B Page 5. The currently Approved FOD Excess Claim Frequencies are developed in Exhibit IV-B Page 6. Otherwise, this page works like Page 1.

Page 3 displays the derivation of the FOD Basic Claim Frequencies on a Miner Year Basis. This process involves weighting the Modeled Indications from Exhibit VIII-F with the Experience Indications from Exhibit VIII-B-2. The weights are 25% for the Modeled Indications and 75% for the Experience Indications.

Page 4 displays the conversions of the Approved FOD Basic Claim Frequencies from the prior filing that are on a Payroll basis to a Miner Year basis.

Page 5 displays the derivation of the FOD Excess Claim Frequencies on a Miner Year Basis. This process involves weighting the Modeled Indications from Exhibit VII-L with the Experience Indications from Exhibit VII-B-2. The weights are 25% for the Modeled Indications and 75% for the Experience Indications.

Page 6 displays the conversions of the Approved FOD Excess Claim Frequencies from the prior filing that are on a Payroll basis to a Miner Year basis.

These pages provide various totals and subtotals that are derived using Developed

Payrolls and/or Estimated Miner Years as weights as indicated.

#### Exhibit V – Traumatic Loss Information

This section of the filing produces the Proposed Traumatic Unloaded Loss Costs by classification.

A. Page 1 displays the derivation of the Proposed Traumatic Unloaded Loss Costs by classification. This process begins with the Indicated Traumatic Loss Costs developed in Exhibit V-B. The Indicated Traumatic Unloaded Loss Costs are credibility weighted with the currently Approved Traumatic Unloaded Loss Costs trended to the current valuation level. After the application of credibility, the Indicated Traumatic Unloaded Loss Costs are further limited to changes of +/-25% to produce the Proposed Traumatic Unloaded Loss Costs.

In addition to providing Traumatic Loss Costs by classification, this page also provides various totals and subtotals that are derived using the Developed Payroll shown in the column with these totals and subtotals as weights.

The credibility procedure assigns full credibility (i.e., 100% credibility or 1.00) to three (3) of the Four Major Classifications (i.e., Underground Bituminous, Surface Anthracite and Surface Bituminous). For the six (6) minor classifications, the credibility factor for each classification is obtained as the ratio of the Five Year Expected Losses of a given class to Five Year Expected Losses for Surface Bituminous raised to the ½ power. For the April 1, 2021 Filing, Bituminous Prep Plants also received full credibility given the level of Five Year Expected Losses for this class exceeding the Five Year Expected Losses for Surface Bituminous.

The complement of the credibility is assigned to the currently Approved Traumatic Unloaded Loss Cost adjusted or trended to the current valuation level. The adjustment or on-level factor is the weighted average of the Indemnity and Medical Trends contained in this filing, weighted by the five (5) year Indemnity and Medical Ultimate Losses from Exhibit V-B, Page 1.

Page 2 shows the derivation of the Indicated Traumatic Unloaded Loss Cost for the Underground Anthracite classification. This value is derived by a different process since this classification has virtually no experience for the five (5) most recent Accident Years. This is the same procedure that was used in last year's filing.

B. These pages show the derivation of the Indicated Traumatic Unloaded Loss Costs by Classification. This process begins with the Reported Losses separately shown for Indemnity and Medical for the five (5) most recent Accident Years. It applies Loss Development and Trend Factors to adjust Reported Losses to Ultimate Losses. Finally, it compares Ultimate Losses to Developed Payroll to produce indicated Loss Costs by Accident Year and in Total. (Page 1 shows the Total for All Classifications Combined. Pages 2, 6, and 14 show subtotals for the noted classification groupings.)

The inclusion of claims in excess of \$1,250,000 has been limited on these pages. For this filing, Page 12b displays the calculations related to this limitation.

C. These pages show the derivation of the Selected Age-to-Age Loss Development Factors separately for Traumatic Indemnity and Medical Incurred Losses. The Selected Factors are based on the Derived Development Factors which are developed on Pages V-D-2 and V-E-2 for Indemnity and Medical respectively. The Selected Age-to-Age Factors are Accumulated in Column 8 to produce Selected Age-to-Ultimate Loss Development Factors. The Age-to-Ultimate Factors include a "tail" provision for loss development beyond 20<sup>th</sup> report level.

For Indemnity Incurred Losses, the Age-to-Ultimate Factors changed as follows for:

- 1:2 (1<sup>st</sup> report to ultimate) -2.5%,
- 2:3 (2<sup>nd</sup> report to ultimate) -0.2%,
- 3:4 (3<sup>rd</sup> report to ultimate) 0.0%,
- 4:5 (4<sup>th</sup> report to ultimate) 0.1%,
- 5:6 (5<sup>th</sup> report to ultimate) 0.1% and
- 6<sup>th</sup> report to ultimate and beyond in the range of 0.0% to 0.1%.

For Medical Incurred Losses, the Age-to-Ultimate Factors changed as follows for:

- 1:2 (1<sup>st</sup> report to ultimate) -2.6%,
- 2:3 (2<sup>nd</sup> report to ultimate) -0.9%,
- 3:4 (3<sup>rd</sup> report to ultimate) -0.9%,
- 4:5 (4<sup>th</sup> report to ultimate) -0.9%,
- 5:6 (5<sup>th</sup> report to ultimate) -0.9% and
- 6<sup>th</sup> report to ultimate and beyond in the range of -0.8% to -0.5%.
- D. These pages show the development of the Derived Traumatic Indemnity Loss Development Age-to-Age factors and include the development of the Tail Factor.

Page 1 is the same as VI-A-4. The Age-to-Age factors from this page are used on V-D-2. For additional information, please refer to the discussion for VI-A-4.

Page 2 shows the (Actual) Age-to-Age Factors and the Derived (or Modeled) Age-to-Age Factors for Traumatic Indemnity Incurred Losses. Examination of the Age-to-Age factors suggested that the factors from the first four (4) periods should be accepted without adjustment and that the factors for the remaining periods should be replaced with modeled or derived factors. The same determination was made for last year's filing.

The CMCRB decided that a linear model was reasonable and found to produce acceptable results. Similar to the model fitting approach in last year's filing, several assumptions were used to produce the model.

- The model needed to have a slight downward slope and to accept that loss development beyond some point in time was going to be zero (i.e., that loss development factors beyond some point would be 1.0000).
- The model needed to produce factors such that the upward accumulation of the derived factors would equal the upward accumulation of the actual factors from the experience period (i.e., period 5 through 19). The accumulation of these fifteen (15) factors is 15.02150, producing an average of 1.00143.
- The model would be linear and have the form y(t) = x at.
- The model needed to have a value equal to the average of the experience data at the midpoint of the period that produced the data. Expressed algebraically,

the midpoint of the period is 12 and the average of the experience period is 1.00143, so y(12) = 1.00143.

• Development beyond 10 years after the end of the experience period would not be expected. Again, expressed algebraically,

the period associated with this assumption is 29 and the value of the function is 1.0001, so y(29) = 1.0001. (Beyond period 29, all factors are assumed to be 1.0000.)

• These conditions result in the following system of equations:

$$y (12) = 1.00143 = x - (a) (12)$$
 and  $y (29) = 1.0001 = x - (a) (29)$ .

• The solution for this system of equations was found to be:

a = 0.0000784 and x = 1.0023745.

- Given these values, y (5) is determined to be 1.0020 = 1.0023745 (0.0000784)(5). (Note that rounding can have a slight impact on the calculations.) This value is entered on Line 5 of Column (5). The following numbers in this column are generated by subtracting 0.0000784.
- The Modeled Factors from periods 20 through 29 in Column (10) are accumulated upward in Column (11) to produce the CMCRB tail factor. The CMCRB tail factor is then averaged with the PCRB tail factor to produce the Selected tail factor.

Page 3 provides the Age-to-Age Indemnity Incurred Loss Development Factors from the most recent PCRB filing. The Tail Factor (or "20 to Ult" Factor) from this page is used on V-D-2. The PCRB Age-to-Age Factors are compared to the CMCRB Age-to-Age Factors on V-C-1.

E. These pages show the development of the Derived Traumatic Medical Loss Development Age-to-Age factors and include the development of the Tail Factor.

Page 1 is the same as VI-B-4. The Age-to-Age factors from this page are used on V-E-2. For additional information, please refer to the discussion for VI-B-4.

Page 2 shows the (Actual) Age-to-Age Factors and the Derived (or Modeled) Age-to-Age Factors for Traumatic Medical Incurred Losses. Examination of the Age-to-Age factors

suggested that the factors from the first two (2) periods should be accepted without adjustment and that the factors for the remaining periods should be replaced with modeled or derived factors. The same determination was made for last year's filing.

To begin, the CMCRB's Age-to-Age Factors were averaged with the PCRB's Age-to-Age Factors for the periods 10 to 19 to produce Adjusted Age-to-Age Factors. The CMCRB's Age-to-Age Factors were used for periods 3 through 9.

Next, the CMCRB decided that a model of the form  $y(t) = (x) (a^{t-3})$  was reasonable and found to produce acceptable results. Similar to the model fitting approach in last year's filing, several assumptions were made to derive the fitted model.

- The geometric mean of the product of the Adjusted Age-to-Age Factors from periods 3 through 19 was calculated and found to be 1.0042019. (There are 17 factors from t=3 to t=19 so the geometric mean is (0.9864 x 1.0175 x .... x 1.0070) ^ (1/17)).
- The length of the development period beyond the end of the experience period was chosen to be 19 years. Development is not expected at the 39<sup>th</sup> report level and beyond. Development factors beyond 38<sup>th</sup> report are assumed to be 1.0000. The development factor for period 38 is assumed to be 1.0001.
- The model needed to produce factors such that the upward accumulation of the derived factors would equal the upward accumulation of the actual factors from period 3 through 19. This accumulation is 1.0739.
- The model needed to have a value equal to the geometric average of the experience data at the midpoint of the period that produced the data. Since the data that is being used runs from t=3 to t=19 the midpoint is at t=11. Thus, y (11) = 1.0042019.
- These conditions result in the following system of equations:

y (11) = 1.0042019 = (x) (
$$a^8$$
) and  
y (38) = 1.0001 = (x) ( $a^{35}$ ).

• The solution for this system of equations was found to be:

$$a = 0.9998484$$
 and  $x = 1.00542$ .

- At this point, the value 1.00542 (displayed as 1.0054) is entered on Line 3 (for Period 3) of Column 6. The Factor for Period 4 is obtained as (1.00542) times (0.9998484). The factor 'a' is applied to each of the succeeding Factors until Period 38 is reached. The system is very sensitive to the precision of the parameters. If the initial choices are abbreviated, the goals may not be met (e.g., the accumulated value may not be 1.0739 and/or the last point may not be 1.0001).
- The Modeled Factors from periods 20 through 38 in Column (9) are accumulated upward in Column (10) to produce the CMCRB (derived) tail factor. The CMCRB tail factor is then averaged with the PCRB tail factor to produce the Selected tail factor.

Page 3 provides the Age-to-Age Medical Incurred Loss Development Factors from the most recent PCRB filing. The Tail Factor (or "20 to Ult" Factor) from this page is used on V-E-2. The PCRB Age-to-Age Factors are compared to the CMCRB Age-to-Age Factors on V-C-2.

F. This page shows the selected Traumatic Annual Trend Factors separately for Indemnity and Medical losses that are derived from Exhibit V-K. Since the Annual Trend Factors are applied separately to the five (5) most recent Accident Years, the page also shows the Trend Period for each of those five (5) years and the Trend Factor for each Accident Year.

In addition to traditional trend factors and calculations, this page also allows for adjustments related to other changes. For this filing, other changes include HB 1846 of 2014 and HB 1840 (or Act 111 of 2018).

Concerning HB 1846, the CMCRB applied a uniform savings of 1.32% or a factor of 0.9868 to all Accident Years with the December 16, 2015 revision to the April 1, 2016 Filing. For the April 1, 2017 through April 1, 2020 Filings, the CMCRB proposed adjustment factors that varied by Accident Year and maintains that approach for the April 1, 2021 Filing. These factors and their derivation are provided in Appendix A to this report.

Concerning HB 1840, the CMCRB applied a uniform additional charge of 1.59% or a factor of 1.0159 for all Accident Years for the April 1, 2019 Filing. For the April 1, 2020 Filing, the CMCRB proposed adjustment factors that vary by Accident Year and maintains that approach for the April 1, 2021 Filing. These factors and their derivation are provided in Appendix B to this report.

- G. Omitted Reserved for Future Use.
- H. Page 1 provides a summary of the Traumatic Indemnity Losses. Page 2 provides a summary of the Traumatic Medical Losses. The data on these pages support calculations on the Exhibit V-I pages.
- I. Exhibit V-I is comprised of six (6) pages. Each page presents a summary for or estimates of one of the trend parameters that are under consideration as follows:
  - Page 1 Traumatic Indemnity Loss Severity Trend
  - Page 2 Traumatic Medical and Medical Only Loss Severity Trend
  - Page 3 Traumatic Medical Only Loss Severity Trend
  - Page 4 Traumatic Indemnity Claim Frequency Trend
  - Page 5 Traumatic Indemnity Claim Frequency Trend Net of Wage Trend
  - Page 6 Traumatic Medical excluding Medical Only Loss Severity Trend

Each of these six (6) pages is provided for three (3) different scenarios as follows:

• Summary – these pages show the data under consideration for each parameter, the result for each parameter from Exhibit V-K which averages the 12 estimates that are considered, a graph of the data indicated and an algebraic expression of the line of best fit.

- Estimates 01-06 these pages show the data under consideration for each parameter and the following six (6) estimates:
  - o Estimates 01 & 02 are based on the ten (10) most recent Accident Years.
  - o Estimates 03 & 04 are based on the nine (9) most recent Accident Years.
  - o Estimates 05 & 06 are based on the eight (8) most recent Accident Years.
- Estimates 07-12 these pages show the data under consideration for each parameter and the following six (6) estimates:
  - o Estimates 07 & 08 are based on the nine (9) most recent Accident Years before the most recent Accident Year.
  - o Estimates 09 & 10 are based on the eight (8) most recent Accident Years before the most recent Accident Year.
  - o Estimates 11 & 12 are based on the seven (7) most recent Accident Years before the most recent Accident Year.

The twelve (12) estimates utilize a geometric average, a regression analysis, a 3-year moving average and the various experience periods listed above. These estimates also utilize data with certain extreme values limited as noted on each page.

J. On these pages, individual Traumatic claims that exceed \$1,250,000 after loss development are proportioned based on reported medical and indemnity. The CMCRB believes that limiting these claims helps to stabilize the trend indications.

Exhibit V-J included in the current filing shows data for one large claim for Accident Year 2019 that individually exceed the catastrophe limit. Note that the claims previously reported for Accident Year 2018 do not exceed the threshold (\$1,250,000) at this evaluation. While the Reported Incurred amounts for these claims did not change significantly, the Loss Development Factors for claims at second report level are significantly lower than the Loss Development Factors for claims at first report level, resulting in the lower valuation for this filing.

K. Exhibit V-K summarizes the twelve (12) estimates of each trend parameter under consideration from the various pages of Exhibit V-I. This exhibit also displays the selected Claim Frequency, Indemnity Severity and Medical Severity Trend Factors. Additionally, on this exhibit, changes to the Composite Trend Factors are capped at +/-3.0 percentage points from the factors used in prior filing, when applicable.

In prior filings, the CMCRB generally selected trend estimates using averages of some or all of the Estimates 1-12, citing the estimates that were included and the rationale associated with these decisions. For example, for the April 1, 2018 Filing, the CMCRB selected trend estimates using the Average of Estimates 1-4 and 7-10, noting that the estimates that began with Accident Year 2009 involved exceptional variability (especially for Indemnity Severity).

For the April 1, 2019 Filing and April 1, 2020 Filing, the CMCRB departed from this approach, noting that the prior approach did not provide reasonable results. For the April 1, 2021 Filing, the CMCRB continues this current approach and offers the following

expanded discussion concerning the Traumatic trend factor selections displayed on Exhibit V-K.

The CMCRB notes that our database is very small and inherently volatile especially with respect to Traumatic loss trend estimation techniques. Oftentimes, the selection of the years that are used to begin or end a loss trend estimation technique significantly changes the trend estimate that is produced. While this is not a new observation per se, the data in the subject filing continue to seem very sensitive to these considerations.

In calculating and selecting trend assumptions, the CMCRB considers several basic assumptions or observations that include, but are not limited to, the following:

- Claim Frequency Trend The CMCRB notes that a modest negative claim frequency trend has existed in Pennsylvania for over 20 years and that this is evident in the CMCRB's data and in the PCRB's data. The CMCRB also understands that this phenomenon exists in W.C. data outside of Pennsylvania, but that this phenomenon might not be as consistent outside of Pennsylvania.
- Indemnity Severity Trend The CMCRB believes that Indemnity Severity Trend is most influenced by wage inflation. However, other conditions or circumstances also influence Indemnity Claim Severity that are more difficult to quantify (e.g., mix of injury severities under consideration).
- Medical Severity Trend The CMCRB believes that Medical Severity Trend is
  most influenced by medical cost and utilization inflation. However, like
  Indemnity Claim Severity, Medical Claim Severity is also influenced by other
  conditions or circumstances that are more difficult to quantify (e.g., mix of injury
  severities under consideration).
- Indemnity and Medical Severity Trend relationship The CMCRB generally
  expects medical cost and utilization inflation to exceed wage inflation and that
  Indemnity Severity Trends will usually be slightly lower than Medical Severity
  Trends.
- Although the CMCRB believes that the theories behind the assumptions listed above are sound and generally well accepted, the CMCRB also believes that actual data should relied upon to the extent that it is reliable and reasonable.

The CMCRB prepares a variety of trend estimates based on a review of metrics from actual data for the ten most recent Accident Years. The selected trend assumptions are then applied to the most recent five Accident Years. The new Accident Year is least affected by the selected trend assumptions, while the oldest Accident Year is most affected. See Exhibit V-F for the calculations that underlie this statement.

Essentially, each of the five most recent Accident Years produces an estimate of the Loss Costs (or the Claim Frequencies or Claim Severities) that are under consideration. Consequently the CMCRB expects the results for the five most recent Accident Years to be randomly scattered around a horizontal straight line. Of course, with a limited database, actual results can and do vary from this expectation.

**Traumatic Trend Factor Selections** 

- The CMCRB selected a Claim Frequency Trend of -2.75%. This selection results in a 5-year weighted average trended Claim Frequency of 8.6 which is lower than the actual Claim Frequency for each of the five most recent years. This selection also produces a good fit of the Claim Frequency data for the last nine years.
- The CMCRB selected an Indemnity Claim Severity Trend of 3.0%. This selection results in a 5-year weighted average trended Indemnity Claim Severity of \$70,618 which is higher than the actual Indemnity Claim Severity for each of the five most recent years. However, the 3-year weighted average Indemnity Claim Severity from this selection of \$65,151 seems reasonable when considering the actual Indemnity Claim Severities for 2015 and 2016 are \$65,856 and \$64,595 respectively.
- The CMCRB selected a Medical Claim Severity Trend of 5.0%. This selection results in a 5-year weighted average trended Medical Claim Severity of \$13,124 which is higher than the actual Medical Claim Severity for four of the five most recent years. However, this result also seems reasonable when considering the actual Medical Claim Severities for 2017 and 2018 are \$13,428 and \$12,884 respectively.

Observations about Loss Ratio Trends (or Composite Trends)

- Although the CMCRB prefers to separately review Claim Frequency and Claim Severity Trend estimates, the CMCRB notes that the Claim Frequency Trend times the Claim Severity Trend is equivalent to the Loss Ratio Trend.
- Therefore, the CMCRB's implied Indemnity Loss Ratio Trend is the product of 0.9725 (i.e., the selected -2.75% Claim Frequency Trend) and 1.030 (i.e., the selected 3.0% Indemnity Severity Trend) which equals 1.002 (or 0.2%).
- Similarly, the CMCRB's implied Medical Loss Ratio Trend is the product of 0.9725 (i.e., the selected -2.75% Claim Frequency Trend) and 1.050 (i.e., the selected 5.0% Medical Severity Trend) which equals 1.021 (or 2.1%).

#### Exhibit VI – Traumatic Loss Development

The CMCRB notes that Act 44 of 1993 and Act 57 of 1996 significantly affected Traumatic Indemnity and Medical benefit levels and claim settlement practices (and consequently Traumatic Loss Development data reported to the CMCRB). The CMCRB calculates and applies adjustments to address these effects to its reported loss development data in the various pages of Exhibit VI and briefly discusses the more significant aspects of its work below.

A. Page 1 displays Reported Traumatic Indemnity Incurred Losses by Accident Year and by Report Level, Act 57 Indemnity Law Adjustment Factors and Reported Traumatic Indemnity Incurred Losses adjusted to Act 57 Law Level.

Page 2 displays Reported Traumatic Indemnity Incurred Losses adjusted to Act 57 Law Level, Claim Settlement Level Additives and Reported Traumatic Indemnity Incurred Losses adjusted to Act 57 Law Level and Claim Settlement Level.

Page 3 displays Reported Traumatic Indemnity Incurred Losses by Accident Year and by Report Level, the Sum of Act 57 Indemnity Law Adjustment Factors and Claim Settlement Level Additives and Reported Traumatic Indemnity Incurred Losses adjusted to Act 57 Law Level and Claim Settlement Level.

Page 4 displays Reported Traumatic Indemnity Incurred Losses adjusted to Act 57 Law Level and Claim Settlement Level by Accident Year and by Report Level. It also shows the report-to-report Development factors, as well as the averaging and selection of report-to-report factors (i.e., the Average of Middle Four).

Pages 5a, 5b and 5c display the summary and derivation of the Traumatic Indemnity Claim Settlement Adjustment Factors.

When calculating loss development factors, the primary premise is that the loss development factors must be in direct relationship with the losses being developed. The CMCRB uses data for the five (5) most recent Accident Years when calculating indicated Traumatic Loss Costs by classification (see Exhibit V-B) and notes that this data (or these five (5) years) are all on a post Act 57 Law and Claim Settlement level. Since the historical Loss Development data is not all consistently on this same level, the adjustments identified above are used to restate the historical Loss Development data to a post Act 57 Law and Claim Settlement level. In this way, both the losses to be developed from the five (5) most recent Accident Years and the loss development factors are on the same level or basis.

The CMCRB notes that Act 57 reduced Indemnity benefits in various ways. The more significant provisions of Act 57 involved changes to the AMA Guidelines, Social Security Offsets, Pension Offsets and Wage Level Offsets. The changes to Indemnity benefits are addressed by the Act 57 Indemnity Law Adjustment factors.

The CMCRB also notes that Act 57 permitted and recommended the settlement of Traumatic claims. The changes in claim settlement practices are addressed by the Claim Settlement Level Additives (or adjustments).

The CMCRB observes that both sets of adjustments seem to be well known and accepted. Furthermore, these adjustments become less relevant each year as more data is reported directly on a post Act 57 basis.

During 2017, the Pennsylvania Supreme Court made a decision in Protz v. WCAB that invalidated a portion of the Act 57 revisions. Subsequently, the Pennsylvania Legislature passed legislation that Governor Wolf signed on October 24, 2018, (Act 111 of 2018) to generally reinstate the provisions invalidated by this decision. The previously mentioned law and claim settlement adjustments used in the Exhibit VI series do not address the

effect of this decision or this legislation. Refer to Exhibit V-F, the discussion concerning Exhibit V-F and Appendix B to this report for additional information concerning the treatment of the Protz Decision and Act 111 of 2018.

B. Page 1 displays Reported Traumatic Medical Incurred Losses by Accident Year and by Report Level, Act 44 Medical Law Adjustment Factors and Reported Traumatic Medical Incurred Losses adjusted to Act 44 Law Level.

Page 2 displays Act 44 Medical Law Adjustment Factors, Claim Settlement Adjustment Additions and the Sum of these adjustments.

Page 3 displays Reported Traumatic Medical Incurred Losses by Accident Year and by Report Level, the Sum of Act 44 Medical Law Adjustment Factors and Claim Settlement Adjustment Additions and Reported Traumatic Medical Incurred Losses adjusted to Act 44 Law and Claim Settlement Levels.

For the April 1, 2021 Filing, the Act 44 Medical Law Adjustment Factors are all unity. This indicates that all of the years at the report levels included in this filing are all reported on a post-Act 44 Law level and no longer require adjustment.

Page 4 displays Reported Traumatic Medical Incurred Losses adjusted to Act 44 Law and Claim Settlement Levels by Accident Year and by Report Level. It also shows the report-to-report Development factors, as well as the averaging and selection of report-to-report factors (i.e., the Average of Middle Four).

Page 5 provides the derivation of the Medical Claim Settlement Adjustment Factors which are used on Page 2.

When calculating loss development factors, the primary premise is that the loss development factors must be in direct relationship with the losses being developed. The CMCRB uses data for the five (5) most recent Accident Years when calculating indicated Traumatic Loss Costs by classification (see Exhibit V-B) and notes that this data (or these five (5) years) are all on a post Act 44 Law and Claim Settlement level. Since the historical Loss Development data (i.e., the years and report levels used in this filing) is all consistently on this same level, the adjustments described above are used to restate the historical Loss Development data to a post Act 44 Law and Claim Settlement level are no longer necessary.

Similar to a comment under the Indemnity section above, the CMCRB observes that both sets of adjustments seem to be well known and accepted. Furthermore, these adjustments are no longer necessary since this data is reported directly on a post Act 44 basis.

During 2014, the Pennsylvania legislature passed House Bill 1846. The previously mentioned law and claim settlement adjustments used in the Exhibit VI series do not address the effect of this legislation. Refer to Exhibit V-F, the discussion concerning

Exhibit V-F and Appendix A to this report for additional information concerning the treatment of HB 1846 of 2014.

C. Page 1 displays Reported Traumatic Indemnity Incurred Claims by Accident Year and by Report Level. It also shows the report-to-report Claim Count Development factors, the averaging and selection of report-to-report factors, the Cumulative Claim Count Development factors and the estimated Ultimate Claim Counts for each Accident Year.

Page 2 displays Reported Traumatic Medical Only Incurred Claims by Accident Year and by Report Level. Otherwise, the format follows the format of Page 1.

Page 3 displays Reported Traumatic Medical Only Incurred Losses by Accident Year and by Report Level. The format is similar to Pages 1 and 2, except that only ten (10) report levels are displayed.

- D. Page 1 presents the Summary of Adjustments to Traumatic Medical Loss Development Factors related to Act 44. As noted previously in this Report, all of the factors for all of the years and report levels in this filing are now unity since the data used in this filing is considered to be reported on a post-Act 44 levels. Pages 2 through 15 are reserved for future use.
- E. This page presents the Traumatic Indemnity and Medical Paid Loss information by Accident Year and Report Level arranged in traditional loss development format. The CMCRB has only collected Paid Loss information for the period displayed.

Exhibit VII – SOD and FOD Excess Severity and Frequency

A. These five (5) pages show the Average SOD and FOD Excess Severities prior to adjustments for Act 57, adjustments for Act 57 and after adjustments for Act 57. One page is provided for each of the Four Major Classes and for the Other Classes combined.

These pages display severity values (i.e., Average Amounts and/or Totals) that are summaries of the details found in Exhibit VII-E, Exhibit IX-A and Exhibit VII-G. These pages average the Base Scenario with the All Permanent Partial Scenario using weights of 100% and 0% respectively, since no claims have been reported as Permanent Partial.

Sections "a" (After AMA Guidelines), "b" (Social Security Offset/Onset) and "c" (Pension Offset/Onset) are addressed in the discussion for Exhibit IX-A. (See Exhibit IX-A for a discussion about these amounts.)

Section "d" (Combined Social Security and Pension Offsets/Onsets) recognizes the condition that the full amount of the pension is available as an Offset to the SOD benefit with the constraint that the SOD benefit minus the Social Security and Private Pension Offsets must not be less than zero.

Section "e" (Wage Level Decrease/Increase) is no longer used.

Section "f" (Combined Social Security, Pension and Wage Level) presents percentages that are equivalent to the percentages in Section "d" since Section "e" is no longer used.

Section "g" (Combined Dollar Effect) summarizes the effect in dollars of the various Offsets and Onsets calculated on these pages.

B-1. Exhibit VII-B-1-A displays the derivation of the SOD Claim Frequencies by Classification on a Developed Payroll basis. This process begins with the Indicated Claim Frequencies on a Miner Year basis developed in Exhibit VII-B-2. The Indicated Claim Frequencies are credibility weighted with the currently Approved SOD Claim Frequencies trended (although the trend is 0%) to the current valuation level developed in Exhibit VII-B-1-B. After the application of credibility, the Credibility Weighted Indicated SOD Claim Frequencies are converted to a Developed Payroll basis because the CMCRB publishes Loss Costs on a Payroll basis.

The Total of the Expected Awarded Claims for All Classes is assigned as the full credibility standard. The credibility factor for each classification is obtained as the ratio of the Expected Awarded Claims of a given class to the full credibility standard raised to the ½ power.

Exhibit VII-B-1-B displays the conversions of the Approved SOD Claim Frequencies from the prior filing that are on a Payroll basis to a Miner Year basis.

Both of these pages provide various totals and subtotals that are derived using Developed Payrolls or Estimated Miner Years as weights as indicated in the Source notes. The totals and subtotals may differ from prior filings as the weights can and do change.

B-2. The objective of these pages is to compare estimates of the Expected Ultimate Awarded Claims to a suitable exposure base. These pages display data on the number of SOD Claims that have been Reported, Awarded or Denied, or that are Pending by Classification and with Subtotals and a Grand Total. Additionally, the IBNR Claim estimates from Exhibit VII-C are also displayed. IBNR and Pending claims are multiplied by an Award Ratio, since all reported claims do not result in payment awards.

For the exposure base, Developed Payrolls are converted to Estimated Miner Years. Subsequently, Claim Frequencies are calculated on a Miner Year (per 100 Miner Years) basis which began with the filing for April 1, 2011.

Converting Developed Payrolls to Estimated Miner Years, the (Wage) Adjustment Factors are needed since our data shows that workers in certain Bituminous Classes (i.e., Underground and Prep Plant) were paid at a higher rate than workers in other classes. (See Exhibit X-G for this analysis.) The use of a single factor for all classes would overestimate the number of Miner Years in the cited classes and underestimate the number of Miner Years in other classes had a single factor been used to adjust the SAWW in the conversion process.

Given the limited number of Denied Claims in this data, each Class was given the Award Ratio based on the Grand Total data.

The totals and subtotals that are displayed are additions of the Classes listed and may slightly differ from the results derived using the formula in the Source notes.

Federal Excess Frequencies are also calculated on these pages as the products of the State Frequencies times a Federal Excess Award Ratio of 40%. This ratio has been used since the April 1, 2004 filing (and possibly earlier) and remains comparable to the ratio of FOD Excess Awarded and Pending Claims to SOD Awarded and Pending Claims.

C. Pages 1 through 4 (i.e., Exhibit VII-C-1 through VII-C-4) display SOD Reported Claims for the Four (4) Major Classifications. Page 5 (i.e., Exhibit VII-C-5) displays SOD Reported Claims for the six (6) Other Classifications combined. Page 6 (i.e., Exhibit VII-C-6) shows SOD Reported Claims for All Classifications combined.

These pages show the procedure used to calculate Incurred But Not Reported (IBNR) Claims. Incremental Changes in Reported Claims are calculated and then converted to a percentage of Developed Payroll (in \$Millions). The actual experience is averaged and then smoothed by ordering the actual data from largest to smallest.

For the six (6) Other Classifications, the All Classifications estimates were used to arrive at the base IBNR. Pages 7 and 8 (i.e., Exhibit VII-C-7 and VII-C-8) show the IBNR calculations for the Other Classifications. Adjustment Factors were used for each of the Other Classifications to lower the expected probability of having a SOD claim since the Other Classifications have produced fewer SOD claims and lower SOD claim frequencies than the All Classifications experience with one exception. The Adjustment Factor for Anthracite Prep Plant was maintained at unity (i.e., no adjustment) because this Class has produced more claims and higher claim frequencies than the rest of the Other Classifications.

- D. Omitted Reserved for Future Use
- E. This exhibit consists of six (6) subsections (i.e., a, b, c, d, e and f). Each subsection consists of five (5) pages (one page for each of the Four Major Classes and one page for the Other Classes combined). The subsections show the following severities or severity adjustments:
  - a SOD Before Act 57
  - b SOD Social Security Offset
  - c SOD Private Pension Offset
  - d Federal Excess OD Before Offsets
  - e Federal Excess OD After Social Security Offset
  - f Federal Excess OD After Social Security and Private Pension Offsets

These pages display the individual claim detail from Exhibit IX-A by status (i.e., Awarded-Permanent, Awarded-Commuted/Compromised, and Pending). Since Pending claims could be resolved by Commutation or Compromise, the probability of Commutation/Compromise is assigned to the Pending claims based on the mix of Commuted/Compromised claims in the Awarded claims. The severity for the expected Commuted/Compromised claims within the Pending claims is then adjusted by the difference between the Average Awarded Commuted/Compromised Severity and the Average Awarded Permanent Severity. This adjustment results in a lower SOD cost and a higher FOD Excess cost.

- F. Omitted Reserved for Future Use
- G. Page 1 displays the Smoothed Average Weekly Wages for the Four Major Classes from Exhibit VII-H and the process to convert these Wages to a post-Act 57 level, where needed. The post-Act 57 Wages are used in the Occupational Disease Severity Model.

The top of Page 2 shows the calculation of the Act 57 Wage Level Offset or the Wage Level decrease associated with Act 57. The Wage Level Changes included in Act 57 are expected to reduce State benefit levels and consequently increase Federal Excess benefit levels. The wage distribution is from the 120 State OD claims provided by CMCRB for the CM-1-1998 filing, with judgmental trending to estimate the distribution of wages among miners during the projected effective period of the loss costs. The average benefit levels before and after the changes were developed by PCRB.

The bottom of Page 2 shows the development of the 12.5% Pension Offset factor. This adjustment is made because not all miners are eligible for a private pension and not all private pension payments are subject to offset.

- H. These pages show the development of the Projected Average SOD Wage Level for each of the Four Major Classes. For each class, an average ratio of the Reported (or Actual) SOD Average Wage to the Statewide Average Weekly Wage is calculated. The product of the ratio for each class and the projected Statewide Average Weekly Wage results in a Projected Average SOD Wage Level for each class. The Wage History for 1990 through 2019 (the most recent year that data is available) is then smoothed for use in the indexation process in Exhibit VII-G.
- I. Omitted Reserved for Future Use
- J. Page 1 shows the historical Social Security Cost of Living Adjustments (COLA), the 3-year, 5-year, 10-year and All-year averages of these amounts and the Selected Annual Change. Page 2 shows the projection of the Monthly Wage Amounts Bend Points and the Annual Social Security Wage Base used to calculate the Primary Insurance Amount (PIA) or Social Security benefit. These amounts are projected to one (1) year past the proposed effective date, which is the average accident date of the proposed loss costs. Page 3 provides examples as to how the bend points and maximum are used.

- K. Omitted Reserved for Future Use.
- L. These pages model changes to Claiming activity (i.e., Claim Awarding and Reopening) for FOD Excess Claims that are related to Federal Black Lung Regulation revisions that were issued on January 19, 2001. Generally, the reasoning for these calculations and assumptions follows the reasoning for Exhibit VIII-F, which is presented later in the commentary for Exhibit VIII-F. The differences in the calculations and assumptions between Exhibit VII-L and Exhibit VIII-F are discussed as follows.

Exhibit VII-L uses data for the most recent twenty (20) years whereas Exhibit VIII-F only uses data for the most recent ten (10) years. Since the CMCRB believes that different assumptions should apply to the pre-2001 years and the post-2000 year, the different or additional assumptions and calculations on these pages include the following:

- Pending Awarded Ratios the Award Ratio of 30% applies to all years.
- Denied Reopened Ratios
  - o The Reopened Ratio of 5% applies to the post-2000 years.
  - o A Reopened Ratio of 15% applies to the pre-2001 years.
- Denied Awarded
  - The Award Ratio of 100% applies to the post-2000 years.
  - o An Award Ratio of 20% applies to the pre-2001 years.
- IBNR Award Ratios the IBNR Award Ratios that are shown on each page are the ratios of the Ultimate Awarded Claims (Col. 8) and the Reported Claims (Col. 1) from the Grand Total data on page 13 for the pre-2001 years and post-2000 years respectively.
- All of these assumptions have been maintained since the April 1, 2009 filing.

The IBNR amounts in Column 10 are 40% of the SOD IBNR Amounts from Exhibit VII-C. The reasoning for and history of this assumption was provided under Exhibit VII-B-2 above.

#### Exhibit VIII – FOD Basic Severity and Frequency

- A. This page provides a summary of the individual claim details that are shown in Exhibit IX-B for the Federal Basic Severities separately for each of the Four Major Classes, the Four Major Classes Combined, the Other Classes Combined and All Classes Combined.
- B-1. Omitted Reserved for Future Use.
- B-2. The objective of these pages is to compare estimates of the Expected Ultimate Awarded Claims to a suitable exposure base. These pages display data on the number of FOD Basic Claims that have been Reported, Awarded or Denied, or that are Pending by Classification and with Subtotals and a Grand Total. Additionally, the IBNR Claim estimates from Exhibit VIII-C are also displayed. IBNR and Pending claims are multiplied by an Award Ratio, since all reported claims do not result in payment awards.

For the exposure base, Developed Payrolls are converted to Estimated Miner Years. Subsequently, Claim Frequencies are calculated on a Miner Year (per 100 Miner Years) basis which began with the filing for April 1, 2011.

Converting Developed Payrolls to Estimated Miner Years, the (Wage) Adjustment Factors are needed since our data shows that workers in certain Bituminous Classes (i.e., Underground and Prep Plant) were paid at a higher rate than workers in other classes. (See Exhibit X-G for this analysis.) The use of a single factor for all classes would overestimate the number of Miner Years in the cited classes and underestimate the number of Miner Years in other classes had a single factor been used to adjust the SAWW in the conversion process.

Each of the Four Major Classes is given its own Award Ratio, except that the data for Anthracite Underground is now incomplete for this purpose. Anthracite Underground was given an Award Ratio of 0.200, based on the actual Award Ratio for this class for the April 1, 2017 Filing. The Other Classes were given the Award Ratio based on the Grand Total data.

The totals and subtotals that are displayed are additions of the Classes listed and may slightly differ from the results derived using the formula in the Source notes.

C. Pages 1 through 4 (i.e., Exhibit VIII-C-1 through VIII-C-4) display FOD Basic Reported Claims for the Four (4) Major Classifications. Page 5 (i.e., Exhibit VIII-C-5) displays FOD Basic Reported Claims for the six (6) Other Classifications combined. Page 6 (i.e., Exhibit VIII-C-6) shows FOD Basic Reported Claims for All Classifications combined. (FOD Excess Reported Claims are addressed in Exhibits VII-B-2 and VII-L.)

These pages show the procedure used to calculate Incurred But Not Reported (IBNR) Claims. Incremental Changes in Reported Claims are calculated and then converted to a percentage of Developed Payroll (in \$Millions). The actual experience is averaged and then smoothed by ordering the actual data from largest to smallest.

For the six (6) Other Classifications, the All Classifications estimates were used to arrive at the base IBNR. Pages 7 and 8 (i.e., Exhibit VIII-C-7 and VIII-C-8) show the IBNR calculations for the Other Classifications. Adjustment Factors were used for each of the Other Classifications to lower the expected probability of having a FOD Basic claim since the Other Classifications have produced fewer FOD Basic claims and lower FOD Basic claim frequencies than the All Classifications experience. The adjustment factors were changed this year as discussed in the Summary of Significant Changes from Last Year's Filing section of this report on page 5.

D. This page displays the Table of the Monthly Federal Black Lung Benefits from 1981 to the present. It also shows the changes in benefits from year to year and the selected change rates that were used to project FOD losses to the average accident date anticipated for the proposed filing.

- E. Omitted Reserved for Future Use.
- F. These pages model changes to Claiming activity (i.e., Claim Awarding and Reopening) for Federal Basic OD Claims that are related to Federal Black Lung Regulation revisions that were issued on January 19, 2001. These revisions changed the procedures and criteria for obtaining Federal Black Lung Benefits resulting in the natural expectation that the frequency of Federal Black Lung claims would increase. Some of the regulatory changes involved limiting evidence and time to contest, broadening the definition of Black Lung disease, weakening the criteria for determining disability, offering new claim status (as opposed to subsequent and reopened status) to claims, and changing attorney and witness fees.

These changes were expected to increase claim frequencies in the post-2000 years to a greater level than had been previously observed and to increase the claim frequencies in the pre-2001 years as well. Most parties agreed that frequencies, severities and costs generally would increase under these revisions. Even the U.S. Department of Labor conceded that costs would rise between 15% and 60%.

For the post-2000 years, the CMCRB believes that Pending claims will be awarded at a higher rate than previously observed, so Pending claims are assumed to have an Award Ratio of 30%. Similarly, the CMCRB also believes that some Denied claims will be reopened and awarded under the more liberal standards of proof, so 5% of Denied claims are assumed to be Reopened with a subsequent Award Ratio of 100%. These assumptions were first included in the April 1, 2009 filing. The derivation and history of these parameters has been discussed in prior filings, so a brief discussion is provided below.

For the years 1989 to 1999 as of August 2000, the following claim statuses were noted: 122 Awarded, 121 Pending, 447 Denied and 690 Reported.

The claim statuses for 121 Pending claims were updated as of August 2007. The following updated claim statuses were noted: 22 Awarded, 21 Pending, 76 Denied and 2 "Other".

This data implies an Award Ratio of 22.45% which is equal to (22) divided by (22+76). This ratio serves as an estimate of the percentage of Pending claims that will be ultimately Awarded.

The claim statuses for the 447 Denied claims were also updated as of August 2007. The following updated claim statuses were noted: 6 Awarded, 12 Pending and 429 Denied.

This data implies an Award Ratio for Denied Claims of about 2% which is equal to (8.7) divided by (447). The numerator of 8.7 is equal to (6) plus (12) x (22.45%). This ratio serves as an estimate of the percentage of Denied claims that will be ultimately Awarded.

The IBNR Award Ratio that is shown on each page is the ratio of the Total Ultimate Awarded Claims (Col. 8) and the Total Reported Claims (Col. 1) from the Grand Total data on page 13.

#### Exhibit IX – Individual Claim Detail for SOD and FOD Claim Severities

A. These pages display the Individual Claim Detail for State and FOD Excess claim severities separately for the Four Major Classes and for the Other Classes combined. The Individual Claim Details come from the CMCRB's Occupational Disease Severity Model ("Model"). Benefit amounts are accumulated over the lifetime of the miner (and spouse, if applicable) with mortality factors included in the calculation. For SOD and FOD Excess, this Model evaluates claims both on a Permanent Total basis and on a Permanent Partial basis.

To estimate the value of each claim, each claim is assumed to occur during the midpoint of the proposed filing period. This assumption requires that the historical wage amount recorded for each claim be adjusted to the midpoint of the proposed filing period. Details of these adjustments are presented in Exhibit VII-H.

These pages first display claim values (or projected benefits) for a "Base" scenario (i.e., before the impact of Act 57) for SOD (including Medical) and FOD Excess. These values are associated with the Awarded and Pending claims reported to the CMCRB for exposure years 1990 through 2019. For the Base Scenario, all claims are calculated with lifetime SOD Indemnity (Benefit) payments (i.e., Permanent Total basis) except for the Commuted or Compromised claims.

These pages also display claim values for an "All Permanent Partial" scenario. Values for the All Permanent Partial scenario are calculated because the implementation of American Medical Association (AMA) Guidelines to evaluate the percentage of disability was expected to reduce the portion of claims evaluated as Permanent Total. For this scenario, all claims other than Commuted, Compromised, or Widow Only were calculated with only 630 weeks of SOD Indemnity (Benefit) payments.

The 630-week duration was calculated as follows:

The AMA Guidelines do not apply prior to the expiration of an initial 104-week benefit period. With timely filing for review, timely occurrence of the hearing and timely issuance of a decision, a <u>floor</u> of 604 weeks exists (104 + 500). The actual period will be longer than this 604-week floor. It is estimated that the anticipated average benefit period for claims reviewed under the AMA Guidelines will exceed the floor by one-half of a year, or 26 weeks. Therefore, the All Permanent Partial Scenario was based upon 630 weeks (104 + 26 + 500).

These pages display Social Security Offsets/Onsets. These Offsets/Onsets are based on the Social Security Formulas – Historic Primary Insurance Amounts (PIA) and

Projections in Exhibit VII-J. The decrease (or Offset) to SOD benefits is 50% of the miner's Social Security retirement benefit, limited to the amount of the SOD benefit. This adjustment results in a decrease to SOD Indemnity benefits and an increase to FOD Excess Indemnity benefits.

These pages also display Pension Offsets/Onsets. These Offsets/Onsets are based on the Pension Offset percentage calculated in Exhibit VII-G Page 2. The full amount of the pension is available as an Offset to the SOD benefit, with the constraint that the SOD benefit minus the Social Security and Private Pension Offsets must not be less than zero. This adjustment results in a decrease to SOD Indemnity benefits and an increase to FOD Excess Indemnity benefits.

Four (4) provisions in Act 57 of 1996 were expected to reduce SOD benefits (and Traumatic benefits). These provisions involved the:

- 1. AMA Guidelines
- 2. Social Security Offsets/Onsets
- 3. Pension Offsets/Onsets and
- 4. Wage Level Offsets/Onsets.

Consequently, the CMCRB has annually submitted estimates for SOD Loss Costs that reflect the anticipated savings from these provisions. Correspondingly, but not in the same proportions, the CMCRB has submitted estimates for FOD Excess Loss Costs that reflect the anticipated additional costs from these provisions that would be shifted to Federal secondary claims since the cross-over point for Federal benefits would occur quicker or earlier than under the old law.

This filing continues the process of phasing out some of the SOD Offsets and some of the FOD Excess Onsets.

- AMA Guidelines While the CMCRB continues to calculate both a Permanent Total (or Base) scenario and an All Permanent Partial scenario, the Base scenario now receives 100% of the weight in the averaging of these two values. The weight given to the All Permanent Partial scenario has been reduced to zero since no such claims have emerged.
- Social Security and Pension Offsets/Onsets The CMCRB continues to use the
  original assumptions for these provisions due to the absence of actual claim data
  in this regard.
- Wage Level Offsets/Onsets The CMCRB annually updates the offset/onset amount in Exhibit VII-G Page 1. The SOD Offset percentage decreased from 1.1866% to 1.1471%.
- B. These pages display the Individual Claim Detail for Federal Basic OD claim severities separately for the Four Major Classes and for the Other Classes. The Individual Claim Details come from the CMCRB's Occupational Disease Severity Model ("Model").

Benefit amounts are accumulated over the lifetime of the miner (and spouse, if applicable) with mortality factors included in the calculation.

These pages (Exhibit IX-A and IX-B) provide a source for the claim severity figures in Exhibits VII and VIII. No changes, except updates, were made in any of the formula used to run the Model. For example, the input parameters used to calculate the Medical Severities on these pages were updated to reflect inflation considerations.

#### Exhibit X – Payrolls – Developments and Adjustments

- A. Developed and Adjusted Payrolls are displayed by year, by coverage and by classification. Payrolls occasionally differ by coverage for the reasons addressed in Exhibit X-C. Page 1 provides Traumatic Payrolls; Page 2 provides SOD Payrolls; and Page 3 provides FOD Payrolls.
- B. Developed Traumatic Payrolls are extended at current loss cost level to calculate on-level Loss Cost Premium by year for eleven (11) years and by classification on Page 1. Rating values from the CMCRB's latest loss cost filing are shown on Pages 2 and 3.
- C. Developed Traumatic Payrolls are first adjusted to obtain Developed SOD Payroll by showing the amount of Anthracite Underground payroll that is assigned to the Bituminous Underground classification related to the UAE decision on Pages 4 and 5. Otherwise, Developed Traumatic Payrolls are equal to Developed SOD Payrolls.
  - Then, Developed SOD Payrolls are adjusted to obtain Developed FOD Payroll on Pages 1 through 3. The Federal Exempt Reported Payroll is the Traumatic Payroll for insureds that purchase State Act coverage (Traumatic and SOD), but that select to self-insure for FOD coverage. Also, Developed SOD Payrolls are further adjusted to obtain Developed FOD Payrolls for Executive Officers, Sole proprietors and Partners of Partnerships that elected not to purchase State Act coverage. These individuals can elect not to purchase State Act coverage, but cannot elect not to purchase FOD coverage.
- D. Reported Payrolls by classification are projected to Developed Payrolls using the Development Factors calculated in Exhibit X-E. Developed Payrolls are the CMCRB's estimated ultimate or final payroll level for each Accident Year.
- E. Payroll Development Factors are calculated first from report-to-report level and then from report-to-ultimate level.
- F. SOD and FOD Claim Frequencies from the CMCRB's latest loss cost filing are shown.
- G. Reported Average Weekly Wages for Coal Classes are indexed to the Statewide Average Weekly Wage (SAWW). These indexes are used in the calculation of SOD and FOD Claim Frequencies.

Exhibit XI – Special Assessments

In Section A, the fiscal year budget for the Office of Small Business Advocate is compared to the insurance carrier paid losses to produce the Small Business Advocate Assessment Factor or Ratio. This amount is loaded into the CMCRB's Manual Loss Costs.

In Section B, the fiscal year budgets for the listed Funds are compared to the Employer Assessment Premium Base to produce the Employer Assessment Factor. This amount is not loaded into the CMCRB's Manual Loss Costs, but is treated as a separate calculation in the determination of policy premium. This amount is the estimated provision for Pennsylvania's Administrative Fund, Subsequent Injury Fund, Supersedeas Fund and Uninsured Employer Guaranty Fund.

#### Exhibit XII – Catastrophe Provision

The CMCRB caps or limits losses for individual Traumatic claims at \$1,250,000 in the Traumatic Loss Cost Indications by classification in Exhibit V-B which uses data for the five (5) most recent Accident Years. In this exhibit, the CMCRB calculates provisions for these large losses using data for the twenty (20) most recent Accident Years. The CMCRB expresses these considerations as loss costs which provide for potential future catastrophic loss events. These amounts, which vary by classification, are loaded into the CMCRB's Manual Loss Costs.

- A. The overall catastrophe provision (or Loss Costs) is distributed among the ten (10) Traumatic classifications based on the Developed Payrolls for the most recent Accident Year and the noted Hazard Weights.
- B. The Number of Excess Claims and Excess Loss Dollars in excess of \$1,250,000 are summarized by Accident Year. The current Accident Year Developed Payroll is compared to the Average Catastrophe Excess Loss over the twenty (20) most recent Accident Years to develop the Catastrophe Loss Cost.
- C. Information for the individual Traumatic losses that exceed the \$1,250,000 threshold is shown including the trend factor used to bring losses to the current loss level. Beginning with the April 1, 2018 filing, all losses in the twenty (20) most recent Accident Years are reported on a Post-Act 44 basis and do not require an Act 44 adjustment. The Statewide Average Weekly Wage Index is used as the Trend factor and is applied to both Indemnity and Medical Losses. The use of this index seems appropriate since Indemnity losses are a direct function of wages and Act 44 restricts changes in Medical costs to the change in the Statewide Average Weekly Wage.
- D. Trend Factors (or factors that are used to bring historical Indemnity and Medical losses to current loss level) for Indemnity and Medical losses are calculated based on the Statewide Average Weekly Wage (SAWW) that is published for Pennsylvania. The CMCRB projects the SAWW to the average accident date associated with the requested effective date for this filing based on the review of the yearly changes that are shown.

E. The Number of Excess Claims and Excess Loss Dollars in excess of \$1,250,000 are summarized by classification (or Class Code).

## Exhibit XIII – Traumatic Experience Rating Plan

The CMCRB proposes to maintain the major features of the Traumatic Experience Rating Plan and to update the associated plan parameters. The major features are:

- The primary limiting value for basic ratable losses remains at \$50,000 per occurrence.
- The secondary limiting value for excess ratable losses remains at \$150,000 per occurrence.
- The eligibility requirement of at least \$300,000 in modified Traumatic payroll during the three (3) year experience is maintained.
- The shape of the Credibility Table is also unchanged.
- A. Page 1 shows the derivation of the Expected Loss Costs (or Values) based on the Unloaded Loss Costs and the Split of Total Losses by Layer. The proposed total limits loss costs were unloaded for loss-based assessments, the Small Business Advocate, Merit Rating Off-Balance, Safety Committee Off-Balance, Catastrophe Loading, loss development and trend to calculate the expected losses by layer. These unloaded, detrended, undeveloped loss costs were then divided into layers based on the six-year average of actual losses by layer at the same maturity (report) level.

Page 2 shows the calculations for the weighted loss development and loss trend factors. These factors are used on page 1.

Page 3 shows the basic and ratable excess credibility amounts by size of risk (i.e., modified 3-year payroll) based on the proposed overall Unloaded Loss Cost. The primary layer table tracks the shape of the PCRB table converted from expected losses to Payroll using the proposed overall Unloaded Loss Cost underlying this filing. The table for the excess ratable layer was also updated based on the proposed overall Unloaded Loss Cost underlying this filing.

- B. These pages provide comparisons of the current Experience Mods (as calculated and released by the CMCRB with last year's filing) to the proposed Experience Mods, by file number. In total, there are few new experience-rated accounts. Some accounts which were experience rated last year were not eligible this year. The Experience Rating Plan's Off-Balance factor was calculated to be 0.9973. Each indicated mod was adjusted by this off-balance factor so that the Plan is revenue neutral.
- C. The CMCRB caps indicated Experience Mod increases and decreases at 0.35. This page shows files that are affected by this capping.

Additionally, the CMCRB plans to continue the capping of Experience Mods for small accounts (which is part of the currently approved Experience Rating Plan) as follows:

Less than \$499,999 in payroll max mod 1.20 \$500,000 to \$749,999 in payroll max mod 1.30

\$750,000 to \$999,999 in payroll

max mod 1.40

Exhibit XIV – Merit Rating and Safety Committee Credit Off-Balance Calculations

- A. Page 1 shows the calculation of the Merit Rating Plan Off-Balance Factor, which is equal to the ratio of proposed Unloaded Loss Cost Premium to the proposed Unloaded Loss Cost Premium after Merit Rating Credits and Surcharges. Page 2 shows Developed Payroll for the most recent Accident Year in total and separately for Experience Rated, Merit Rated and Manual Rates risks. For Merit Rated risks, the Payroll is also shown separately for Merit Credit and Merit Surcharged risks.
- B. This page shows the calculation of the Safety Committee Credit Off-Balance Factor. This factor is equal to the ratio of proposed Unloaded Loss Cost Premium to proposed Unloaded Loss Cost Premium after Safety Committee credits.

#### **Disclosures**

The CMCRB offers the following disclosures (i.e., potential constraints or limitations) concerning the conclusions in this report specifically related to potential risk and/or uncertainty. The Proposed Loss Costs do not include any provision for the risk and/or uncertainty that may be inherent in these reserve estimates or in these loss cost projections. While the CMCRB understands that the applicable Statements of Principles promulgated by the Casualty Actuarial Society advocate for a provision for uncertainty, the CMCRB believes that its approach is acceptable and reasonable, because individual carriers can decide whether or not to include a provision for uncertainty in the determination of their loss cost multipliers.

Although this report complies with applicable Actuarial Standards of Practice and Statements of Principles, users of this report should be aware that the projections in this report involve estimates that are inherently uncertain. This uncertainty stems from a dependence of the amount of future claims payments on facts and circumstances that are unknown at this time. Some of these unknown facts and circumstances may involve, but may not necessarily be limited to, the following:

- Changes in claim reserving practices or settlement practices,
- Changes in the legal, regulatory, economic or social environments,
- Statistical variation from the projected expected values especially given the fairly modest size of the CMCRB's database and
- Future emergence of new classes of losses or types of losses that are not sufficiently represented in the historical database.

The CMCRB believes that one potential source of instability in Traumatic Claim Frequencies (and possibly Severities) that deserves specific mention involves an actual or perceived change in the coal mining work force demographics. The CMCRB has heard reports from member companies that a shift in the Pennsylvania coal mining work force began during 2016 and continued into 2019 where older, more experienced miners were replaced by younger, less experienced miners. The CMCRB has also read reports (e.g., see MSHA's News Release posted June 6, 2017) about this same shift and the potential impact on losses related to it. While the CMCRB does not have access to data to corroborate this change or estimate its effect, the

CMCRB understands that MSHA's opinion is that less experienced miners – both at a mine and at a specific occupation – suffer injuries at a higher rate than more experienced miners. The CMCRB has not directly or indirectly taken this reported demographic shift or its effect into consideration in the subject filing. However, the CMCRB believes that this phenomenon potentially adds to the uncertainty associated with the subject filing, especially concerning the lack of information that is available to predict when the demographic shift will stop or achieve a new demographic equilibrium.

The CMCRB believes that another potential source of instability involves the influx of new and large entities into the CMCRB's database. On Exhibit X-A, the influx of these new entities is associated with the significant changes in payroll between 2013 and 2019:

- Traumatic and SOD payroll increased by about \$123 million or 41% from 2013 to 2014. However, FOD payroll increased by about \$28 million or 10% from 2013 to 2014.
- Traumatic and SOD payroll decreased by about \$74 million or 17% from 2014 to 2015. FOD payroll decreased by about \$60 million or 19% from 2014 to 2015.
- Traumatic and SOD payroll decreased by about \$96 million or 27% from 2015 to 2016. FOD payroll decreased by about \$44 million or 17% from 2015 to 2016.
- The entities that produced the large Traumatic and SOD increases from 2013 to 2014 remained self-insured for FOD exposures through the first half of 2016, but began insuring their FOD exposures at that time.
- For 2017, Traumatic and SOD payroll increased by about \$35 million or 14%. FOD payroll increased by about \$68 million or 31%. However, for 2017, Traumatic and SOD payroll is once again almost the same as FOD payroll.
- For 2018 and 2019, payroll changes have been much more modest increasing by 5-6% with Traumatic and SOD payrolls almost the same as FOD payrolls.

The CMCRB also wants to emphasize that the data for this filing covered periods of time generally understood to occur prior to the known presence of the coronavirus (SARS Cov-2 and/or COVID-19) in Pennsylvania. The CMCRB is not aware of any impacts to either the payroll or losses used in this filing related to the ongoing issues surrounding this situation. Furthermore, the CMCRB has not included any considerations and/or loads related to the coronavirus and/or potential similar future events in this filing.

Additionally, the CMCRB believes that the conclusions in this report are consistent with the combined experience of all carriers in the CMCRB's database. However, the CMCRB acknowledges that the experience of the CMCRB's individual members companies may be different (or may be perceived to be different) from the aggregate experience of the CMCRB's total membership.

Please direct any questions concerning this report to:

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# Actuarial Report – Appendix A Consideration of House Bill 1846 of 2014 (HB 1846) Regarding the CMCRB's April 1, 2021 Loss Cost Filing

The CMCRB collects workers compensation medical loss information that is aggregated at the claim level. This information does not include medical bill line item detail. Consequently, the CMCRB maintains its prior assertion that the evaluation of HB 1846 that was prepared by the Pennsylvania Compensation Rating Bureau ("PCRB") is the best analysis of this law that is available to the CMCRB at this time.

For the April 1, 2016 Loss Cost Filing, the CMCRB used the savings approximation of 1.32% (or a factor of 0.9868) that was promulgated by the PCRB in Exhibit 34 to PCRB Proposal C-366 – April 1, 2016. The CMCRB uniformly applied this factor to each of the five Accident Years used in the Traumatic Loss Cost indications (i.e., 2010 – 2014). The PCRB's exhibit is available online at <a href="http://www.pcrb.com/pcrb/filings/c366/Exhibit%2034.pdf">http://www.pcrb.com/pcrb/filings/c366/Exhibit%2034.pdf</a>.

The CMCRB notes that this savings approximation consists of two components:

- 1) A medical savings adjustment factor of approximately 0.9908 and
- 2) An annual medical severity trend deflection factor of approximately 0.9881.

For the April 1, 2017 through April 1, 2020 Loss Cost Filings, the CMCRB utilized these two components to derive unique adjustment factors for each of the five Accident Years used in those filings to prepare Traumatic Loss Cost indications. For the April 1, 2021 Loss Cost Filing, the CMCRB proposes a similar approach and provides this appendix to describe this process and the attached exhibits in support of these calculations.

Appendix A-1 identifies the components of the data that the PCRB utilized to calculate the medical savings adjustment factor of approximately 0.9908. The PCRB identifies this data as the "2013 Dataset". Based on PCRB's description, the 2013 Dataset seems to be a reasonably close approximation of Calendar Year 2013 Paid Losses. So, this medical savings adjustment factor represents the factor that would be applied to *actual* Calendar Year 2013 Paid Losses on a pre-HB 1846 basis to produce *expected* Calendar Year 2013 Paid Losses on a post-HB 1846 basis.

Appendix A-2 shows the application of the annual medical severity trend deflection adjustment to the medical savings adjustment factor. The annual medical severity trend deflection factor is applied on a calendar year basis. This triangle represents the factors that would be applied to the actual Accident Year Incremental Paid Losses on a pre-HB 1846 basis to produce expected Accident Year Incremental Paid Losses on a post-HB 1846 basis. The CMCRB used the following estimations in these calculations:

- 1) Effective date Since HB 1846 became effective December 26, 2014, the CMCRB adopts January 1, 2015 as the estimated effective date to ease the estimation process.
- 2) Transition While HB 1846 was effective December 26, 2014 (estimated as January 1, 2015), the CMCRB believes that a one-year transition to benefits on a post-HB 1846 basis is reasonable. Consequently, the CMCRB selects the factor for Calendar Year 2015 Paid Losses judgmentally as the average of the Calendar Year 2014 factor and unity.

3) Post-transition – The CMCRB believes that Calendar Year 2016 Paid Losses and subsequent Paid and Outstanding Losses are fully on a post-law basis and selects unity as the adjustment factor to these losses.

Appendix A-3 displays the derivation of the CMCRB's Paid Loss Distribution. The CMCRB notes that the Selected Distribution is very close to the Actual Distribution through 7<sup>th</sup> report level. Beyond 7<sup>th</sup> report level, the CMCRB notes that it favored accelerating the distribution for simplicity in subsequent calculations. This distribution is necessary to prepare Accident Year Incremental Paid and Outstanding Losses.

Appendix A-4 distributes the Selected Paid Loss Distribution into an Accident Year loss development triangle. The Outstanding Loss Distribution is also displayed.

- Row 1 represents the portion of ultimate losses that are expected to be paid for each Accident Year based on current report levels.
- Row 2 shows the portion of ultimate losses that are expected to be outstanding for each Accident Year based on current report levels.
- Row 3 shows the sum of Rows 1 and 2 which sums to unity or 100% for each Accident Year.

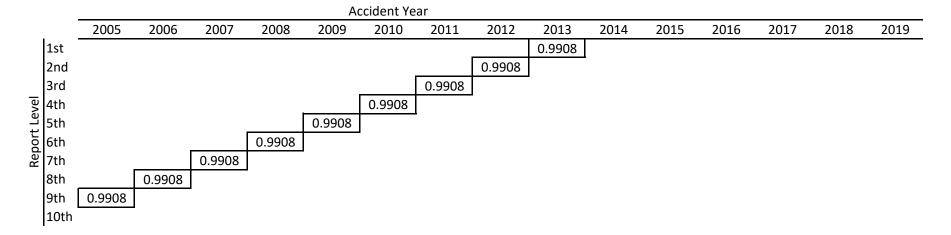
Appendix A-5 shows the derivation of the Accident Year specific adjustment factors for HB 1846. The triangle on this page is the cell-by-cell product of the HB 1846 Medical Savings Adjustment Factors with Medical Trend Deflection Adjustment (A-2) and the Estimated Incremental Paid Losses (A-4). In other words, this triangle represents the Incremental Paid Losses on a post-HB 1846 basis.

- Row 1 represents the portion of ultimate losses that are expected to be paid for each Accident Year based on current report levels after Paid Losses are adjusted to reflect HB 1846 savings.
- Row 2 shows the portion of ultimate losses that are expected to be outstanding for each Accident Year based on current report levels.
- Row 3 shows the HB 1846 savings factor to be applied to outstanding losses.
- Row 4 reflects outstanding losses adjusted to reflect HB 1846 savings.
- Row 5 displays the factor to adjust Ultimate Accident Year losses to reflect HB 1846 savings. This row is also re-displayed in the column to the right.

#### Attachments

1) Appendix A-1 through Appendix A-5

#### Components of the "2013 Dataset" with Medical Savings Adjustment Factor



The PCRB estimated HB 1846 cost savings from Medical Data Call records with dates of service during CY 2013 with payments made through the 1st Q of CY 2014 and referred to these records as the 2013 Dataset. These boxes represent a reasonably close approximation of the data components of the 2013 Dataset filled with the savings estimate of 0.92% or a factor of 0.9908.

Source: PCRB Proposal C-366 - April 1, 2016 Loss Cost Filing - Exhibit 34 http://www.pcrb.com/pcrb/filings/c366/Exhibit%2034.pdf

#### Medical Savings Adjustment Factor with Medical Trend Deflection Adjustment

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_		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1	Lst	1.0000	1.0000	1.0000	1.0000	0.9984	0.9965	0.9946	0.9927	0.9908	0.9889	0.9945	1.0000	1.0000	1.0000	1.0000
2	2nd	1.0000	1.0000	1.0000	0.9984	0.9965	0.9946	0.9927	0.9908	0.9889	0.9945	1.0000	1.0000	1.0000	1.0000	
3	3rd	1.0000	1.0000	0.9984	0.9965	0.9946	0.9927	0.9908	0.9889	0.9945	1.0000	1.0000	1.0000	1.0000		
Je V	1th	1.0000	0.9984	0.9965	0.9946	0.9927	0.9908	0.9889	0.9945	1.0000	1.0000	1.0000	1.0000			
r Le	ōth	0.9984	0.9965	0.9946	0.9927	0.9908	0.9889	0.9945	1.0000	1.0000	1.0000	1.0000				
ğ	5th	0.9965	0.9946	0.9927	0.9908	0.9889	0.9945	1.0000	1.0000	1.0000	1.0000					
Repor	7th	0.9946	0.9927	0.9908	0.9889	0.9945	1.0000	1.0000	1.0000	1.0000						
8	3th	0.9927	0.9908	0.9889	0.9945	1.0000	1.0000	1.0000	1.0000							
ç	)th	0.9908	0.9889	0.9945	1.0000	1.0000	1.0000	1.0000								
1	L0th	0.9889	0.9945	1.0000	1.0000	1.0000	1.0000									

The PCRB also estimated that the effects of HB 1846 would reduce the growth rate of medical costs at an annual rate of 0.19% or a factor of 0.9981.

CY 2013	Annual	CY	2005-8	1.0000	-5	1.0000 = 0.9908 times (0.9981 ^ -5). Capped at unity.
(Base)	Change	CY	2009	0.9984	-4	0.9984 = 0.9908 times (0.9981 ^ -4)
Adjt.	in Adjt.	CY	2010	0.9965	-3	0.9965 = 0.9908 times (0.9981 ^ -3)
0.9908	0.9981	CY	2011	0.9946	-2	0.9946 = 0.9908 times (0.9981 ^ -2)
<u> </u>		CY	2012	0.9927	-1	0.9927 = 0.9908 times (0.9981 ^ -1)
		CY	2013	0.9908	0	0.9908 = 0.9908 times (0.9981 ^ 0)
		CY	2014	0.9889	1	0.9889 = 0.9908 times (0.9981 ^ 1)
		CY	2015	0.9945	*	
		CY	2016	1.0000	**	
		CY	2017	1.0000	**	
		CY	2018	1.0000	**	
		CY	2019	1.0000	**	
	Outstan	ding at:	2019	1.0000	**	

- \* The Adjustment for Calendar Year 2015 Paid Losses was judgmentally selected to be the average of the last data point and unity to transition to benefits on a post-HB 1846 basis.
- \*\* The Adjustments for Calendar Years 2016 2019 Paid Losses and Outstanding Losses were selected to be unity since data is expected to be reported on a post-HB 1846 basis because HB 1846 became effective in December 2014.

Source: PCRB Proposal C-366 - April 1, 2016 Loss Cost Filing - Exhibit 34 http://www.pcrb.com/pcrb/filings/c366/Exhibit%2034.pdf

100.00%

92.96% 92.96% 11.00%

#### Derivation of Traumatic Medical Incremental Paid Loss Distribution

Traumat	Traumatic Medical Reported Paid Losses as of 04-30-2020 from Exhibit VI-E:													
Report	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>				
1	2,751,976	3,211,934	3,607,221	2,405,205	3,932,999	2,543,986	2,330,259	3,485,388	3,814,701	2,490,656				
2 3	3,388,757 3,681,854	4,428,864 4,791,312	4,556,072 4,910,148	3,576,391 3,732,065	5,142,203 5,725,513	3,295,697 3,579,670	3,381,307 3,601,813	4,551,331 4,900,816	4,779,083					
4	4,050,370	4,791,312	5,036,044	3,783,913	5,806,872	3,712,776	3,665,013	4,900,610						
5	4,182,550	5,232,645	5,071,629	3,837,635	5,825,434	3,863,705	3,003,013							
6	4,258,152	5,334,986	5,142,197	3,895,586	5,872,039									
7	4,295,252	5,480,157	5,165,531	3,989,755										
8	4,307,958	5,547,144	5,187,761											
9	4,313,902	5,698,271												
10	4,314,897													
Traumat	ic Medical Re	norted Incur	red Losses as	of 04-30-203	00 from Evhih	i+ \/I_R_/I ·								
Haumat					5,882,245		3,905,895	6,006,389	5,421,768	4.076.893				
	4,313,037	0,232,008	3,443,073	4,132,333	3,882,243	3,909,083	3,903,893	0,000,389	3,421,708	4,070,833				
Traumat	ic Medical Inc	curred Loss D	evelopment	Factors from	Exhibit V-C-2	:								
	1.0755	1.0803	1.0853	1.0905	1.0959	1.1015	1.1073	1.1133	1.0979	1.1487				
Ultimate	Traumatic M	edical Losses	s = Medical In	ncurred Losse	s times Medi	cal Incurred L	oss Develop	ment Factors	<u>:</u>					
	4,641,468	6,732,503	5,910,189	4,528,185	6,446,352	4,305,855	4,324,998	6,686,913	5,952,559	4,683,127				
Percent	<u>Paid = Trauma</u>	atic Medical I	Reported Pai	<u>d Losses divi</u>	ded by Ultima	te Traumatic	Medical Los	ses:				Average	Selected	Selected
Report	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Average</u>	Ex Hi/Lo	<u>Incremental</u>	<u>Cumulative</u>
1	59.29%	47.71%	61.03%	53.12%	61.01%	59.08%	53.88%	52.12%	64.09%	53.18%	56.45%	56.59%	56.00%	56.00%
2	73.01%	65.78%	77.09%	78.98%	79.77%	76.54%	78.18%	68.06%	80.29%		75.30%	75.95%	19.00%	75.00%
3	79.33%	71.17%	83.08%	82.42%	88.82%	83.13%	83.28%	73.29%			80.57%	80.76%	5.50%	80.50%
4	87.26%	73.98%	85.21%	83.56%	90.08%	86.23%	84.74%				84.44%	85.40%	4.50%	85.00%
						00 730/					06 430/	07.00/	4 500/	86.50%
5	90.11%	77.72%	85.81%	84.75%	90.37%	89.73%					86.42%	87.60%	1.50%	
5 6	90.11% 91.74%	79.24%	87.01%	86.03%	90.37% 91.09%	89.73%					86.42%	88.04%	1.50%	87.50%
	91.74% 92.54%	79.24% 81.40%	87.01% 87.40%			89.73%					87.02% 87.36%	88.04% 87.76%	1.00% 0.50%	87.50% 88.00%
6	91.74%	79.24%	87.01%	86.03%		89.73%					87.02%	88.04%	1.00%	87.50%

Notes: The selected distribution is a very close approximation to the actual distribution through 7th report level.

The importance of the selected distribution diminishes beyond 7th report and was accelerated for simplicity.

10

92.96%

#### Incremental Paid and Outstanding Medical Losses per Report Level

					Δ.	ccident Yea						Selected	Cumulativa	Outstanding
										2212		Incremental	Cumulative	Outstanding
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Paid Losses	Paid Losses	Losses
1st	0.5600	0.5600	0.5600	0.5600	0.5600	0.5600	0.5600	0.5600	0.5600	0.5600	0.5600	56.00%	56.00%	44.00%
2nd	0.1900	0.1900	0.1900	0.1900	0.1900	0.1900	0.1900	0.1900	0.1900	0.1900		19.00%	75.00%	25.00%
3rd	0.0550	0.0550	0.0550	0.0550	0.0550	0.0550	0.0550	0.0550	0.0550			5.50%	80.50%	19.50%
4th 5th	0.0450	0.0450	0.0450	0.0450	0.0450	0.0450	0.0450	0.0450				4.50%	85.00%	15.00%
를 5th	0.0150	0.0150	0.0150	0.0150	0.0150	0.0150	0.0150					1.50%	86.50%	13.50%
6th	0.0100	0.0100	0.0100	0.0100	0.0100	0.0100						1.00%	87.50%	12.50%
₹ 7th	0.0050	0.0050	0.0050	0.0050	0.0050							0.50%	88.00%	12.00%
8th	0.0050	0.0050	0.0050	0.0050								0.50%	88.50%	11.50%
9th	0.0050	0.0050	0.0050									0.50%	89.00%	11.00%
10th	0.1100	0.1100										11.00%	100.00%	0.00%
1)	1.0000	1.0000	0.8900	0.8850	0.8800	0.8750	0.8650	0.8500	0.8050	0.7500	0.5600			
•														
2)	0.0000	0.0000	0.1100	0.1150	0.1200	0.1250	0.1350	0.1500	0.1950	0.2500	0.4400			
3)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			

#### Notes:

- 1) The anticipated Cumulative Paid Losses which equal the sums of the columns above.
- 2) The remaining anticipated Outstanding Losses for each Accident Year.
- 3) The sum of rows 1 and 2.

Selected

2019

1.0000

#### Combination - Incremental Paid Losses & Adjustment/Deflection Factors

						Selected									
							Incremental	Cumulative	Outstanding						
		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Paid Losses	Paid Losses	Losses
	1st	0.5591	0.5580	0.5570	0.5559	0.5548	0.5538	0.5569	0.5600	0.5600	0.5600	0.5600	56.00%	56.00%	44.00%
	2nd	0.1893	0.1890	0.1886	0.1883	0.1879	0.1890	0.1900	0.1900	0.1900	0.1900		19.00%	75.00%	25.00%
	3rd	0.0547	0.0546	0.0545	0.0544	0.0547	0.0550	0.0550	0.0550	0.0550			5.50%	80.50%	19.50%
٦	4th	0.0447	0.0446	0.0445	0.0448	0.0450	0.0450	0.0450	0.0450				4.50%	85.00%	15.00%
<u> </u>	4th 5th 6th 7th	0.0149	0.0148	0.0149	0.0150	0.0150	0.0150	0.0150					1.50%	86.50%	13.50%
Š	6th	0.0099	0.0099	0.0100	0.0100	0.0100	0.0100						1.00%	87.50%	12.50%
Rei	7th	0.0050	0.0050	0.0050	0.0050	0.0050							0.50%	88.00%	12.00%
	8th	0.0050	0.0050	0.0050	0.0050								0.50%	88.50%	11.50%
	9th	0.0050	0.0050	0.0050									0.50%	89.00%	11.00%
	10th	0.1100	0.1100										11.00%	100.00%	0.00%
	1)	0.9975	0.9960	0.8845	0.8783	0.8724	0.8677	0.8619	0.8500	0.8050	0.7500	0.5600		Accident	HB 1846
	2)	0.0000	0.0000	0.1100	0.1150	0.1200	0.1250	0.1350	0.1500	0.1950	0.2500	0.4400		<u>Year</u>	Adjt. Factor
	3)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		2009	0.9975
	4)	0.0000	0.0000	0.1100	0.1150	0.1200	0.1250	0.1350	0.1500	0.1950	0.2500	0.4400		2010	0.9960
	5)	0.9975	0.9960	0.9945	0.9933	0.9924	0.9927	0.9969	1.0000	1.0000	1.0000	1.0000		2011	0.9945
														2012	0.9933
	Note	s:												2013	0.9924
		1) The ant	icipated Cu	mulative A	djusted/De <sup>-</sup>	flected Paid	l Losses wh	ich equal t	he sums of	the columr	is above.			2014	0.9927
		2) The rem	naining anti	cipated Ou	tstanding L	osses for ea	ach Accider	nt Year.						2015	0.9969
		3) The sele	ected Adjus	tment facto	or for Calen	dar Year 20	19 Outstar	nding Losse	S.					2016	1.0000
		4) The pro	duct of row	s 2 and 3.										2017	1.0000
		5) The sum	n of rows 1	and 4.										2018	1.0000

The triangle above is the cell-by-cell product of the following two triangles:

Medical Savings Adjustment Factor with Medical Trend Deflection Adjustment (Appendix A-2)

Medical Savings Adjustment Factor with Medical Trend Deflection Adjustment (Appendix A-Incremental Paid and Outstanding Medical Losses per Report Level (Appendix A-4)

# Actuarial Report – Appendix B Consideration of Protz v. WCAB (Derry Area School District) and House Bill 1840 (HB 1840 or Act 111 of 2018) Regarding the CMCRB's April 1, 2021 Loss Cost Filing

The Pennsylvania Supreme Court issued a decision in Protz v. WCAB (Derry Area School District) (the Protz Decision) dated June 20, 2017. In the Protz Decision, the Court ruled that Section 306(a.2) of the Pennsylvania Workers' Compensation Act (the Act) was an unconstitutional delegation of legislative authority. The CMCRB understands that this ruling meant that Section 306(a.2) had to be stricken and that Impairment Rating Evaluations were removed from the Act. The CMCRB notes that this ruling eliminated a cost containment provision that was enacted in the Pennsylvania Workers' Compensation system over 20 years ago.

The CMCRB included a provision (a load to Traumatic Indemnity Losses of 13.37% or 1.1337) in its April 1, 2018 Loss Cost Filing in response to the Protz Decision. Because of data limitations and constraints, this provision was based on PCRB Filing C-369, dated August 15, 2017.

Subsequent to the CMCRB proposing and implementing its April 1, 2018 Loss Cost Filing, the Pennsylvania Legislature passed HB 1840 that was signed by Governor Wolf on October 24, 2018. The CMCRB understands that this legislation re-established Impairment Rating Evaluations in the Act, amending the Impairment Rating Threshold from 50% to 35%, and that this legislation also increased the burial benefit in the Act from \$3,000 to \$7,000. More generally, the CMCRB understands that HB 1840 intends to stabilize the Pennsylvania Workers' Compensation system by fixing the portion of the Act that was struck down in the Protz decision while making the other changes described above.

The CMCRB notes that the PCRB prepared estimations concerning the provisions of HB 1840 and that these estimations were included in the PCRB's Filing C-373 proposed to be effective January 1, 2019. As it did with the Protz Decision, the CMCRB adopts the PCRB's estimations concerning both of these provisions in HB 1840:

- 1) Re-establishment of Impairment Rating Evaluations and Revision to Impairment Rating Threshold from 50% to 35%: The PCRB estimated the impact on Indemnity Benefits (or Indemnity Losses) to be an increase of 1.56% or 1.0156 to move from the pre-Protz Level (i.e., Impairment Rating Threshold of 50%) to the post-HB 1840 Level (i.e., Impairment Rating Threshold of 35%).
- 2) Increase to Burial Benefit: The PCRB estimated the impact on Indemnity Benefits to be an increase of 0.032% or 1.00032 concerning this benefit increase.

Overall, the CMCRB adopts an HB 1840 adjustment factor of 1.59% or 1.0159 to reflect all of the estimable changes in HB 1840. This HB 1840 adjustment factor of 1.0159 is the product of the two component parts listed above or 1.0156 times 1.0003.

For the April 1, 2019 Loss Cost Filing, the CMCRB uniformly applied the HB 1840 adjustment factor of 1.0159 to Traumatic Indemnity Losses for each of the five accident years (i.e., 2013 through 2017) included in the Traumatic Loss Cost indications. The CMCRB did not find any claims that were included in the data with the April 1, 2019 Loss Cost Filing that appeared to be affected by the Protz Decision. In other words, the CMCRB believed that all of the Traumatic loss data included with the April 1, 2019 Loss Cost Filing continued to be reported on a pre-Protz Decision level.

For the April 1, 2020 Loss Cost Filing, the CMCRB proposed an approach to adjust for this law change that was similar to the approach used by the CMCRB for HB 1846 of 2014 and provided in Appendix A. For the April 1, 2021 Loss Cost Filing, the CMCRB proposes a similar approach and provides this appendix to describe this process and the attached exhibits in support of these calculations.

#### Application to current data (i.e., to Traumatic Indemnity Losses)

The CMCRB believes that the PCRB's HB 1840 adjustment factor of 1.0159 continues to be the best available estimate of the anticipated increase in Traumatic Indemnity Losses from a pre-HB 1840 level to a post-HB 1840 level or more precisely a pre-Protz Decision level to a post-HB 1840 level.

Appendix B-1 shows the derivation of the HB 1840 adjustment factors for application to the reported or actual Indemnity Paid Losses for the 10 most recent Accident Years and Report Levels. For Calendar Years before 2018, the adjustment factor is 1.0159. For Calendar Year 2018, the adjustment factor is 1.0129, derived from the weights shown on this appendix. For Calendar Year 2019, the adjustment factor is 1.0000 since the CMCRB assumed that Paid Losses would immediately reflect the new law level.

Appendix B-2 shows the derivation of the HB 1840 adjustment factor to Indemnity Outstanding Losses for Calendar Year 2019. The CMCRB assumed that 100% of Outstanding Losses for Calendar Year 2019 reflected the new law level since Calendar Year 2019 reports were to be valued as of April 30, 2020.

Appendix B-3 displays the derivation of the CMCRB's Indemnity Paid Loss Distribution. The CMCRB notes that the Selected Distribution is very close to the Actual Distribution through 9<sup>th</sup> report level. Beyond 9<sup>th</sup> report level, the CMCRB notes that it favored accelerating the distribution for simplicity in subsequent calculations. This distribution is necessary to prepare Accident Year Incremental Paid and Outstanding Losses.

Appendix B-4 distributes the Selected Paid Loss Distribution into an Accident Year loss development triangle. The Outstanding Loss Distribution is also displayed.

- Row 1 represents the portion of ultimate losses that are expected to be paid for each Accident Year based on current report levels.
- Row 2 shows the portion of ultimate losses that are expected to be outstanding for each Accident Year based on current report levels.

• Row 3 shows the sum of Rows 1 and 2 which sums to unity or 100% for each Accident Year.

Appendix B-5 shows the derivation of the Accident Year specific adjustment factors for HB 1840. The triangle on this page is the cell-by-cell product of the HB 1840 Adjustment Factors (B-1) and the Estimated Incremental Paid Losses (B-4). In other words, this triangle represents the Incremental Paid Losses on a post-HB 1840 basis.

- Row 1 represents the portion of ultimate losses that are expected to be paid for each Accident Year based on current report levels after Paid Losses are adjusted to reflect HB 1840 costs.
- Row 2 shows the portion of ultimate losses that are expected to be outstanding for each Accident Year based on current report levels.
- Row 3 shows the HB 1840 costs factor to be applied to outstanding losses.
- Row 4 reflects outstanding losses adjusted to reflect HB 1840 costs.
- Row 5 displays the factor to adjust Ultimate Accident Year losses to reflect HB 1840 costs. This row is also re-displayed in the column to the right.

#### **Application by Type of Coverage**

The CMCRB files Loss Costs for three "types" of coverages:

- 1. Traumatic Pennsylvania Workers' Compensation Act coverage,
- 2. State Occupational Disease (SOD) Pennsylvania Occupational Disease Act coverage and
- 3. Federal Occupational Disease (FOD) Federal Mine Safety and Health Act coverage.

The CMCRB generally understands that the settlement of SOD claims has not relied upon the Impairment Rating Evaluation process and that adjustments for the Protz Decision or HB 1840 for SOD coverage are not necessary. Similarly, the CMCRB knows that the settlement of FOD claims does not rely upon provisions in the Pennsylvania Workers' Compensation Act and that adjustments for the Protz Decision or HB 1840 for FOD coverage are not necessary.

The CMCRB also understands that the settlement of Traumatic claims has relied upon the Impairment Rating Evaluation process and that adjustments for the Protz Decision and subsequently HB 1840 for Traumatic coverage are necessary. Consequently, the CMCRB's proposal includes the application of the adjustment factors from Appendix B-5 for Traumatic Indemnity coverage only.

While HB 1840 is expected to directly impact Indemnity Benefits and Losses, this legislation is not expected to directly impact Medical Benefits and Losses. However, as with any significant law change, the CMCRB notes the potential for changes in claiming activity and behavior. These changes have the potential to increase Medical Benefits and Losses going forward, but the CMCRB is not aware of a reliable means to estimate this potential increase at this time.

Consequently, the CMCRB adopts a HB 1840 adjustment factor of 1.0000 or 0.0% to be applied to all Traumatic Medical Losses. The CMCRB notes that this is consistent with the treatment of Medical Losses in the most recent PCRB Filing, Proposal C-377, April 1, 2020 Loss Cost Filing.

#### **Retrospective**

The CMCRB notes that the above mentioned estimates were prepared exclusively on a prospective basis. The CMCRB analysis and estimates do not include any provisions for the potential for retroactive changes in cost for claims that are currently open or for claims that were previously closed to reopen.

#### **Uncertainty**

The CMCRB notes that actuarial estimates in general involve some degree of uncertainty. The CMCRB believes that this is especially true of the estimates and adjustments mentioned above, since these estimations needed to be prepared before a reliable amount of actual experience under HB 1840 was available.

#### Attachments

1) Appendix B-1 through Appendix B-5

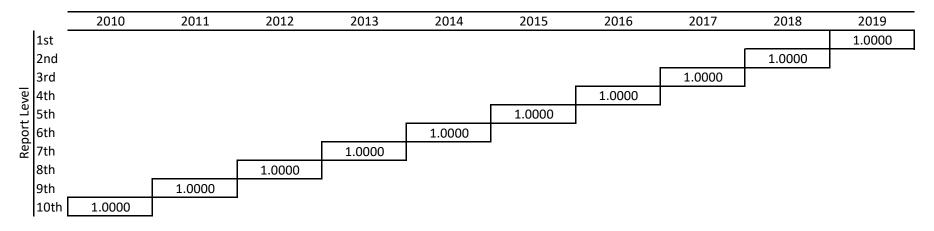
#### Impact of House Bill 1840 on Indemnity Paid Losses

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	1st	1.0159	1.0159	1.0159	1.0159	1.0159	1.0159	1.0159	1.0159	1.0129	1.0000
	2nd	1.0159	1.0159	1.0159	1.0159	1.0159	1.0159	1.0159	1.0129	1.0000	
	3rd	1.0159	1.0159	1.0159	1.0159	1.0159	1.0159	1.0129	1.0000		
vel	4th 5th	1.0159	1.0159	1.0159	1.0159	1.0159	1.0129	1.0000			
t Le	5th	1.0159	1.0159	1.0159	1.0159	1.0129	1.0000				
por	6th 7th	1.0159	1.0159	1.0159	1.0129	1.0000					
Re	7th	1.0159	1.0159	1.0129	1.0000						
	8th	1.0159	1.0129	1.0000							
	9th	1.0129	1.0000								
	10th	1.0000									

The CMCRB assumes that Paid Losses will immediately reflect the new law level. The weights below were judgmentally selected with consideration given to the date that House Bill 1840 of 2018 was signed by Governor Wolf of October 24, 2018.

HB 1840 Indemnity Paid Loss Adjustment Factors:	Combined	Adjustment	Weight	Adjustment	Weight
HB 1840 Adjustment Factor for Calendar Years prior to 2018	1.0159	1.0159	100.0%	1.0000	0.0%
HB 1840 Adjustment Factor for Calendar Year 2018	1.0129	1.0159	81.4%	1.0000	18.6%
HB 1840 Adjustment Factor for Calendar Years after 2018	1.0000	1.0159	0.0%	1.0000	100.0%

#### Impact of House Bill 1840 on Indemnity Outstanding Losses



The CMCRB assumes that 50% of Outstanding Case Reserve Losses fully reflected the new law level at first report.

HB 1840 Indemnity Outstanding Loss Adjustment Factors:	Combined	Adjustment	Weight	Adjustment	Weight
HB 1840 Adjustment Factor for Calendar Years prior to 2018	1.0159	1.0159	100.0%	1.0000	0.0%
HB 1840 Adjustment Factor for Calendar Year 2018	1.0080	1.0159	50.0%	1.0000	50.0%
HB 1840 Adjustment Factor for Calendar Years after 2018	1.0000	1.0000	0.0%	1.0000	100.0%

#### Derivation of Traumatic Indemnity Incremental Paid Loss Distribution

Traumatio	Indemnity Rep	oorted Paid Los	sses as of 04-30	-2020 from Ex	hibit VI-E:									
Report	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019				
1	1,524,765	1,786,240	2,050,254	1,899,710	4,015,185	2,666,351	2,517,576	2,635,035	2,186,695	2,491,975				
2	3,435,863	3,977,654	5,436,521	4,482,404	7,405,014	6,101,619	5,232,352	5,200,669	5,083,269					
3	4,339,688	6,103,091	7,383,427	6,081,014	10,801,053	7,572,770	6,951,711	7,168,082						
4	6,078,298	7,555,055	8,102,574	6,502,458	11,716,598	9,243,177	8,203,849							
5	6,374,543	7,923,836	8,850,340	6,652,885	12,157,797	10,485,291								
6	6,690,310	8,262,491	9,105,598	7,003,338	12,181,905									
7	7,001,167	8,313,908	9,298,463	7,371,130										
8	7,146,676	8,347,645	9,608,807											
9 10	7,433,505 7,433,505	8,380,513												
10	7,433,303													
Traumatio	: Indemnity Rer	oorted Incurred	d Losses as of 0	4-30-2020 fron	n Exhibit VI-A-4	l:								
	7,433,505	8,518,075	9,853,320	7,741,765	12,193,222	11,946,924	9,151,489	9,841,483	7,734,859	4,894,467				
	,,.00,000	0,510,070	3,000,020	7,7 .2,7 03	,	11,5 .0,51 .	3,232, .33	3,0 .1, .00	,,,,,,,,,,	.,05 ., .07				
Traumatio	. Indemnity Inc	urred Loss Dev	elopment Facto	ors from Exhibi	t V-C-1:									
	1.0160	1.0177	1.0195	1.0214	1.0233	1.0253	1.0517	1.0945	1.2705	1.9988				
Ultimate <sup>1</sup>	Traumatic Inde	mnity Losses =	Indemnity Incu	ırred Losses tin	nes Indemnity I	Incurred Loss D	evelopment Fa	ctors:						
	7,552,441	8,668,845	10,045,460	7,907,439	12,477,324	12,249,181	9,624,621	10,771,503	9,827,138	9,783,061				
Percent P	aid = Traumatio	Indemnity Re	ported Paid Los	ses divided by	Ultimate Traur	matic Indemnity	Losses:					Average	Selected	Selected
Report	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Average	Ex Hi/Lo	<u>Incremental</u>	<u>Cumulative</u>
1	20.19%	20.61%	20.41%	24.02%	32.18%	21.77%	26.16%	24.46%	22.25%	25.47%	23.75%	23.14%	23.50%	23.50%
2	45.49%	45.88%	54.12%	56.69%	59.35%	49.81%	54.36%	48.28%	51.73%		51.75%	51.55%	28.00%	51.50%
3	57.46%	70.40%	73.50%	76.90%	86.57%	61.82%	72.23%	66.55%			70.68%	70.23%	19.00%	70.50%
4	80.48%	87.15%	80.66%	82.23%	93.90%	75.46%	85.24%				83.59%	83.15%	13.00%	83.50%
5	84.40%	91.41%	88.10%	84.13%	97.44%	85.60%	33.2 .70				88.51%	87.38%	4.50%	88.00%
6	88.58%	95.31%	90.64%	88.57%	97.63%	33.0070					92.15%	91.51%	3.50%	91.50%
7	92.70%			93.22%	37.03/0						93.60%	92.96%	1.50%	93.00%
•		95.91%	92.56%	<b>33.</b> 2270										
8	94.63%	96.29%	95.65%								95.52%	95.65%	2.50%	95.50%
9	98.43%	96.67%									97.55%	97.55%	2.00%	97.50%
10	98.43%										98.43%	98.43%	2.50%	100.00%

Notes: The selected distribution is a very close approximation to the actual distribution through 9th report level.

The importance of the selected distribution diminishes beyond 9th report and was accelerated for simplicity.

#### Incremental Paid and Outstanding Indemnity Losses per Report Level

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Selected Incremental Paid Losses	Cumulative Paid Losses	Outstanding Losses
1st	0.2350	0.2350	0.2350	0.2350	0.2350	0.2350	0.2350	0.2350	0.2350	0.2350	23.50%	23.50%	76.50%
2nd	0.2800	0.2800	0.2800	0.2800	0.2800	0.2800	0.2800	0.2800	0.2800		28.00%	51.50%	48.50%
3rd	0.1900	0.1900	0.1900	0.1900	0.1900	0.1900	0.1900	0.1900			19.00%	70.50%	29.50%
₹ 4th	0.1300	0.1300	0.1300	0.1300	0.1300	0.1300	0.1300				13.00%	83.50%	16.50%
4th 5th	0.0450	0.0450	0.0450	0.0450	0.0450	0.0450					4.50%	88.00%	12.00%
Report 6th	0.0350	0.0350	0.0350	0.0350	0.0350						3.50%	91.50%	8.50%
₹ 7th	0.0150	0.0150	0.0150	0.0150							1.50%	93.00%	7.00%
8th	0.0250	0.0250	0.0250								2.50%	95.50%	4.50%
9th	0.0200	0.0200									2.00%	97.50%	2.50%
10th	0.0250										2.50%	100.00%	0.00%
1)	1.0000	0.9750	0.9550	0.9300	0.9150	0.8800	0.8350	0.7050	0.5150	0.2350			
2)	0.0000	0.0250	0.0450	0.0700	0.0850	0.1200	0.1650	0.2950	0.4850	0.7650			
3)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			

#### Notes:

- 1) The anticipated Cumulative Paid Losses which equal the sums of the columns above.
- 2) The remaining anticipated Outstanding Losses for each Accident Year.
- 3) The sum of rows 1 and 2.

#### Combination - Incremental Paid Losses times Adjustment Factors

											Increme
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Paid Los
1st	0.2387	0.2387	0.2387	0.2387	0.2387	0.2387	0.2387	0.2387	0.2380	0.2350	23.509
2n	0.2845	0.2845	0.2845	0.2845	0.2845	0.2845	0.2845	0.2836	0.2800		28.009
3rd		0.1930	0.1930	0.1930	0.1930	0.1930	0.1925	0.1900			19.009
9 4th	0.1321	0.1321	0.1321	0.1321	0.1321	0.1317	0.1300				13.009
필 5th	0.0457	0.0457	0.0457	0.0457	0.0456	0.0450					4.50%
Sti 6th 7th	0.0356	0.0356	0.0356	0.0355	0.0350						3.50%
æ 7th	0.0152	0.0152	0.0152	0.0150							1.50%
8th	0.0254	0.0253	0.0250								2.50%
9th	0.0203	0.0200									2.00%
10	h 0.0250										2.50%
1	1.0154	0.9901	0.9697	0.9444	0.9289	0.8929	0.8456	0.7124	0.5180	0.2350	
2	0.0000	0.0250	0.0450	0.0700	0.0850	0.1200	0.1650	0.2950	0.4850	0.7650	
3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
4	0.0000	0.0250	0.0450	0.0700	0.0850	0.1200	0.1650	0.2950	0.4850	0.7650	
5	1.0154	1.0151	1.0147	1.0144	1.0139	1.0129	1.0106	1.0074	1.0030	1.0000	
No	tes:										
	1) Tho an	ticinated Cu	mulativo A	direted Dai	d Laccac wh	sich ogual t	ha cume of	the column	ac abovo		

- 1) The anticipated Cumulative Adjusted Paid Losses which equal the sums of the columns above.
- 2) The remaining anticipated Outstanding Losses for each Accident Year.
- 3) The selected Adjustment factor for Calendar Year 2019 Outstanding Losses.
- 4) The product of rows 2 and 3.
- 5) The sum of rows 1 and 4.

The triangle above is the cell-by-cell product of the following two triangles:

Impact of House Bill 1840 on Indemnity Paid Losses (Appendix B-1)

Incremental Paid and Outstanding Indemnity Losses per Report Level (Appendix B-4)

Incremental	Cumulative	Outstanding
Paid Losses	Paid Losses	Losses
23.50%	23.50%	76.50%
28.00%	51.50%	48.50%
19.00%	70.50%	29.50%
13.00%	83.50%	16.50%
4.50%	88.00%	12.00%
3.50%	91.50%	8.50%
1.50%	93.00%	7.00%
2.50%	95.50%	4.50%
2.00%	97.50%	2.50%
2.50%	100.00%	0.00%
	Accident	Adjustment
	<u>Year</u>	<u>Factor</u>
	2010	1.0154
	2011	1.0151
	2012	1.0147
	2013	1.0144
	2014	1.0139
	2015	1.0129
	2016	1.0106
	2017	1.0074
	2018	1.0030
	2019	1.0000

Selected

## Coal Mine Compensation Rating Bureau Current and Proposed Loss Costs Manual Including Loadings

		2019	(1) Approved Loss Cost	(2) Proposed Loss Cost	(3) Percent
		Developed Payroll	Manual	Manual	Change
Underground Anthro	acite:				
g	Traumatic (1010)	\$179,379	\$20.67	\$19.20	-7.1%
	State O.D. (1011)	179,379	12.88	16.10	25.0%
	*Federal Basic/Ex (0160)	179,379	9.06	9.08	0.2%
	Total	xx	42.61	44.38	4.2%
Underground Bitumi	nous:				
-	Traumatic (1001)	\$185,776,423	\$6.96	\$6.86	-1.4%
	State O.D. (1002)	185,776,423	0.58	0.56	-3.4%
	*Federal Basic/Ex (0158)	185,962,937	0.59	0.68	15.3%
	Total	xx	8.13	8.10	-0.4%
Surface Anthracite:					
	Traumatic (1012)	\$23,746,667	\$8.01	\$6.99	-12.7%
	State O.D. (1016)	23,746,667	1.06	1.01	-4.7%
	*Federal Basic/Ex (0153)	20,632,989	1.72	1.29	-25.0%
	Total	xx	10.79	9.29	-13.9%
Surface Bituminous:					
	Traumatic (1014)	\$35,476,154	\$1.85	\$1.84	-0.5%
	State O.D. (1013)	35,476,154	0.25	0.31	25.0%
	*Federal Basic/Ex (0156)	36,395,622	0.82	0.80	-2.4%
	Total	xx	2.92	2.95	1.0%
Four Standard Class	ifications:				
	Traumatic	\$245,178,623	\$6.33	\$6.16	-2.7%
	State O.D.	245,178,623	0.59	0.58	-1.7%
	*Federal Basic/Ex	243,170,927	0.73	0.76	4.1%
	Total	XX	7.65	7.50	-2.0%

Sources: Payroll from Exhibit X-A

Column (1) Loss Costs (Approved 4/1/2020) - Exhibit X-B-2

Column (2) Proposed - Exhibit I-B, pages 1 and 2 Column (3) Traumatic Column (2) / Column (1)

OD Exhibit III and IV-A

 $\label{liminary} File: C:\Users\Forum\OneDrive\Clients\Coal\,Mine\2020\,Rate\,Filing\XL\[2020-01.xlsx]I-A-1-M\\ Run\,Date: November\,03,\,2020\,-\,03:46:02\,PM\\ Effective C:\Users\Forum\Coal\,Mine\Coal\Mine\Coal\,Mine\Coal\Mine\Coal\Mine\Coal\Mine\Coal\Mine\Coal\Mine\Coal\Min$ 

<sup>\*</sup>Federal Basic and Excess are after the Federal Administrative / Law Change

#### Coal Mine Compensation Rating Bureau **Current and Proposed Loss Costs Manual Including Loadings**

		2019 Developed Payroll	(1) Approved Loss Cost Manual	(2) Proposed Loss Cost Manual	(3) Percent Change
Coke:					
Coke.	Traumatic (1469) State O.D. (1017) *Federal Basic/Ex (0154)	\$4,572,392 4,572,392 4,626,532	\$3.83 0.09 0.10	\$4.28 0.09 0.09	11.7% 0.0% -10.0%
	Total	xx	4.02	4.46	10.9%
Auger:					
riogen.	Traumatic (1015)	\$539,914	\$9.00	\$7.33	-18.6%
	State O.D. (1019)	539,914	0.18	0.18	0.0%
	*Federal Basic/Ex (0157)	593,214	0.44	0.41	-6.8%
	Total	XX	9.62	7.92	-17.7%
Co-Gen Anthracite	:				
	Traumatic (1021)	\$8,219,127	\$6.09	\$6.39	4.9%
	State O.D. (1022) *Federal Basic/Ex (0181)	8,219,127 6,821,629	0.24 0.37	0.29 0.35	20.8% -5.4%
	Total	XX	6.70	7.03	4.9%
	ioidi	^^	6.70	7.03	4.7/6
Co-Gen Bituminous					
	Traumatic (1023)	\$11,807,241	\$1.37	\$1.28	-6.6%
	State O.D. (1024) *Federal Basic/Ex (0182)	11,807,241 11,807,241	0.24 0.29	0.22 0.26	-8.3% -10.3%
	Total	XX	1.90	1.76	-7.4%
Prep Plant Anthraci		***	4.0.	****	
	Traumatic (1025) State O.D. (1026)	\$12,646,576 12,646,576	\$4.24 2.57	\$4.05 2.67	-4.5% 3.9%
	*Federal Basic/Ex (0183)	10,584,841	0.88	0.80	-9.1%
	Total	XX	7.69	7.52	-2.2%
Prep Plant Bitumino	raumatic (1027)	\$37,605,236	\$2.74	\$3.06	11.7%
	State O.D. (1028)	37,605,236	0.16	0.17	6.3%
	*Federal Basic/Ex (0184)	37,623,330	0.31	0.26	-16.1%
	Total	xx	3.21	3.49	8.7%
Other Classification	ne:				
Oniei Classification	Traumatic	\$75,390,486	\$3.25	\$3.41	4.9%
	State O.D.	75,390,486	0.58	0.61	5.2%
	*Federal Basic/Ex	72,056,787	0.38	0.34	-10.5%
	Total	XX	4.21	4.36	3.6%
Grand Total:					
	Traumatic	\$320,569,109	\$5.61	\$5.51	-1.8%
	State O.D.	320,569,109	0.59	0.59	0.0%
	*Federal Basic/Ex	315,227,714	0.65	0.66	1.5%
	Total	XX	6.85	6.76	-1.3%

<sup>\*</sup>Federal Basic and Excess are after the Federal Administrative / Law Change

Sources: Payroll from Exhibit X-A

Column (1) Loss Costs (Approved 4/1/2020) - Exhibit X-B-2

Column (2) Proposed - Exhibit I-B, pages 1 and 2 Column (3) Traumatic Column (2) / Column (1)

OD Exhibit III and IV-A

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#### Coal Mine Compensation Rating Bureau **Current and Proposed Loss Costs Unloaded Manual**

	_	2019 Developed Payroll	(1) Approved Unloaded Manual	(2) Indicated Unloaded Manual	(3) Proposed Unloaded Manual	(4) Percent Change
Underground Ar	nthracite:					
J	Traumatic (1010)	\$179,379	\$20.12	\$18.67	\$18.67	-7.2%
	State O.D. (1011)	179,379	12.88	17.48	16.10	25.0%
	*Federal Basic/Ex (0160)	179,379	9.06	9.08	9.08	0.2%
	Total	XX	42.06	45.23	43.85	4.3%
Underground Bit	uminous:					
	Traumatic (1001)	\$185,776,423	\$6.65	\$6.56	\$6.56	-1.4%
	State O.D. (1002)	185,776,423	0.58	0.56	0.56	-3.4%
	*Federal Basic/Ex (0158)	185,962,937	0.59	0.68	0.68	15.3%
	Total	xx	7.82	7.80	7.80	-0.3%
Surface Anthrac	ite:					
	Traumatic (1012)	\$23,746,667	\$7.84	\$6.83	\$6.83	-12.9%
	State O.D. (1016)	23,746,667	1.06	1.01	1.01	-4.7%
	*Federal Basic/Ex (0153)	20,632,989	1.72	1.27	1.29	-25.0%
	Total	XX	10.62	9.11	9.13	-14.0%
Surface Bitumin	ous:					
	Traumatic (1014)	\$35,476,154	\$1.79	\$1.78	\$1.78	-0.6%
	State O.D. (1013)	35,476,154	0.25	0.35	0.31	25.0%
	*Federal Basic/Ex (0156)	36,395,622	0.82	0.80	0.80	-2.4%
	Total	xx	2.86	2.93	2.89	1.0%
Four Standard C	lassifications:					
	Traumatic	\$245,178,623	\$6.07	\$5.90	\$5.90	-2.8%
	State O.D.	245,178,623	0.59	0.59	0.58	-1.7%
	*Federal Basic/Ex	243,170,927	0.73	0.75	0.76	4.1%
	Total	XX	7.39	7.24	7.24	-2.0%

**Sources:** Payroll from Exhibit X-A

Column (1) Exhibit X-B Page 2

Column (2) Indicated Loss Cost - Exh. II, col(3) (Traumatic); Exh. III, col(5) (State O.D.); Exh. IV-A, col(5) (Federal O.D. After Adm/Law)

Column (3) Proposed Loss Cost - Exh. II, col(4) (Traumatic); Exh. III, col(8) (State O.D.); Exh. IV-A, col(7) (Federal O.D. After Adm/Law)

Column (4) Exhibit II, III or IV-A

<sup>\*</sup>Federal Basic and Excess are after the Federal Administrative / Law Change

#### Coal Mine Compensation Rating Bureau Current and Proposed Loss Costs Unloaded Manual

		2019 Developed Payroll	(1) Approved Unloaded Manual	(2) Indicated Unloaded Manual	(3) Proposed Unloaded Manual	(4) Percent Change
Coke:						
CORE.	Traumatic (1469) State O.D. (1017) *Federal Basic/Ex (0154)	\$4,572,392 4,572,392 4,626,532	\$3.73 0.09 0.10	\$4.17 0.09 0.09	\$4.17 0.09 0.09	11.8% 0.0% -10.0%
	Total	xx	3.92	4.35	4.35	11.0%
Auger:						
	Traumatic (1015)	\$539,914	\$8.76	\$7.12	\$7.12	-18.7%
	State O.D. (1019)	539,914	0.18	0.18	0.18	0.0%
	<u>*Federal Basic/Ex (0157)</u> Total	593,214 xx	0.44 9.38	0.41 7.71	0.41 7.71	<u>-6.8%</u> -17.8%
	10101	700	7.00	7.71	7.7.1	17.070
Co-Gen Anthro	acite:					
	Traumatic (1021)	\$8,219,127	\$5.95	\$6.24	\$6.24	4.9%
	State O.D. (1022) *Federal Basic/Ex (0181)	8,219,127 6.821.629	0.24 0.37	0.29 0.35	0.29 0.35	20.8% -5.4%
	Total	XX	6.56	6.88	6.88	4.9%
Co-Gen Bitumi						
	Traumatic (1023) State O.D. (1024)	\$11,807,241 11,807,241	\$1.32 0.24	\$1.23 0.22	\$1.23 0.22	-6.8% -8.3%
	*Federal Basic/Ex (0182)	11,807,241	0.24	0.26	0.26	-10.3%
	Total	xx	1.85	1.71	1.71	-7.6%
Prep Plant Anti	nracite:					
	Traumatic (1025)	\$12,646,576	\$4.14	\$3.95	\$3.95	-4.6%
	State O.D. (1026) *Fodoral Pasis (Ev. (0193)	12,646,576	2.57 0.88	2.67 0.80	2.67 0.80	3.9%
	<u>*Federal Basic/Ex (0183)</u> Total	10,584,841 xx	7.59	7.42	7.42	<u>-9.1%</u> -2.2%
	10101	<i>7</i> 00	7.07	7.12	7.12	2.270
Prep Plant Bitu						
	Traumatic (1027)	\$37,605,236	\$2.66	\$2.97	\$2.97	11.7%
	State O.D. (1028) *Federal Basic/Ex (0184)	37,605,236 37,623,330	0.16 0.31	0.17 0.26	0.17 0.26	6.3% -16.1%
	Total	XX	3.13	3.40	3.40	8.6%
Other Classific	ations:					
Jiii Ciasilic	Traumatic	\$75,390,486	\$3.17	\$3.32	\$3.32	4.7%
	State O.D.	75,390,486	0.58	0.61	0.61	5.2%
	*Federal Basic/Ex	72,056,787	0.38	0.34	0.34	-10.5%
	Total	xx	4.13	4.27	4.27	3.4%
Grand Total:						
	Traumatic	\$320,569,109	\$5.39	\$5.30	\$5.30	-1.7%
	State O.D. *Foderal Basic /Fx	320,569,109 315,227,714	0.59	0.59	0.59	0.0%
	<u>*Federal Basic/Ex</u> Total		0.65 6.63	<u>0.65</u> 6.54	<u> </u>	1.5% -1.2%
	iolai	XX	0.03	0.34	6.33	-1.2%

<sup>\*</sup>Federal Basic and Excess are after the Federal Administrative / Law Change

**Sources:** Payroll from Exhibit X-A

Column (1) Exhibit X-B Page 2

Column (2) Indicated Loss Cost - Exh. II, col(3) (Traumatic); Exh. III, col(5) (State O.D.); Exh. IV-A, col(5) (Federal O.D. After Adm/Law)

Column (3) Proposed Loss Cost - Exh. II, col(4) (Traumatic); Exh. III, col(8) (State O.D.); Exh. IV-A, col(7) (Federal O.D. After Adm/Law)

Column (4) Exhibit II, III or IV-A

## Coal Mine Compensation Rating Bureau Current and Proposed Loss Costs Unloaded Manual

#### Calculation of Proposed Unloaded Loss Costs

**Underground Anthracite** 

Traumatic (1010) Indicated Loss Cost.

State O.D. (1011) Indicated unloaded loss cost limited to 25.0%(Exhibit III).

\*Federal O.D. (0160) Basic/Ex Indicated Loss Cost.

**Underground Bituminous** 

Traumatic (1001) Indicated Loss Cost.
State O.D. (1002) Indicated Loss Cost.
\*Federal O.D. (0158) Basic/Ex Indicated Loss Cost.

**Surface Anthracite** 

Traumatic (1012) Indicated Loss Cost. State O.D. (1016) Indicated Loss Cost.

\*Federal O.D. (0153) Basic/Ex Indicated unloaded loss cost limited to -25.0%(Exhibit IV-A).

**Surface Bituminous** 

Traumatic (1014) Indicated Loss Cost.

State O.D. (1013) Indicated unloaded loss cost limited to 25.0%(Exhibit III).

\*Federal O.D. (0156) Basic/Ex Indicated Loss Cost.

Coke

Traumatic (1469) Indicated Loss Cost. State O.D. (1017) Indicated Loss Cost.

\*Federal O.D. (0154) Basic/Ex Indicated Loss Cost.

Auger

Traumatic (1015) Indicated Loss Cost.
State O.D. (1019) Indicated Loss Cost.
\*Federal O.D. (0157) Basic/Ex Indicated Loss Cost.

Co-Gen Anthracite

Traumatic (1021) Indicated Loss Cost.
State O.D. (1022) Indicated Loss Cost.
\*Federal O.D. (0181) Basic/Ex Indicated Loss Cost.

Co-Gen Bituminous

Traumatic (1023) Indicated Loss Cost.
State O.D. (1024) Indicated Loss Cost.
\*Federal O.D. (0182) Basic/Ex Indicated Loss Cost.

**Prep Plant Anthracite** 

Traumatic (1025) Indicated Loss Cost.
State O.D. (1026) Indicated Loss Cost.
\*Federal O.D. (0183) Basic/Ex Indicated Loss Cost.

**Prep Plant Bituminous** 

Traumatic (1027) Indicated Loss Cost.
State O.D. (1028) Indicated Loss Cost.
\*Federal O.D. (0184) Basic/Ex Indicated Loss Cost.

\*Federal Basic and Excess are after the Federal Administrative / Law Change

#### Coal Mine Compensation Rating Bureau Manual Loss Cost Loaded (after Capping) For Catastrophe, Off-Balances, and Assessment Proposed to Become Effective 4-1-2021

		2019 Developed Payroll	(1) Proposed Loss Cost Before Loading	(2) Catastrophe Loss Cost	(3) Loss Cost Including Catastrophe	(4) Loss Cost Including Off-Balance <sup>(a)</sup>	(5) Loss Cost Inc. Off-Balance <sup>(a)</sup> & Assessment <sup>(b)</sup>
Underground A	nthracite:						
ondergrooma A	Traumatic (1010) State O.D. (1011) *Federal Basic/Ex (0160)	\$179,379 179,379 179,379	\$18.67 16.10 9.08	\$0.18	\$18.85	\$19.20	\$19.20 16.10 9.08
	Total	xx	43.85				44.38
Underground B	tuminous:						
	Traumatic (1001) State O.D. (1002) *Federal Basic/Ex (0158) Total	\$185,776,423 185,776,423 185,962,937 xx	\$6.56 0.56 0.68 7.80	\$0.18	\$6.74	\$6.86	\$6.86 0.56 0.68 8.10
Surface Anthra	cite:						
	Traumatic (1012) State O.D. (1016) *Federal Basic/Ex (0153) Total	\$23,746,667 23,746,667 20,632,989 xx	\$6.83 1.01 1.29 9.13	\$0.03	\$6.86	\$6.99	\$6.99 1.01 1.29 9.29
Surface Bitumin	ous:						
	Traumatic (1014) State O.D. (1013) *Federal Basic/Ex (0156) Total	\$35,476,154 35,476,154 36,395,622 xx	\$1.78 0.31 0.80 2.89	\$0.03	\$1.81	\$1.84	\$1.84 0.31 0.80 2.95
Four Standard (	Classifications:						
	Traumatic State O.D.  *Federal Basic/Ex	\$245,178,623 245,178,623 243,170,927	\$5.90 0.58 0.76	\$0.14	\$6.04	\$6.16	\$6.16 0.58 0.76
	Total	XX	7.24				7.50

Sources: Payroll from Exhibit X-A

Column (1) Proposed Loss Cost Before Loading - Exhibit II for Traumatic, Exhibit III for State OD, and Exhibit IV for Federal OD.

Column (2) Catastrophe - Exhibit XII-A

Column (3) (1)+(2)

Columns (4)(a) & (5)(a) Off-balances applied to Traumatic only

 Exhibit XIV-A
 Experience Rating
 1.0000

 Exhibit XIV-B
 Merit Rating
 1.0002

 Exhibit XIV-B
 Safety Rating
 1.0182

 Combined
 1.0184

(5)(b) Loss-based Assessment factor in present rates applied to Traumatic & State OD loss costs =1.0001

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<sup>\*</sup>Federal Basic and Excess are after the Federal Administrative / Law Change

#### Coal Mine Compensation Rating Bureau Manual Loss Cost Loaded (after Capping) For Catastrophe, Off-Balances, and Assessment Proposed to Become Effective 4-1-2021

		2019 Developed Payroll	(1) Proposed Loss Cost Before Loading	(2) Catastrophe Loss Cost	(3) Loss Cost Including Catastrophe	(4) Loss Cost Including Off-Balance <sup>(a)</sup>	(5) Loss Cost Inc. Off-Balance <sup>(a)</sup> & Assessment <sup>(b)</sup>
Coke:							
	Traumatic (1469) State O.D. (1017) *Federal Basic/Ex (0154)	\$4,572,392 4,572,392 4,626,532	\$4.17 0.09 0.09	\$0.03	\$4.20	\$4.28	\$4.28 0.09 0.09
	Total	XX	4.35				4.46
Auger:		<b>*</b> === =	<b>4</b>	**	47.00	47.00	47.00
	Traumatic (1015) State O.D. (1019)	\$539,914 539,914	\$7.12 0.18	\$0.08	\$7.20	\$7.33	\$7.33 0.18
	*Federal Basic/Ex (0157)	593,214	0.10				0.16
	Total	XX	7.71				7.92
Co-Gen Anthro	ıcite:						
	Traumatic (1021)	\$8,219,127	\$6.24	\$0.03	\$6.27	\$6.39	\$6.39
	State O.D. (1022)	8,219,127	0.29	·	•		0.29
	*Federal Basic/Ex (0181)	6,821,629	0.35				0.35
	Total	XX	6.88				7.03
C - C N/							
Co-Gen Bitumi	Traumatic (1023)	\$11,807,241	\$1.23	\$0.03	\$1.26	\$1.28	\$1.28
	State O.D. (1024)	11,807,241	0.22	\$0.03	\$1.20	\$1.20	0.22
	*Federal Basic/Ex (0182)	11,807,241	0.26				0.26
	Total	xx	1.71				1.76
Prep Plant Anth		¢10 / 4/ 57/	#2.0F	<b>#0.00</b>	<b>#2.00</b>	¢405	<b>#</b> 405
	Traumatic (1025) State O.D. (1026)	\$12,646,576 12,646,576	\$3.95 2.67	\$0.03	\$3.98	\$4.05	\$4.05 2.67
	*Federal Basic/Ex (0183)	10,584,841	0.80				0.80
	Total	XX	7.42				7.52
Prep Plant Bitun	ninous:						
	Traumatic (1027)	\$37,605,236	\$2.97	\$0.03	\$3.00	\$3.06	\$3.06
	State O.D. (1028)	37,605,236	0.17				0.17
	*Federal Basic/Ex (0184)	37,623,330	0.26				0.26
	Total	XX	3.40				3.49
Other Classifica	ations:						
	Traumatic	\$75,390,486	\$3.32	\$0.03	\$3.35	\$3.41	\$3.41
	State O.D.	\$75,390,486	0.61				0.61
	*Federal Basic/Ex	72,056,787	0.34				0.34
	Total	xx	4.27				4.36
Grand Total:							
	Traumatic	\$320,569,109	\$5.30	\$0.12	\$5.42	\$5.52	\$5.51
	State O.D.	320,569,109	0.59				0.59
	*Federal Basic/Ex	315,227,714	0.66				0.66
	Total	XX	6.55				6.76

<sup>\*</sup>Federal Basic and Excess are after the Federal Administrative / Law Change

Sources: Payroll from Exhibit X-A

Column (1) Proposed Loss Cost Before Loading - Exhibit II for Traumatic, Exhibit III for State OD, and Exhibit IV for Federal OD.

Column (2) Catastrophe - Exhibit XII-A

Column (3) (1)+(2)

Columns (4)(a) & (5)(a) Off-balances applied to Traumatic only

 Exhibit XIV-A
 Experience Rating
 1.0000

 Exhibit XIV-B
 Merit Rating
 1.0002

 Exhibit XIV-B
 Safety Rating
 1.0182

 Combined
 1.0184

(5)(b) Loss-based Assessment factor in present rates applied to Traumatic & State OD loss costs =1.0001

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Run Date: November 03, 2020 - 03:46:02 PM

## COAL MINE COMPENSATION RATING BUREAU TRAUMATIC LOSS COST INDICATIONS Proposed Unloaded Loss Costs

			(1)	(2) Approved	(3)	(4)	(5)
<u>Classification</u>		<u>Code</u>	2019 Developed Payroll	Unloaded Loss Cost (Eff 4/01/2020)	Indicated Unloaded Loss Cost	Proposed Unloaded Loss Cost	Percent <u>Change</u>
		<u> </u>		<u>,                                    </u>	<u> </u>	<u> </u>	<u> </u>
Underground:	Anthracite Bituminous	1010 1001	179,379 185,776,423	20.12 6.65	18.67 6.56	18.67 6.56	-7.2% -1.4%
Surface:	Anthracite Bituminous	1012 1014	23,746,667 35,476,154	7.84 	6.83 1.78	6.83 <u>1.78</u>	-12.9% -0.6%
Four Standard Clo	asses		245,178,623	6.07	5.90	5.90	-2.8%
Other Classes	Coke	1469	4,572,392	3.73	4.17	4.17	11.8%
	Auger	1015	539,914	8.76	7.12	7.12	-18.7%
Co-Gen:	Anthracite Bituminous	1021 1023	8,219,127 11,807,241	5.95 1.32	6.24 1.23	6.24 1.23	4.9% -6.8%
Prep Plants:	Anthracite Bituminous	1025 1027	12,646,576 37,605,236	4.14 2.66	3.95 2.97	3.95 2.97	-4.6% 11.7%
Other Classes			75,390,486	3.17	3.32	3.32	4.7%
All Classes Combi	ned		320,569,109	5.39	5.30	5.30	-1.7%

Sources: Column (1) Exhibit X-A

Column (2) Exhibit X-B,Page 2 Column (3) Exhibit V-A-1 Column (4) Exhibit V-A-1 Column (5) Exhibit V-A-1

 $\label{limit} File: C:\Users\Forum\One Drive\Clients\Coal\Mine\2020\ Rate\ Filing\XL\[2020-02.xlsx]II$ 

Run Date: September 11, 2020 - 10:17:01 AM

#### **COAL MINE COMPENSATION RATING BUREAU** STATE OCCUPATIONAL DISEASE LOSS COST

	(1)	(2)	(3)	(4) Indicated	(5)	(6)	(7)	(8)
<u>Classification</u>	2019 Developed Payroll	Approved Unloaded Loss Cost	Average Freq. per \$1 mill.	Average <u>Severity</u>	Loss Cost (Rate)	Indicated <u>Change</u>	Proposed <u>Change</u>	Proposed Loss Cost
Underground 1011 Anthracite	\$179,379	\$12.88	0.239142	\$731,069	\$17.48	35.7%	25.0%	\$16.10
1002 Bituminous	\$185,776,423	\$0.58	0.021065	\$267,271	0.56	-3.4%	-3.4%	0.56
Surface 1016 Anthracite	\$23,746,667	\$1.06	0.019597	\$516,009	1.01	-4.7%	-4.7%	1.01
1013 Bituminous	\$35,476,154	0.25	0.009170	\$383,757	0.35	<u>40.0%</u>	<u>25.0%</u>	0.31
Four Standard Classes	\$245,178,623	\$0.59			\$0.59	0.0%	-1.7%	\$0.58
1017 Coke 1019 Auger	\$4,572,392 \$539,914	0.09 0.18	0.002298 0.004738	383,757 383,757	0.09	0.0%	0.0%	0.09
Co-Gen 1022 Anthracite 1024 Bituminous	\$8,219,127 \$11,807,241	0.24 0.24	0.005685 0.005805	516,009 383,757	0.29	20.8%	20.8%	0.29
Prep Plant 1026 Anthracite	\$12,646,576	2.57	0.051764	516,009	2.67	3.9%	3.9%	2.67
1028 Bituminous	\$37,605,236	<u>0.16</u>	0.004407	383,757	<u>0.17</u>	<u>6.3%</u>	<u>6.3%</u>	0.17
Other Classes	\$75,390,486	\$0.58			\$0.61	5.2%	5.2%	\$0.61
All Classes Combined	\$320,569,109	\$0.59			\$0.59	0.0%	0.0%	\$0.59

Sources: Column (1): Exhibit X-A

Column (2): Exhibit X-B Page 2

Column (3): Exhibit VII-B-1, Column (10)

Column (4): Four Standard Classes - Exhibit VII-A, pages 1 through 4

Coke, Auger, Prep Plant Bituminous and Co-Gen Bituminous = Surface Bituminous

Prep Plant Anthracite, Co-Gen Anthracite = Surface Anthracite

Column (5): [Column (3) times Column (4)] divided by 10,000.

Column (6): [Column (5) divided by Column (2)] minus 1.0

Column (7): Column (6) limited to +/- 25%.

Column (8): Column (2) times [1.000+Column(7)] and rounded.

File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-03.xlsx]III Run Date: 10-21-2020 07:07:43 PM

Effective Date - April 01, 2021 Checksum:966,184,710.199671

#### COAL MINE COMPENSATION RATING BUREAU FEDERAL OCCUPATIONAL DISEASE LOSS COST INDICATION

		(1)	(2)	(3)	(4) Indicated	(5)	(6)		(7)	(8)
<u>Classification</u> Underground		2019 Developed Payroll	Approved Unloaded Loss Cost	Average Freq. per \$1 mill.	Average <u>Severity</u>	Loss Cost (Rate)	Indicated <u>Change</u>	Lim	Cost w/ litation 25%	% Change w/Limitation 25%
Anthracite:	Basic Excess Total	\$179,379	\$9.06	0.178841 0.088467	442,054 132,710	7.91 1.17 9.08	0.2%	\$	9.08	0.2%
Bituminous:	Basic Excess Total	\$185,962,937	\$0.59	0.011626 0.007706	411,222 254,361	0.48 0.20 0.68	15.3%	\$	0.68	15.3%
Surface Anthracite:	Basic Excess Total	\$20,632,989	\$1.72	0.032848 0.009318	365,290 77,115	1.20 0.07 1.27	-26.2%	\$	1.29	-25.0%
Bituminous:	Basic Excess Total	\$36,395,622	\$0.82	0.020519 0.003010	355,450 216,055	0.73 0.07 0.80	-2.4%	\$	0.80	-2.4%
Four Standard Classes	Basic Excess Total	\$243,170,927	\$0.73			0.58 0.17 0.75	2.7%	\$	0.76	4.1%
Coke	Basic Excess Total	\$4,626,532	\$0.10	0.002093 0.000905	355,450 216,055	0.07 0.02 0.09	-10.0%	\$	0.09	-10.0%
Auger	Basic Excess Total	\$593,214	\$0.44	0.010516 0.001945	355,450 216,055	0.37 0.04 0.41	-6.8%	\$	0.41	-6.8%
Co-Gen Anthracite:	Basic Excess Total	\$6,821,629	\$0.37	0.009027 0.002026	365,290 77,115	0.33 0.02 0.35	-5.4%	\$	0.35	-5.4%
Bituminous:	Basic Excess Total	\$11,807,241	\$0.29	0.006163 0.002001	355,450 216,055	0.22 0.04 0.26	-10.3%	\$	0.26	-10.3%
Prep Plants Anthracite:	Basic Excess Total	\$10,584,841	\$0.88	0.017506 0.020938	365,290 77,115	0.64 0.16 0.80	-9.1%	\$	0.80	-9.1%
Bituminous:	Basic Excess Total	\$37,623,330	\$0.31	0.006561 0.001548	355,450 216,055	0.23 0.03 0.26	-16.1%	\$	0.26	-16.1%
Other Classes	Basic Excess Total	\$72,056,787	\$0.38			0.29 0.05 0.34	-10.5%	\$	0.34	-10.5%
All Classes Combined	Basic Excess Total	\$315,227,714	\$0.65			0.51 0.14 0.65	0.0%	\$	0.66	1.5%

Sources: Column (1): Exhibit X-A

Column (2): X-B Page 2
Column (3): Exhibit IV-B page 1 col. (10) (Basic) and Exhibit IV-B page 2 col. (10) (Excess)
Column (4): Four Standard Classes - Exhibit VIII-A (Basic) and Exhibit VII-A, Pages 1 through 4 (Federal Excess).

Coke, Auger, Prep Plant Bituminous and Co-Gen Bituminous = Surface Bituminous

Prep Plant Anthracite, Co-Gen Anthracite = Surface Anthracite

Column (5): [Column (3) times Column (4)] divided by 10,000.

Column (6): [Column (5) divided by Column (2)] minus 1.0

Column (7): Column (2) x [1+Column (8)] Column (8): Column (6) Limited to +-25%

#### Exhibit IV-B Page 1

### COAL MINE COMPENSATION RATING BUREAU Federal Basic Occupational Disease Classification Frequency

			(1)	(2)	(3)	(4)	(5) Cred	(6) libility	(7) Claim	(8)	(9)	(10)
			Estimated	Claim Fred	quency Per 100	Miner Years	Expected		Frequency	Change in		Frequency
		Class	Miner Years	Approved	Trended to	Indicated	Awarded		Indicated w/	Indication	Payroll	Per \$1M
<u>Classification</u>		<u>Code</u>	<u>2010-2019</u>	(Eff 4/1/2020)	<u>4/1/2021</u>	(Eff 4/1/2021)	<u>Claims</u>	<u>Factor</u>	<u>Credibility</u>	After Cred.	<u>2010-2019</u>	<u>Payroll</u>
Underground:	Anthracite	0160	106.2	0.878461	0.878461	0.927715	0.933	0.151	0.885898	0.8%	5,260,681	0.178841
	Bituminous	0158	20,118.7	0.076868	0.076868	0.098009	15.465	0.613	0.089827	16.9%	1,554,463,625	0.011626
Surface:	Anthracite	0153	3,767.3	0.228353	0.228353	0.103995	8.603	0.457	0.171521	-24.9%	196,715,268	0.032848
	Bituminous	0156	10,546.4	0.103483	0.103483	0.105431	10.914	0.515	0.104486	1.0%	537,043,950	0.020519
Four Standard	Classifications	i	34,538.6	0.103983	0.103983	0.103479	35.915		0.105662		2,293,483,524	0.015912
	Coke	0154	893.6	0.010970	0.010970	0.009323	0.098	0.049	0.010889	-0.7%	46,481,988	0.002093
	Auger	0157	146.7	0.055010	0.055010	0.031193	0.081	0.044	0.053962	-1.9%	7,527,714	0.010516
Co-Gen:	Anthracite	0181	1,664.0	0.049230	0.049230	0.032569	0.819	0.141	0.046881	-4.8%	86,420,303	0.009027
	Bituminous	0182	2,044.6	0.034361	0.034361	0.018997	0.703	0.131	0.032348	-5.9%	107,321,277	0.006163
Prep Plants:	Anthracite	0183	1,284.1	0.100377	0.100377	0.052908	1.289	0.177	0.091975	-8.4%	67,463,610	0.017506
rieprianis.	Bituminous	0184	3,959.2	0.057075	0.057075	0.032708	2.260	0.177	0.050407	-11.7%	304,200,995	0.006561
	Diformitious	0104	5,757.2	0.03/0/3	0.037073	0.020300	2.200	0.254	0.030407	-11.770	304,200,773	0.000301
Other Classes			9,992.2	0.052532	0.052532	0.028726	5.250		0.047985		619,415,887	0.007741
Total			44,530.8	0.092438	0.092438	0.086706	41.165		0.092720		2,912,899,411	0.014175

Source: (1) Exhibit VIII-B-2

(2) Exhibit IV-B-4

(3) = (2) trended to 4/1/2021 @ 0.0%

(4) Exhibit IV-B-3 (5) = (1)  $\times$  (3) / 100 (6) = [(5) / 41.165] $\wedge$ (0.5) (7) = (4)\*(6)+((3)\*(1-(6))

(8) = (7)/(2)-1

(9) Exhibit X-A-3

Columns (2),(3),(4) & (7) totals and subtotals are weighted with 10 year estimated miner years.

 $(10) = (7) \times (1) / [(9) * 10,000]$ 

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Date: 09/18/20 11:14

Effective Date - April 01, 2021 8,738,876,245.443000

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### COAL MINE COMPENSATION RATING BUREAU Federal Excess Occupational Disease Classification Frequency

			(1)	(2)	(3)	(4)	(5) Cred	(6) dibility	(7) Claim	(8)	(9)	(10)
			Estimated	Claim Fred	quency Per 100	Miner Years	Expected		Frequency	Change in		Frequency
		Class	Miner Years	Approved	Trended to	Indicated	Awarded		Indicated w/	Indication	Payroll	Per \$1M
<u>Classification</u>		<u>Code</u>	2010-2019	(Eff 4/1/2020)	4/1/2021	(Eff 4/1/2021)	<u>Claims</u>	<u>Factor</u>	<u>Credibility</u>	After Cred.	2010-2019	<u>Payroll</u>
Underground		0160	106.2	0.409030	0.409030	0.597392	0.434	0.155	0.438226	7.1%	5,260,681	0.088467
	Bituminous	0158	20,118.7	0.059615	0.059615	0.059526	11.994	0.817	0.059542	-0.1%	1,554,463,625	0.007706
Cf	A 11	0150	27/72	0.040100	0.040100	0.047520	1.050	0.201	0.040757	1 107	107.715.070	0.000010
Surface:	Anthracite	0153	3,767.3	0.049188	0.049188	0.047532	1.853	0.321	0.048656	-1.1%	196,715,268	0.009318
	Bituminous	0156	10,546.4	0.013357	0.013357	0.020404	1.409	0.280	0.015330	14.8%	537,043,950	0.003010
Four Standard	d Classifications		34,538.6	0.045427	0.045427	0.047926	15.690		0.046019		2,293,483,524	0.006930
1001 Statiaald	a Classifications	•	34,330.0	0.043427	0.043427	0.047720	13.670		0.040017		2,273,403,324	0.006730
	Coke	0154	893.6	0.004832	0.004832	0.002291	0.043	0.049	0.004707	-2.6%	46,481,988	0.000905
	Auger	0157	146.7	0.010212	0.010212	0.002248	0.015	0.029	0.009981	-2.3%	7,527,714	0.001945
	- 0 -											
Co-Gen:	Anthracite	0181	1,664.0	0.009120	0.009120	0.024349	0.152	0.092	0.010521	15.4%	86,420,303	0.002026
	<b>Bituminous</b>	0182	2,044.6	0.011498	0.011498	0.002752	0.235	0.114	0.010501	-8.7%	107,321,277	0.002001
Prep Plants:	Anthracite	0183	1,284.1	0.108318	0.108318	0.114379	1.391	0.278	0.110003	1.6%	67,463,610	0.020938
	Bituminous	0184	3,959.2	0.011537	0.011537	0.013795	0.457	0.159	0.011896	3.1%	304,200,995	0.001548
Other Classes	5		9,992.2	0.022945	0.022945	0.025021	2.293		0.023318		619,415,887	0.003762
Talad			44.520.0	0.040200	0.040200	0.040707	17.000		0.040005		0.010.000.411	0.00/05/
Total			44,530.8	0.040382	0.040382	0.042786	17.983		0.040925		2,912,899,411	0.006256

Source: (1) Exhibit VIII-B-2

(2) Exhibit IV-B-6

(3) = (2) trended to 4/1/2021 @ 0.0%

(4) Exhibit IV-B-5 (5) = (1)  $\times$  (3) / 100 (6) = [(5) / 17.983] $\wedge$ (0.5) (7) = (4)\*(6)+((3)\*(1-(6))

(8) = (7)/(2)-1

(9) Exhibit X-A-3

Columns (2),(3),(4) & (7) totals and subtotals are weighted with 10 year estimated miner years.

 $(10) = (7) \times (1) / [(9) * 10,000]$ 

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Run Date: 09/18/20 11:14

Effective Date - April 01, 2021

8,738,876,172.490760

PAB

#### Coal Mine Compensation Rating Bureau

#### Federal Basic Occupational Disease Classification Frequency

			(1)	(2)	(3)	(4)	(5)	(6)
			Estimated Miner	Approved Frequency Equivalent Per			Weighted Average	
		Class	Years	100 Miner Years	Modeled	Experience	of Cols.	Percent
<u>Classification</u>		<u>Code</u>	<u>2019</u>	4/1/2020	<u>Indication</u>	<u>Indication</u>	(3) & (4)	<u>Change</u>
Underground:	Anthracite	0160	3.1	0.878461	0.713861	0.998999	0.927715	5.61%
<u> </u>	Bituminous	0158	2,167.3	0.076868	0.202061	0.063325	0.098009	27.50%
Surface:	Anthracite	0153	354.5	0.228353	0.152095	0.087962	0.103995	-54.46%
	Bituminous	0156	625.3	0.103483	0.113767	0.102652	0.105431	1.88%
Four Standard	Classifications	S	3,150.2	0.099987	0.179416	0.074824	0.100972	0.99%
	Coke	0154	79.5	0.010970	0.014354	0.007646	0.009323	-15.01%
	Auger	0157	10.2	0.055010	0.067454	0.019106	0.031193	-43.30%
Co-Gen:	Anthracite	0181	117.2	0.049230	0.059692	0.023528	0.032569	-33.84%
	Bituminous	0182	202.9	0.034361	0.030108	0.015293	0.018997	-44.71%
Prep Plants:	Anthracite	0183	181.9	0.100377	0.091559	0.040024	0.052908	-47.29%
	Bituminous	0184	438.5	<u>0.057075</u>	<u>0.046678</u>	0.022547	0.028580	-49.93%
(	Other Classes		1,030.2	0.055776	0.050531	0.023132	0.029982	-46.25%
		Total	4,180.4	0.089092	0.147654	0.062085	0.083478	-6.30%

Source: (1) Exhibit VIII-B-2

- (2) Exhibit IV-B-4
- (3) Exhibit VIII-F
- (4) Exhibit VIII-B-2
- (5) = (0.25)\*Col.(3) + (0.75)\*Col.(4)
- (6) = (5)/(2) -1

Totals and subtotals are weighted by Miner Years.

PAB

Effective Date - April 01, 2021

58,486.021448

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#### COAL MINE COMPENSATION RATING BUREAU Federal Basic Occupational Disease Classification Frequency

			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10) Approved
<u>Classification</u>		Class <u>Code</u>	Approved Claim Freq. 4/1/2020	Payroll 2009-2018	Estimated Awarded Claims 2009-2018 (1) x (2)	Estimated Miner Years 2010-2019	Estimated Miner Years 2019	Adjustment <u>Factor</u>	Average Weekly Wage <u>2009</u>	Payroll 2009	Estimated Miner Years 2009-2018	Frequency Equivalent Per 100 Miner Years
Underground:	Anthracite	0160	0.180561	6,417,168	1.158690	106.2	3.1	1.067	836	1,335,866	131.9	0.878461
	Bituminous	0158	0.010163	1,469,848,828	14.938074	20,118.7	2,167.3	1.573	836	101,348,140	19,433.5	0.076868
Surface:	Anthracite	0153	0.044670	191,975,807	8.575559	3,767.3	354.5	1.067	836	15,893,528	3,755.4	0.228353
	Bituminous	0156	0.020709	563,955,023	11.678945	10,546.4	625.3	1.067	836	63,306,695	11,285.9	0.103483
Four Standard	Classifications			2,232,196,826		34,538.6	3,150.2			181,884,229	34,607	
	Coke	0154	0.002159	47,029,008	0.101536	893.6	79.5	1.067	836	5,173,552	925.6	0.010970
	Auger	0157	0.010951	7,881,463	0.086310	146.7	10.2	1.067	836	946,963	156.9	0.055010
Co-Gen:	Anthracite	0181	0.009657	87,133,409	0.841447	1,664.0	117.2	1.067	836	7,534,735	1,709.2	0.049230
	Bituminous	0182	0.006685	103,380,449	0.691098	2,044.6	202.9	1.067	836	7,866,413	2,011.3	0.034361
Prep Plants:	Anthracite	0183	0.019669	63,143,375	1.241967	1,284.1	181.9	1.067	836	6,264,606	1,237.3	0.100377
	Bituminous	0184	0.007594	286,405,677	2.174965	3,959.2	438.5	1.573	836	19,828,012	3,810.7	0.057075
Other Classes				594,973,381		9,992.2	1,030.2			47,614,281	9,851.0	
Total				2,827,170,207		44,530.8	4,180.4			229,498,510	44,457.7	

Source: (1) Exhibit X-F (Federal Basic Frequency)

(2) Exhibit X-A-3

(3) = (1)x(2) / 1,000,000

(4) Exhibit VIII-B-2

(5) Exhibit VIII-B-2

(6) Exhibit X-G

(7) Exhibit XII-D

(8) Exhibit X-A-3

 $(9) = (4)-(5)+(8)/((6)\times(7)\times52)$ 

 $(10) = (3)/(9) \times 100$ 

#### Coal Mine Compensation Rating Bureau

#### Federal Excess Occupational Disease Classification Frequency

			(1)	(2)	(3)	(4)	(5)	(6)
			Falling all a al	Approved			\\/ a:   a   a   a	
			Estimated Miner	Frequency Equivalent Per			Weighted Average	
		Class	Years	100 Miner Years	Modeled	Experience	of Cols.	Percent
<u>Classification</u>		<u>Code</u>	2019	4/1/2020	Indication	<u>Indication</u>	(3) & (4)	<u>Change</u>
				<u>-, -,</u>			1=7=-1-7	<u> </u>
Underground:	Anthracite	0160	3.1	0.409030	0.206355	0.727738	0.597392	46.05%
	Bituminous	0158	2,167.3	0.059615	0.042125	0.065326	0.059526	-0.15%
Surface:	Anthracite	0153	354.5	0.049188	0.081667	0.036154	0.047532	-3.37%
	Bituminous	0156	625.3	0.013357	0.006191	0.025142	0.020404	52.76%
Four Standard	Classifications	S	3,150.2	0.049603	0.039604	0.054719	0.050940	2.70%
	Coke	0154	79.5	0.004832	0.000238	0.002975	0.002291	-52.59%
	Auger	0157	10.2	0.010212	0.000230	0.002773	0.002271	-77.99%
	Augei	0137	10.2	0.010212	0.000221	0.002724	0.002240	-//.///0
Co-Gen:	Anthracite	0181	117.2	0.009120	0.003483	0.031304	0.024349	166.98%
	Bituminous	0182	202.9	0.011498	0.002074	0.002978	0.002752	-76.07%
Prep Plants:	Anthracite	0183	181.9	0.108318	0.093420	0.121366	0.114379	5.60%
	Bituminous	0184	438.5	0.011537	<u>0.001481</u>	0.017900	0.013795	19.57%
(	Other Classes		1,030.2	0.027812	0.017951	0.033455	0.029579	6.35%
		Total	4 100 4	0.044022	0.024070	0.040470	0.045/7/	2 0 / 07
		Total	4,180.4	0.044233	0.034268	0.049479	0.045676	3.26%

Source: (1) Exhibit VIII-B-2

- (2) Exhibit IV-B-6
- (3) Exhibit VII-L
- (4) Exhibit VII-B-2 (Federal Excess Frequency)
- (5) = (0.25)\*Col.(3) + (0.75)\*Col.(4)
- (6) = (5)/(2) -1

Totals and subtotals are weighted with Miner Years

PAB

Effective Date - April 01, 2021

58,486.650756

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#### COAL MINE COMPENSATION RATING BUREAU Federal Excess Occupational Disease Classification Frequency

			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10) Approved
<u>Classification</u>		Class <u>Code</u>	Approved Claim Freq. 4/1/2020	Payroll 2009-2018	Estimated Awarded Claims 2009-2018 (1) x (2)	Estimated Miner Years 2010-2019	Estimated Miner Years 2019	Adjustment <u>Factor</u>	Average Weekly Wage <u>2009</u>	Payroll 2009	Estimated Miner Years 2009-2018	Frequency Equivalent Per 100 Miner Years
Underground:	Anthracite	0160	0.084073	6,417,168	0.539511	106.2	3.1	1.067	836	1,335,866	131.9	0.409030
	Bituminous	0158	0.007882	1,469,848,828	11.585348	20,118.7	2,167.3	1.573	836	101,348,140	19,433.5	0.059615
Surface:	Anthracite	0153	0.009622	191,975,807	1.847191	3,767.3	354.5	1.067	836	15,893,528	3,755.4	0.049188
	Bituminous	0156	0.002673	563,955,023	1.507452	10,546.4	625.3	1.067	836	63,306,695	11,285.9	0.013357
Four Standard	Classifications			2,232,196,826		34,538.6	3,150.2			181,884,229	34,607	
	Coke	0154	0.000951	47,029,008	0.044725	893.6	79.5	1.067	836	5,173,552	925.6	0.004832
	Auger	0157	0.002033	7,881,463	0.016023	146.7	10.2	1.067	836	946,963	156.9	0.010212
Co-Gen:	Anthracite	0181	0.001789	87,133,409	0.155882	1,664.0	117.2	1.067	836	7,534,735	1,709.2	0.009120
	Bituminous	0182	0.002237	103,380,449	0.231262	2,044.6	202.9	1.067	836	7,866,413	2,011.3	0.011498
Prep Plants:	Anthracite	0183	0.021225	63,143,375	1.340218	1,284.1	181.9	1.067	836	6,264,606	1,237.3	0.108318
	Bituminous	0184	0.001535	286,405,677	0.439633	3,959.2	438.5	1.573	836	19,828,012	3,810.7	0.011537
Other Classes				594,973,381		9,992.2	1,030.2			47,614,281	9,851.0	
Total				2,827,170,207		44,530.8	4,180.4			229,498,510	44,457.7	

Source: (1) Exhibit X-F (Federal Excess Frequency)

(2) Exhibit X-A-3

(3) = (1)x(2) / 1,000,000

(4) Exhibit VIII-B-2

(5) Exhibit VIII-B-2

(6) Exhibit X-G

(7) Exhibit XII-D

(8) Exhibit X-A-3

 $(9) = (4)-(5)+(8)/((6)\times(7)\times52)$ 

 $(10) = (3)/(9) \times 100$ 

### COAL MINE COMPENSATION RATING BUREAU Traumatic Loss and Classification Credibility

		(1)		(2)	(3) oss Cost/Ur	(4) nloaded	(5) Cre	(6) dibility	(7) Indicated	(8) w/ Credibility	(9) Proposed	(10)	(11) Proposed
		5 V	0010	A	Approved		Five Year	C10-104 .	Indicated		Change	Proposed	Change
Classification	Code	5 Year <u>Payroll</u>	2019 <u>Payroll</u>	Approved (Eff 4/01/2020	on <u>Level</u>	Indicated Eff 04/01/2021)	Expected <u>Losses</u>	Credibility <u>Factor</u>	Loss <u>Cost</u>	Indicated <u>Change</u>	after <u>Limitation</u>	Loss <u>Cost</u>	Excluding <u>Trend</u>
Underground: Bituminous	1001	\$904,049,210	\$185,776,423	6.65	6.71	6.56	60,119,272	1.00	6.56	-1.4%	-1.4%	6.56	-2.2%
Surface: Anthracite	1012	\$109,582,806	\$23,746,667	7.84	7.91	6.83	8,591,292	1.00	6.83	-12.9%	-12.9%	6.83	-13.7%
Bituminous	1014	\$173,920,258	\$35,476,154	1.79	1.81	1.78	3,113,173	1.00	1.78	-0.6%	-0.6%	1.78	-1.4%
Three Major Classifications		\$1,187,552,274	\$244,999,244	6.05	6.10	5.88	71,823,737						
Coke	1469	\$22,398,691	\$4,572,392	3.73	3.76	4.54	835,471	0.52	4.17	11.8%	11.8%	4.17	10.8%
Co-Gen: Anthracite	1021	\$48,103,409	\$8,219,127	5.95	6.00	6.25	2,862,153	0.96	6.24	4.9%	4.9%	6.24	3.9%
Bituminous	1023	\$58,361,352	\$11,807,241	1.32	1.33	1.12	770,370	0.50	1.23	-6.8%	-6.8%	1.23	-7.6%
Prep Plants: Anthracite	1025	\$44,669,219	\$12,646,576	4.14	4.18	3.88	1,849,306	0.77	3.95	-4.6%	-4.6%	3.95	-5.4%
Bituminous	1027	\$155,862,623	\$37,605,236	2.66	2.68	2.97	4,145,946	1.00	2.97	11.7%	11.7%	2.97	10.7%
Auger	1015	\$2,544,176	\$539,914	8.76	8.84	2.47	222,870	0.27	7.12	-18.7%	-18.7%	7.12	-19.4%
Subtotal (6)		\$331,939,470	\$75,390,486	3.22	3.25	3.34	10,686,116						
Underground: Anthracite	1010	\$1,033,204	\$179,379	20.12	20.30	17.04	207,881	0.26	18.67	-7.2%	-7.2%	18.67	-8.0%
Subtotal (7)		\$332,972,674	\$75,569,865	3.27	3.30	3.39	10,893,997						
Total (Based on 5-year Payroll)		\$1,520,524,948	\$320,569,109	5.44	5.49	5.34	\$82,717,734		5.35				
Total (Based on 2019 Payroll, see Exhibit II)			\$320,569,109	5.39					5.30	-1.7%	-1.7%	5.30	

Source: (1) Exhibit V-B

(2) Unloaded Loss Cost Current (Eff 4/01/2020) Exhibit X-B page 2

 $(3) = (2) \times \text{Trend} = (2) \times (1.009)$ 

1.009=Weighted average of 1.021 and 1.002

Weights derived from 5 year Medical (28,591,901) and Indemnity (52,648,914)

ultimate losses. Exhibit V-B, pg. 1

Otherwise, Column (2) \* [1 + (9)].

<sup>(4)</sup> Exhibit V-B except Underground Anthracite, see Ex V-A-2

<sup>(5)</sup> Expected Losses = Column (1) times Column (2) divided by 100

<sup>(6)</sup> Factor  $Z = [(5) \text{ divided by } 3,113,173] \land (1/2)$ 

<sup>(7) [</sup>Column (4) times Column (6)] plus [Column (3) times (1.0 minus Column (6)]], except Underground Anthracite is the average of Column(3) and Column(4).

<sup>(8)</sup> Column(7) / Column(2) -1.0

<sup>(9)</sup> Loss costs changes limited to +25% increase , -25% decrease

<sup>(10)</sup> When Column (8) equals Column (9), then Column (7).

<sup>(11)</sup> Column(10)/1.009/Column(2)-1.000

### COAL MINE COMPENSATION RATING BUREAU Traumatic Loss and Classification Credibility

#### Calculation of Anthracite Underground Loss Cost

Multiplicative Method (Anthracite: Underground vs. Surface) Differential Factor from Study	Indicated 2.66	Proposed 2.66
Indicated Anthracite Surface Loss Cost	6.83 *	6.83 *
Indicated Anthracite Underground Loss Cost	18.17	18.17
Comparative Hazard Method #1 (Anthracite vs. Bituminous)		
Differential Factor from Study	2.41	2.41
Indicated Bituminous Underground Loss Cost:	6.56 *	6.56 *
Indicated Anthracite Underground Loss Cost	15.81	15.81
Comparative Hazard Method #2 (Surface vs. Underground)		
Differential Factor from Study	2.51	2.51
Indicated Anthracite Surface Loss Cost:	6.83 *	6.83 *
Indicated Anthracite Underground Loss Cost	17.14	17.14
Average	e 17.04	17.04

<sup>\*</sup> Souce: Exhibit V-A-1

Exhibit V-B Page 1

#### All Classifications Combined (10 Classes)

	(1)	(2)	(3)	(4)	(5)
Accident	Reported	Loss	Trend	Ultimate	Loss
<u>Year</u>	<u>Losses</u>	<u>Development</u>	<u>Factor</u>	<u>Losses</u>	<u>Cost</u>
<u>Indemnity</u>					
2015	11,946,924	1.0253	1.0267	12,576,234	3.59
2016	9,151,489	1.0517	1.0223	9,839,250	3.87
2017	9,841,483	1.0945	1.0170	10,954,620	3.79
2018	7,734,859	1.2705	1.0105	9,930,324	3.24
<u>2019</u>	4,894,467	* 1.9988	1.0055	9,348,486 *	2.92
5 Years	\$43,569,222			\$52,648,914	3.46
<u>Medical</u>					
2015	3,909,083	1.1015	1.1470	4,938,815	1.41
2016	3,905,895	1.1073	1.1269	4,873,840	1.91
2017	6,006,389	1.1133	1.1038	7,381,014	2.55
2018	5,421,768	1.0979	1.0811	6,435,312	2.10
<u>2019</u>	4,076,893	* 1.1487	1.0588	4,962,920 *	<u>1.55</u>
5 Years	\$23,320,028			\$28,591,901	1.88
	(6)				
Indemnity &	Developed				
Medical	<u>Payroll</u>				
2015	350,172,362			17,515,049	5.00
2016	254,559,392			14,713,090	5.78
2017	289,088,505			18,335,634	6.34
2018	306,135,580			16,365,636	5.35
<u>2019</u>	320,569,109			14,311,406	<u>4.46</u>
5 Years	\$1,520,524,948			\$81,240,815	5.34

Source: (1) Sum of Exhibit V-B, pages 2 and 6 - column (1)

(2) Exhibit V-C

\* Large Claims have been

(3) Exhibit V-F

capped at \$1,250,000. See V-B, page 12b

3,499,821,998.149100

(4) (1) times (2) times (3)

(5) (4) divided by (6) times 100

(6) Sum of Exhibit V-B, pages 2 and 6 - column (6)

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Exhibit V-B Page 2

### Three 100% Credibility Classifications (3 Classes)

	(1)	(2)	(3)	(4)	(5)
Accident	Reported	Loss	Trend	Ultimate	Loss
<u>Year</u>	<u>Losses</u>	<u>Development</u>	<u>Factor</u>	<u>Losses</u>	<u>Cost</u>
<u>Indemnity</u>					
2015	10,859,107	1.0253	1.0267	11,431,116	4.06
2016	7,859,059	1.0517	1.0223	8,449,691	4.26
2017	9,193,957	1.0945	1.0170	10,233,854	4.51
2018	7,170,429	1.2705	1.0105	9,205,686	3.91
<u>2019</u>	3,601,509	1.9988	1.0055	7,238,289	2.95
5 Years	\$38,684,061			\$46,558,636	3.92
<u>Medical</u>					
2015	3,396,753	1.1015	1.1470	4,291,527	1.52
2016	3,197,252	1.1073	1.1269	3,989,583	2.01
2017	4,862,975	1.1133	1.1038	5,975,918	2.63
2018	4,085,466	1.0979	1.0811	4,849,202	2.06
<u>2019</u>	3,460,429	1.1487	1.0588	4,208,724	1.72
5 Years	\$19,002,875			\$23,314,954	1.96
	(6)				
Indemnity &	Developed				
<u>Medical</u>	<u>Payroll</u>				
2015	281,607,287			15,722,643	5.58
2016	198,557,107			12,439,274	6.26
2017	227,016,632			16,209,772	7.14
2018	235,372,004			14,054,888	5.97
<u>2019</u>	244,999,244			11,447,013	<u>4.67</u>
5 Years	\$1,187,552,274			\$69,873,590	5.88

Source: (1) Sum of Exhibit V-B, pages 3,4 and 5 - column (1)

- (2) Exhibit V-C
- (3) Exhibit V-F
- (4) (1) times (2) times (3)
- (5) (4) divided by (6) times 100
- (6) Sum of Exhibit V-B, pages 3,4 and 5 column (6)

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#### Exhibit V-B Page 3

#### **Underground Bituminous 1001**

	(1)	(2)	(3)	(4)	(5)
Accident	Reported	Loss	Trend	Ultimate	Loss
<u>Year</u>	Losses	<u>Development</u>	<u>Factor</u>	<u>Losses</u>	<u>Cost</u>
<u>Indemnity</u>					
2015	9,783,334	1.0253	1.0267	10,298,676	4.76
2016	6,415,091	1.0517	1.0223	6,897,204	4.64
2017	7,516,120	1.0945	1.0170	8,366,242	4.84
2018	6,577,502	1.2705	1.0105	8,444,462	4.68
<u>2019</u>	2,935,329	1.9988	1.0055	5,899,405	3.18
5 Years	\$33,227,376			\$39,905,989	4.41
<u>Medical</u>					
2015	2,780,562	1.1015	1.1470	3,513,019	1.62
2016	2,352,667	1.1073	1.1269	2,935,696	1.98
2017	4,083,408	1.1133	1.1038	5,017,939	2.91
2018	3,653,717	1.0979	1.0811	4,336,742	2.40
<u>2019</u>	2,943,242	1.1487	1.0588	3,579,699	1.93
5 Years	\$15,813,596			\$19,383,095	2.14
	(6)				
Indemnity &	Developed				
<u>Medical</u>	<u>Payroll</u>				
2015	216,454,460			13,811,695	6.38
2016	148,556,407			9,832,900	6.62
2017	172,708,778			13,384,181	7.75
2018	180,553,142			12,781,204	7.08
<u>2019</u>	185,776,423			9,479,104	<u>5.10</u>
5 Years	\$904,049,210			\$59,289,084	6.56

Source: (1) CMCRB Database as of 04-30-2020

- (2) Exhibit V-C
- (3) Exhibit V-F
- (4) (1) times (2) times (3)
- (5) (4) divided by (6) times 100
- (6) Exhibit X-D

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2,143,367,056.589100

Coal Mine Compensation Rating Bureau
Traumatic Loss Cost Indication

Exhibit V-B

Page 4

Surface	Anthracite	1012
20Hace	Aniniaciie	IUIZ

	(1)	(2)	(3)	(4)	(5)
Accident	Reported	Loss	Trend	Ultimate	Loss
<u>Year</u>	<u>Losses</u>	<u>Development</u>	<u>Factor</u>	Losses	<u>Cost</u>
<u>Indemnity</u>					
2015	533,420	1.0253	1.0267	561,518	2.32
2016	1,150,835	1.0517	1.0223	1,237,324	5.93
2017	1,483,811	1.0945	1.0170	1,651,640	7.80
2018	529,072	1.2705	1.0105	679,244	3.47
<u>2019</u>	373,333	1.9988	1.0055	750,322	<u>3.16</u>
5 Years	\$4,070,471			\$4,880,048	4.45
<u>Medical</u>					
2015	332,590	1.1015	1.1470	420,201	1.74
2016	554,018	1.1073	1.1269	691,313	3.31
2017	595,380	1.1133	1.1038	731,639	3.46
2018	300,638	1.0979	1.0811	356,839	1.82
<u>2019</u>	332,838	1.1487	1.0588	404,812	<u>1.70</u>
5 Years	\$2,115,464			\$2,604,804	2.38
	(6)				
Indemnity &	Developed				
<u>Medical</u>	<u>Payroll</u>				
2015	24,218,779			981,719	4.05
2016	20,873,611			1,928,637	9.24
2017	21,167,074			2,383,279	11.26
2018	19,576,675			1,036,083	5.29
<u>2019</u>	23,746,667			1,155,134	<u>4.86</u>
5 Years	\$109,582,806			\$7,484,852	6.83

Source: (1) CMCRB Database as of 04-30-2020

- (2) Exhibit V-C
- (3) Exhibit V-F
- (4) (1) times (2) times (3)
- (5) (4) divided by (6) times 100
- (6) Exhibit X-D

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Exhibit V-B Page 5

#### Surface Bituminous 1014

	(1)	(2)	(3)	(4)	(5)
Accident	Reported	Loss	Trend	Ultimate	Loss
<u>Year</u>	<u>Losses</u>	<u>Development</u>	<u>Factor</u>	<u>Losses</u>	<u>Cost</u>
<u>Indemnity</u>					
2015	542,353	1.0253	1.0267	570,922	1.39
2016	293,133	1.0517	1.0223	315,163	1.08
2017	194,026	1.0945	1.0170	215,972	0.65
2018	63,855	1.2705	1.0105	81,980	0.23
<u>2019</u>	292,847	1.9988	1.0055	588,562	1.66
5 Years	\$1,386,214			\$1,772,599	1.02
<u>Medical</u>					
2015	283,601	1.1015	1.1470	358,307	0.88
2016	290,567	1.1073	1.1269	362,574	1.24
2017	184,187	1.1133	1.1038	226,340	0.68
2018	131,111	1.0979	1.0811	155,621	0.44
<u>2019</u>	184,349	1.1487	1.0588	224,213	0.63
5 Years	\$1,073,815			\$1,327,055	0.76
	(6)				
Indemnity &	Developed				
<u>Medical</u>	<u>Payroll</u>				
2015	40,934,048			929,229	2.27
2016	29,127,089			677,737	2.33
2017	33,140,780			442,312	1.33
2018	35,242,187			237,601	0.67
<u>2019</u>	35,476,154			812,775	2.29
5 Years	\$173,920,258			\$3,099,654	1.78

Source: (1) CMCRB Database as of 04-30-2020

- (2) Exhibit V-C
- (3) Exhibit V-F
- (4) (1) times (2) times (3)
- (5) (4) divided by (6) times 100
- (6) Exhibit X-D

365,189,488.939100

Exhibit V-B

Page 6

# Seven Less Than 100% Credibility Classifications (7 Classes)

	(1)	(2)	(3)	(4)	(5)
Accident	Reported	Loss	Trend	Ultimate	Loss
<u>Year</u>	<u>Losses</u>	<u>Development</u>	<u>Factor</u>	<u>Losses</u>	<u>Cost</u>
<u>Indemnity</u>					
2015	1,087,817	1.0253	1.0267	1,145,118	1.67
2016	1,292,430	1.0517	1.0223	1,389,559	2.48
2017	647,526	1.0945	1.0170	720,766	1.16
2018	564,430	1.2705	1.0105	724,638	1.02
<u>2019</u>	1,292,958	* 1.9988	1.0055	2,110,197 *	2.79
5 Years	\$4,885,161			\$6,090,278	1.83
<u>Medical</u>					
2015	512,330	1.1015	1.1470	647,288	0.94
2016	708,643	1.1073	1.1269	884,257	1.58
2017	1,143,414	1.1133	1.1038	1,405,096	2.26
2018	1,336,302	1.0979	1.0811	1,586,110	2.24
<u>2019</u>	616,464	* 1.1487	1.0588	754,196 *	1.00
5 Years	\$4,317,153			\$5,276,947	1.58
	(6)				
Indemnity &	Developed				
<u>Medical</u>	<u>Payroll</u>				
2015	68,565,075			1,792,406	2.61
2016	56,002,285			2,273,816	4.06
2017	62,071,873			2,125,862	3.42
2018	70,763,576			2,310,748	3.27
<u>2019</u>	75,569,865			2,864,393	3.79
5 Years	\$332,972,674			\$11,367,225	3.41

Source: (1) Sum of Exhibit V-B, pages 7-13 - column (1)

(2) Exhibit V-C

\* Large Claims have been

(3) Exhibit V-F

capped at \$1,250,000. See V-B, page 12b

(4) (1) times (2) times (3)

(5) (4) divided by (6) times 100

(6) Sum of Exhibit V-B, pages 7-13 - column (6)

File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-05-B.xlsx]V-B-6 PAB Run Date: September 11, 2020 - 10:17:01 AM Effective Date - April 01, 2021

Cake 1440

Exhibit V-B

Page 7

		Coke 1469			
	(1)	(2)	(3)	(4)	(5)
Accident	Reported	Loss	Trend	Ultimate	Loss
<u>Year</u>	Losses	<u>Development</u>	<u>Factor</u>	<u>Losses</u>	<u>Cost</u>
<u>Indemnity</u>					
2015	114,645	1.0253	1.0267	120,684	2.78
2016	22,494	1.0517	1.0223	24,184	0.55
2017	42,083	1.0945	1.0170	46,843	1.03
2018	99,871	1.2705	1.0105	128,218	2.86
<u>2019</u>	71,300	1.9988	1.0055	143,298	3.13
5 Years	\$350,393			\$463,227	2.07
<u>Medical</u>					
2015	113,551	1.1015	1.1470	143,463	3.31
2016	22,002	1.1073	1.1269	27,454	0.62
2017	185,062	1.1133	1.1038	227,415	4.98
2018	110,693	1.0979	1.0811	131,386	2.93
<u>2019</u>	19,723	1.1487	1.0588	23,988	0.52
5 Years	\$451,031			\$553,706	2.47
	(6)				
Indemnity &	Developed				
<u>Medical</u>	<u>Payroll</u>				
2015	4,340,376			264,147	6.09
2016	4,435,066			51,638	1.16
2017	4,566,113			274,258	6.01

Source: (1) CMCRB Database as of 04-30-2020

4,484,744

4,572,392

\$22,398,691

(2) Exhibit V-C

2018

2019

5 Years

- (3) Exhibit V-F
- (4) (1) times (2) times (3)
- (5) (4) divided by (6) times 100
- (6) Exhibit X-D

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259,604

167,286

\$1,016,933

5.79

3.66

4.54

Exhibit V-B Page 8

# **Auger 1015**

	- 3			
(1)	(2)	(3)	(4)	(5)
Reported	Loss	Trend	Ultimate	Loss
<u>Losses</u>	<u>Development</u>	<u>Factor</u>	Losses	<u>Cost</u>
31,531	1.0253	1.0267	33,192	5.70
0	1.0517	1.0223	0	0.00
0	1.0945	1.0170	0	0.00
0	1.2705	1.0105	0	0.00
0	1.9988	1.0055	0	0.00
\$31,531			\$33,192	1.30
21,114	1.1015	1.1470	26,676	4.58
132	1.1073	1.1269	165	0.04
0	1.1133	1.1038	0	0.00
0	1.0979	1.0811	0	0.00
2,299	1.1487	1.0588	2,796	0.52
\$23,545			\$29,637	1.16
(6)				
Developed				
<u>Payroll</u>				
582,619			59,868	10.28
372,496			165	0.04
449,009			0	0.00
600,138			0	0.00
539,914			2,796	0.52
\$2,544,176			\$62,829	2.47
	Reported Losses  31,531 0 0 0 \$31,531  21,114 132 0 0 2,299 \$23,545  (6) Developed Payroll 582,619 372,496 449,009 600,138 539,914	Reported Loss         Loss           1,531         1,0253           0         1,0517           0         1,0945           0         1,2705           0         1,9988           \$31,531         31,531           21,114         1,1015           132         1,1073           0         1,1133           0         1,0979           2,299         1,1487           \$23,545         (6)           Developed Payroll         582,619           372,496         449,009           600,138         539,914	Reported Losses         Loss Development         Trend Factor           31,531         1.0253         1.0267           0         1.0517         1.0223           0         1.0945         1.0170           0         1.2705         1.0105           0         1.9988         1.0055           \$31,531         1.1470           132         1.1073         1.1269           0         1.1133         1.1038           0         1.0979         1.0811           2,299         1.1487         1.0588           \$23,545         (6)         Developed           Payroll         582,619         372,496           449,009         600,138         539,914	Reported Losses         Loss Development         Trend Factor         Ultimate Losses           31,531         1.0253         1.0267         33,192           0         1.0517         1.0223         0           0         1.0945         1.0170         0           0         1.2705         1.0105         0           0         1.9988         1.0055         0           \$31,531         \$33,192           21,114         1.1015         1.1470         26,676           132         1.1073         1.1269         165           0         1.1133         1.1038         0           0         1.0979         1.0811         0           2,299         1.1487         1.0588         2,796           \$23,545         \$29,637           (6)         Developed         59,868           372,496         165         165           449,009         0         0           600,138         0         0           539,914         2,796

Source: (1) CMCRB Database as of 04-30-2020

- (2) Exhibit V-C
- (3) Exhibit V-F
- (4) (1) times (2) times (3)
- (5) (4) divided by (6) times 100
- (6) Exhibit X-D

File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-05-B.xlsx]V-B-8 Run Date: September 11, 2020 - 10:17:01 AM

5,480,124.219100

Exhibit V-B Page 9

#### Co-Gen Anthracite 1021

	(1)	(2)	(3)	(4)	(5)
Accident	Reported	Loss	Trend	Ultimate	Loss
<u>Year</u>	<u>Losses</u>	<u>Development</u>	<u>Factor</u>	<u>Losses</u>	<u>Cost</u>
<u>Indemnity</u>					
2015	100,480	1.0253	1.0267	105,773	1.01
2016	511,549	1.0517	1.0223	549,993	6.11
2017	256,149	1.0945	1.0170	285,121	3.23
2018	90,096	1.2705	1.0105	115,669	1.00
<u>2019</u>	39,221	1.9988	1.0055	78,826	<u>0.96</u>
5 Years	\$997,495			\$1,135,382	2.36
<u>Medical</u>					
2015	75,211	1.1015	1.1470	95,023	0.91
2016	301,663	1.1073	1.1269	376,420	4.18
2017	269,709	1.1133	1.1038	331,435	3.76
2018	844,527	1.0979	1.0811	1,002,403	8.64
<u>2019</u>	52,912	1.1487	1.0588	64,354	<u>0.78</u>
5 Years	\$1,544,022			\$1,869,635	3.89
	(6)				
Indemnity &	Developed				
<u>Medical</u>	<u>Payroll</u>				
2015	10,469,089			200,796	1.92
2016	8,994,602			926,413	10.30
2017	8,819,700			616,556	6.99
2018	11,600,891			1,118,072	9.64
<u>2019</u>	8,219,127			143,180	<u>1.74</u>
5 Years	\$48,103,409			\$3,005,017	6.25

Source: (1) CMCRB Database as of 04-30-2020

- (2) Exhibit V-C
- (3) Exhibit V-F
- (4) (1) times (2) times (3)
- (5) (4) divided by (6) times 100
- (6) Exhibit X-D

File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-05-B.xlsx]V-B-9 Run Date: September 11, 2020 - 10:17:01 AM

113,340,271.279100

Coal Mine Compensation Rating Bureau
Traumatic Loss Cost Indication

Exhibit V-B Page 10

# Co-Gen Bituminous 1023

	(1)	(2)	(3)	(4)	(5)
Accident	Reported	Loss	Trend	Ultimate	Loss
<u>Year</u>	<u>Losses</u>	<u>Development</u>	<u>Factor</u>	<u>Losses</u>	<u>Cost</u>
<u>Indemnity</u>					
2015	70,451	1.0253	1.0267	74,162	0.63
2016	6,706	1.0517	1.0223	7,210	0.06
2017	50,986	1.0945	1.0170	56,753	0.50
2018	126,423	1.2705	1.0105	162,307	1.35
<u>2019</u>	8,535	1.9988	1.0055	17,154	0.15
5 Years	\$263,101			\$317,586	0.54
<u>Medical</u>					
2015	29,226	1.1015	1.1470	36,925	0.31
2016	23,310	1.1073	1.1269	29,087	0.26
2017	133,300	1.1133	1.1038	163,807	1.43
2018	65,515	1.0979	1.0811	77,762	0.65
<u>2019</u>	25,641	1.1487	1.0588	31,186	0.26
5 Years	\$276,992			\$338,767	0.58
	(6)				
Indemnity &	Developed				
<u>Medical</u>	<u>Payroll</u>				
2015	11,748,205			111,087	0.95
2016	11,327,552			36,297	0.32
2017	11,435,057			220,560	1.93
2018	12,043,297			240,069	1.99
<u>2019</u>	11,807,241			48,340	0.41
5 Years	\$58,361,352			\$656,353	1.12

Source: (1) CMCRB Database as of 04-30-2020

- (2) Exhibit V-C
- (3) Exhibit V-F
- (4) (1) times (2) times (3)
- (5) (4) divided by (6) times 100
- (6) Exhibit X-D

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Coal Mine Compensation Rating Bureau
Traumatic Loss Cost Indication

Exhibit V-B

Page 11

# Prep Plants Anthracite 1025

	(1)	(2)	(3)	(4)	(5)
Accident	Reported	Loss	Trend	Ultimate	Loss
<u>Year</u>	Losses	<u>Development</u>	<u>Factor</u>	Losses	<u>Cost</u>
<u>Indemnity</u>					
2015	274,264	1.0253	1.0267	288,711	3.80
2016	168,017	1.0517	1.0223	180,644	2.57
2017	6,566	1.0945	1.0170	7,309	0.09
2018	43,147	1.2705	1.0105	55,394	0.57
<u>2019</u>	207,634	1.9988	1.0055	417,301	3.30
5 Years	\$699,628			\$949,359	2.13
<u>Medical</u>					
2015	130,671	1.1015	1.1470	165,092	2.17
2016	68,171	1.1073	1.1269	85,065	1.21
2017	33,115	1.1133	1.1038	40,694	0.53
2018	196,615	1.0979	1.0811	233,370	2.42
<u>2019</u>	214,557	1.1487	1.0588	260,954	2.06
5 Years	\$643,129			\$785,175	1.76
	(6)				
Indemnity &	Developed				
<u>Medical</u>	<u>Payroll</u>				
2015	7,606,274			453,803	5.97
2016	7,018,927			265,709	3.79
2017	7,746,154			48,003	0.62
2018	9,651,288			288,764	2.99
<u>2019</u>	12,646,576			678,255	<u>5.36</u>
5 Years	\$44,669,219			\$1,734,534	3.88

Source: (1) CMCRB Database as of 04-30-2020

- (2) Exhibit V-C
- (3) Exhibit V-F
- (4) (1) times (2) times (3)
- (5) (4) divided by (6) times 100
- (6) Exhibit X-D

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Exhibit V-B

Page 12

Pran	Plants	<b>Bituminous</b>	1027
rieb	FIGHIS	DITOLLILLOOS	IUZ/

	(1)	(2)	(3)	(4)	(5)
Accident	Reported	Loss	Trend	Ultimate	Loss
<u>Year</u>	<u>Losses</u>	<u>Development</u>	<u>Factor</u>	<u>Losses</u>	<u>Cost</u>
<u>Indemnity</u>					
2015	327,577	1.0253	1.0267	344,832	1.03
2016	583,664	1.0517	1.0223	627,528	2.65
2017	291,742	1.0945	1.0170	324,740	1.13
2018	204,893	1.2705	1.0105	263,050	0.82
<u>2019</u>	966,268	* 1.9988	1.0055	1,453,618 *	3.87
5 Years	\$2,374,144			\$3,013,768	1.93
<u>Medical</u>					
2015	70,257	1.1015	1.1470	88,764	0.26
2016	293,365	1.1073	1.1269	366,066	1.55
2017	522,228	1.1133	1.1038	641,745	2.23
2018	118,952	1.0979	1.0811	141,189	0.44
<u>2019</u>	301,332	* 1.1487	1.0588	370,918 *	0.99
5 Years	\$1,306,134			\$1,608,682	1.03
	(6)				
Indemnity &	Developed				
<u>Medical</u>	<u>Payroll</u>				
2015	33,564,176			433,596	1.29
2016	23,689,882			993,594	4.19
2017	28,803,457			966,485	3.36
2018	32,199,872			404,239	1.26
<u>2019</u>	37,605,236			1,824,536	<u>4.85</u>
5 Years	\$155,862,623			\$4,622,450	2.97

Source: (1) CMCRB Database as of 04-30-2020

(2) Exhibit V-C

\* Large Claims have been

(3) Exhibit V-F

capped at \$1,250,000. See V-B, page 12b

(4) (1) times (2) times (3)

(5) (4) divided by (6) times 100

(6) Exhibit X-D

File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-05-B.xlsx]V-B-12-A PAB Run Date: September 11, 2020 - 10:17:01 AM Effective Date - April 01, 2021

# Prep Plants Bituminous 1027

# Adjustment for Large Claim(s) (Accident Year 2019)

	Indemnity	Medical	Total
Uncapped Excess Claims	850,650	20,000	870,650
Percent of Total	97.7%	2.3%	100.00%
Percent x 1,250,000	1,221,250	28,750	1,250,000
Total Reported Loss as of 04-30-2020	966,268	301,332	
Uncapped Excess Claims	850,650	20,000	
Reported Loss ex. Excess Claims	115,618	281,332	
Loss Development Factor	1.9988	1.1487	
Trend Factor	1.0055	1.0588	
Dev & Trended Loss ex. Excess Claims	232,368	342,168	
Excess Claims Capped at \$1,250,000	1,221,250	28,750	
Dev & Trended Loss w/Excess Claims Capped	1,453,618	370,918	
Dev & Trended Loss w/Excess Claims Capped	1,453,618	370,918	

Source: Exhibit V-J

Exhibit V-B

Page 13

# **Underground Anthracite - 1010**

	(1)	(2)	(3)	(4)	(5)
Accident	Reported	Loss	Trend	Ultimate	Loss
<u>Year</u>	<u>Losses</u>	<u>Development</u>	<u>Factor</u>	<u>Losses</u>	<u>Cost</u>
<u>Indemnity</u>					
2015	168,869	1.0253	1.0267	177,764	69.89
2016	0	1.0517	1.0223	0	0.00
2017	0	1.0945	1.0170	0	0.00
2018	0	1.2705	1.0105	0	0.00
<u>2019</u>	0	1.9988	1.0055	0	0.00
5 Years	\$168,869			\$177,764	17.21
<u>Medical</u>					
2015	72,300	1.1015	1.1470	91,345	35.92
2016	0	1.1073	1.1269	0	0.00
2017	0	1.1133	1.1038	0	0.00
2018	0	1.0979	1.0811	0	0.00
<u>2019</u>	0	1.1487	1.0588	0	0.00
5 Years	\$72,300			\$91,345	8.84
	(6)				
Indemnity &	Developed				
<u>Medical</u>	<u>Payroll</u>				
2015	254,336			269,109	105.81
2016	163,760			0	0.00
2017	252,383			0	0.00
2018	183,346			0	0.00
<u>2019</u>	179,379			0	0.00
5 Years	\$1,033,204			\$269,109	26.05

Source: (1) CMCRB Database as of 04-30-2020

- (2) Exhibit V-C
- (3) Exhibit V-F
- (4) (1) times (2) times (3)
- (5) (4) divided by (6) times 100
- (6) Exhibit X-D

File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-05-B.xlsx]V-B-13 PAB Run Date: September 11, 2020 - 10:17:01 AM Effective Date - April 01, 2021

# Five Other Classifications [Page 6 less Pages 8 & 13] - (5 Classes)

	(1)	(2)	(3)	(4)	(5)
Accident	Reported	Loss	Trend	Ultimate	Loss
<u>Year</u>	<u>Losses</u>	<u>Development</u>	<u>Factor</u>	<u>Losses</u>	<u>Cost</u>
<u>Indemnity</u>					
2015	887,417	1.0253	1.0267	934,162	1.38
2016	1,292,430	1.0517	1.0223	1,389,559	2.51
2017	647,526	1.0945	1.0170	720,766	1.17
2018	564,430	1.2705	1.0105	724,638	1.04
<u>2019</u>	1,292,958	* 1.9988	1.0055	2,110,197 *	2.82
5 Years	\$4,684,761			\$5,879,322	1.78
<u>Medical</u>					
2015	418,916	1.1015	1.1470	529,267	0.78
2016	708,511	1.1073	1.1269	884,092	1.59
2017	1,143,414	1.1133	1.1038	1,405,096	2.29
2018	1,336,302	1.0979	1.0811	1,586,110	2.27
<u>2019</u>	614,165	* 1.1487	1.0588	751,400 *	1.00
5 Years	\$4,221,308			\$5,155,965	1.57
	(6)				
Indemnity &	Developed				
<u>Medical</u>	<u>Payroll</u>				
2015	67,728,120			1,463,429	2.16
2016	55,466,029			2,273,651	4.10
2017	61,370,481			2,125,862	3.46
2018	69,980,092			2,310,748	3.30
<u>2019</u>	74,850,572			2,861,597	3.82
5 Years	\$329,395,294			\$11,035,287	3.35

Source: (1) Exhibit V-B, page 6 minus page 8, column (1) minus page 13, column (1)

(2) Exhibit V-C

\* Large Claims have been

(3) Exhibit V-F

capped at \$1,250,000. See V-B, page 12b

(4) (1) times (2) times (3)

(5) (4) divided by (6) times 100

(6) Exhibit V-B, page 6 minus page 13 - column (6)

File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-05-B.xlsx]V-B-14 PAB Run Date: September 11, 2020 - 10:17:01 AM Effective Date - April 01, 2021

## Coal Mine Compensation Rating Bureau Indemnity & Funeral Traumatic Loss Development Selected Loss Development Factors

(1)	(2) Average	(3)	(4)	(5) Derived	(6)	(7)	(8) Accumulated
Development	of Middle	PCRB	CMCRB vs. PCRB	Development	Selected	Differences	Selected
<u>Period</u>	<u>Four</u>	<u>Factor</u>	<u>Comparison</u>	<u>Factor</u>	<u>Factor</u>	Average vs Selected	<u>Factor</u>
1:2	1.5732	1.3333	0.2399	1.5732	1.5732	0.0000	1.9988
2:3	1.1608	1.0830	0.0778	1.1608	1.1608	0.0000	1.2705
3:4	1.0407	1.0145	0.0262	1.0407	1.0407	0.0000	1.0945
4:5	1.0257	1.0019	0.0238	1.0257	1.0257	0.0000	1.0517
5:6	0.9922	1.0073	-0.0151	1.0020	1.0020	-0.0098	1.0253
6:7	1.0108	1.0039	0.0069	1.0019	1.0019	0.0089	1.0233
7:8	1.0060	1.0038	0.0022	1.0018	1.0018	0.0042	1.0214
8:9	1.0042	1.0028	0.0014	1.0017	1.0017	0.0025	1.0195
9:10	1.0004	1.0017	-0.0013	1.0017	1.0017	-0.0013	1.0177
10:11	1.0064	1.0019	0.0045	1.0016	1.0016	0.0048	1.0160
11:12	0.9997	1.0018	-0.0021	1.0015	1.0015	-0.0018	1.0144
12:13	1.0029	1.0014	0.0015	1.0014	1.0014	0.0015	1.0129
13:14	0.9932	1.0011	-0.0079	1.0013	1.0013	-0.0081	1.0115
14:15	0.9986	1.0003	-0.0017	1.0013	1.0013	-0.0027	1.0101
15:16	1.0006	1.0006	0.0000	1.0012	1.0012	-0.0006	1.0088
16:17	1.0015	1.0011	0.0004	1.0011	1.0011	0.0004	1.0076
17:18	1.0011	1.0003	0.0008	1.0010	1.0010	0.0001	1.0065
18:19	1.0035	1.0002	0.0033	1.0010	1.0010	0.0025	1.0055
19:20	1.0004	1.0008	-0.0004	1.0009	1.0009	-0.0005	1.0045
20:Ult	xx	1.0027	xx	1.0036	1.0036		1.0036

#### Sources:

- (1) Reports spanned by age-to-age factors
- (2) Exhibit V-D Page 1 and VI-A Page 4
- (3) Exhibit V-D-3
- (4) Col.(2) Col.(3)
- (5) Exhibit V-D-2 Col.(5)
- (6) Selected (5)
- (7) Col.(2) Col.(6)
- (8) Upward accumulation of Col.(6)

## Coal Mine Compensation Rating Bureau Medical Traumatic Loss Development Selected Loss Development Factors

(1)	(2) Average	(3)	(4)	(5) Derived	(6)	(7)	(8) Accumulated
Development	of Middle	PCRB	CMCRB vs. PCRB	Development	Selected	Differences	Selected
<u>Period</u>	<u>Four</u>	<u>Factor</u>	<u>Comparison</u>	<u>Factor</u>	<u>Factor</u>	Average vs Selected	<u>Factor</u>
		·					
1:2	1.0463	1.0473	-0.0010	1.0463	1.0463	0.0000	1.1487
2:3	0.9862	1.0100	-0.0238	0.9862	0.9862	0.0000	1.0979
3:4	0.9864	0.9998	-0.0134	1.0054	1.0054	-0.0190	1.1133
4:5	1.0175	1.0093	0.0082	1.0053	1.0053	0.0122	1.1073
5:6	0.9959	1.0050	-0.0091	1.0051	1.0051	-0.0092	1.1015
6:7	1.0136	1.0050	0.0086	1.0050	1.0050	0.0086	1.0959
7:8	0.9955	1.0033	-0.0078	1.0048	1.0048	-0.0093	1.0905
8:9	1.0071	0.9988	0.0083	1.0047	1.0047	0.0024	1.0853
9:10	1.0085	1.0030	0.0055	1.0045	1.0045	0.0040	1.0803
10:11	1.0113	1.0037	0.0076	1.0044	1.0044	0.0069	1.0755
11:12	1.0068	1.0074	-0.0006	1.0042	1.0042	0.0026	1.0708
12:13	1.0094	1.0041	0.0053	1.0040	1.0040	0.0054	1.0663
13:14	1.0052	1.0073	-0.0021	1.0039	1.0039	0.0013	1.0620
14:15	1.0079	1.0063	0.0016	1.0037	1.0037	0.0042	1.0579
15:16	0.9921	1.0107	-0.0186	1.0036	1.0036	-0.0115	1.0540
16:17	0.9840	1.0020	-0.0180	1.0034	1.0034	-0.0194	1.0502
17:18	1.0085	1.0034	0.0051	1.0033	1.0033	0.0052	1.0466
18:19	1.0003	1.0104	-0.0101	1.0031	1.0031	-0.0028	1.0432
19:20	1.0095	1.0045	0.0050	1.0030	1.0030	0.0065	1.0399
20:Ult	XX	1.0454	xx	1.0368	1.0368		1.0368

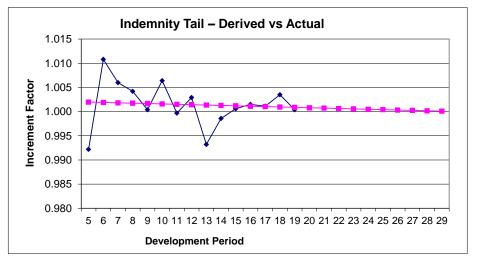
#### Sources:

- (1) Reports spanned by age-to-age factors
- (2) Exhibit V-E Page 1 and VI-B Page 4
- (3) Exhibit V-E-3
- (4) Col.(2) Col.(3)
- (5) Exhibit V-E-2 Col.(6)
- (6) Selected (5)
- (7) Col.(2) Col.(6)
- (8) Upward accumulation of Col.(6)

# Exhibit V-D-1 is the same as VI-A-4

# Coal Mine Compensation Rating Bureau Indemnity Tail – Derived vs Actual

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Development	Age-to-Age	Derived	Accumulated	Model	Accumulated	Derived	Accumulated	Tail	Model	Accumulated
<u>Period</u>	<u>Factor</u>	<u>Factor</u>	Age-to-Age Fac.	<u>Factors</u>	Model Factors	<u>Factor</u>	Derived Factor	Devel. Period	<u>Factors</u>	Model Factors
1	1.5732	1.5732	1.9914	1.5732	XX	XX	XX			
2	1.1608	1.1608	1.2658	1.1608	XX	XX	XX			
3	1.0407	1.0407	1.0905	1.0407	XX	XX	XX			
4	1.0257	1.0257	1.0478	1.0257	XX	XX	XX			
5	0.9922	1.0020	1.0216	1.0020	1.0216	1.0020	1.0216			
6	1.0108	1.0019	1.0296	1.0019	1.0196	1.0019	1.0196			
7	1.0060	1.0018	1.0186	1.0018	1.0177	1.0018	1.0177			
8	1.0042	1.0017	1.0125	1.0017	1.0158	1.0017	1.0158			
9	1.0004	1.0017	1.0083	1.0017	1.0141	1.0017	1.0141			
10	1.0064	1.0016	1.0079	1.0016	1.0124	1.0016	1.0124			
11	0.9997	1.0015	1.0015	1.0015	1.0108	1.0015	1.0108			
12	1.0029	1.0014	1.0018	1.0014	1.0093	1.0014	1.0093			
13	0.9932	1.0013	0.9989	1.0013	1.0078	1.0013	1.0078			
14	0.9986	1.0013	1.0057	1.0013	1.0065	1.0013	1.0065			
15	1.0006	1.0012	1.0071	1.0012	1.0052	1.0012	1.0052			
16	1.0015	1.0011	1.0065	1.0011	1.0040	1.0011	1.0040			
17	1.0011	1.0010	1.0050	1.0010	1.0029	1.0010	1.0029			
18	1.0035	1.0010	1.0039	1.0010	1.0018	1.0010	1.0018			
19	1.0004	1.0009	1.0004	1.0009	1.0009	1.0009	1.0009			
20		1.0008						20	1.0008	1.0045
21		1.0007						21	1.0007	1.0037
22		1.0006						22	1.0006	1.0029
23		1.0006						23	1.0006	1.0023
24		1.0005						24	1.0005	1.0017
25		1.0004						25	1.0004	1.0013
26		1.0003						26	1.0003	1.0008
27		1.0003						27	1.0003	1.0005
28		1.0002						28	1.0002	1.0003
29		1.0001						29	1.0001	1.0001



Source:

- (1) Development Period: e.g."1" = 12 months to 24 months
- (2) Exhibit V-D-1 and VI-A-4
- (3) 1 thru 4 Col.(2) 5 thru 19 Col. (7) 20 thru 29 Col. (10)
- (4) = Accumulation of Col.(2)
- (5) From Model: Refer to Written Report
- (6) Accumulation of Col.(5)
- (7) Col.(5) adjusted
- (8) Accumulation of Col.(7)
- (9) Tail Development Period
- (10) Final Tail Calculation
- (11) Accumulation of Col. (10)

CMCRB tail factor	1.0045
PCRB tail factor	1.0027
Selected Tail Factor	1.0036

# Coal Mine Compensation Rating Bureau Traumatic Loss Development Indemnity & Funeral Loss Development Tail Factor PCRB Development and Tail Factors

(1)	(2)	(3)	(4)
	Age-to-Age		Cumulative
Span of	Incurred Loss	Span of	Incurred Loss
<u>Maturities</u>	<u>Factors</u>	<u>Maturities</u>	<u>Factors</u>
1 to 2	1.3333	1 to Ult	1.5149
2 to 3	1.0830	2 to Ult	1.1362
3 to 4	1.0145	3 to Ult	1.0491
4 to 5	1.0019	4 to Ult	1.0341
5 to 6	1.0073	5 to Ult	1.0321
6 to 7	1.0039	6 to Ult	1.0247
7 to 8	1.0038	7 to Ult	1.0207
8 to 9	1.0028	8 to Ult	1.0168
9 to 10	1.0017	9 to Ult	1.0140
10 to 11	1.0019	10 to Ult	1.0123
11 to 12	1.0018	11 to Ult	1.0103
12 to 13	1.0014	12 to Ult	1.0085
13 to 14	1.0011	13 to Ult	1.0071
14 to 15	1.0003	14 to Ult	1.0060
15 to 16	1.0006	15 to Ult	1.0057
16 to 17	1.0011	16 to Ult	1.0051
17 to 18	1.0003	17 to Ult	1.0040
18 to 19	1.0002	18 to Ult	1.0037
19 to 20	1.0008	19 to Ult	1.0035
20 to Ult	1.0027	20 to Ult	1.0027
20 to 21	1.0002		
21 to 22	1.0003		
22 to 23	1.0000		
23 to 24	0.9999		
24 to 25	0.9996		
25 to 26	1.0013		
26 to 27	1.0002		
27 to 28	1.0007		
28 to 29	0.9999		
29 to 30	0.9999		
Beyond	1.0007		

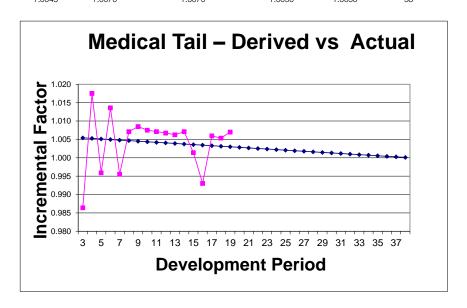
Source: PCRB Loss Cost Filing effective April 1, 2020 - Exhibit 5, page 4, Selected Inc. LDF

The 20:Ult Factor is the product of PCRB factors beyond 19:20.

# Exhibit V-E-1 is the same as VI-B-4

#### Coal Mine Compensation Rating Bureau Medical Tail – Derived vs Actual

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Average		Adjusted	Accumulated Adjusted	Derived	Accumulated	Tail	Derived	Accumulation of
Development	Age-toAge	PCRB	Age-to-Age	Age-to-Age	Development	Derived	Development	Development	Derived Subsequent
Period	<u>Factor</u>	<u>Factors</u>	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>	Period	<u>Factor</u>	<u>Factors</u>
1	1.0463		1.0463	1.1081	1.0463	1.1081	20	1.0028	1.0282
2	0.9862		0.9862	1.0591	0.9862	1.0591	21	1.0027	1.0253
3	0.9864		0.9864	1.0739	1.0054	1.0739	22	1.0025	1.0226
4	1.0175		1.0175	1.0887	1.0053	1.0681	23	1.0024	1.0200
5	0.9959		0.9959	1.0700	1.0051	1.0625	24	1.0022	1.0176
6	1.0136		1.0136	1.0744	1.0050	1.0571	25	1.0021	1.0153
7	0.9955		0.9955	1.0600	1.0048	1.0519	26	1.0019	1.0132
8	1.0071		1.0071	1.0647	1.0047	1.0468	27	1.0018	1.0113
9	1.0085		1.0085	1.0572	1.0045	1.0420	28	1.0016	1.0095
10	1.0113	1.0037	1.0075	1.0483	1.0044	1.0373	29	1.0015	1.0078
11	1.0068	1.0074	1.0071	1.0405	1.0042	1.0328	30	1.0013	1.0064
12	1.0094	1.0041	1.0068	1.0332	1.0040	1.0285	31	1.0012	1.0050
13	1.0052	1.0073	1.0063	1.0263	1.0039	1.0243	32	1.0010	1.0039
14	1.0079	1.0063	1.0071	1.0199	1.0037	1.0204	33	1.0009	1.0029
15	0.9921	1.0107	1.0014	1.0127	1.0036	1.0165	34	1.0007	1.0020
16	0.9840	1.0020	0.9930	1.0113	1.0034	1.0129	35	1.0006	1.0013
17	1.0085	1.0034	1.0060	1.0184	1.0033	1.0094	36	1.0004	1.0008
18	1.0003	1.0104	1.0054	1.0124	1.0031	1.0061	37	1.0003	1.0003
19	1.0095	1.0045	1.0070	1.0070	1.0030	1.0030	38	1.0001	1.0001



CMCRB derived tail factor	1.0282
PCRB tail factor	1.0454
Selected	1.0368

Sources: (1) Development period:e.g. "1" =12 months to 24 months

- (2) Exhibit VI-B-4
- (3) PCRB Factors (Exhibit V-E-3)
- (4) (1) thru (9): Col. (2)

(10) thru (19): average of Col. (2) and Col. (3)

- (5) Accumulation of (4)
- (6) See (4) above plus refer to written report.
- (7) Accumulation of (6)
- (8) Tail Factor Development Periods
- (9) Final Tail Calculation
- (10) Upward accumulation of Col. (9)

# Coal Mine Compensation Rating Bureau Traumatic Loss Development Medical Loss Development Tail Factor PCRB Development and Tail Factors

(1)	(2) Age-to-Age	(3)	(4) Cumulative
Span of	Incurred Loss	Span of	Incurred Loss
<u>Maturities</u>	<u>Factors</u>	<u>Maturities</u>	<u>Factors</u>
1 to 2	1.0473	1 to Ult.	1.2023
2 to 3	1.0100	2 to Ult.	1.1480
3 to 4	0.9998	3 to Ult.	1.1367
4 to 5	1.0093	4 to Ult.	1.1369
5 to 6	1.0050	5 to Ult.	1.1264
6 to 7	1.0050	6 to Ult.	1.1204
7 to 8	1.0033	7 to Ult.	1.1152
8 to 9	0.9988	8 to Ult.	1.1116
9 to 10	1.0030	9 to Ult.	1.1129
10 to 11	1.0037	10 to Ult.	1.1096
11 to 12	1.0074	11 to Ult.	1.1055
12 to 13	1.0041	12 to Ult.	1.0974
13 to 14	1.0073	13 to Ult.	1.0929
14 to 15	1.0063	14 to Ult.	1.0850
15 to 16	1.0107	15 to Ult.	1.0782
16 to 17	1.0020	16 to Ult.	1.0668
17 to 18	1.0034	17 to Ult.	1.0646
18 to 19	1.0104	18 to Ult.	1.0610
19 to 20	1.0045	19 to Ult.	1.0501
., = -			
20 to Ult.	1.0454	20 to Ult.	1.0454
20 to 21	1.0061		
21 to 22	1.0023		
22 to 23	1.0038		
23 to 24	1.0060		
24 to 25	0.9980		
25 to 26	1.0024		
26 to 27	1.0020		
27 to 28	1.0031		
28 to 29	1.0016		
29 to 30	1.0039		
Beyond	1.0154		

Source:PCRB Loss Cost Filing effective April 1, 2020 - Exhibit 5, page 18, Selected Inc. LDF

The 20:Ult Factor is the product of PCRB factors beyond 19:20.

#### Traumatic Loss Trend

# Indemnity, Funeral and Medical for All Classes Combined

#### Trend Factors

# <u>Indemnity</u> and Funeral

An	nual Percentage Change:	0.2%	Annual			HB 1846	HB 1840	Adjusted
			Percentage		Trend	Adjustment	Adjustment	Trend
Accident Ye	<u>ar</u> Trend Period - Ye	ars	<u>Change</u>	<u>Formula</u>	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>
2015	7-1-15 to 4-1-2022	6.75	0.2%	(1 + 0.002) ^ 6.75	1.0136	1.0000	1.0129	1.0267
2016	7-1-16 to 4-1-2022	5.75	0.2%	(1 + 0.002) ^ 5.75	1.0116	1.0000	1.0106	1.0223
2017	7-1-17 to 4-1-2022	4.75	0.2%	(1 + 0.002) ^ 4.75	1.0095	1.0000	1.0074	1.0170
2018	7-1-18 to 4-1-2022	3.75	0.2%	(1 + 0.002) ^ 3.75	1.0075	1.0000	1.0030	1.0105
2019	7-1-19 to 4-1-2022	2.75	0.2%	(1 + 0.002) ^ 2.75	1.0055	1.0000	1.0000	1.0055

#### Medical and Medical Only

Annual Percentage Change: 2.1%

			Annual			HB 1846	HB 1840	Adjusted
			Percentage		Trend	Adjustment	Adjustment	Trend
Accident Year	Trend Period - Ye	ears	<u>Change</u>	<u>Formula</u>	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>
2015	7-1-15 to 4-1-2022	6.75	2.1%	(1+0.021) ^ 6.75	1.1506	0.9969	1.0000	1.1470
2016	7-1-16 to 4-1-2022	5.75	2.1%	(1 + 0.021) ^ 5.75	1.1269	1.0000	1.0000	1.1269
2017	7-1-17 to 4-1-2022	4.75	2.1%	(1+0.021) ^ 4.75	1.1038	1.0000	1.0000	1.1038
2018	7-1-18 to 4-1-2022	3.75	2.1%	(1 + 0.021) ^ 3.75	1.0811	1.0000	1.0000	1.0811
2019	7-1-19 to 4-1-2022	2.75	2.1%	(1+0.021) ^ 2.75	1.0588	1.0000	1.0000	1.0588

Source: Annual Percentage Change - Exhibit V-K

#### Traumatic Loss Trend Indemnity and Funeral Losses for All Classes Combined

	(1)	(2)	(3)	(4)
	Indemnity	Loss		Loss
	Case Incurred	Development	Ultimate	Cost
<u>Year</u>	Losses	<u>Factors</u>	<u>Losses</u>	<u>Premium</u>
2010	7,433,505	1.0160	7,552,441	13,191,068
2011	8,518,075	1.0177	8,668,845	16,066,739
2012	9,853,320	1.0195	10,045,460	16,661,417
2013	7,741,765	1.0214	7,907,439	15,621,068
2014	12,193,222	1.0233	12,477,324	24,068,030
2015	11,946,924	1.0253	12,249,181	20,074,359
2016	9,151,489	1.0517	9,624,621	14,437,254
2017	9,841,483	1.0945	10,771,503	16,408,011
2018	7,734,859	1.2705	9,827,138	17,213,225
2019	4.894.467	1.9988	9.304.032 *	17.978.151

#### Sources:

- (1) Exhibit V-D,pg.1 or Exhibit VI-A,pg.4
- (2) Exhibit V-C-1 Column (8)
- $(3) = (1) \times (2)$
- (4) Exhibit X-B
- \* Note: Ultimate losses for 2019 reflect limitation on large claims, see Exhibit V-J

#### Traumatic Loss Trend Medical and Medical Only Losses for All Classes Combined

	(1)	(2)	(3)	(4)
	Medical	Loss		Loss
	Case Incurred	Development	Ultimate	Cost
<u>Year</u>	<u>Losses</u>	<u>Factors</u>	<u>Losses</u>	<u>Premium</u>
2010	4,315,637	1.0755	4,641,468	13,191,068
2011	6,232,068	1.0803	6,732,503	16,066,739
2012	5,445,673	1.0853	5,910,189	16,661,417
2013	4,152,393	1.0905	4,528,185	15,621,068
2014	5,882,245	1.0959	6,446,352	24,068,030
2015	3,909,083	1.1015	4,305,855	20,074,359
2016	3,905,895	1.1073	4,324,998	14,437,254
2017	6,006,389	1.1133	6,686,913	16,408,011
2018	5,421,768	1.0979	5,952,559	17,213,225
2019	4,076,893	1.1487	4,688,903 *	17,978,151

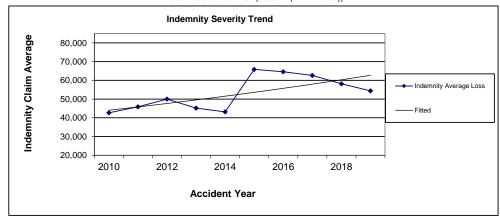
#### Sources:

- (1) Exhibit V-E,pg.1 or Exhibit VI-B,pg.4
- (2) Exhibit V-C-2 Column (8)
- $(3) = (1) \times (2)$
- (4) Exhibit X-B
- \* Note: Ultimate losses for 2019 reflect limitation on large claims, see Exhibit V-J

	(1)	(2)	(3)	(4) Annual
	Ultimate	Claim	Average	Average Loss
<u>Year</u>	Losses	<u>Counts</u>	Loss	<u>Change</u>
2010	7,552,441	177	42,669	
2011	8,668,845	189	45,867	7.5%
2012	10,045,460	201	49,977	9.0%
2013	7,907,439	175	45,185	-9.6%
2014	12,477,324	289	43,174	-4.5%
2015	12,249,181	186	65,856	52.5%
2016	9,624,621	149	64,595	-1.9%
2017	10,771,503	172	62,625	-3.0%
2018	9,827,138	169	58,149	-7.1%
2019	9,304,032 *	171	54,410	-6.4%

Indemnity Severity Trend Factor: 1.044
Source: Summary Exhibit (V-K)

Fitted=42360.4701 x e^(0.0392\*(YEAR-2009))



Sources:

(1) Exhibit V-H page 1, Column (3)

(2) Exhibit VI-C-1

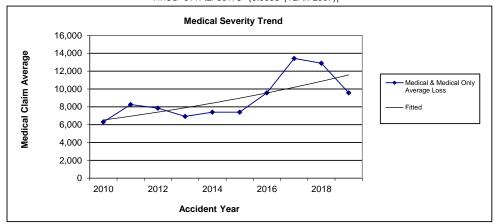
(4) (Current Avg. Loss / Prior Avg. Loss -1.0) x 100

\* Note: Ultimate losses for 2019 reflect limitation on large claims, see Exhibit V-J

	(1)	(2)	(3)	(4) Annual
	Ultimate	Claim	Average	Average Loss
<u>Year</u>	Losses	<u>Counts</u>	Loss	<u>Change</u>
2010	4,641,468	736	6,306	
2011	6,732,503	816	8,251	30.8%
2012	5,910,189	753	7,849	-4.9%
2013	4,528,185	654	6,924	-11.8%
2014	6,446,352	871	7,401	6.9%
2015	4,305,855	582	7,398	0.0%
2016	4,324,998	452	9,569	29.3%
2017	6,686,913	498	13,428	40.3%
2018	5,952,559	462	12,884	-4.1%
2019	4,688,903 *	490	9,569	-25.7%

Medical Severity Trend Factor: Source: Summary Exhibit (V-K) 1.081

#### Fitted= $6117.2730 \times e^{(0.0638*(YEAR-2009))}$



Sources:

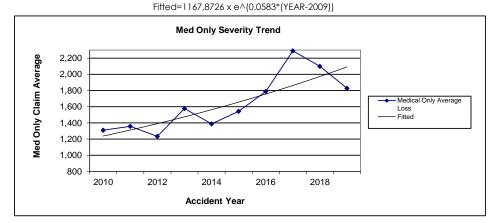
(1) Exhibit V-H page 2, Column (3)

(2) Exhibit VI-C-1 + Exhibit VI-C-2

\* Note: Ultimate losses for 2019 reflect limitation on large claims, see Exhibit V-J

	(1) Ultimate	(2) Ultimate	(3)	(4) Annual
	Claim	Incurred	Average	Average Loss
<u>Year</u>	<u>Counts</u>	Losses	Loss	<u>Change</u>
2010	559	732,331	1,310	
2011	627	851,341	1,358	3.7%
2012	552	680,951	1,234	-9.1%
2013	479	756,064	1,578	27.9%
2014	582	808,080	1,388	-12.0%
2015	396	611,456	1,544	11.2%
2016	303	541,639	1,788	15.8%
2017	326	746,688	2,290	28.1%
2018	293	615,429	2,100	-8.3%
2019	319	583,177	1,828	-13.0%

Med. Only Severity Trend Factor: 1.074 Source: Summary Exhibit (V-K)



Sources:

(1) Exhibit VI-C-2

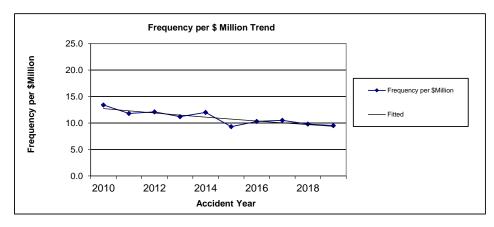
(2) Exhibit VI-C-3

#### Frequency Trend

	(1)	(2)	(3)	(4)
	Ultimate	Loss		Annual
	Claim	Cost	Frequency	Average Loss
<u>Year</u>	<u>Counts</u>	<u>Premium</u>	per(\$M)	<u>Change</u>
2010	177	13,191,068	13.4	
2011	189	16,066,739	11.8	-11.9%
2012	201	16,661,417	12.1	2.5%
2013	175	15,621,068	11.2	-7.4%
2014	289	24,068,030	12.0	7.1%
2015	186	20,074,359	9.3	-22.5%
2016	149	14,437,254	10.3	10.8%
2017	172	16,408,011	10.5	1.9%
2018	169	17,213,225	9.8	-6.7%
2019	171	17,978,151	9.5	-3.1%

Frequency per \$Million Trend Factor: 0.968 Source: Summary Exhibit (V-K)

#### Fitted=13.1641 x e^(-0.0340\*(YEAR-2009))



#### Sources:

- (1) Exhibit V-I Col. 2
- (2) Exhibit X-B
- (3) (1) / (2) x 1,000,000
- (4) (Current Freq. / Prior Freq. -1.0) x 100'

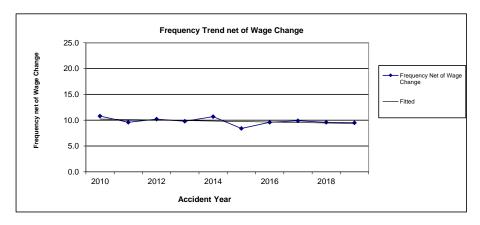
File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-05-FGHIJK.xlsx]V-I-4 Run Date: September 08, 2020 - 10:58:18 AM

#### Frequency Trend Net of Wage Trend

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Loss	Statewide	On	Loss Cost		Adjusted	Annual
	Cost	Average	2019	Premium	Claim	Frequency	Frequency
<u>Year</u>	<u>Premium</u>	Weekly Wage	<u>Level</u>	on 2019 Level	<u>Counts</u>	<u>per(\$M)</u>	Change
2010	13,191,068	845	1.241	16,370,115	177	10.8	
2011	16,066,739	858	1.223	19,649,622	189	9.6	-11.1%
2012	16,661,417	888	1.181	19,677,133	201	10.2	6.3%
2013	15,621,068	917	1.144	17,870,502	175	9.8	-3.9%
2014	24,068,030	932	1.126	27,100,602	289	10.7	9.2%
2015	20,074,359	951	1.103	22,142,018	186	8.4	-21.5%
2016	14,437,254	978	1.073	15,491,174	149	9.6	14.3%
2017	16,408,011	995	1.054	17,294,044	172	9.9	3.1%
2018	17,213,225	1025	1.023	17,609,129	169	9.6	-3.0%
2019	17,978,151	1049	1.000	17,978,151	171	9.5	-1.0%

Frequency net of Wage Change Trend Factor: 0.993 Source: Summary Exhibit (V-K)





#### Soures:

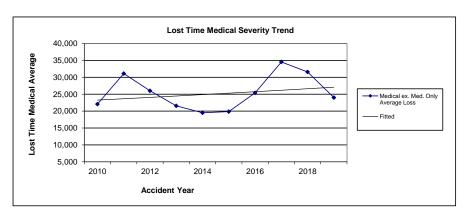
- (1) Exhibit X-B
- (2) Exhibit XII-D
- (3) 2019 is 1.000. Values for other years divided into 2019 value to determine factor
- (4) (1) x (3)
- (5) Exhibit VI-C-1
- (6) (5) / (4) \* 1,000,000
- (7) (Current Freq./Prior Freq.-1.0)x100

	(1)	(2)	(3)	(4)	(5)	(6)
		Med. Only				
	Ultimate	Ultimate	Ult. Med. On			Annual
	Medical Losses	Incurred	Lost Time	Claim	Average	Average Loss
<u>Year</u>	Incurred	Losses	<u>Claims</u>	<u>Counts</u>	Loss	Change
2010	4,641,468	732,331	3,909,137	177	22,086	
2011	6,732,503	851,341	5,881,162	189	31,117	40.9%
2012	5,910,189	680,951	5,229,238	201	26,016	-16.4%
2013	4,528,185	756,064	3,772,121	175	21,555	-17.1%
2014	6,446,352	808,080	5,638,272	289	19,510	-9.5%
2015	4,305,855	611,456	3,694,399	186	19,862	1.8%
2016	4,324,998	541,639	3,783,359	149	25,392	27.8%
2017	6,686,913	746,688	5,940,225	172	34,536	36.0%
2018	5,952,559	615,429	5,337,130	169	31,581	-8.6%
2019	4 688 903 *	583 177	4 105 726	171	24 010	-24 0%

Lost Time Medical Severity Trend Factor: Source: Summary Exhibit (V-K)

1.030

#### Fitted=22878.9257 x e^(0.0169\*(YEAR-2009))



#### Source:

- (1) Exhibit V-H,Page 2
- (2) Exhibit VI-C-3
- (3) (1)-(2)
- (4) Exhibit VI-C-1
- (5) (3)/(4)
- (6) (Current Avg. Loss / Prior Avg. Loss-1.0)x100

\* Note: Ultimate losses for 2019 reflect limitation on large claims, see Exhibit V-J

# Allocation of Claim 50505 Between Indemnity and Medical Accident Year 2019

	Reported <u>Incurred</u>	Percent <u>Distribution</u>	Loss Development <u>Factor</u>	Developed <u>Losses</u>
Indemnity Medical	850,650 20,000	97.7% 2.3%		1,700,279 22,974
•	870,650	100.0%		1,723,253

Developed Incurred is greater than catastrophe limit (\$1.25M) so capping and allocation are necessary.

Total Reported Indemnity (2019) = 4,894,467

	(1)	(2)	(3)
	<u>Incurred</u>	<u>LDF</u>	= (1)x(2)
Total	4,894,467	1.9988	9,783,061
This Claim	850,650	1.9988	1,700,279
			-
Total Indemnity excluding	this claim after de	evelopment=	8,082,782

Maximum	%	Limited
<u>Claim Size</u>	<u>Indemnity</u>	<u>Indemnity</u>
1,250,000	97.7%	1,221,250

Total developed Indemnity including these limited claims = 9,304,032

Total Reported Medical (2019) = 4,076,893

	(1)	(2)	(3)
	<u>Incurred</u>	<u>LDF</u>	= (1)x(2)
Total	4,076,893	1.1487	4,683,127
This Claim	20,000	1.1487	22,974
Total Medical excluding this claim after development=			4,660,153

Maximum	%	Limited
Claim Size	<u>Medical</u>	<u>Medical</u>
1,250,000	2.3%	28,750

Total developed Medical including this limited claim = 4,688,903

# Traumatic Loss Trend Summary of Estimates

			Ests. 1&2	Ests. 3&4	Ests. 5&6	Ests. 7&8	Ests.9&10	Ests.11&12	Average
V-I-1	Traditional	Indemnity	103.4%	103.0%	102.4%	104.6%	104.4%	104.1%	103.7% Severity
	Moving Average	Indemnity	103.4%	103.7%	104.8%	105.0%	105.6%	107.6%	105.0% Severity
									104.4% Average
V-I-2	Traditional	Total Medical	105.7%	104.1%	105.5%	108.8%	107.5%	110.1%	107.0% Severity
	Moving Average	Total Medical	107.0%	107.7%	110.1%	108.2%	109.3%	112.8%	<u>109.2%</u> <u>Severity</u>
									108.1% Average
V-I-3	Traditional	Medical Only	104.9%	105.2%	106.5%	106.7%	107.3%	109.5%	106.7% Severity
	Moving Average	Medical Only	106.9%	106.9%	108.2%	108.0%	108.2%	110.1%	<u>108.1%</u> <u>Severity</u>
									107.4% Average
V-I-4	Traditional	Frequency	96.4%	97.2%	96.7%	96.3%	97.2%	96.6%	96.7% Frequency
	Moving Average	Frequency	96.8%	97.3%	96.5%	96.8%	97.3%	96.4%	96.9% Frequency
									96.8% Average
V-I-5	Traditional	Frequency	98.8%	99.7%	99.1%	98.7%	99.7%	99.0%	99.2% Frequency
	Moving Average	Frequency	99.3%	99.7%	99.0%	99.2%	99.6%	98.8%	99.3% Frequency
									99.3% Average
V-I-6	Traditional	Medical Ex. M.O.	101.3%	99.0%	101.4%	103.7%	101.3%	105.0%	102.0% Severity
	Moving Average	Medical Ex. M.O.	101.8%	102.3%	106.1%	102.4%	103.0%	108.1%	104.0% Severity
									103.0% Average
			Average F	requency Inc	<u>dication</u>				
	Traditional	Trad Freq	96.4%	97.2%	96.7%	96.3%	97.2%	96.6%	96.7%
	Moving Average	MA Freq	96.8%	97.3%	96.5%	96.8%	97.2%	96.4%	<u>96.8%</u>
									96.8%

Selected Frequency Factor Selected Severity Factor Composite Trend Factor	Indemnity 97.25% * 103.00% ** 100.20%	Medical 97.25% * 105.00% *** 102.10%	* Selected Frequency Trend - see Actuarial Report  ** Selected Indemity Severity Trend - see Actuarial Report  *** Selected Medical Severity Trend - see Actuarial Report
Approved 4-1-2020	101.1%	102.1%	
Selected 4-1-2021	100.2% ****	102.1% ****	**** Limited to a maximum change of +-3.0 points, when necessary.

# Traumatic Loss Trend Indemnity and Funeral Losses for All Classes Combined

Exhibit V-I Page 1 Estimates 01-06

# Severity Trend

	(1)	(2)	(3)	(4) Annual	(5) 3-Year	(6) Annual
	Ultimate	Claim	Average	Average Loss	Moving	Mov. Avg.
<u>Year</u>	Losses	<u>Counts</u>	Loss	<u>Change</u>	<u>Average</u>	<u>Change</u>
2010	7,552,441	177	42,669			
2011	8,668,845	189	45,867	7.5%		
2012	10,045,460	201	49,977	9.0%	46,171	
2013	7,907,439	175	45,185	-9.6%	47,010	1.8%
2014	12,477,324	289	43,174	-4.5%	46,112	-1.9%
2015	12,249,181	186	65,856	52.5%	51,405	11.5%
2016	9,624,621	149	64,595	-1.9%	57,875	12.6%
2017	10,771,503	172	62,625	-3.0%	64,359	11.2%
2018	9,827,138	169	58,149	-7.1%	61,790	-4.0%
2019	9,304,032 *	171	54,410	-6.4%	58,395	-5.5%

Analysis performed on data for 2010 through 2019.	Geometric Average:	2.7%	3.4% Ests.
	Regression Indication:	4.0%	1 & 2
	Selected:	3.4%	3.4%
Analysis performed on data for 2011 through 2019.	Geometric Average:	2.2%	3.7% Ests.
	Regression Indication:	3.7%	3 & 4
	Selected:	3.0%	3.7%
Analysis performed on data for 2012 through 2019.	Geometric Average:	1.2%	4.8% Ests.
	Regression Indication:	3.6%	5 & 6
	Selected:	2.4%	4.8%

\* Note: Ultimate losses for 2019 reflect limitation on large claims, see Exhibit V-J

#### Sources

- (1) Exhibit V-H page 1, Column (3)
- (2) Exhibit VI-C-1
- (4) (Current Avg. Loss / Prior Avg. Loss -1.0) x 100

## Traumatic Loss Trend Medical and Medical Only Losses for All Classes Combined

Exhibit V-I Page 2 Estimates 01-06

# Severity Trend

	(1)	(2)	(3)	(4) Annual	(5) 3-Year	(6) Annual
	Ultimate	Claim	Average	Average Loss	Moving	Mov. Avg.
<u>Year</u>	Losses	<u>Counts</u>	Loss	<u>Change</u>	<u>Average</u>	<u>Change</u>
2010	4,641,468	736	6,306			
2011	6,732,503	816	8,251	30.8%		
2012	5,910,189	753	7,849	-4.9%	7,469	
2013	4,528,185	654	6,924	-11.8%	7,675	2.8%
2014	6,446,352	871	7,401	6.9%	7,391	-3.7%
2015	4,305,855	582	7,398	0.0%	7,241	-2.0%
2016	4,324,998	452	9,569	29.3%	8,123	12.2%
2017	6,686,913	498	13,428	40.3%	10,132	24.7%
2018	5,952,559	462	12,884	-4.1%	11,960	18.0%
2019	4,688,903 *	490	9,569	-25.7%	11,960	0.0%

Analysis performed on data for 2010 through 2019.	Geometric Average:	4.7%	7.0% E	Ests.
	Regression Indication:	6.6%	1	& 2
	Selected:	5.7%	7.0%	
Analysis performed on data for 2011 through 2019.	Geometric Average:	1.9%	7.7% E	Ests.
	Regression Indication:	6.3%	3	& 4
	Selected:	4.1%	7.7%	
Analysis performed on data for 2012 through 2019.	Geometric Average:	2.9%	10.1% E	Ests.
	Regression Indication:	8.1%	5	& 6
	Selected:	5.5%	10.1%	

\* Note: Ultimate losses for 2019 reflect limitation on large claims, see Exhibit V-J

#### Sources:

- (1) Exhibit V-H page 2, Column (3)
- (2) Exhibit VI-C-1 + Exhibit VI-C-2
- (4) (Current Avg. Loss / Prior Avg. Loss -1.0) x 100

54,405,914.923700

# Traumatic Loss Trend Medical Only Losses for All Classes Combined

Exhibit V-I Page 3 Estimates 01-06

# Severity Trend

	(1) Ultimate	(2) Ultimate	(3)	(4) Annual	(5) 3-Year	(6) Annual
	Claim	Incurred	Average	Average Loss	Moving	Mov. Avg.
<u>Year</u>	<u>Counts</u>	Losses	Loss	<u>Change</u>	<u>Average</u>	<u>Change</u>
2010	559	732,331	1,310			
2011	627	851,341	1,358	3.7%		
2012	552	680,951	1,234	-9.1%	1,301	
2013	479	756,064	1,578	27.9%	1,390	6.8%
2014	582	808,080	1,388	-12.0%	1,400	0.7%
2015	396	611,456	1,544	11.2%	1,503	7.4%
2016	303	541,639	1,788	15.8%	1,573	4.7%
2017	326	746,688	2,290	28.1%	1,874	19.1%
2018	293	615,429	2,100	-8.3%	2,059	9.9%
2019	319	583,177	1,828	-13.0%	2,073	0.7%

Analysis performed on data for 2010 through 2019.	Geometric Average:	3.8%	6.9%	Ests.
	Regression Indication:	6.0%		1 & 2
	Selected:	4.9%	6.9%	
Analysis performed on data for 2011 through 2019.	Geometric Average:	3.8%	6.9%	Ests.
	Regression Indication:	6.5%		3 & 4
	Selected:	5.2%	6.9%	
Analysis performed on data for 2012 through 2019.	Geometric Average:	5.8%	8.2%	Ests.
	Regression Indication:	7.2%		5 & 6
	Selected:	6.5%	8.2%	

#### Sources:

(1) Exhibit VI-C-2

(2) Exhibit VI-C-3

(4) (Current Avg. Loss / Prior Avg. Loss -1.0) x 100

6,981,329.972600

# Traumatic Loss Trend Indemnity and Funeral Losses for All Classes Combined

Exhibit V-I Page 4 Estimates 01-06

# Frequency Trend

	(1) Ultimate	(2) Loss	(3)	(4) Annual	(5) 3-Year	(6) Annual
	Claim	Cost	Frequency	Average Loss	Moving	Mov. Avg.
<u>Year</u>	<u>Counts</u>	<u>Premium</u>	<u>per(\$M)</u>	<u>Change</u>	<u>Average</u>	<u>Change</u>
2010	177	13,191,068	13.4			
2011	189	16,066,739	11.8	-11.9%		
2012	201	16,661,417	12.1	2.5%	12.4	
2013	175	15,621,068	11.2	-7.4%	11.7	-5.6%
2014	289	24,068,030	12.0	7.1%	11.8	0.9%
2015	186	20,074,359	9.3	-22.5%	10.8	-8.5%
2016	149	14,437,254	10.3	10.8%	10.5	-2.8%
2017	172	16,408,011	10.5	1.9%	10.0	-4.8%
2018	169	17,213,225	9.8	-6.7%	10.2	2.0%
2019	171	17,978,151	9.5	-3.1%	9.9	-2.9%

Analysis performed on data for 2010 through 2019.	Geometric Average:	-3.8%	-3.2%	Ests.
	Regression Indication:	-3.3%		1 & 2
	Selected:	-3.6%	-3.2%	
Analysis performed on data for 2011 through 2019.	Geometric Average:	-2.7%	-2.7%	Ests.
	Regression Indication:	-2.9%		3 & 4
	Selected:	-2.8%	-2.7%	
Analysis performed on data for 2012 through 2019.	Geometric Average:	-3.4%	-3.5%	Ests.
	Regression Indication:	-3.1%		5 & 6
	Selected:	-3.3%	-3.5%	

#### Sources:

- (1) Exhibit V-I-1 Col. 2
- (2) Exhibit X-B
- (3) (1) / (2) x 1,000,000
- (4) (Current Freq. / Prior Freq. -1.0) x 100'

#### Traumatic Loss Trend Indemnity and Funeral Losses for All Classes Combined

Exhibit V-I Page 5 Estimates 01-06

### Frequency Trend Net of Wage Trend

	(1) Loss	(2) Statewide	(3) On	(4) Loss Cost	(5)	(6) Adjusted	(7) Annual	(8) 3-Year	(9) Annual
<u>Year</u>	Cost Premium	Average Weekly Wage	2019 <u>Level</u>	Premium on 2019 Level	Claim Counts	Frequency per(\$M)	Frequency Change	Moving Average	Mov. Avg. <u>Change</u>
2010	13,191,068	845	1.241	16,370,115	177	10.8			
2011	16,066,739	858	1.223	19,649,622	189	9.6	-11.1%		
2012	16,661,417	888	1.181	19,677,133	201	10.2	6.3%	10.2	
2013	15,621,068	917	1.144	17,870,502	175	9.8	-3.9%	9.9	-2.9%
2014	24,068,030	932	1.126	27,100,602	289	10.7	9.2%	10.2	3.0%
2015	20,074,359	951	1.103	22,142,018	186	8.4	-21.5%	9.6	-5.9%
2016	14,437,254	978	1.073	15,491,174	149	9.6	14.3%	9.6	0.0%
2017	16,408,011	995	1.054	17,294,044	172	9.9	3.1%	9.3	-3.1%
2018	17,213,225	1025	1.023	17,609,129	169	9.6	-3.0%	9.7	4.3%
2019	17,978,151	1049	1.000	17,978,151	171	9.5	-1.0%	9.7	0.0%

Analysis performed on data for 2010 through 2019.	Geometric Average:	-1.4%	-0.7% E	Ests.
	Regression Indication:	-1.0%	1	& 2
	Selected:	-1.2%	-0.7%	
Analysis performed on data for 2011 through 2019.	Geometric Average:	-0.1%	-0.3% E	Ests.
	Regression Indication:	-0.5%	3	3 & 4
	Selected:	-0.3%	-0.3%	
Analysis performed on data for 2012 through 2019.	Geometric Average:	-1.0%	-1.0% E	Ests.
	Regression Indication:	-0.8%	5	5 & 6
	Selected:	-0.9%	-1.0%	

#### Sources:

- (1) Exhibit X-B
- (2) Exhibit XII-D
- (3) 2019 is 1.000. Values for other years divided into 2019 value to determine factor
- (4) (1)x(3) (5) Exhibit VI-C-1
- (6) (5) / (4) \* 1,000,000
- (7) (Current Freq./Prior Freq.-1.0)x100

## Traumatic Loss Trend Medical (excl. Medical Only Losses) for All Classes Combined

Exhibit V-I Page 6 Estimates 01-06

## Severity Trend

	(1)	(2) Med. Only	(3)	(4)	(5)	(6)	(7)	(8)
	Ultimate	Ultimate	Ult. Med. On			Annual	3-Year	Annual
	Medical Losses	Incurred	Lost Time	Claim	Average	Average Loss	Moving	Mov. Avg.
<u>Year</u>	Incurred	Losses	<u>Claims</u>	<u>Counts</u>	Loss	<u>Change</u>	<u>Average</u>	<u>Change</u>
2010	4,641,468	732,331	3,909,137	1 <i>77</i>	22,086			
2011	6,732,503	851,341	5,881,162	189	31,117	40.9%		
2012	5,910,189	680,951	5,229,238	201	26,016	-16.4%	26,406	
2013	4,528,185	756,064	3,772,121	175	21,555	-17.1%	26,229	-0.7%
2014	6,446,352	808,080	5,638,272	289	19,510	-9.5%	22,360	-14.8%
2015	4,305,855	611,456	3,694,399	186	19,862	1.8%	20,309	-9.2%
2016	4,324,998	541,639	3,783,359	149	25,392	27.8%	21,588	6.3%
2017	6,686,913	746,688	5,940,225	172	34,536	36.0%	26,597	23.2%
2018	5,952,559	615,429	5,337,130	169	31,581	-8.6%	30,503	14.7%
2019	4,688,903 *	583,177	4,105,726	171	24,010	-24.0%	30,042	-1.5%

Analysis performed on data for 2010 through 2019.	Geometric Average:	0.9%	1.8%	Ests.
	Regression Indication:	1.7%		1 & 2
	Selected:	1.3%	1.8%	
Analysis performed on data for 2011 through 2019.	Geometric Average:	-3.2%	2.3%	Ests.
	Regression Indication:	1.3%		3 & 4
	Selected:	-1.0%	2.3%	
Analysis performed on data for 2012 through 2019.	Geometric Average:	-1.2%	6.1%	Ests.
	Regression Indication:	4.0%		5 & 6
	Selected:	1.4%	6.1%	

#### Sources:

- (1) Exhibit V-H,Page 2
- (2) Exhibit VI-C-3
- (3) (1)-(2) (4) Exhibit VI-C-1
- (5) (3)/(4)
- (6) (Current Avg. Loss / Prior Avg. Loss-1.0)x100

\* Note: Ultimate losses for 2019 reflect limitation on large claims, see Exhibit V-J

# Traumatic Loss Trend Indemnity and Funeral Losses for All Classes Combined

Exhibit V-I Page 1 Estimates 07-12

# Severity Trend

	(1)	(2)	(3)	(4)	(5)	(6)
				Annual	3-Year	Annual
	Ultimate	Claim	Average	Average Loss	Moving	Mov. Avg.
<u>Year</u>	<u>Losses</u>	<u>Counts</u>	Loss	<u>Change</u>	<u>Average</u>	<u>Change</u>
2010	7,552,441	177	42,669			
2011	8,668,845	189	45,867	7.5%		
2012	10,045,460	201	49,977	9.0%	46,171	
2013	7,907,439	175	45,185	-9.6%	47,010	1.8%
2014	12,477,324	289	43,174	-4.5%	46,112	-1.9%
2015	12,249,181	186	65,856	52.5%	51,405	11.5%
2016	9,624,621	149	64,595	-1.9%	57,875	12.6%
2017	10,771,503	172	62,625	-3.0%	64,359	11.2%
2018	9,827,138	169	58,149	-7.1%	61,790	-4.0%

Analysis performed on data for 2010 through 2018.	Geometric Average:	4.0%	5.0%	Ests.
	Regression Indication:	5.2%		7 & 8
	Selected:	4.6%	5.0%	
Analysis performed on data for 2011 through 2018.	Geometric Average:	3.5%	5.6%	Ests.
	Regression Indication:	5.2%		9 & 10
	Selected:	4.4%	5.6%	
Analysis performed on data for 2012 through 2018.	Geometric Average:	2.6%	7.6%	Ests.
	Regression Indication:	5.5%		11 & 12
	Selected:	4.1%	7.6%	

#### Sources:

(1) Exhibit V-H page 1, Column (3)

(2) Exhibit VI-C-1

(4) (Current Avg. Loss / Prior Avg. Loss -1.0) x 100

### Traumatic Loss Trend Medical and Medical Only Losses for All Classes Combined

Exhibit V-I Page 2 Estimates 07-12

### Severity Trend

	(1)	(2)	(3)	(4)	(5)	(6)
				Annual	3-Year	Annual
	Ultimate	Claim	Average	Average Loss	Moving	Mov. Avg.
<u>Year</u>	<u>Losses</u>	<u>Counts</u>	Loss	<u>Change</u>	<u>Average</u>	<u>Change</u>
2010	4,641,468	736	6,306			
2011	6,732,503	816	8,251	30.8%		
2012	5,910,189	753	7,849	-4.9%	7,469	
2013	4,528,185	654	6,924	-11.8%	7,675	2.8%
2014	6,446,352	871	7,401	6.9%	7,391	-3.7%
2015	4,305,855	582	7,398	0.0%	7,241	-2.0%
2016	4,324,998	452	9,569	29.3%	8,123	12.2%
2017	6,686,913	498	13,428	40.3%	10,132	24.7%
2018	5,952,559	462	12,884	-4.1%	11,960	18.0%

Analysis performed on data for 2010 through 2018.	Geometric Average:	9.3%	8.2%	Ests.
	Regression Indication:	8.3%		7 & 8
	Selected:	8.8%	8.2%	
Analysis performed on data for 2011 through 2018.	Geometric Average:	6.6%	9.3%	Ests.
	Regression Indication:	8.4%		9 & 10
	Selected:	7.5%	9.3%	
Analysis performed on data for 2012 through 2018.	Geometric Average:	8.6%	12.8%	Ests.
	Regression Indication:	11.6%		11 & 12
	Selected:	10.1%	12.8%	

### Sources:

- (1) Exhibit V-H page 2, Column (3)
- (2) Exhibit VI-C-1 + Exhibit VI-C-2
- (4) (Current Avg. Loss / Prior Avg. Loss -1.0) x 100

### Traumatic Loss Trend Medical Only Losses for All Classes Combined

Exhibit V-I Page 3 Estimates 07-12

### Severity Trend

	(1) Ultimate	(2) Ultimate	(3)	(4) Annual	(5) 3-Year	(6) Annual
	Claim	Incurred	Average	Average Loss	Moving	Mov. Avg.
<u>Year</u>	<u>Counts</u>	Losses	Loss	<u>Change</u>	<u>Average</u>	<u>Change</u>
2010	559	732,331	1,310			
2011	627	851,341	1,358	3.7%		
2012	552	680,951	1,234	-9.1%	1,301	
2013	479	756,064	1,578	27.9%	1,390	6.8%
2014	582	808,080	1,388	-12.0%	1,400	0.7%
2015	396	611,456	1,544	11.2%	1,503	7.4%
2016	303	541,639	1,788	15.8%	1,573	4.7%
2017	326	746,688	2,290	28.1%	1,874	19.1%
2018	293	615,429	2,100	-8.3%	2,059	9.9%

Analysis performed on data for 2010 through 2018.	Geometric Average:	6.1%	8.0%	Ests.
	Regression Indication:	7.2%		7 & 8
	Selected:	6.7%	8.0%	
Analysis performed on data for 2011 through 2018.	Geometric Average:	6.4%	8.2%	Ests.
	Regression Indication:	8.2%		9 & 10
	Selected:	7.3%	8.2%	
Analysis performed on data for 2012 through 2018.	Geometric Average:	9.3%	10.1%	Ests.
	Regression Indication:	9.7%		11 & 12
	Selected:	9.5%	10.1%	

### Sources:

- (1) Exhibit VI-C-2
- (2) Exhibit VI-C-3
- (4) (Current Avg. Loss / Prior Avg. Loss -1.0) x 100

# Traumatic Loss Trend Indemnity and Funeral Losses for All Classes Combined

Exhibit V-I Page 4 Estimates 07-12

### Frequency Trend

	(1) Ultimate	(2) Loss	(3)	(4) Annual	(5) 3-Year	(6) Annual
	Claim	Cost	Frequency	Average Loss	Moving	Mov. Avg.
<u>Year</u>	<u>Counts</u>	<u>Premium</u>	per(\$M)	<u>Change</u>	<u>Average</u>	<u>Change</u>
2010	177	13,191,068	13.4			
2011	189	16,066,739	11.8	-11.9%		
2012	201	16,661,417	12.1	2.5%	12.4	
2013	175	15,621,068	11.2	-7.4%	11.7	-5.6%
2014	289	24,068,030	12.0	7.1%	11.8	0.9%
2015	186	20,074,359	9.3	-22.5%	10.8	-8.5%
2016	149	14,437,254	10.3	10.8%	10.5	-2.8%
2017	172	16,408,011	10.5	1.9%	10.0	-4.8%
2018	169	17,213,225	9.8	-6.7%	10.2	2.0%

Analysis performed on data for 2010 through 2018.	Geometric Average:	-3.8%	-3.2%	Ests.
	Regression Indication:	-3.5%		7 & 8
	Selected:	-3.7%	-3.2%	
Analysis performed on data for 2011 through 2018.	Geometric Average:	-2.6%	-2.7%	Ests.
	Regression Indication:	-3.0%		9 & 10
	Selected:	-2.8%	-2.7%	
Analysis performed on data for 2012 through 2018.	Geometric Average:	-3.5%	-3.6%	Ests.
	Regression Indication:	-3.2%		11 & 12
	Selected:	-3.4%	-3.6%	

### Sources:

- (1) Exhibit V-I-1 Col. 2
- (2) Exhibit X-B-1
- (3) (1) / (2) x 1,000,000
- (4) (Current Freq. / Prior Freq. -1.0) x 100'

### Traumatic Loss Trend Indemnity and Funeral Losses for All Classes Combined

Exhibit V-I Page 5 Estimates 07-12

### Frequency Trend net of Wage Trend

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Loss	Statewide	On	Loss Cost		_Adjusted	Annual	3-Year	Annual
	Cost	Average	2019	Premium	Claim	Frequency	Frequency	Moving	Mov. Avg.
<u>Year</u>	<u>Premium</u>	Weekly Wage	Level	on 2019 Level	<u>Counts</u>	<u>per(\$M)</u>	<u>Change</u>	<u>Average</u>	<u>Change</u>
2010	13,191,068	845	1.241	16,370,115	177	10.8			
2011	16,066,739	858	1.223	19,649,622	189	9.6	-11.1%		
2012	16,661,417	888	1.181	19,677,133	201	10.2	6.3%	10.2	
2013	15,621,068	917	1.144	17,870,502	175	9.8	-3.9%	9.9	-2.9%
2014	24,068,030	932	1.126	27,100,602	289	10.7	9.2%	10.2	3.0%
2015	20,074,359	951	1.103	22,142,018	186	8.4	-21.5%	9.6	-5.9%
2016	14,437,254	978	1.073	15,491,174	149	9.6	14.3%	9.6	0.0%
2017	16,408,011	995	1.054	17,294,044	172	9.9	3.1%	9.3	-3.1%
2018	17,213,225	1,025	1.023	17,609,129	169	9.6	-3.0%	9.7	4.3%

Analysis performed on data for 2010 through 2018.	Geometric Average:	-1.4%	-0.8% E	Ests.
	Regression Indication:	-1.1%	7	7 & 8
	Selected:	-1.3%	-0.8%	
Analysis performed on data for 2011 through 2018.	Geometric Average:	0.0%	-0.4% E	Ests.
	Regression Indication:	-0.5%	9	9 & 10
	Selected:	-0.3%	-0.4%	
Analysis performed on data for 2012 through 2018.	Geometric Average:	-1.0%	-1.2% E	Ests.
	Regression Indication:	-1.0%	11	1 & 12
	Selected:	-1.0%	-1.2%	

#### Source:

- (1) Exhibit X-B
- (2) Exhibit XII-D
  (3) See Exhibit V-I-5 Estimates 01-06.
- (4) (1)x(3) (5) Exhibit VI-C-1
- (6) (5) / (4) \* 1,000,000
- (7) (Current Freq./Prior Freq.-1.0)x100

### Traumatic Loss Trend Medical (excl. Medical Only Losses) for All Classes Combined

Exhibit V-I Page 6 Estimates 07-12

### Severity Trend

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Ultimate	Med. Only Ultimate	Ult. Med. On			Annual	3-Year	Annual
	Medical Losses	Incurred	Lost Time	Claim	Average	Average Loss	Moving	Mov. Avg.
<u>Year</u>	<u>Incurred</u>	Losses	<u>Claims</u>	<u>Counts</u>	<u>Loss</u>	<u>Change</u>	<u>Average</u>	<u>Change</u>
2010	4,641,468	732,331	3,909,137	177	22,086			
2011	6,732,503	851,341	5,881,162	189	31,117	40.9%		
2012	5,910,189	680,951	5,229,238	201	26,016	-16.4%	26,406	
2013	4,528,185	756,064	3,772,121	175	21,555	-17.1%	26,229	-0.7%
2014	6,446,352	808,080	5,638,272	289	19,510	-9.5%	22,360	-14.8%
2015	4,305,855	611,456	3,694,399	186	19,862	1.8%	20,309	-9.2%
2016	4,324,998	541,639	3,783,359	149	25,392	27.8%	21,588	6.3%
2017	6,686,913	746,688	5,940,225	172	34,536	36.0%	26,597	23.2%
2018	5,952,559	615,429	5,337,130	169	31,581	-8.6%	30,503	14.7%

Analysis performed on data for 2010 through 2018.	Geometric Average:	4.6%	2.4%	Ests.
	Regression Indication:	2.7%	7	7 & 8
	Selected:	3.7%	2.4%	
Analysis performed on data for 2011 through 2018.	Geometric Average:	0.2%	3.0%	Ests.
	Regression Indication:	2.4%	9	9 & 10
	Selected:	1.3%	3.0%	
Analysis performed on data for 2012 through 2018.	Geometric Average:	3.3%	8.1%	Ests.
	Regression Indication:	6.6%	11	1 & 12
	Selected:	5.0%	8.1%	

### Source:

- (1) Exhibit V-H,Page 2(2) Exhibit VI-C-3

- (3) (1)-(2) (4) Exhibit VI-C-1
- (5) (3)/(4)
- (6) (Current Avg. Loss / Prior Avg. Loss-1.0)x100

Coal Mine Compensation Rating Bureau

Traumatic Loss Development

Page 1

B. Act 57 Indemnity Law Factor of 0.8247, 0.8871 (1996) and 1.000

C. A times B equals C

# Traumatic Loss Development Incurred Indemnity and Funeral Losses for All Classes Combined

	Incurred Indemnify and Funeral Losses for All Classes Combined  A. Indemnity Reported Incurred Losses as of 04/30/20																								
Report  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	<u>1995</u> 7,495,224	1996 6,865,290 9,862,300 10,812,980 10,935,657 11,473,813 12,045,582 11,985,455 12,057,750 12,181,640 12,047,901 12,121,809 12,194,216 12,323,984 12,373,446 12,414,145 12,454,657	1997 5,169,557 7,204,997 7,650,302 7,955,452 8,698,833 8,527,476 8,464,405 8,453,559 8,385,552 8,461,485 8,504,790 8,674,576 8,712,300 8,797,458	1998 4,616,566 6,425,692 7,184,304 7,644,338 8,242,894 8,275,893 8,429,042 8,382,835 8,467,821 8,565,347 8,647,604	1999 3,404,097 5,685,213 6,107,512 7,314,026	6,056,207 6,887,906 7,362,001 7,291,553 7,454,081 7,462,274 7,475,918 7,486,544 7,480,132 7,481,252 7,481,735 7,481,735 7,481,735 7,481,735	8,490,153 8,760,507 8,994,827 8,879,879 8,693,906 8,481,353 8,515,273 8,549,118 8,582,610 8,612,926 8,419,199 8,433,117 8,431,001		2003 4,367,449 6,352,445 6,965,973 7,287,256	2004 4,077,968 6,450,455 7,304,561 7,268,321 7,374,171 7,418,021 7,469,216 7,498,081 7,539,604 7,586,354 7,633,071 7,603,806 7,631,230 7,660,556	2005 6,150,319 9,269,896 10,301,194 12,018,140	2006 3,325,544 5,595,218 5,998,029 5,597,263 5,496,933 5,215,101 5,237,407 5,251,578 5,372,852 5,948,585 6,000,946 5,875,552 5,890,328 5,905,903	2007 3,275,884 5,094,625 6,026,129 6,053,552 6,217,757 6,349,621 6,471,573 6,933,809 6,720,431 6,652,402 6,693,877 7,052,471 7,174,716	2008 5,594,328 6,615,460	2009 2,447,080 4,426,812 5,084,862 5,276,335 5,433,501 5,295,524 5,295,524 5,295,524 5,295,524 5,295,724 5,295,724 5,425,367	2010 3,188,490 4,704,074 5,837,644 6,918,124 7,301,176 7,158,740 7,274,640 7,246,831 7,433,505 7,433,505	2011 3,669,341 6,714,362 8,225,491 8,373,419 8,616,232 8,635,331 8,518,115 8,518,112 8,518,075	8,319,223 9,121,284 9,293,673 9,459,392 9,796,893	7,461,258	11,781,410 12,108,278	11,602,180	2016 4,871,955 7,983,656 8,661,045 9,151,489	2017 5,741,961 8,233,729 9,841,483	2018 5,566,332 7,734,859	<u>2019</u> 4,894,467
19 20	12,305,704 12,302,583 12,309,663	12,577,856 12,617,517		8,772,260	8,050,069	7,481,735		11,555,724																	
1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _ 8 _ 9 _ 10 _	0.8247 0.8247 0.8247 0.8247 0.8247 0.8247 0.8247 0.8247 0.8247	0.8871 0.8871 0.8871 0.8871 0.8871 0.8871 0.8871 0.8871	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000	1.0000 1.0000	1.0000
10 11 12 13 14 15 16	0.8247 0.8247 0.8247 0.8247 0.8247 0.8247 0.8247	0.8871 0.8871 0.8871 0.8871 0.8871 0.8871 0.8871	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000	1.0000	1.0000					- <u>/</u> F <u>F</u>	Act 5 b) Accident Act 57 Pre Post 1996 Avg	7 Effective D Year 1996 (8 Effect 17.53% 0.00% 11.29%		Prior to 1996 <u>Effect</u> 17.53%
18 19 20	0.8247 0.8247 0.8247	0.8871 0.8871 0.8871	1.0000 1.0000 1.0000	1.0000 1.0000 1.0000	1.0000 1.0000 1.0000	1.0000 1.0000 1.0000	1.0000	1.0000													Со	mplement:	0.8871		0.8247
1 2 3 4 5 6 7 8 9 10 11 12 13 14	6,181,000 8,356,000 8,925,000 9,337,000 9,922,000 9,904,000 9,897,000 9,816,000 9,860,000 9,864,000 9,863,000 9,871,000 9,877,000	6,090,000 8,749,000 9,592,000 9,701,000 10,178,000 10,686,000 10,696,000 10,806,000 10,688,000 10,753,000 10,933,000 10,976,000	5,169,557 7,204,997 7,650,302 7,955,452 8,698,833 8,527,476 8,464,405 8,453,559 8,385,552 8,461,485 8,504,790 8,674,576 8,712,300 8,797,458	4,616,566 6,425,692 7,184,304 7,644,338 8,242,894 8,275,893 8,429,042 8,382,835 8,467,821 8,565,347 8,647,604 8,654,986 8,662,379 8,760,619	Level as of 0 3,404,097 5,685,213 6,107,512 7,314,026 7,591,552 7,679,135 7,685,857 7,718,721 7,754,976 8,091,638 8,094,480 8,095,907 8,054,458 8,050,069	3,705,402 6,056,207 6,887,906 7,362,001 7,291,553 7,454,081 7,462,274 7,475,918 7,486,544 7,480,132 7,481,252 7,481,862 7,481,735 7,481,735	8,693,906 8,481,353 8,515,273 8,549,118 8,582,610 8,612,926 8,419,199	8,904,201 10,824,370 11,966,090 12,323,050 13,133,004 12,772,686 12,539,319 12,455,797 12,228,895 12,023,866 12,101,118 12,053,898 11,535,171	4,367,449 6,352,445 6,965,973 7,287,256 8,286,573 8,109,584 8,140,325 7,865,421 7,459,231 7,494,451 7,400,303 7,425,395 7,450,178 7,474,462	7,418,021 7,469,216 7,498,081 7,539,604 7,586,354 7,633,071 7,603,806 7,631,230 7,660,556	9,269,896 10,301,194 12,018,140 12,453,149 11,984,386 12,178,272 12,484,769 12,600,820 12,368,018 12,470,444 12,133,479 12,176,584 12,084,066	3,325,544 5,595,218 5,998,029 5,597,263 5,496,933 5,215,101 5,237,407 5,251,578 5,372,852 5,948,585 6,000,946 5,875,552 5,890,328 5,905,903	3,275,884 5,094,625 6,026,129 6,053,552 6,217,757 6,349,621 6,471,573 6,933,809 6,720,431 6,652,402 6,693,877 7,052,471 7,174,716	5,594,328 6,615,460 8,947,874 9,233,530 9,406,949 9,432,764 9,542,759 9,453,964 9,672,629 9,452,432 9,539,005 9,562,275	2,447,080 4,426,812 5,084,862 5,276,335 5,433,501 5,295,524 5,295,524 5,295,524 5,295,524 5,295,724 5,425,367	3,188,490 4,704,074 5,837,644 6,918,124 7,301,176 7,158,740 7,274,640 7,246,831 7,433,505 7,433,505	3,669,341 6,714,362 8,225,491 8,373,419 8,616,232 8,635,331 8,518,115 8,518,112 8,518,075	9,293,673 9,459,392 9,796,893 9,853,320	3,455,344 6,561,596 7,346,985 7,461,258 7,695,409 7,652,267 7,741,765	11,781,410 12,108,278 12,255,326 12,193,222	11,946,924	4,871,955 7,983,656 8,661,045 9,151,489	5,741,961 8,233,729 9,841,483	5,566,332 7,734,859	4,894,467
16 17	10,023,000 10,120,000 10,126,000	11,049,000 11,084,000	8,824,907 8,629,585 8,640,604	8,763,703 8,763,787 8,764,731	8,050,069 8,050,069 8,050,069		8,431,001 8,471,584	11,541,679 11,531,779 11,543,628	7,498,496 7,522,284 7,545,808	7,687,823 7,715,319	11,732,109					Source: /	A. CMCRB D	atabase as c	of 04/30/20 - 1	equals Indemi Validated 08	/06/20		t 5/ level.		

18 10,149,000 11,119,000 8,660,130 8,767,395 8,050,069 7,481,735 8,485,139 11,555,724

19 10,146,000 11,158,000 8,797,616 8,808,505 8,050,069 7,481,735 8,498,632

20 10,152,000 11,193,000 8,812,465 8,772,260 8,050,069 7,481,735

## Coal Mine Compensation Rating Bureau Traumatic Loss Development

# Indemnity and Funeral Losses for All Classes Combined

Α. 1	Indemnity and Funeral Losses for All Classes Combined  A. Indemnity Incurred Losses Adjusted to Act 57 Law Level as of 04/30/20																								
Report	1995	1996	1997	1998	1999	2000	2001	<u>2002</u>	2003	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	2008	2009	<u>2010</u>	<u>2011</u>	2012	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
1	6,181,000	6,090,000	5,169,557	4,616,566	3,404,097	3,705,402	4,478,660	5,436,836	4,367,449	4,077,968	6,150,319	3,325,544	3,275,884	5,594,328	2,447,080	3,188,490	3,669,341	3,724,530	3,455,344	7,192,624	6,961,079	4,871,955	5,741,961	5,566,332	4,894,467
3	8,356,000 8,925,000	8,749,000 9,592,000	7,204,997 7,650,302	6,425,692 7,184,304	5,685,213 6,107,512	6,056,207 6,887,906	7,551,263 7,965,255	8,904,201 10,824,370	6,352,445 6,965,973	6,450,455 7,304,561	9,269,896 10,301,194	5,595,218 5,998,029		6,615,460 8,947,874	4,426,812 5,084,862	4,704,074 5,837,644	6,714,362 8,225,491	6,826,563 8,319,223	6,561,596 7,346,985	11,723,305 11,781,410	9,306,469 11.330.911	7,983,656 8,661,045	8,233,729 9,841,483	7,734,859	
4	9,337,000	9,701,000	7,955,452	7,644,338	7,314,026	7,362,001	8,490,153		7,287,256			5,597,263	6,053,552	9,233,530	5,276,335	6,918,124	8,373,419	9,121,284		12,108,278		9,151,489	7,011,100		
5	9,922,000		8,698,833	8,242,894			8,760,507		8,286,573		12,453,149	5,496,933		9,406,949	5,433,501	7,301,176	8,616,232	9,293,673	7,695,409	12,255,326	11,946,924				
6 7	9,904,000 9,897,000	10,686,000	8,527,476 8,464,405	8,275,893 8,429,042	7,679,135 7,685,857	7,454,081 7,462,274	8,994,827 8,879,879	13,133,004	8,109,584 8,140,325		11,984,386 12,178,272	5,215,101 5,237,407	6,349,621 6,471,573	9,432,764 9,542,759	5,295,524 5,295,524	7,158,740 7,274,640	8,635,331 8,518,115	9,459,392 9,796,893	7,652,267 7,741,765	12,193,222					
8	9,757,000		8,453,559	8,382,835	7,718,721		8,693,906		7,865,421		12,484,769	5,251,578	6,933,809	9,453,964	5,295,524	7,246,831	8,518,112	9,853,320	7,741,700						
9	9,816,000		8,385,552	8,467,821	7,754,976	7,486,544			7,459,231			5,372,852	6,720,431	9,672,629	5,295,524	7,433,505	8,518,075								
10	9,860,000 9,864,000	10,688,000	8,461,485 8,504,790	8,565,347 8,647,604	8,091,638 8,094,480		8,515,273 8,549,118		7,494,451 7,400,303		12,368,018 12,470,444	5,948,585 6,000,946	6,652,402 6,693,877	9,452,432 9,539,005	5,295,724 5,425,367	7,433,505									
12	9,863,000		8,674,576	8,654,986	8,095,907	7,481,862	8,582,610		7,400,303		12,470,444	5,875,552	7,052,471	9,562,275	3,423,367										
13	9,871,000		8,712,300	8,662,379	8,054,458				7,450,178	7,631,230		5,890,328	7,174,716												
	9,877,000 10,023,000		8,797,458 8,824,907	8,760,619 8,763,703	8,050,069 8,050,069		8,419,199 8,433,117		7,474,462 7,498,496	7,660,556 7,687,823		5,905,903													
	10,023,000			8,763,787	8,050,069				7,470,476	7,715,319	11,732,107														
	10,126,000			8,764,731	8,050,069	7,481,735			7,545,808																
	10,149,000 10,146,000			8,767,395 8,808,505	8,050,069 8,050,069	7,481,735 7,481,735	8,485,139	11,555,724																	
	10,148,000			8,772,260			0,470,032																		
B. I	Effect of Clain 1.0000	m Settlemen 1.0227	t Levels Only 1.0000	r = (Losses ac 1.0000	djusted by Ac 1.0000	ct 57 Law Adj 1.0000	1.0000 n. Factors	d Claim Settle 1.0000	ement Levels 1.0000	(Exhibit VI-A	., page 3) div 1.0000	ided by Loss 1.0000	es adjusted 1.0000	by Act 57 La <sup>,</sup> 1.0000	w Adj. Facto 1.0000	ors only (Exhib 1.0000	oit VI-A, page 1.0000	∋ 1)) 1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	1.0243	1.0450	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3	1.0485	1.0677	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
4	1.0727 1.0971	1.0902 1.1071	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000			
6	1.1152	1.1183	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
7	1.1273	1.1241	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				Selecte	ed Years 11 to	o 20
8	1.1334	1.1273	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			ed Years 0 to			ment Level A	_
10	1.1395 1.1455	1.1273 1.1272	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000			9th Last	<u>ment Level <i>A</i></u> +2.0% p		14th Last 13th Last	+1.2% p +1.2% p	•
11	1.1480	1.1273	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				8th Last	+2.0% p		12th Last	+1.2% p	
12	1.1491	1.1273	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000						7th Last		er year	11th Last	+1.2% p	
13 14	1.1491 1.1491	1.1272 1.1273	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000							6th Last 5th Last	+2.0% p +1.5% p		10th Last 9th Last	+0.9% p +0.6% p	
15	1.1492	1.1272	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			Г	Example: 1	1995 (2) 0.844	7 (Page 3)			4th Last	+1.0% p	-	8th Last	+0.3% p	-
16	1.1491	1.1272	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					(	divided by 0.8	8247			3rd Last	+0.5% p		7th Last	+0.2% p	-
17	1.1491 1.1491	1.1273 1.1273	1.0000	1.0000	1.0000 1.0000	1.0000	1.0000 1.0000	1.0000 1.0000	1.0000					L	(	equals 1.0243				2nd Last	+0.5% p	-	6th Last	+0.2% p +0.2% p	-
19	1.1491	1.1273	1.0000 1.0000	1.0000	1.0000	1.0000 1.0000	1.0000	1.0000											L	1st Last	+0.5% p	ber year	5th Last 4th Last	+0.2% p	
20	1.1491	1.1273	1.0000	1.0000	1.0000	1.0000	1.0000																3rd Last	+0.0% p	
0.1			۸ ماز، رمام ما الم	A a t 57 l au	lavalama (C	laina Calllana	مرم واميرها المسم	of 0.4/20/00															2nd Last	+0.0% p	
1	6,181,000		•			laim Settleme 3,705,402			4,367,449	4,077,968	6,150,319	3,325,544	3,275,884	5,594,328	2,447,080	3,188,490	3,669,341	3,724,530	3,455,344	7,192,624	6,961,079	4,871,955	1st Last 5,741,961	+0.0% p	4,894,467
2	- , - ,	9,143,000	7,204,997	6,425,692	5,685,213	6,056,207		8,904,201	6,352,445	6,450,455	9,269,896	5,595,218	5,094,625	6,615,460	4,426,812	4,704,074	6,714,362	6,826,563	6,561,596	11,723,305	9,306,469	7,983,656		7,734,859	1,07 1,107
3	9,358,000		7,650,302	7,184,304	6,107,512		7,965,255		6,965,973		10,301,194	5,998,029	6,026,129	8,947,874	5,084,862	5,837,644	8,225,491	8,319,223	7,346,985	11,781,410			9,841,483		
	10,016,000 10,885,000		7,955,452 8,698,833	7,644,338 8,242,894	7,314,026 7,591,552	7,362,001 7,291,553	8,490,153 8,760,507	12,323,050	7,287,256 8,286,573		12,018,140 12,453,149	5,597,263 5,496,933	6,053,552 6,217,757	9,233,530 9,406,949	5,276,335 5,433,501	6,918,124 7,301,176	8,373,419 8,616,232	9,121,284 9,293,673	7,461,258 7,695,409	12,108,278 12,255,326		9,151,489			
	11,045,000		8,527,476	8,275,893	7,679,135	7,454,081		13,133,004	8,109,584		11,984,386	5,215,101	6,349,621	9,432,764	5,295,524	7,158,740	8,635,331	9,459,392	7,652,267	12,193,222	11,7 10,721				
	11,157,000		8,464,405	8,429,042	7,685,857	7,462,274		12,772,686	8,140,325		12,178,272	5,237,407		9,542,759	5,295,524	7,274,640	8,518,115	9,796,893	7,741,765						
	11,059,000 11,185,000		8,453,559 8,385,552	8,382,835 8,467,821	7,718,721 7,754,976	7,475,918 7,486,544		12,539,319 12,455,797	7,865,421 7,459,231		12,484,769 12,600,820	5,251,578 5,372,852	6,933,809 6,720,431	9,453,964 9,672,629	5,295,524 5,295,524	7,246,831 7,433,505	8,518,112 8,518,075	9,853,320							
	11,295,000		8,461,485	8,565,347	8,091,638		8,515,273		7,494,451		12,368,018	5,948,585	6,652,402	9,452,432	5,295,724	7,433,505	0,010,070								
	11,324,000			8,647,604	8,094,480	7,481,252	8,549,118		7,400,303		12,470,444	6,000,946	6,693,877	9,539,005	5,425,367										
	11,334,000 11,343,000		8,674,576 8,712,300	8,654,986 8,662,379	8,095,907 8,054,458	7,481,862 7,481,735		12,101,118 12,053,898	7,425,395 7,450,178	7,603,806 7,631,230	12,133,4/9	5,875,552 5,890,328	7,052,471 7,174,716	9,562,275											
	11,350,000		8,797,458	8,760,619	8,050,069			11,535,171	7,474,462	7,660,556		5,905,903	,,,,,,,,												
	11,518,000		8,824,907	8,763,703	8,050,069	7,481,735	8,433,117		7,498,496	7,687,823	11,732,109														
	11,629,000 11,636,000		8,629,585 8,640,604	8,763,787 8,764,731	8,050,069 8,050,069			11,531,779 11,543,628	7,522,284 7,545,808	7,715,319						Source: A	. Exhibit VI-A	A, p. 1 (C)							
	11,662,000		8,660,130	8,767,395	8,050,069				. ,5 15,550								Section C /								
	11,659,000		8,797,616	8,808,505	8,050,069		8,498,632									C	C. Exhibit VI-A	4, p. 3 (C)							
20	11,666,000	12,617,517	8,812,465	8,772,260	8,050,069	7,481,735																			

# Coal Mine Compensation Rating Bureau Traumatic Loss Development

# Incurred Indemnity and Funeral Losses for All Classes Combined

	la de accit. F	)							ır	icurred inc	aemininy an	ia runerai	Losses for	All Classes	Combined	a									
		Reported Incu				0000	0001	0000	0000	0004	0005	0007	0007	0000	0000	0010	0011	0010	0010	001.4	0015	0017	0017	0010	0010
<u>Report</u>		<u>1996</u>	<u>1997</u>	<u>1998</u>	1999	2000	2001	2002	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	2009	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	2019
I	7,495,224		5,169,557	4,616,566	3,404,097	3,705,402	4,478,660	5,436,836	4,367,449	4,077,968	6,150,319	3,325,544	3,275,884	5,594,328	2,447,080	3,188,490	3,669,341	3,724,530	3,455,344	7,192,624	6,961,079	4,871,955	5,741,961	5,566,332	4,894,467
	10,132,595		7,204,997	6,425,692	5,685,213	6,056,207	7,551,263	8,904,201	6,352,445	6,450,455	9,269,896	5,595,218	5,094,625	6,615,460	4,426,812	4,704,074	6,714,362	6,826,563	6,561,596	11,723,305	9,306,469	7,983,656	8,233,729	7,734,859	
3	10,822,307	10,812,980	7,650,302	7,184,304	6,107,512	6,887,906	7,965,255	10,824,370	6,965,973	7,304,561	10,301,194	5,998,029	6,026,129	8,947,874	5,084,862	5,837,644	8,225,491	8,319,223	7,346,985	11,781,410	11,330,911	8,661,045	9,841,483		
4	11,321,620	10,935,657	7,955,452	7,644,338	7,314,026	7,362,001	8,490,153	11,966,090	7,287,256	7,268,321	12,018,140	5,597,263	6,053,552	9,233,530	5,276,335	6,918,124	8,373,419	9,121,284	7,461,258	12,108,278	11,602,180	9,151,489			
5	12,031,334	11,473,813	8,698,833	8,242,894	7,591,552	7,291,553	8,760,507	12,323,050	8,286,573	7,374,171	12,453,149	5,496,933	6,217,757	9,406,949	5,433,501	7,301,176	8,616,232	9,293,673	7,695,409	12,255,326	11,946,924				
6	12,009,191	12,045,582	8,527,476	8,275,893	7,679,135	7,454,081	8,994,827	13,133,004	8,109,584	7,418,021	11,984,386	5,215,101	6,349,621	9,432,764	5,295,524	7,158,740	8,635,331	9,459,392	7,652,267	12,193,222					
7	12,001,044	11,985,455	8,464,405	8,429,042	7,685,857	7,462,274	8,879,879	12,772,686	8,140,325	7,469,216	12,178,272	5,237,407	6,471,573	9,542,759	5,295,524	7,274,640	8,518,115	9,796,893	7,741,765						
		12,057,750	8,453,559	8,382,835	7,718,721	7,475,918	8,693,906		7,865,421		12,484,769	5,251,578	6,933,809	9,453,964	5,295,524	7,246,831	8,518,112	9,853,320							
		12,181,640	8,385,552	8,467,821	7,754,976	7,486,544		12,455,797	7,459,231		12,600,820	5,372,852	6,720,431	9,672,629	5,295,524	7,433,505	8,518,075	,,000,020							
		12,047,901	8,461,485	8,565,347	8,091,638	7,480,132		12,228,895	7,494,451		12,368,018	5,948,585	6,652,402		5,295,724	7,433,505	0,010,070								
		12,121,809	8,504,790	8,647,604	8,094,480	7,480,132		12,023,866	7,400,303		12,470,444	6,000,946	6,693,877	9,539,005	5,425,367	7,433,303									
		12,121,007	8,674,576	8,654,986	8,095,907	7,481,862		12,023,000			12,470,444	5,875,552	7,052,471	9,562,275	3,423,367										
									7,425,395					7,362,273											
		12,323,984	8,712,300	8,662,379	8,054,458	7,481,735		12,053,898	7,450,178		12,176,584	5,890,328	7,174,716												
		12,373,446	8,797,458	8,760,619	8,050,069	7,481,735		11,535,171	7,474,462	7,660,556		5,905,903													
		12,414,145	8,824,907	8,763,703	8,050,069	7,481,735		11,541,679	7,498,496		11,732,109														
		12,454,657	8,629,585	8,763,787	8,050,069	7,481,735	8,431,001		7,522,284	7,715,319															
		12,494,644	8,640,604	8,764,731	8,050,069	7,481,735	8,471,584		7,545,808																
		12,534,389		8,767,395	8,050,069	7,481,735	8,485,139	11,555,724																	
19	12,302,583	12,577,856	8,797,616	8,808,505	8,050,069	7,481,735	8,498,632																		
20	12,309,663	12,617,517	8,812,465	8,772,260	8,050,069	7,481,735																			
	100																(	Claim Settlen	nent Level Ad	dditions are n	nultiplied by	the percent	ages at the to	op of each c	olumn.
В.	Act 57 Inde	mnity Law Ad	jusment Fact	ors and Clai	m Settlemer	nt Levels																			
1	0.8247	0.9071	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	0.8447	0.9271	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
3	0.8647	0.9471	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
4	0.8847	0.9671	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			
5	0.9047	0.9821	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			
6	0.9197	0.9921	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
7																				1.0000			40010	ad Vasus 11 t	- 20
/	0.9297	0.9971	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					ed Years 11 t	
8	0.9347	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			ted Years 0 to			ement Level /	
9	0.9397	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			<u>Claim Settle</u>	<u>ement Level /</u>	_	14th Last		oer year
10	0.9447	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				9th Last	+2.0% p		13th Last		oer year
11	0.9467	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					8th Last	+2.0% p	oer year	12th Last	+1.2% p	oer year
12	0.9477	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000						7th Last	+2.0% p	oer year	11th Last	+1.2% p	oer year
13	0.9477	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000							6th Last	+2.0% p	oer year	10th Last	+0.9% p	oer year
14	0.9477	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		Act 57 Effecti	ive Date		Prior to			5th Last	+1.5% r	oer year	9th Last	+0.6% r	oer year
1.5	0.9477	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			(b) Accident		3-23-961	1996			4th Last		per year	8th Last		per year
16	0.9477	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			Act 57	Effect	<u>Weight</u>	<u>Effect</u>			3rd Last		per year	7th Last		per year
17	0.9477	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				Pro	17.53%	0.644	17.53%			2nd Last		per year	6th Last		per year
1,	0.9477	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					Post	0.00%	<u>0.356</u>	17.5578			1st Last		per year	5th Last	+0.2% p	
10								1.0000						1007 Acces					L	131 LG31	10.576	ber year			
19	0.9477	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000							1996 Avg	11.29%	1.000							4th Last	+0.1% p	
20	0.9477	1.0000	1.0000	1.0000	1.0000	1.0000								Complemen			0.00.47						3rd Last	+0.0% p	
													ļ	1.0-0.1129= (	J.8871		0.8247						2nd Last		oer year
C.	•	ncurred Losses	•																			L	1st Last		oer year
1	6,181,000		5,169,557	4,616,566	3,404,097	3,705,402	4,478,660	5,436,836	4,367,449	4,077,968	6,150,319	3,325,544	3,275,884	5,594,328	2,447,080	3,188,490	3,669,341	3,724,530	3,455,344	7,192,624	6,961,079	4,871,955	5,741,961		4,894,467
2	8,559,000		7,204,997	6,425,692	5,685,213	6,056,207	7,551,263	8,904,201	6,352,445	6,450,455	9,269,896	5,595,218	5,094,625	6,615,460	4,426,812	4,704,074	6,714,362	6,826,563	6,561,596	11,723,305	9,306,469	7,983,656	8,233,729	7,734,859	
3	9,358,000		7,650,302	7,184,304	6,107,512	6,887,906		10,824,370	6,965,973		10,301,194	5,998,029	6,026,129	8,947,874	5,084,862	5,837,644	8,225,491	8,319,223	7,346,985			8,661,045	9,841,483		
4	10,016,000	10,576,000	7,955,452	7,644,338	7,314,026	7,362,001	8,490,153	11,966,090	7,287,256	7,268,321	12,018,140	5,597,263	6,053,552	9,233,530	5,276,335	6,918,124	8,373,419	9,121,284	7,461,258	12,108,278	11,602,180	9,151,489			
5	10,885,000	11,268,000	8,698,833	8,242,894	7,591,552	7,291,553	8,760,507	12,323,050	8,286,573	7,374,171	12,453,149	5,496,933	6,217,757	9,406,949	5,433,501	7,301,176	8,616,232	9,293,673	7,695,409	12,255,326	11,946,924				
6	11,045,000	11,950,000	8,527,476	8,275,893	7,679,135	7,454,081	8,994,827	13,133,004	8,109,584	7,418,021	11,984,386	5,215,101	6,349,621	9,432,764	5,295,524	7,158,740	8,635,331	9,459,392	7,652,267	12,193,222					
		11,951,000	8,464,405	8,429,042	7,685,857	7,462,274		12,772,686	8,140,325		12,178,272	5,237,407	6,471,573		5,295,524	7,274,640	8,518,115	9,796,893	7,741,765						
		12,057,750	8,453,559	8,382,835	7,718,721	7,475,918		12,539,319	7,865,421		12,484,769	5,251,578	6,933,809	9,453,964	5,295,524	7,246,831	8,518,112	9,853,320							
		12,181,640	8,385,552	8,467,821	7,754,976	7,486,544		12,455,797	7,459,231		12,600,820	5,372,852	6,720,431	9,672,629	5,295,524	7,433,505	8,518,075								
		12,047,901	8,461,485	8,565,347	8,091,638	7,480,132		12,228,895	7,494,451		12,368,018	5,948,585	6,652,402		5,295,724	7,433,505	2,213,070								
		12,121,809	8,504,790	8,647,604	8,094,480	7,481,252		12,023,866	7,400,303		12,470,444	6,000,946	6,693,877	9,539,005	5,425,367	, , 100,000									
		12,121,007	8,674,576	8,654,986	8,095,907	7,481,862		12,023,000	7,400,303		12,470,444	5,875,552	7,052,471	9,562,275	0,720,007										
		12,194,216	8,712,300	8,662,379	8,054,458	7,481,735		12,101,116	7,425,393 7,450,178	7,603,606		5,890,328	7,032,471	/,JUZ,Z/J	Motor	1004 Adii into	ent Easters	are capped	at a mavim:	m of 1 0000					
			8,712,300 8,797,458			7,481,735 7,481,735							/,1/4,/10			•					onding soci	on of last :-	ar's / Approx	ad) filipa	
		12,373,446		8,760,619	8,050,069		8,419,199		7,474,462	7,660,556		5,905,903				me lactors in	1 SECTION B W	ere raken un		m the corresp	bonding secti	on or iast ye	ais (Appiove	za, illing.	
		12,414,145	8,824,907	8,763,703	8,050,069	7,481,735		11,541,679	7,498,496		11,732,109														
		12,454,657	8,629,585	8,763,787	8,050,069	7,481,735		11,531,779	7,522,284	7,715,319						6	. = 1 1 1 1 2 2	A 2 (4)							
		12,494,644	8,640,604	8,764,731	8,050,069	7,481,735	8,471,584		7,545,808								A. Exhibit VI-/								
		12,534,389	8,660,130	8,767,395	8,050,069	7,481,735	8,485,139	11,555,724								[		d Claim Settle		Combined					
10	11 / 50 000	10 577 057	0.707./1/	0.000.00	0.050.070	7 401 725	0 400 / 20											\ F ~ \ \	/I A E -						

Exhibit VI-A-5a,VI-A-5b,VI-A-5c

C. A times B equals C

19 11,659,000 12,577,856 8,797,616 8,808,505 8,050,069 7,481,735 8,498,632

20 11,666,000 12,617,517 8,812,465 8,772,260 8,050,069 7,481,735

# Coal Mine Compensation Rating Bureau Traumatic Loss Development Incurred Indemnity and Funeral Losses for All Classes Combined

Report  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	1995 6,181,000 8,559,000 9,358,000 10,016,000 10,885,000 11,045,000 11,157,000 11,059,000 11,295,000 11,324,000 11,324,000 11,343,000 11,350,000 11,518,000 11,629,000 11,636,000 11,662,000 11,659,000	1996 6,228,000 9,143,000 10,241,000 10,576,000 11,268,000 11,950,000 11,951,000 12,057,750 12,181,640 12,047,901 12,121,809	1997 5,169,557 7,204,997 7,650,302 7,955,452 8,698,833 8,527,476 8,464,405 8,453,559 8,385,552 8,461,485 8,504,790 8,674,576 8,712,300 8,797,458 8,824,907 8,629,585 8,640,604 8,660,130 8,797,616	1998 4,616,566 6,425,692 7,184,304 7,644,338 8,242,894 8,275,893 8,429,042 8,382,835 8,467,821 8,565,347 8,647,604 8,654,986 8,662,379 8,760,619 8,763,703 8,763,703 8,763,787 8,764,731 8,767,395 8,808,505	1999 3,404,097 5,685,213 6,107,512 7,314,026 7,591,552 7,679,135 7,685,857 7,718,721 7,754,976 8,091,638 8,094,480 8,095,907 8,050,069 8,050,069 8,050,069 8,050,069 8,050,069 8,050,069 8,050,069 8,050,069	2000 3,705,402 6,056,207 6,887,906 7,362,001 7,291,553 7,454,081 7,462,274 7,475,918 7,486,544 7,480,132 7,481,252 7,481,735 7,481,735 7,481,735 7,481,735 7,481,735 7,481,735 7,481,735 7,481,735 7,481,735 7,481,735	7,965,255 8,490,153 8,760,507 8,994,827 8,879,879 8,693,906 8,481,353 8,515,273 8,549,118 8,582,610 8,612,926 8,419,199 8,433,117	2002 5,436,836 8,904,201 10,824,370 11,966,090 12,323,050 13,133,004 12,772,686 12,539,319 12,455,797 12,228,895 12,023,866 12,101,118 12,053,898 11,535,171 11,541,679 11,531,779 11,543,628	of 04/30/20 2003 4,367,449 6,352,445 6,965,973 7,287,256 8,286,573 8,109,584 8,140,325 7,865,421 7,459,231 7,494,451 7,400,303 7,425,395 7,450,178 7,474,462	2004 4,077,968 6,450,455 7,304,561 7,268,321 7,374,171 7,418,021 7,469,216 7,498,081 7,539,604 7,586,354 7,633,071 7,603,806 7,631,230	12,084,066	2006 3,325,544 5,595,218 5,998,029	2007 3,275,884 5,094,625 6,026,129 6,053,552 6,217,757 6,349,621 6,471,573 6,933,809 6,720,431 6,652,402 6,693,877	2008 5,594,328 6,615,460 8,947,874 9,233,530 9,406,949 9,432,764	2009 2,447,080 4,426,812 5,084,862 5,276,335 5,433,501 5,295,524 5,295,524 5,295,524 5,295,524	2010 3,188,490 4,704,074 5,837,644 6,918,124 7,301,176 7,158,740 7,274,640 7,246,831 7,433,505 7,433,505	8,616,232 8,635,331		7,346,985 7,461,258 7,695,409 7,652,267	2014 7,192,624 11,723,305 11,781,410 12,108,278 12,255,326 12,193,222	11,602,180	2016 4,871,955 7,983,656 8,661,045 9,151,489	2017 5,741,961 8,233,729 9,841,483	2018 5,566,332 7,734,859	<u>2019</u> 4,894,467
B. 1:2 2:3 3:4 4:5 5:6 6:7 7:8 8:9 9:10 10:11 11:12 12:13 13:14 14:15 15:16 16:17 17:18 18:19 19:20	1.0096 1.0006 1.0022 0.9997 1.0006	1.0033 1.0033 1.0032 1.0032 1.0035 1.0032	1.0098 1.0031 0.9779 1.0013 1.0023 1.0159 1.0017	1.0009 1.0113 1.0004 1.0000 1.0001 1.0003 1.0047 0.9959	1.0002 0.9949 0.9995 1.0000 1.0000 1.0000 1.0000 1.0000	1.0001 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0040 1.0040 1.0039 1.0035 0.9775 1.0017 0.9997 1.0048 1.0016	0.9933 0.9818 0.9832 1.0064 0.9961 0.9570 1.0006 0.9991 1.0010	0.9662 0.9484 1.0047 0.9874 1.0034 1.0033 1.0032 1.0032	1.0069 1.0039 1.0055 1.0062 1.0062 0.9962 1.0036 1.0036	0.9624 1.0162 1.0252 1.0093 0.9815 1.0083 0.9730 1.0036 0.9924 0.9709	0.9821 0.9487 1.0043 1.0027 1.0231 1.1072 1.0088 0.9791 1.0025 1.0026	1.0046 1.0271 1.0212 1.0192 1.0714 0.9692 0.9899 1.0062 1.0536 1.0173	1.3526 1.0319 1.0188 1.0027 1.0117 0.9907 1.0231 0.9772 1.0092 1.0024	1.8090 1.1487 1.0377 1.0298 0.9746 1.0000 1.0000 1.0000 1.0000 1.0245	1.4753 1.2410 1.1851 1.0554 0.9805 1.0162 0.9962 1.0258 1.0000	1.8299 1.2251 1.0180 1.0290 1.0022 0.9864 1.0000 1.0000	1.8329 1.2187 1.0964 1.0189 1.0178 1.0357 1.0058	1.8990 1.1197 1.0156 1.0314 0.9944 1.0117	1.6299 1.0050 1.0277 1.0121 0.9949	1.3369 1.2175 1.0239 1.0297	1.6387 1.0848 1.0566	1.4340 1.1953	1.3896	
C. 1:2 2:3 3:4 4:5 5:6 6:7 7:8 8:9 9:10 10:11 11:12 12:13 13:14 14:15 15:16 16:17 17:18 18:19 19:20	Summary					•	Straight V	Weighted	10 Year Average Ex. Hi/Lo 1.6299 1.1814 1.0385 1.0246 0.9912 1.0108 1.0031 1.0029 0.9960 1.0038 0.9990 1.0017 0.9986 1.0015 1.0011 1.0013 1.0012 1.0020 1.0006				Average of Middle Four 1.5732 1.1608 1.0407 1.0257 0.9922 1.0108 1.0060 1.0042 1.0004 1.0064 0.9997 1.0029 0.9932 0.9986 1.0006 1.0015 1.0015 1.0035 1.0004	E	Straight Av	s Developm of Straight A Averages for rerages for 1	ent Factors verages for or 10 and 6 ye	10 and 6 ye ears, ırs excluding		llowest,					

Average of middle 4 of above 6 averages.

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# Coal Mine Compensation Rating Bureau Traumatic Loss Development Indemnity Claim Settlement Adjustment Factors Summary of Data and Selections

	(1)	(2)
Data	0 to 10	0 to 10
<u>as of</u>	<u>Development</u>	<u>Selection</u>
4/30/2005	0.3%	0.5%
4/30/2004	0.8%	0.5%
4/30/2003	1.4%	0.5%
4/30/2002	1.0%	1.0%
4/30/2001	2.2%	1.5%
4/30/2000	3.1%	2.0%
4/30/1999	2.7%	2.0%
4/30/1998	2.8%	2.0%
<u>4/30/1997</u>	<u>2.2%</u>	<u>2.0%</u>
Total	16.5%	12.0%
	(3)	(4)
Data	10 to 20	10 to 20
<u>as of</u>	<u>Development</u>	<u>Selection</u>
4/30/2010	0.0%	0.0%
4/30/2009	0.1%	0.0%
4/30/2008	0.0%	0.0%
4/30/2007	0.1%	0.1%
4/30/2006	0.2%	0.2%
4/30/2005	0.4%	0.2%
4/30/2004	0.2%	0.2%
4/30/2003	0.9%	0.3%
4/30/2002	0.5%	0.6%
4/30/2001	1.4%	0.9%
4/30/2000	4.4%	1.2%
4/30/1999	0.1%	1.2%
4/30/1998	0.0%	1.2%
<u>4/30/1997</u>	<u>0.0%</u>	1.2%
Total	8.3%	7.3%

### Sources:

- (1) Exhibit VI-A Page 5b
- (2) Exhibit VI-A Page 5b
- (3) Exhibit VI-A Page 5c for 2001-2010, Filing effective 4/1/2009 for 1997-2000
- (4) Exhibit VI-A Page 5c for 2001-2010, Filing effective 4/1/2009 for 1997-2000

Note: Personnel from the CMCRB have concluded that the impact of Act 57 has waned to the point that the Claim Settlement effect for this year and future years is zero(0.00). Thus this Exhibit will no longer be updated.

# Coal Mine Compensation Rating Bureau Traumatic Loss Development

Indemnity Claim Settlement Adjustment Factors - 1st to 10th Report

	(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)
Accident	4/30/1997	12 Month			Accident	4/30/1998	12 Month			Accident	4/30/1999	12 Month			Accident	4/30/2000	12 Month		
<u>Year</u>	Rpt.Loss <sup>14</sup>	Fav Dev <sup>(4)</sup>	<u>(2) / (1)</u>	<u>Selection</u>	<u>Year</u>	Rpt.Loss <sup>(4)</sup>	Fav Dev <sup>14</sup>	<u>(2) / (1)</u>	<u>Selection</u>	<u>Year</u>	Rpt.Loss <sup>(4)</sup>	Fav Dev <sup>(a)</sup>	<u>(2) / (1)</u>	<u>Selection</u>	<u>Year</u>	Rpt.Loss <sup>(4)</sup>	Fav Dev <sup>(4)</sup>	<u>(2) / (1)</u>	<u>Selection</u>
1987	18,806	759	4.0%	XX	1988	16,032	0	0.0%	XX	1989	18,878	368	1.9%	XX	1990	29,328		2.7%	XX
1988	15,731	926	5.9%	XX	1989	19,106	874	4.6%	XX	1990	29,654	1150	3.9%	XX	1991	19,165	457	2.4%	XX
1989	19,920	856	4.3%	XX	1990	30,400	1150	3.8%	XX	1991	19,430	596	3.1%	XX	1992	23,117	988	4.3%	XX
1990	30,426	478	1.6%	XX	1991	19,984	544	2.7%	XX	1992	24,122	491	2.0%	XX	1993	20,137	0	0.0%	XX
1991	19,515	319	1.6%	XX	1992	24,216	651	2.7%	XX	1993	19,482	440	2.3%	XX	1994	20,495	1321	6.4%	XX
1992	23,283	0	0.0%	XX	1993	19,117	919	4.8%	XX	1994	21,755	656	3.0%	XX	1995	12,031	0	0.0%	XX
1993	17,896	445	2.5%	XX	1994	21,058	337	1.6%	XX	1995	11,322	127	1.1%	XX	1996	10,936	663	6.1%	XX
1994	19,319	0	0.0%	XX	1995	10,822	349	3.2%	XX	1996	10,813	296	2.7%	XX	1997	XX	XX	XX	XX
<u> 1995</u>	10,133	<u>O</u>	0.0%	XX	<u> 1996</u>	<u>9,862</u>	<u>O</u>	0.0%	XX	<u> 1997</u>	XX	XX	XX	XX	<u> 1998</u>	XX	XX	XX	<u>xx</u>
Total	175,029	3,783	2.2%	2.0%	Total	170,597	4,824	2.8%	2.0%	Total	155,456	4,124	2.7%	2.0%	Total	135,209	4,229	3.1%	2.0%
	(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)
Accident	(1) 4/30/2001	(2) 12 Month	(3)	(4)	Accident	4/30/2002	(2) 12 Month	(3)	(4)	Accident	4/30/2003	12 Month	(3)	(4)	Accident	4/30/2004	(2) 12 Month	(3)	(4)
Accident <u>Year</u>			(3) (2) / (1)	(4) Selection	Accident <u>Year</u>	4/30/2002		(3) (2) / (1)	(4) Selection	Accident <u>Year</u>	4/30/2003		(3) (2) / (1)	(4) Selection	Accident <u>Year</u>			(3) (2) / (1)	(4) Selection
<u>Year</u> 1991	4/30/2001 <u>Rpt.Loss<sup>(a)</sup></u> 19,058	12 Month Fav_Dev <sup>(a)</sup> 244	<u>(2) / (1)</u> 1.3%		<u>Year</u> 1992	4/30/2002 <u>Rpt.Loss<sup>(a)</sup></u> 22,275	12 Month Fav_Dev <sup>(a)</sup>	<u>(2) / (1)</u> 0.0%		<u>Year</u> 1993	4/30/2003 <u>Rpt.Loss<sup>(a)</sup></u> 19,361	12 Month Fav_Dev <sup>(a)</sup> 236	<u>(2) / (1)</u> 1.2%		<u>Year</u> 1994	4/30/2004 <u>Rpt.Loss<sup>(a)</sup></u> 20,243	12 Month Fav_Dev <sup>(a)</sup>	<u>(2) / (1)</u> 1.8%	
<u>Year</u> 1991 1992	4/30/2001 <u>Rpt.Loss<sup>(a)</sup></u> 19,058 22,030	12 Month <u>Fav_Dev<sup>(a)</sup></u> 244 813	(2) / (1)	<u>Selection</u>	<u>Year</u>	4/30/2002 Rpt.Loss <sup>(a)</sup>	12 Month Fav_Dev <sup>(a)</sup> 0 314	(2) / (1) 0.0% 1.6%	<u>Selection</u>	<u>Year</u>	4/30/2003 <u>Rpt.Loss<sup>(a)</sup></u> 19,361 20,681	12 Month <u>Fav_Dev<sup>(a)</sup></u>	(2) / (1)	<u>Selection</u>	<u>Year</u>	4/30/2004 Rpt.Loss <sup>(a)</sup>	12 Month Fav_Dev <sup>(a)</sup>	(2) / (1) 1.8% 0.0%	<u>Selection</u>
<u>Year</u> 1991 1992 1993	4/30/2001 <u>Rpt.Loss<sup>(a)</sup></u> 19,058 22,030 19,887	12 Month <u>Fav_Dev<sup>(a)</sup></u> 244 813 522	(2) / (1) 1.3% 3.7% 2.6%	Selection xx	<u>Year</u> 1992 1993 1994	4/30/2002 Rpt.Loss <sup>(a)</sup> 22,275 20,029 21,125	12 Month Fav_Dev <sup>(a)</sup> 0 314 214	(2) / (1) 0.0% 1.6% 1.0%	Selection xx	<u>Year</u> 1993 1994 1995	4/30/2003 <u>Rpt.Loss<sup>(a)</sup></u> 19,361 20,681 11,831	12 Month Fav_Dev <sup>(a)</sup> 236	(2) / (1) 1.2% 3.1% 0.0%	Selection xx	<u>Year</u> 1994 1995 1996	4/30/2004 <u>Rpt.Loss<sup>(a)</sup></u> 20,243	12 Month Fav_Dev <sup>(a)</sup> 368	<u>(2) / (1)</u> 1.8%	Selection xx
<u>Year</u> 1991 1992	4/30/2001 <u>Rpt.Loss<sup>(a)</sup></u> 19,058 22,030	12 Month <u>Fav_Dev<sup>(a)</sup></u> 244 813	(2) / (1) 1.3% 3.7%	Selection xx xx	<u>Year</u> 1992 1993	4/30/2002 <u>Rpt.Loss</u> <sup>(a)</sup> 22,275 20,029	12 Month Fav_Dev <sup>(a)</sup> 0 314	(2) / (1) 0.0% 1.6%	Selection xx xx	<u>Year</u> 1993 1994	4/30/2003 <u>Rpt.Loss<sup>(a)</sup></u> 19,361 20,681	12 Month <u>Fav_Dev<sup>(a)</sup></u> 236 637	(2) / (1) 1.2% 3.1%	Selection xx xx	<u>Year</u> 1994 1995	4/30/2004 <u>Rpt.Loss<sup>(a)</sup></u> 20,243 11,907	12 Month Fav_Dev <sup>(a)</sup> 368 0 0	(2) / (1) 1.8% 0.0%	Selection xx xx
<u>Year</u> 1991 1992 1993 1994 1995	4/30/2001 <u>Rpt.Loss<sup>(a)</sup></u> 19,058 22,030 19,887	12 Month <u>Fav_Dev<sup>(a)</sup></u> 244 813 522	(2) / (1) 1.3% 3.7% 2.6%	Selection xx xx xx xx	<u>Year</u> 1992 1993 1994	4/30/2002 Rpt.Loss <sup>(a)</sup> 22,275 20,029 21,125	12 Month Fav_Dev <sup>(a)</sup> 0 314 214	(2) / (1) 0.0% 1.6% 1.0%	Selection xx xx xx xx	<u>Year</u> 1993 1994 1995	4/30/2003 <u>Rpt.Loss<sup>(a)</sup></u> 19,361 20,681 11,831	12 Month <u>Fav_Dev<sup>(a)</sup></u> 236 637 0	(2) / (1) 1.2% 3.1% 0.0%	Selection xx xx xx xx	<u>Year</u> 1994 1995 1996	4/30/2004 <u>Rpt.Loss<sup>(a)</sup></u> 20,243 11,907 11,994	12 Month Fav_Dev <sup>(a)</sup> 368 0 0 0	(2) / (1) 1.8% 0.0% 0.0%	Selection xx xx xx xx
<u>Year</u> 1991 1992 1993 1994	4/30/2001 Rpt.Loss <sup>(a)</sup> 19,058 22,030 19,887 20,719	12 Month <u>Fav_Dev<sup>(a)</sup></u> 244 813 522 434	(2) / (1) 1.3% 3.7% 2.6% 2.1%	Selection xx xx xx xx xx	<u>Year</u> 1992 1993 1994 1995	4/30/2002 Rpt.Loss <sup>(a)</sup> 22,275 20,029 21,125 12,001	12 Month Fav_Dev <sup>(a)</sup> 0 314 214 354	(2) / (1) 0.0% 1.6% 1.0% 2.9%	Selection  xx  xx  xx  xx  xx	<u>Year</u> 1993 1994 1995 1996	4/30/2003 <u>Rpt.Loss<sup>(a)</sup></u> 19,361 20,681 11,831 11,985	12 Month <u>Fav_Dev<sup>(a)</sup></u> 236 637 0 0	(2) / (1) 1.2% 3.1% 0.0% 0.0%	Selection xx xx xx xx xx	<u>Year</u> 1994 1995 1996 1997	4/30/2004 <u>Rpt.Loss</u> <sup>(a)</sup> 20,243 11,907 11,994 xx	12 Month Fav_Dev <sup>(a)</sup> 368 0 0 xx	(2) / (1) 1.8% 0.0% 0.0% xx	Selection xx xx xx xx xx
Year 1991 1992 1993 1994 1995 1996	4/30/2001 Rpt.Loss <sup>(a)</sup> 19,058 22,030 19,887 20,719 12,009	12 Month Fav_Dev <sup>(a)</sup> 244 813 522 434 162	(2) / (1) 1.3% 3.7% 2.6% 2.1% 1.3%	Selection  xx  xx  xx  xx  xx  xx	<u>Year</u> 1992 1993 1994 1995 1996	4/30/2002 Rpt.Loss <sup>(a)</sup> 22,275 20,029 21,125 12,001 12,046	12 Month Fav_Dev <sup>(a)</sup> 0 314 214 354 0	(2) / (1) 0.0% 1.6% 1.0% 2.9% 0.0%	Selection xx xx xx xx xx	<u>Year</u> 1993 1994 1995 1996 1997 1998	4/30/2003 <u>Rpt.Loss<sup>(a)</sup></u> 19,361 20,681 11,831 11,985 xx	12 Month Fav_Dev <sup>(a)</sup> 236 637 0 0 xx	(2) / (1) 1.2% 3.1% 0.0% 0.0% xx	Selection xx xx xx xx xx xx	<u>Year</u> 1994 1995 1996 1997 1998	4/30/2004 <u>Rpt.Loss<sup>(a)</sup></u> 20,243 11,907 11,994 xx xx	12 Month Fav_Dev <sup>(a)</sup> 368 0 0 0 xx xx	(2) / (1) 1.8% 0.0% 0.0% ×x ×x	Selection xx xx xx xx xx xx
<u>Year</u> 1991 1992 1993 1994 1995	4/30/2001 Rpt.Loss <sup>(a)</sup> 19,058 22,030 19,887 20,719 12,009 11,474	12 Month Fav_Dev <sup>(a)</sup> 244 813 522 434 162 156	(2) / (1) 1.3% 3.7% 2.6% 2.1% 1.3% 1.4%	Selection  xx  xx  xx  xx  xx  xx  xx	<u>Year</u> 1992 1993 1994 1995 1996	4/30/2002 Rpt.Loss <sup>(a)</sup> 22,275 20,029 21,125 12,001 12,046 xx	12 Month Fav_Dev <sup>(a)</sup> 0 314 214 354 0 xx	(2) / (1) 0.0% 1.6% 1.0% 2.9% 0.0% xx	Selection  xx  xx  xx  xx  xx  xx  xx	<u>Year</u> 1993 1994 1995 1996 1997	4/30/2003 Rpt.Loss <sup>(a)</sup> 19,361 20,681 11,831 11,985 xx xx	12 Month Fav_Dev <sup>(a)</sup> 236 637 0 0 xx xx	(2) / (1) 1.2% 3.1% 0.0% 0.0% xx xx	Selection  xx  xx  xx  xx  xx  xx  xx	<u>Year</u> 1994 1995 1996 1997 1998	4/30/2004 <u>Rpt.Loss</u> <sup>(a)</sup> 20,243 11,907 11,994 xx xx	12 Month Fav_Dev <sup>(a)</sup> 368 0 0 xx xx xx	(2) / (1) 1.8% 0.0% 0.0% xx xx xx	Selection  XX  XX  XX  XX  XX  XX  XX
Year 1991 1992 1993 1994 1995 1996	4/30/2001 Rpt.Loss <sup>(a)</sup> 19,058 22,030 19,887 20,719 12,009 11,474 xx xx	12 Month Fav_Dev <sup>(a)</sup> 244 813 522 434 162 156 xx xx xx	(2) / (1) 1.3% 3.7% 2.6% 2.1% 1.3% 1.4% ×x ×x	Selection  xx  xx  xx  xx  xx  xx  xx  xx  xx	<u>Year</u> 1992 1993 1994 1995 1996 1997	4/30/2002 Rpt.Loss <sup>(a)</sup> 22,275 20,029 21,125 12,001 12,046 xx xx xx	12 Month Fav_Dev <sup>(a)</sup> 0 314 214 354 0 xx xx xx	(2) / (1) 0.0% 1.6% 1.0% 2.9% 0.0% xx xx xx	Selection  xx  xx  xx  xx  xx  xx  xx  xx  xx	<u>Year</u> 1993 1994 1995 1996 1997 1998	4/30/2003 <u>Rpt.Loss</u> <sup>(a)</sup> 19,361 20,681 11,831 11,985 xx xx xx xx	12 Month Fav_Dev <sup>(a)</sup> 236 637 0 0 xx xx xx xx	(2) / (1) 1.2% 3.1% 0.0% 0.0% ×x ×x ×x ×x	Selection  xx  xx  xx  xx  xx  xx  xx  xx  xx	Year 1994 1995 1996 1997 1998 1999 2000	4/30/2004 Rpt.Loss <sup>(a)</sup> 20,243 11,907 11,994 xx xx xx xx xx	12 Month Fav_Dev <sup>(a)</sup> 368 0 0 0 xx xx xx xx	(2) / (1) 1.8% 0.0% 0.0% xx xx xx xx xx xx	Selection  XX  XX  XX  XX  XX  XX  XX  XX  XX
Year 1991 1992 1993 1994 1995 1996 1997 1998	4/30/2001 Rpt.Loss <sup>(a)</sup> 19,058 22,030 19,887 20,719 12,009 11,474 xx	12 Month Fav_Dev <sup>(a)</sup> 244 813 522 434 162 156 xx xx	(2) / (1) 1.3% 3.7% 2.6% 2.1% 1.3% 1.4% xx	Selection  xx  xx  xx  xx  xx  xx  xx  xx  xx	Year 1992 1993 1994 1995 1996 1997 1998 1999	4/30/2002 Rpt.Loss <sup>(a)</sup> 22,275 20,029 21,125 12,001 12,046 xx xx	12 Month Fav_Dev <sup>(a)</sup> 0 314 214 354 0 xx xx	(2) / (1) 0.0% 1.6% 1.0% 2.9% 0.0% xx xx	Selection  xx  xx  xx  xx  xx  xx  xx  xx  xx	Year 1993 1994 1995 1996 1997 1998 1999 2000	4/30/2003 <u>Rpt.Loss</u> <sup>(a)</sup> 19,361 20,681 11,831 11,985 xx xx	12 Month Fav_Dev <sup>(a)</sup> 236 637 0 0 xx xx xx	(2) / (1) 1.2% 3.1% 0.0% 0.0% xx xx xx xx	Selection  xx  xx  xx  xx  xx  xx  xx  xx  xx	Year 1994 1995 1996 1997 1998 1999 2000 2001	4/30/2004 <u>Rpt.Loss</u> <sup>(a)</sup> 20,243 11,907 11,994 xx xx xx xx	12 Month Fav_Dev <sup>(a)</sup> 368 0 0 0 xx xx xx	(2) / (1) 1.8% 0.0% 0.0% xx xx xx xx xx	Selection  xx  xx  xx  xx  xx  xx  xx  xx  xx

	(1)	(2)	(3)	(4)
Accident	4/30/2005	12 Month		
<u>Year</u>	Rpt.Loss <sup>(a)</sup>	Fav Dev <sup>(a)</sup>	(2) / (1)	<u>Selection</u>
1995	11,956	70	0.6%	XX
1996	12,182	0	0.0%	XX
1997	XX	0	XX	XX
1998	XX	0	XX	XX
1999	XX	XX	XX	XX
2000	XX	XX	XX	XX
2001	XX	XX	XX	XX
2002	XX	XX	XX	XX
<u>2003</u>	XX	XX	XX	XX
Total	24,138	70	0.3%	0.5%

Note: Personnel from the CMCRB have concluded that the impact of Act 57 has waned to the point that the Claim Settlement effect for this year and future years is zero(0.00). Thus this Exhibit will no longer be updated.

(a) All amounts are in thousands of dollars

Sources: Column (1) Exhibit VI-A p. 1a CMCRB Data Base

# Coal Mine Compensation Rating Bureau Traumatic Loss Development Indemnity Claim Settlement Adjustment Factors - Beyond 10th Report

Accident	(1) 4/30/2001	(2) 12 Month	(3)	(4)	Accident	(1) 4/30/2002	(2) 12 Month	(3)	(4)	Accident	(1) 4/30/2003	(2) 12 Month	(3)	(4)	Accident	(1) 4/30/2004	(2) 12 Month	(3)	(4)
<u>Year</u>	Rpt.Loss <sup>(a)</sup>	Fav_Dev <sup>(a)</sup>	<u>(2) / (1)</u>	<u>Selection</u>	<u>Year</u>	Rpt.Loss <sup>(a)</sup>	Fav_Dev <sup>(a)</sup>	(2) / (1)	<u>Selection</u>	<u>Year</u>		Fav_Dev <sup>(a)</sup>	(2) / (1)	<u>Selection</u>	<u>Year</u>		Fav_Dev <sup>(a)</sup>	(2) / (1)	<u>Selection</u>
1983	19,728	283	1.4%	XX	1983	19,581	0	0.0%	XX	1983	19,537	132	0.7%	XX	1983	19,617	0	0.0%	XX
1984	25,745	185	0.7%	XX	1984	25,801	0	0.0%	XX	1984	25,724	0	0.0%	XX	1984	25,837	0	0.0%	XX
1985	16,662	219	1.3%	XX	1985	16,776	0	0.0%	XX	1985	16,860	0	0.0%	XX	1985	16,954	0	0.0%	XX
1986	18,002	194	1.1%	XX	1986	17,729	221	1.2%	XX	1986	17,764	0	0.0%	XX	1986	17,812	0	0.0%	XX
1987	17,785	0	0.0%	XX	1987	17,924	0	0.0%	XX	1987	17,933	122	0.7%	XX	1987	18,072	0	0.0%	XX
1988	15,926	194	1.2%	XX	1988	15,795	217	1.4%	XX	1988	15,878	0	0.0%	XX	1988	15,845	0	0.0%	XX
1989	18,586	0	0.0%	XX	1989	18,938	0	0.0%	XX	1989	18,878	0	0.0%	XX	1989	18,876	0	0.0%	XX
1990	28,447	1222	4.3%	XX	1990	28,697	0	0.0%	XX	1990	28,678	294	1.0%	XX	1990	28,968	0	0.0%	XX
1991	XX	XX	XX	XX	1991	18,465	442	2.4%	XX	1991	18,005	458	2.5%	XX	1991	18,078	16	0.1%	XX
<u> 1992</u>	XX	XX	XX	XX	<u> 1992</u>	XX	XX	XX	XX	<u> 1992</u>	<u>21,860</u>	<u>835</u>	<u>3.8%</u>	XX	1992	21,375	32	0.1%	XX
Total	160,881	2,297	1.4%	0.9%	Total	179,706	880	0.5%	0.6%	Total	201,117	1,841	0.9%	0.3%	<u>1993</u>	<u>19,300</u>	<u>358</u>	<u>1.9%</u>	XX
															Total	220,734	406	0.2%	0.2%
	(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)
Accident	4/30/2005	12 Month			Accident	4/30/2006	12 Month			Accident	4/30/07	12 Month			Accident	4/30/2008	12 Month		
<u>Year</u>	Rpt.Loss <sup>(a)</sup>	<u>Fav Dev<sup>(a)</sup></u>	(2) / (1)	<u>Selection</u>	<u>Year</u>	Rpt.Loss <sup>(a)</sup>	<u>Fav Dev<sup>(a)</sup></u>	(2) / (1)	<u>Selection</u>	<u>Year</u>		Fav Dev <sup>(a)</sup>	(2) / (1)	<u>Selection</u>	<u>Year</u>		Fav Dev <sup>(a)</sup>	(2) / (1)	<u>Selection</u>
1983	19,558	Fav Dev <sup>(a)</sup> 0	0.0%	Selection xx	1983	19,629	Fav Dev <sup>(a)</sup>	0.0%	<u>Selection</u> xx	1983	19,485	Fav Dev <sup>(a)</sup>	0.0%	<u>Selection</u> xx	1983	19,478	0	0.0%	<u>Selection</u> xx
1983 1984	19,558 26,025		0.0% 0.0%		1983 1984	19,629 25,971		0.0% 0.0%		1983 1984	19,485 26,136	Fav Dev <sup>(a)</sup> 0 0	0.0% 0.0%		1983 1984	19,478 26,205		0.0% 0.0%	
1983 1984 1985	19,558 26,025 17,068	0	0.0% 0.0% 0.0%	XX	1983 1984 1985	19,629 25,971 17,182	0 0 0	0.0% 0.0% 0.0%	XX	1983 1984 1985	19,485 26,136 17,144	0	0.0% 0.0% 0.0%	XX	1983 1984 1985	19,478 26,205 16,838	0 0 0	0.0% 0.0% 0.0%	XX
1983 1984 1985 1986	19,558 26,025 17,068 17,907	0 0 0	0.0% 0.0% 0.0% 0.0%	xx xx	1983 1984 1985 1986	19,629 25,971 17,182 17,896	0 0 0 94	0.0% 0.0% 0.0% 0.5%	XX XX	1983 1984 1985 1986	19,485 26,136 17,144 17,999	0 0 0	0.0% 0.0% 0.0% 0.0%	xx xx	1983 1984 1985 1986	19,478 26,205 16,838 18,146	0 0 0	0.0% 0.0% 0.0% 0.0%	xx xx xx xx
1983 1984 1985 1986 1987	19,558 26,025 17,068 17,907 18,208	0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx	1983 1984 1985 1986 1987	19,629 25,971 17,182 17,896 18,028	0 0 0 94 295	0.0% 0.0% 0.0% 0.5% 1.6%	xx xx xx	1983 1984 1985 1986 1987	19,485 26,136 17,144 17,999 18,007	0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx	1983 1984 1985 1986 1987	19,478 26,205 16,838 18,146 18,110	0 0 0	0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx
1983 1984 1985 1986 1987 1988	19,558 26,025 17,068 17,907 18,208 15,700	0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx	1983 1984 1985 1986 1987 1988	19,629 25,971 17,182 17,896 18,028 15,763	0 0 94 295 0	0.0% 0.0% 0.0% 0.5% 1.6% 0.0%	xx xx xx xx	1983 1984 1985 1986 1987 1988	19,485 26,136 17,144 17,999 18,007 15,827	0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	XX XX XX XX	1983 1984 1985 1986 1987 1988	19,478 26,205 16,838 18,146 18,110 15,892	0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx
1983 1984 1985 1986 1987 1988 1989	19,558 26,025 17,068 17,907 18,208 15,700 18,503	0 0 0 0 0 0 380	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 2.1%	xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989	19,629 25,971 17,182 17,896 18,028 15,763 18,538	0 0 94 295 0	0.0% 0.0% 0.5% 1.6% 0.0%	xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989	19,485 26,136 17,144 17,999 18,007 15,827 18,579	0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	XX XX XX XX	1983 1984 1985 1986 1987 1988 1989	19,478 26,205 16,838 18,146 18,110 15,892 18,621	0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx
1983 1984 1985 1986 1987 1988 1989	19,558 26,025 17,068 17,907 18,208 15,700 18,503 29,336	0 0 0 0 0 0 380	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 2.1% 0.0%	xx xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989	19,629 25,971 17,182 17,896 18,028 15,763 18,538 29,409	0 0 94 295 0 0	0.0% 0.0% 0.0% 0.5% 1.6% 0.0% 0.0%	xx xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989	19,485 26,136 17,144 17,999 18,007 15,827 18,579 29,661	0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989	19,478 26,205 16,838 18,146 18,110 15,892 18,621 29,843	0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx
1983 1984 1985 1986 1987 1988 1989 1990	19,558 26,025 17,068 17,907 18,208 15,700 18,503 29,336 18,154	0 0 0 0 0 0 380 0	0.0% 0.0% 0.0% 0.0% 0.0% 2.1% 0.0%	xx xx xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989 1990	19,629 25,971 17,182 17,896 18,028 15,763 18,538 29,409 18,201	0 0 94 295 0 0 176	0.0% 0.0% 0.05% 0.5% 1.6% 0.0% 0.0% 0.6%	XX XX XX XX XX XX	1983 1984 1985 1986 1987 1988 1989 1990	19,485 26,136 17,144 17,999 18,007 15,827 18,579 29,661 18,272	0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	XX XX XX XX XX XX	1983 1984 1985 1986 1987 1988 1989 1990	19,478 26,205 16,838 18,146 18,110 15,892 18,621 29,843 18,318	0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx xx
1983 1984 1985 1986 1987 1988 1989 1990 1991	19,558 26,025 17,068 17,907 18,208 15,700 18,503 29,336 18,154 20,831	0 0 0 0 0 380 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989 1990 1991	19,629 25,971 17,182 17,896 18,028 15,763 18,538 29,409 18,201 20,921	0 0 94 295 0 0 176 0	0.0% 0.0% 0.5% 1.6% 0.0% 0.0% 0.6% 0.0%	XX XX XX XX XX XX XX	1983 1984 1985 1986 1987 1988 1989 1990 1991	19,485 26,136 17,144 17,999 18,007 15,827 18,579 29,661 18,272 20,665	0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	XX XX XX XX XX XX	1983 1984 1985 1986 1987 1988 1989 1990 1991	19,478 26,205 16,838 18,146 18,110 15,892 18,621 29,843 18,318 20,738	0 0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx xx xx
1983 1984 1985 1986 1987 1988 1989 1990 1991 1992	19,558 26,025 17,068 17,907 18,208 15,700 18,503 29,336 18,154 20,831 19,597	0 0 0 0 0 380 0 0 631	0.0% 0.0% 0.0% 0.0% 0.0% 2.1% 0.0% 0.0% 3.0%	xx xx xx xx xx xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993	19,629 25,971 17,182 17,896 18,028 15,763 18,538 29,409 18,201 20,921 19,782	0 0 94 295 0 0 176 0	0.0% 0.0% 0.5% 1.6% 0.0% 0.0% 0.6% 0.0% 0.0%	xx xx xx xx xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989 1990 1991 1992	19,485 26,136 17,144 17,999 18,007 15,827 18,579 29,661 18,272 20,665 19,781	0 0 0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	XX XX XX XX XX XX XX XX	1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993	19,478 26,205 16,838 18,146 18,110 15,892 18,621 29,843 18,318 20,738 19,744	0 0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx xx xx xx
1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994	19,558 26,025 17,068 17,907 18,208 15,700 18,503 29,336 18,154 20,831 19,597 20,328	0 0 0 0 0 380 0 0 631 0	0.0% 0.0% 0.0% 0.0% 0.0% 2.1% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994	19,629 25,971 17,182 17,896 18,028 15,763 18,538 29,409 18,201 20,921 19,782 20,479	0 0 94 295 0 0 176 0 0	0.0% 0.0% 0.05% 1.6% 0.0% 0.0% 0.6% 0.0% 0.0%	XX	1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994	19,485 26,136 17,144 17,999 18,007 15,827 18,579 29,661 18,272 20,665 19,781 20,635	0 0 0 0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	XX	1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994	19,478 26,205 16,838 18,146 18,110 15,892 18,621 29,843 18,318 20,738 19,744 20,796	0 0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx xx xx xx xx
1983 1984 1985 1986 1987 1988 1989 1990 1991 1992	19,558 26,025 17,068 17,907 18,208 15,700 18,503 29,336 18,154 20,831 19,597	0 0 0 0 0 380 0 0 631	0.0% 0.0% 0.0% 0.0% 0.0% 2.1% 0.0% 0.0% 3.0%	xx xx xx xx xx xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995	19,629 25,971 17,182 17,896 18,028 15,763 18,538 29,409 18,201 20,921 19,782 20,479 11,961	0 0 94 295 0 0 176 0 0	0.0% 0.0% 0.05% 1.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx xx xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995	19,485 26,136 17,144 17,999 18,007 15,827 18,579 29,661 18,272 20,665 19,781 20,635 11,960	0 0 0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	XX	1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995	19,478 26,205 16,838 18,146 18,110 15,892 18,621 29,843 18,318 20,738 19,744 20,796 11,969		0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx xx xx xx xx
1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994	19,558 26,025 17,068 17,907 18,208 15,700 18,503 29,336 18,154 20,831 19,597 20,328	0 0 0 0 0 380 0 0 631 0	0.0% 0.0% 0.0% 0.0% 0.0% 2.1% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994	19,629 25,971 17,182 17,896 18,028 15,763 18,538 29,409 18,201 20,921 19,782 20,479	0 0 94 295 0 0 176 0 0	0.0% 0.0% 0.05% 1.6% 0.0% 0.0% 0.6% 0.0% 0.0%	XX	1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996	19,485 26,136 17,144 17,999 18,007 15,827 18,579 29,661 18,272 20,665 19,781 20,635 11,960 12,122	0 0 0 0 0 0 0 0 0 167 0 9	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx xx xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996	19,478 26,205 16,838 18,146 18,110 15,892 18,621 29,843 18,318 20,738 19,744 20,796 11,969 12,194	0 0 0 0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx xx xx xx xx xx xx
1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994	19,558 26,025 17,068 17,907 18,208 15,700 18,503 29,336 18,154 20,831 19,597 20,328	0 0 0 0 0 380 0 0 631 0	0.0% 0.0% 0.0% 0.0% 0.0% 2.1% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995	19,629 25,971 17,182 17,896 18,028 15,763 18,538 29,409 18,201 20,921 19,782 20,479 11,961	0 0 94 295 0 0 176 0 0	0.0% 0.0% 0.05% 1.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx xx xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995	19,485 26,136 17,144 17,999 18,007 15,827 18,579 29,661 18,272 20,665 19,781 20,635 11,960	0 0 0 0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	XX	1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997	19,478 26,205 16,838 18,146 18,110 15,892 18,621 29,843 18,318 20,738 19,744 20,796 11,969 12,194 8,505	0 0 0 0 0 0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx xx xx xx xx xx xx
1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994	19,558 26,025 17,068 17,907 18,208 15,700 18,503 29,336 18,154 20,831 19,597 20,328	0 0 0 0 0 380 0 0 631 0	0.0% 0.0% 0.0% 0.0% 0.0% 2.1% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995	19,629 25,971 17,182 17,896 18,028 15,763 18,538 29,409 18,201 20,921 19,782 20,479 11,961	0 0 94 295 0 0 176 0 0	0.0% 0.0% 0.05% 1.6% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx xx xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996	19,485 26,136 17,144 17,999 18,007 15,827 18,579 29,661 18,272 20,665 19,781 20,635 11,960 12,122	0 0 0 0 0 0 0 0 0 167 0 9	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx xx xx xx xx xx xx	1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996	19,478 26,205 16,838 18,146 18,110 15,892 18,621 29,843 18,318 20,738 19,744 20,796 11,969 12,194	0 0 0 0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	xx xx xx xx xx xx xx xx xx xx xx xx xx

	(1)	(2)	(3)	(4)
Accident	4/30/2009	12 Month		
<u>Year</u>	Rpt.Loss <sup>(a)</sup>	Fav_Dev <sup>(a)</sup>	(2) / (1)	<u>Selection</u>
1983	19,527	0	0.0%	XX
1984	26,360	0	0.0%	XX
1985	16,906	0	0.0%	XX
1986	18,235	0	0.0%	XX
1987	18,212	0	0.0%	XX
1988	15,850	0	0.0%	XX
1989	18,662	0	0.0%	XX
1990	29,708	140	0.5%	XX
1991	18,252	104	0.6%	XX
1992	20,811	0	0.0%	XX
1993	19,892	0	0.0%	XX
1994	20,956	0	0.0%	XX
1995	11,976	0	0.0%	XX
1996	12,324	0	0.0%	XX
1997	8,675	0	0.0%	XX
<u> 1998</u>	<u>8,648</u>	<u>O</u>	0.0%	XX
Total .	284,994	244	0.1%	0.0%

Note: Personnel from the CMCRB have concluded that the impact of Act 57 has waned to the point that the Claim Settlement effect for this year and future years is zero(0.00). Thus this Exhibit will no longer be updated.

(a) All amounts are in thousands of dollars

Sources: Column (1) Exhibit VI-A p. 1a

CMCRB Database as of 04/30/20 - Validated 08/06/20 and prior

# Incurred Medical Losses for All Classes Combined

										Incuri	ed Medico	al Losses fo	or All Classo	es Combin	ed										
	Medical Repo		d Losses as c		1000	0000	0001	0000	0000	0004	0005	0007	0007	0000	0000	0010	0011	0010	0012	001.4	0015	0017	0017	0010	0010
Report	<u>1995</u> 3,946,197	<u>1996</u> 4,135,165	1997 3,185,472	<u>1998</u> 3,370,548	<u>1999</u> 2,714,671	<u>2000</u> 2,468,601	<u>2001</u> 2,225,216	<u>2002</u> 3,150,255	<u>2003</u> 2,579,313	<u>2004</u> 3,189,109	<u>2005</u> 3,700,850	<u>2006</u> 2,871,489	<u>2007</u> 5,478,955	<u>2008</u> 3,509,674	<u>2009</u> 2,761,649	<u>2010</u> 3,630,574	<u>2011</u> 4,362,098	<u>2012</u> 4,806,118	<u>2013</u> 3,639,740	<u>2014</u> 6,225,769	<u>2015</u> 4,054,856	<u>2016</u> 3,963,291	<u>2017</u> 6,387,089	<u>2018</u> 5,562,604	<u>2019</u> 4,076,893
2	4,443,755	4,133,163	3,103,472	3,630,642	3,012,839	2,716,963	2,589,253	3,609,439	2,812,481	3,555,290	4,031,513	3,286,804	5,501,458	3,749,858	3,021,605	3,914,782	5,517,261	5,258,148	4,294,769	6,357,441	3,955,258	4,465,934	5,881,984	5,421,768	4,076,673
3	4,353,568	4,689,720	3,598,928	3,628,890	3,186,033	2,818,387	2,646,248	3,762,837	2,794,988	4,147,713	4,161,949	3,511,501	5,575,559	3,709,814	2,891,686	4,167,466	5,633,374	5,404,121	4,076,856	6,043,218	3,953,405	4,190,581	6,006,389	3,421,700	
4		4,808,246	3,571,097	3,720,868	3,057,663	2,836,912	2,629,910	3,890,149	2,756,587	4,166,709	4,249,331	3,418,585	5,632,912	3,804,580	2,991,503	4,413,176	5,609,134	5,406,521	3,971,009	5,873,834	3,824,391	3,905,895	0,000,007		
5	4,416,259	4,806,190	3,810,363	3,709,153	3,188,781	2,885,530	2,816,076	3,874,531	2,912,119	4,131,369	4,143,155	3,401,038	5,757,902	3,837,840	2,983,393	4,604,796	5,673,084	5,519,600	4,074,140	5,883,352	3,909,083	0,700,070			
6	4,483,826	4,703,865	3,978,305	3,761,263	3,178,086	2,937,414	2,896,624	4,191,261	2,899,687	4,080,336	4,299,151	3,370,262	5,864,639	3,842,096	2,946,694	4,477,330	5,654,038	5,465,514	4,082,497	5,882,245	0,, 0,,000				
7		4,578,161	3,932,216	3,760,723	3,133,358	2,927,989	2,822,196	4,257,734	2,897,577	4,180,965	4,349,353	3,381,086	5,841,539	3,811,253	2,946,651	4,459,354	6,232,068	5,458,952	4,152,393	, , , ,					
8	4,706,403	4,617,085	3,951,475	3,791,456	3,171,882	2,921,384	2,789,664	4,339,920	2,890,067	4,187,418	4,411,495	3,382,185	5,950,133	3,599,483	2,986,651	4,338,559	6,232,068	5,445,673							
9	4,685,434	4,625,715	4,015,857	3,741,005	3,236,426	2,952,750	2,782,114	4,145,606	3,080,177	4,190,701	4,403,570	3,507,194	5,807,440	3,608,725	3,136,651	4,314,642	6,232,068								
10	4,668,534	4,651,769	4,393,793	3,777,626	3,357,242	2,950,698	2,879,623	4,160,518	3,110,017	4,206,298	4,356,915	3,729,031	5,819,126	3,619,059	3,137,264	4,315,637									
11	4,693,740	4,625,953	4,593,238	3,861,559	3,353,094	2,948,865		4,164,525	3,103,090	4,370,336	4,427,072	3,802,480	5,899,866	3,627,183	3,068,930										
12	4,815,890	4,594,309	4,586,566	3,843,219	3,409,251	3,021,208	3,005,905	4,194,244	3,209,975	4,350,145	4,413,282	3,748,522	5,991,937	3,633,896											
13	4,869,709	4,485,294	4,602,844	3,868,653	3,531,522	3,021,095	3,012,114	4,185,516	3,209,907	4,351,280	4,715,281	3,748,523	5,975,102												
14	4,793,570	4,501,155	4,627,844	3,851,694	3,532,688	3,020,836	3,143,372	4,205,064	3,209,709	4,376,929	4,715,272	3,748,522													
15	4,836,117	4,491,418 4,520,959	4,702,741 4,694,564	3,851,841 3,852,213	3,533,087 3,539,649	3,080,845 3,080,810	3,237,259 3,220,132	4,202,349 3,961,842	3,209,709 3,151,961	4,379,582 4,384,435	4,768,910														
17	4,865,082 4,883,436	4,520,757	4,723,464	3,838,125	3,539,760	2,872,279	3,006,814	3,961,842	3,151,761	4,364,433															
18		4,523,523	5,023,336	3,835,125				3,961,842	3,131,761																
19		4,536,280	5,023,336	3,834,626	3,535,783	2,872,279		0,701,012																	
20	5,276,620	4,528,080	5,023,209	3,834,646	3,536,162	2,872,279	0,0.0,0																		
В	Act 44 Medic	al Law Adjus	tment Facto	rs																					
1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			
5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
6	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000 1.0000	1.0000					
/ 8	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000						
9	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000							
10	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000								
11	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000									
12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000											
13	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000												
14	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000													
15	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000														
16	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000															
17	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000																
18	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000																	
19	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000																		
20	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000																			
C.	Medical Incu	rred Losses A	diusted to A	ct 44 Law Le	vel as of 04/	30/20																			
1			3,185,472				2,225,216	3,150,255	2,579,313	3,189,109	3,700,850	2,871,489	5,478,955	3,509,674	2,761,649	3,630,574	4,362,098	4,806,118	3,639,740	6,225,769	4,054,856	3,963,291	6,387,089	5,562,604	4,076,893
2	4,443,755	4,315,884	3,374,998	3,630,642	3,012,839	2,716,963	2,589,253	3,609,439	2,812,481	3,555,290	4,031,513	3,286,804	5,501,458	3,749,858	3,021,605	3,914,782	5,517,261	5,258,148	4,294,769	6,357,441	3,955,258	4,465,934	5,881,984	5,421,768	
3	4,353,568	4,689,720	3,598,928	3,628,890	3,186,033	2,818,387	2,646,248	3,762,837	2,794,988	4,147,713	4,161,949	3,511,501	5,575,559	3,709,814	2,891,686	4,167,466	5,633,374	5,404,121	4,076,856	6,043,218	3,953,405	4,190,581	6,006,389		
4	4,294,114	4,808,246	3,571,097	3,720,868	3,057,663	2,836,912	2,629,910	3,890,149	2,756,587	4,166,709	4,249,331	3,418,585	5,632,912			4,413,176	5,609,134	5,406,521	3,971,009	5,873,834	3,824,391	3,905,895			
5	4,416,259	4,806,190	3,810,363	3,709,153	3,188,781	2,885,530	2,816,076			4,131,369	4,143,155	3,401,038	5,757,902		2,983,393	4,604,796	5,673,084	5,519,600	4,074,140	5,883,352	3,909,083				
6	4,483,826	4,703,865	3,978,305	3,761,263	3,178,086	2,937,414	2,896,624	4,191,261	2,899,687	4,080,336	4,299,151	3,370,262	5,864,639	3,842,096	2,946,694	4,477,330	5,654,038	5,465,514	4,082,497	5,882,245					
7		4,578,161	3,932,216	3,760,723	3,133,358	2,927,989	2,822,196	4,257,734	2,897,577	4,180,965	4,349,353	3,381,086	5,841,539	3,811,253	2,946,651	4,459,354	6,232,068	5,458,952	4,152,393						
8		4,617,085	3,951,475	3,791,456	3,171,882	2,921,384	2,789,664	4,339,920	2,890,067	4,187,418	4,411,495	3,382,185	5,950,133	3,599,483	2,986,651	4,338,559	6,232,068	5,445,673							
10	4,685,434	4,625,715	4,015,857 4,393,793	3,741,005	3,236,426	2,952,750 2,950,698	2,782,114	4,145,606 4,140,518	3,080,177	4,190,701 4,206,298	4,403,570	3,507,194	5,807,440	3,608,725	3,136,651 3,137,264	4,314,642	6,232,068								
10	4,668,534 4,693,740	4,651,769 4,625,953	4,393,793 4,593,238	3,777,626 3,861,559	3,357,242 3,353,094		2,879,623 2,963,075	4,160,518 4,164,525	3,110,017 3,103,090	4,206,298	4,356,915 4,427,072	3,729,031 3,802,480	5,819,126 5,899,866	3,619,059 3,627,183	3,137,264	4,315,637									
12		4,594,309	4,586,566	3,843,219	3,409,251	3,021,208				4,370,336	4,427,072	3,748,522	5,991,937	3,633,896	5,000,730										
	4,869,709	4,485,294	4,602,844	3,868,653	3,531,522	3,021,200	3,012,114	4,185,516	3,207,773	4,351,280	4,715,281	3,748,523	5,975,102	5,555,676											
	4,793,570	4,501,155	4,627,844	3,851,694	3,532,688	3,020,836	3,143,372	4,205,064	3,209,709	4,376,929	4,715,272	3,748,522	5,. , 5,102												
15	4,836,117	4,491,418	4,702,741	3,851,841	3,533,087	3,080,845	3,237,259	4,202,349	3,209,709	4,379,582	4,768,910	,													
16	4,865,082	4,520,959	4,694,564	3,852,213	3,539,649	3,080,810	3,220,132	3,961,842	3,151,961	4,384,435															
17		4,514,259	4,723,464	3,838,125	3,539,760	2,872,279	3,006,814	3,961,842	3,151,961																
18	4,927,115	4,523,523	5,023,336	3,835,125			3,017,086	3,961,842																	
	4,917,010		5,023,336			2,872,279	3,018,743																		
20	5 274 420	4 528 O8O	5 023 209	3 831 616	3 534 142	2 872 279							Source: 4	A Loss Devel	onment Data	a. CMCBB D	atabase as	of 04/30/20 =	Validated 08	/04/20					

Source: A. Loss Development Data: CMCRB Database as of 04/30/20 - Validated 08/06/20 B. Act 44 Law Level Adjustment Factors from Exhibit VI-D Page 1

C. Medical Incurred Losses Adjusted to Act 44 Law Level = A x B

20 5,276,620 4,528,080 5,023,209 3,834,646 3,536,162 2,872,279

# Coal Mine Compensation Rating Bureau Traumatic Loss Development Incurred Medical Losses for All Classes Combined

A. Adjustment to Act 44 Law Level 1995 1996 1997 1998 1999 2001 2002 2010 2011 2013 2015 2000 <u>2003</u> 2004 2009 2012 2014 2016 2017 2018 Report 1.0000 10 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 11 12 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 13 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 14 1.0000 15 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 16 1.0000 17 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 18 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 19 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 20 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 Claim Settlement Level Additions are multiplied by the percentages at the top of each column. 100 B. Claim Settlement Adjustments Additions 0.0200 0.0200 0.0000 0.0400 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0400 0.0000 0.0000 0.0000 0.0000 0.0600 0.0550 0.0000 0.0750 0.0690 0.0000 0.0890 0.0820 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 Selected Claim Settlement Level Additions 0.1020 0.0940 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.1050 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 2.0% per year 0.1140 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 17th Last 0.0000 0.1250 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.1150 0.0000 0.0000 0.0000 16th Last 2.0% per year 0.1350 0.1230 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 2.0% per year 15th Last 10 0.1430 0.1280 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 14th Last 2.0% per year 0.0000 0.0000 0.1480 0.1280 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 11 13th Last 2.0% per year 12 0.1480 0.1280 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 12th Last 1.5% per year 13 0.1280 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.1480 0.0000 11th Last 1.4% per year 10th Last 14 0.1480 0.1280 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 1.3% per year 15 0.1280 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.1480 9th Last 1.2% per year 16 0.1480 0.1280 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 8th Last 1.1% per year 17 0.1480 0.1280 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 7th Last 1.0% per year 18 0.1280 0.0000 0.0000 0.0000 0.0000 6th Last 0.1480 0.0000 0.0000 0.8% per year 0.0000 19 0.1480 0.1280 0.0000 0.0000 0.0000 0.0000 5th Last 0.5% per year 20 0.1480 0.1280 0.0000 0.0000 0.0000 0.0000 4th Last 0.0% per year 3rd Last 0.0% per year 2nd Last 0.0% per year 0.0% per year 1st Last C. Sum of Adjustment to Act 44 Law Level and Claim Settlement Adjustments Additions 1.0000 11 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 12 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 13 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 14 1.0000 15 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 17 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 18 1.0000 1.0000 1.0000 1.0000 1.0000 Source: A. Adjustment to Act 44 Law Level Exhibit VI-D Page 1

B. Claim Settlement Adjustments Additions Exhibits VI-B-5 (Refer to selected table above.)

C. A+B (with maximum of 1.000)

1.0000

1.0000

1.0000

1.0000

1.0000

1.0000

1.0000

19

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1.0000

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1.0000

1.0000

1.0000

1.0000

## Coal Mine Compensation Rating Bureau Traumatic Loss Development

# Incurred Medical Losses for All Classes Combined

										Inc	ırred Medi	cal Losses	for All Clas	sses Comb	ined										
	Medical Repo										2225	2221													
Report	1995	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	2000	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	2012	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
I	3,946,197	4,135,165		3,370,548	2,714,671	2,468,601	2,225,216	3,150,255	2,579,313	3,189,109	3,700,850	2,871,489	5,478,955	3,509,674	2,761,649	3,630,574	4,362,098	4,806,118	3,639,740	6,225,769	4,054,856	3,963,291	6,387,089	5,562,604	4,076,893
2	4,443,755	4,315,884	3,374,998	3,630,642	3,012,839	2,716,963	2,589,253	3,609,439	2,812,481	3,555,290	4,031,513	3,286,804		3,749,858	3,021,605	3,914,782	5,517,261	5,258,148	4,294,769	6,357,441	3,955,258	4,465,934	5,881,984	5,421,768	
3	4,353,568	4,689,720	3,598,928	3,628,890	3,186,033	2,818,387	2,646,248	3,762,837			4,161,949	3,511,501		3,709,814	2,891,686	4,167,466	5,633,374	5,404,121	4,076,856	6,043,218	3,953,405	4,190,581	6,006,389		
4		4,808,246	3,571,097	3,720,868	3,057,663	2,836,912	2,629,910	3,890,149	2,756,587	4,166,709	4,249,331	3,418,585	5,632,912	3,804,580	2,991,503	4,413,176	5,609,134	5,406,521	3,971,009	5,873,834	3,824,391	3,905,895			
5	4,416,259	4,806,190	3,810,363	3,709,153	3,188,781	2,885,530	2,816,076	3,874,531	2,912,119	4,131,369	4,143,155	3,401,038	5,757,902	3,837,840	2,983,393	4,604,796	5,673,084	5,519,600	4,074,140	5,883,352	3,909,083				
6	4,483,826	4,703,865	3,978,305	3,761,263	3,178,086	2,937,414	2,896,624	4,191,261	2,899,687	4,080,336	4,299,151	3,370,262	5,864,639	3,842,096	2,946,694	4,477,330	5,654,038	5,465,514	4,082,497	5,882,245					
/	4,666,919	4,578,161	3,932,216	3,760,723	3,133,358	2,927,989	2,822,196	4,257,734	2,897,577	4,180,965	4,349,353	3,381,086	5,841,539	3,811,253	2,946,651	4,459,354	6,232,068	5,458,952	4,152,393						
0	4,706,403 4,685,434	4,617,085 4,625,715	3,951,475 4,015,857	3,791,456 3,741,005	3,171,882 3,236,426	2,921,384 2,952,750	2,789,664 2,782,114	4,339,920 4,145,606	2,890,067 3,080,177	4,187,418 4,190,701	4,411,495 4,403,570	3,382,185 3,507,194	5,950,133 5,807,440	3,599,483 3,608,725	2,986,651	4,338,559	6,232,068 6,232,068	5,445,673							
10	4,668,534	4,623,713	4,393,793	3,777,626	3,357,242	2,752,750	2,879,623	4,143,608	3,110,017	4,206,298	4,356,915	3,729,031	5,819,126	3,619,059	3,136,651 3,137,264	4,314,642 4,315,637	0,232,000								
10	4,693,740	4,625,953	4,573,773	3,861,559	3,353,094	2,730,876	2,963,075	4,160,516	3,110,017	4,370,336	4,427,072	3,802,480	5,899,866	3,627,183	3,068,930	4,313,637									
12	4,815,890	4,594,309	4,586,566	3,843,219	3,409,251	3,021,208	3,005,905	4,194,244	3,209,975	4,350,145	4,413,282	3,748,522	5,991,937	3,633,896	3,000,730										
13	4,869,709	4,485,294	4,602,844	3,868,653	3,531,522	3,021,095	3,012,114	4,185,516	3,209,907	4,351,280	4,715,281	3,748,523	5,975,102	0,000,070											
14	4,793,570	4,501,155	4,627,844	3,851,694	3,532,688	3,020,836	3,143,372	4,205,064	3,209,709	4,376,929	4,715,272	3,748,522	0,7,0,102												
15	4,836,117	4,491,418	4,702,741	3,851,841	3,533,087	3,080,845	3,237,259	4,202,349	3,209,709	4,379,582	4,768,910	0,0,0													
16	4,865,082	4,520,959	4,694,564	3,852,213	3,539,649			3,961,842	3,151,961	4,384,435	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,														
17	4,883,436	4,514,259	4,723,464	3,838,125	3,539,760	2,872,279	3,006,814	3,961,842	3,151,961	,															
18	4,927,115	4,523,523	5,023,336	3,835,125	3,534,812	2,872,279	3,017,086	3,961,842																	
19	4,917,010	4,536,280	5,023,336	3,834,626	3,535,783	2,872,279	3,018,743																		
20	5,276,620	4,528,080	5,023,209	3,834,646	3,536,162	2,872,279																			
В.	Act 44 Medic	•																							
1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			
5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
6	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					
/	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000						
8	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000							
9	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000								
10	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000	1.0000 1.0000	1.0000	1.0000 1.0000	1.0000	1.0000	1.0000	1.0000	1.0000 1.0000	1.0000									
11	1.0000	1.0000	1.0000	1.0000			1.0000 1.0000		1.0000 1.0000	1.0000	1.0000	1.0000 1.0000	1.0000	1.0000 1.0000	1.0000										
12	1.0000	1.0000	1.0000	1.0000	1.0000 1.0000	1.0000 1.0000	1.0000	1.0000 1.0000	1.0000	1.0000	1.0000 1.0000	1.0000	1.0000 1.0000	1.0000											
13	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000												
15	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000													
16	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000														
17	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000															
18	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000																
19	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000																	
20	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000																			
C.	Medical Incu	rred Losses A	djusted to A	ct 44 Law Le	vel and Clai	im Settlemen	nt Levels as o	f 04/30/20																	
1	3,946,197	4,135,165	3,185,472	3,370,548	2,714,671	2,468,601	2,225,216	3,150,255	2,579,313	3,189,109	3,700,850	2,871,489	5,478,955	3,509,674	2,761,649	3,630,574	4,362,098	4,806,118	3,639,740	6,225,769	4,054,856	3,963,291	6,387,089	5,562,604	4,076,893
2	4,443,755	4,315,884	3,374,998	3,630,642	3,012,839	2,716,963		3,609,439	2,812,481	3,555,290	4,031,513	3,286,804	5,501,458	3,749,858	3,021,605	3,914,782	5,517,261	5,258,148	4,294,769	6,357,441	3,955,258	4,465,934	5,881,984	5,421,768	
3	4,353,568	4,689,720	3,598,928	3,628,890	3,186,033	2,818,387	2,646,248	3,762,837	2,794,988	4,147,713	4,161,949	3,511,501	5,575,559	3,709,814	2,891,686	4,167,466	5,633,374	5,404,121	4,076,856	6,043,218	3,953,405	4,190,581	6,006,389		
4		4,808,246	3,571,097	3,720,868	3,057,663			3,890,149	2,756,587	4,166,709	4,249,331	3,418,585	5,632,912	3,804,580	2,991,503	4,413,176	5,609,134	5,406,521	3,971,009	5,873,834	3,824,391	3,905,895			
5	4,416,259	4,806,190	3,810,363	3,709,153	3,188,781	2,885,530	2,816,076	3,874,531	2,912,119	4,131,369	4,143,155	3,401,038	5,757,902	3,837,840	2,983,393	4,604,796	5,673,084	5,519,600	4,074,140	5,883,352	3,909,083				
6	4,483,826	4,703,865	3,978,305	3,761,263	3,178,086	2,937,414	2,896,624	4,191,261	2,899,687	4,080,336	4,299,151	3,370,262	5,864,639	3,842,096	2,946,694	4,477,330	5,654,038	5,465,514	4,082,497	5,882,245					
/		4,578,161	3,932,216	3,760,723	3,133,358	2,927,989	2,822,196	4,257,734	2,897,577	4,180,965	4,349,353	3,381,086	5,841,539	3,811,253	2,946,651	4,459,354	6,232,068	5,458,952	4,152,393						
8	4,706,403	4,617,085		3,791,456	3,171,882	2,921,384	2,789,664	4,339,920	2,890,067	4,187,418	4,411,495	3,382,185	5,950,133	3,599,483	2,986,651	4,338,559	6,232,068	5,445,673							
9	4,685,434	4,625,715	4,015,857	3,741,005	3,236,426	2,952,750	2,782,114	4,145,606	3,080,177	4,190,701	4,403,570	3,507,194	5,807,440	3,608,725	3,136,651	4,314,642	6,232,068								
10	4,668,534	4,651,769	4,393,793	3,777,626	3,357,242		2,879,623	4,160,518	3,110,017	4,206,298	4,356,915	3,729,031	5,819,126	3,619,059	3,137,264	4,315,637									
10	4,693,740	4,625,953	4,593,238	3,861,559	3,353,094	2,948,865	2,963,075	4,164,525	3,103,090	4,370,336	4,427,072	3,802,480	5,899,866	3,627,183	3,068,930										
12	4,815,890	4,594,309	4,586,566	3,843,219	3,409,251	3,021,208	3,005,905	4,194,244	3,209,975	4,350,145	4,413,282	3,748,522	5,991,937	3,633,896											
13	4,869,709 4,793,570	4,485,294 4,501,155	4,602,844	3,868,653	3,531,522	3,021,095	3,012,114	4,185,516	3,209,907	4,351,280	4,715,281	3,748,523	5,975,102												
14 1 <i>5</i>	4,793,570 4,834,117	4,501,155 4,491,418	4,627,844 4,702,741	3,851,694	3,532,688 3,533,087	3,020,836 3,080,845	3,143,372 3,237,259	4,205,064 4,202,349	3,209,709 3,209,709	4,376,929 4,379,582	4,715,272 4,768,910	3,748,522													
13 14	4,836,117 4,865,082	4,491,418	4,702,741	3,851,841 3,852,213	3,533,087	3,080,843	3,237,239	4,202,349 3,961,842	3,209,709	4,379,382 4,384,435	4,/00,710														
17		4,520,939	4,094,364	3,838,125	3,539,649	2,872,279	3,006,814	3,961,842	3,151,961	4,004,433															
12		4,514,237	5,023,336	3,835,125	3,534,812		3,008,614	3,961,842	5,151,761																
19		4,525,525	5,023,336	3,834,626	3,535,783	2,872,279	3,017,000	0,701,042					Source: 4	A Reported A	Medical Incur	redlosses F	xhihit VI_R_1	(A)							
	5.276.620						0,010,740							•				` '	Levels: Exhibi	it VI-B-2 (C)					

20 5,276,620 4,528,080 5,023,209 3,834,646 3,536,162 2,872,279

Source: A. Reported Medical Incurred Losses. Exhibit VI-B-1 (A)
B. Act 44 Medical Law Adjusment Factors and Claim Settlement Levels: Exhibit VI-B-2 (C)

C. Medical Incurred Losses Adjusted to Act 44 Law Level and Claim Settlement Levels= A x B

# Coal Mine Compensation Rating Bureau Traumatic Loss Development Incurred Medical Losses for All Classes Combined

Exhibit V-E-1 and Exhibit VI-B-4

<b>.</b> .										income	ed Medico	ai LOSSES i			inea									LAI	IIDII VI-D-4
Report  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	1995 3,946,197 4,443,755 4,353,568 4,294,114 4,416,259 4,483,826 4,666,919 4,706,403 4,685,434 4,668,534 4,693,740 4,815,890 4,869,709 4,793,570 4,836,117 4,865,082 4,883,436 4,927,115 4,917,010 5,276,620	1996 4,135,165 4,315,884 4,689,720 4,808,246 4,806,190 4,703,865 4,578,161 4,617,085 4,625,715 4,651,769 4,625,953 4,594,309 4,485,294 4,501,155 4,491,418 4,520,959 4,514,259 4,523,523 4,536,280 4,528,080	1997 3,185,472 3,374,998 3,598,928 3,571,097 3,810,363 3,978,305 3,932,216 3,951,475 4,015,857 4,393,793 4,593,238 4,586,566 4,602,844 4,627,844 4,702,741 4,694,564 4,723,464 5,023,336 5,023,336 5,023,209	justed to Act 1998 3,370,548 3,630,642 3,628,890 3,720,868 3,709,153 3,761,263 3,761,263 3,761,263 3,741,005 3,741,005 3,777,626 3,861,559 3,843,219 3,868,653 3,851,694 3,851,841 3,852,213 3,838,125 3,835,125 3,834,626 3,834,646	44 Law Leve 1999 2,714,671 3,012,839 3,186,033 3,057,663 3,188,781 3,178,086 3,133,358 3,171,882 3,236,426 3,357,242 3,357,242 3,353,094 3,409,251 3,531,522 3,532,688 3,533,087 3,539,760 3,539,760 3,534,812 3,535,783 3,536,162	2000 2,468,601 2,716,963 2,818,387 2,836,912 2,885,530 2,937,414 2,927,989 2,921,384 2,952,750 2,950,698 2,948,865 3,021,208 3,021,095 3,020,836 3,080,845 3,080,845 3,080,810 2,872,279 2,872,279 2,872,279	2001 2,225,216 2,589,253 2,646,248 2,629,910 2,816,076 2,896,624 2,822,196 2,789,664 2,782,114 2,879,623 2,963,075 3,005,905 3,012,114 3,143,372 3,237,259 3,220,132 3,006,814 3,017,086	evels as of 0- 2002 3,150,255 3,609,439 3,762,837 3,890,149 3,874,531 4,191,261 4,257,734 4,339,920 4,145,606 4,160,518 4,164,525 4,194,244 4,185,516 4,205,064 4,202,349 3,961,842 3,961,842 3,961,842	2003 2,579,313 2,812,481 2,794,988 2,756,587 2,912,119 2,899,687 2,897,577 2,890,067 3,080,177 3,110,017 3,103,090 3,209,975 3,209,907 3,209,709 3,209,709 3,151,961	2004 3,189,109 3,555,290 4,147,713 4,166,709 4,131,369 4,080,336 4,180,965 4,187,418 4,190,701 4,206,298 4,370,336 4,350,145 4,351,280 4,376,929 4,379,582 4,384,435	4,249,331 4,143,155 4,299,151 4,349,353 4,411,495 4,403,570 4,356,915 4,427,072	2006 2,871,489 3,286,804 3,511,501 3,418,585 3,401,038 3,370,262 3,381,086 3,382,185 3,507,194 3,729,031 3,802,480 3,748,522 3,748,523 3,748,523	2007 5,478,955 5,501,458 5,575,559 5,632,912 5,757,902 5,864,639 5,841,539 5,950,133 5,807,440 5,819,126 5,899,866 5,991,937 5,975,102	2008 3,509,674 3,749,858 3,709,814 3,804,580 3,837,840 3,842,096 3,811,253 3,599,483 3,608,725 3,619,059 3,627,183 3,633,896		2010 3,630,574 3,914,782 4,167,466 4,413,176 4,604,796 4,477,330 4,459,354 4,338,559 4,314,642 4,315,637	2011 4,362,098 5,517,261 5,633,374 5,609,134 5,673,084 5,654,038 6,232,068 6,232,068 6,232,068	2012 4,806,118 5,258,148 5,404,121 5,406,521 5,519,600 5,465,514 5,458,952 5,445,673	2013 3,639,740 4,294,769 4,076,856 3,971,009 4,074,140 4,082,497 4,152,393	2014 6,225,769 6,357,441 6,043,218 5,873,834 5,883,352 5,882,245	2015 4,054,856 3,955,258 3,953,405 3,824,391 3,909,083	2016 3,963,291 4,465,934 4,190,581 3,905,895	2017 6,387,089 5,881,984 6,006,389	2018 5,562,604 5,421,768	<u>2019</u> 4,076,893
B. A  1:2 2:3 3:4 4:5 5:6 6:7 7:8 8:9 9:10 10:11 11:12 12:13 13:14 14:15 15:16 16:17 17:18 18:19 19:20	1.0060 1.0038 1.0089 0.9979 1.0731	0.9978 1.0066 0.9985 1.0021 1.0028 0.9982	1.0054 1.0162 0.9983 1.0062 1.0635 1.0000 1.0000	1.0066 0.9956 1.0000 1.0001 0.9963 0.9992 0.9999 1.0000	1.0167 1.0359 1.0003 1.0001 1.0019 1.0000 0.9986 1.0003 1.0001	0.9994 1.0245 1.0000 0.9999 1.0199 1.0000 0.9323 1.0000 1.0000	1.0350 1.0290 1.0145 1.0021 1.0436 1.0299 0.9947 0.9338 1.0034 1.0005	0.9552 1.0036 1.0010 1.0071 0.9979 1.0047 0.9994 0.9428 1.0000 1.0000	0.9974 1.0658 1.0097 0.9978 1.0344 1.0000 0.9999 1.0000 0.9820 1.0000	1.0247 1.0015 1.0008 1.0037 1.0390 0.9954 1.0003 1.0059 1.0006 1.0011	1.0377 1.0117 1.0143 0.9982 0.9894 1.0161 0.9969 1.0684 1.0000 1.0114	0.9949 0.9910 1.0032 1.0003 1.0370 1.0633 1.0197 0.9858 1.0000 1.0000	1.0103 1.0222 1.0185 0.9961 1.0186 0.9760 1.0020 1.0139 1.0156 0.9972	0.9893 1.0255 1.0087 1.0011 0.9920 0.9444 1.0026 1.0029 1.0022 1.0019	1.0941 0.9570 1.0345 0.9973 0.9877 1.0000 1.0136 1.0502 1.0002 0.9782	1.0783 1.0645 1.0590 1.0434 0.9723 0.9960 0.9729 0.9945 1.0002	1.2648 1.0210 0.9957 1.0114 0.9966 1.1022 1.0000 1.0000	1.0941 1.0278 1.0004 1.0209 0.9902 0.9988 0.9976	1.18 0.9493 0.9740 1.0260 1.0021 1.0171	1.0211 0.9506 0.9720 1.0016 0.9998	0.9754 0.9995 0.9674 1.0221	1.1268 0.9383 0.9321	0.9209	0.9747	
C. S 1:2 2:3 3:4 4:5 5:6 6:7 7:8 8:9 9:10 10:11 11:12 12:13 13:14 14:15 15:16 16:17 17:18 18:19	Summary					10 Year Straight Average 1.0730 0.9919 0.9971 1.0149 0.9997 1.0142 0.9961 1.0080 1.0110 1.0096 1.0093 1.0108 1.0055 1.0075 0.9934 0.9857 1.0095 1.0002		Weighted	_	Average '	6 Year Weighted Average 1.0182 0.9822 0.9757 1.0195 0.9920 1.0224 0.9931 1.0044 1.0080 1.0132 1.0047 1.0107 1.0076 1.0092 0.9860 0.9791 1.0138 1.0007		Average of Middle Four 1.0463 0.9862 0.9864 1.0175 0.9959 1.0136 0.9955 1.0071 1.0085 1.0113 1.0068 1.0094 1.0052 1.0079 0.9921 0.9840 1.0085 1.0003 1.0095			osses Adjuste		aw Level an	d Claim Sett	lement Leve	ls: Exhibit VI-E	3-3			

1.0119

1.0119

1.0142

1.0000

1.0000

1.0142

1.0095

B. Annual Loss Development Ratios

C, Summary of Straight Averages for 10 and 6 years,

Straight Averages for 10 and 6 years excluding highest and lowest,

Weighted Averages for 10 and 6 years,

Average of middle 4 of above 6 averages.

19:20

# Coal Mine Compensation Rating Bureau Traumatic Loss Development Medical Claim Settlement Adjustment Factors

Accident <u>Year</u> 1984  1985  1986  1987  1988  1989  1990  1991 <u>1992</u> Total	(1) 4/30/1994 Rpt.Loss'*/ 7,380 4,469 5,192 4,941 5,722 8,405 7,754 6,824 5,389 56,076	(2) 12 Month	(3)  (2) / (1)  3.3%  2.3%  4.3%  5.3%  6.9%  6.3%  3.8%  4.8%  8.1%  5.0%	(4)  Selection  xx  xx  xx  xx  xx  xx  xx  xx  xx	Accident <u>Year</u> 1985  1986  1987  1988  1989  1990  1991  1992 <u>1993</u> Total	(1) 4/30/1995 Rpt.Loss'*' 4,303 5,166 4,805 5,860 8,842 7,595 7,208 4,462 5,786 54,027	(2) 12 Month <u>Fav Dev'''</u> 199 122 122 161 299 471 83 198 164 1,819	(3) 4.6% 2.4% 2.5% 2.7% 3.4% 6.2% 1.2% 4.4% 2.8% 3.4%	(4)  Selection  xx  xx  xx  xx  xx  xx  xx  xx  xx	Accident <u>Year</u> 1986 1987 1988 1989 1990 1991 1992 1993 <u>1994</u> Total	(1) 4/30/1996 Rpt.Loss**/ 5,126 4,959 5,470 8,720 7,730 7,240 4,458 6,163 4,930 54,796	(2) 12 Month Fav Devien  84  72  451  575  220  281  269  189  231  2,372	(3)  (2) / (1)  1.6% 1.5% 8.2% 6.6% 2.8% 3.9% 6.0% 3.1% 4.7% 4.3%	(4)  Selection  xx  xx  xx  xx  xx  xx  xx  xx  xx	Accident <u>Year</u> 1987 1988 1989 1990 1991 1992 1993 1994 <u>1995</u> Total	(1) 4/30/1997 Rpt.Loss ''' 4,895 5,318 8,177 7,929 7,315 4,284 6,061 5,062 4,444 53,485	(2) 12 Month Fav Dev <sup>101</sup> 93 202 793 274 141 319 216 155 211 2,404	(3)  (2) / (1)  1.9% 3.8% 9.7% 3.5% 1.9% 7.4% 3.6% 3.1% 4.7% 4.5%	(4) <u>Selection</u> xx  xx  xx  xx  xx  xx  xx  xx  xx
Accident <u>Year</u> 1988 1989 1990 1991 1992 1993 1994 1995 <u>1996</u> Total	(1) 4/30/1998 Rpt.Loss <sup>(a)</sup> 5,228 7,991 7,725 7,216 4,439 6,077 5,217 4,354 4,316 52,563	(2) 12 Month Fav Dev <sup>(a)</sup> 70 321 436 173 85 194 77 272 87 1,715	(3)  (2) / (1)  1.3% 4.0% 5.6% 2.4% 1.9% 3.2% 1.5% 6.2% 2.0% 3.3%	(4) <u>Selection</u> xx  xx  xx  xx  xx  xx  xx  xx  xx	Accident <u>Year</u> 1989 1990 1991 1992 1993 1994 1995 1996 <u>1997</u> Total	(1) 4/30/1999 Rpt.Loss <sup>(a)</sup> 8,525 7,726 7,140 2,428 5,804 5,111 4,294 4,690 xx 45,718	(2) 12 Month Fav Dev <sup>(a)</sup> 96 83 208 74 322 198 164 106 <u>xx</u> 1,251	(3)  (2) / (1)  1.1%  1.1%  2.9%  3.0%  5.5%  3.9%  3.8%  2.3%  ××  2.7%	(4) <u>Selection</u> xx  xx  xx  xx  xx  xx  xx  xx  xx	Accident <u>Year</u> 1990 1991 1992 1993 1994 1995 1996 1997 <u>1998</u> Total	(1) 4/30/2000 Rpt.Loss <sup>(a)</sup> 7,808 7,176 2,327 5,767 5,029 4,416 4,808 xx <u>xx</u> 37,331	(2) 12 Month Fav Dev <sup>(a)</sup> 52 15 125 161 130 97 119 xx <u>xx</u> 699	(3)  (2) / (1)  0.7%  0.2%  5.4%  2.8%  2.6%  2.2%  2.5%  xx  xx  1.9%	(4) <u>Selection</u> xx  xx  xx  xx  xx  xx  xx  xx  xx	Accident <u>Year</u> 1991 1992 1993 1994 1995 1996 1997 1998 <u>1999</u> Total	(1) 4/30/2001 Rpt.Loss <sup>(a)</sup> 7,348 2,286 5,730 5,060 4,484 4,806 xx xx xx 29,714	(2) 12 Month Fav Dev <sup>[a]</sup> 85 86 77 29 150 187 xx xx xx 41	(3)  (2) / (1)  1.2% 3.8% 1.3% 0.6% 3.3% 3.9%  xx  xx  xx 2.1%	(4) <u>Selection</u> xx  xx  xx  xx  xx  xx  xx  xx  1.3%
Accident <u>Year</u> 1992 1993 1994 1995 1996 1997 1998 1999 2000 Total	(1) 4/30/2002 Rpt.Loss <sup>(a)</sup> 2,939 5,812 5,113 4,667 4,704 xx xx xx xx xx 23,235	(2) 12 Month Fav Dev <sup>(a)</sup> 16 57 40 101 242 xx xx xx xx 456	(3)  (2) / (1)  0.5%  1.0%  0.8%  2.2%  5.1%  xx  xx  xx  xx  xx  2.0%	Selection  xx  xx  xx  xx  xx  xx  xx  xx  xx	Accident <u>Year</u> 1993 1994 1995 1996 1997 1998 1999 2000 <u>2001</u> Total	(1) 4/30/2003 Rpt.Loss <sup>(a)</sup> 5,971 5,125 4,706 4,578 xx xx xx xx xx 20,380	(2)  12 Month  Fav Dev <sup>(a)</sup> 0  0  145  xx  xx  xx  xx  145	(3)  (2) / (1)  0.0%  0.0%  0.0%  3.2%  xx  xx  xx  xx  xx  0.7%	Selection  xx  xx  xx  xx  xx  xx  xx  xx  xx	Accident <u>Year</u> 1994 1995 1996 1997 1998 1999 2000 2001 2002 Total	(1) 4/30/2004 Rpt.Loss <sup>(a)</sup> 5,179 4,740 4,702 xx xx xx xx xx xx xx 14,621	xx xx	(3)  (2) / (1)  1.1% 1.8% 0.7%  xx  xx  xx  xx  xx  xx  1.2%	(4)  Selection  xx  xx  xx  xx  xx  xx  xx  xx  xx	Accident <u>Year</u> 1995 1996 1997 1998 1999 2000 2001 2002 <u>2003</u> Total	(1) 4/30/2005 Rpt.Loss <sup>(a)</sup> 4,669 4,626 xx	xx xx xx xx	(3)  (2) / (1)  0.0%  0.0%  xx  xx  xx  xx  xx  xx  xx  xx  xx	xx xx xx xx <u>xx</u>
Accident  Year  1996  1997  1998  1999  2000  2001  2002  2003  2004  Total	(1) 4/30/2006 Rpt.Loss <sup>(a)</sup> 4,708 xx xx xx xx xx xx xx	(2) 12 Month Fav Dev <sup>(a)</sup> 25 0 xx xx xx xx xx xx	(3)  (2) / (1)  0.5%  xx  xx  xx  xx  xx  xx  xx	(4)  Selection  xx  xx  xx  xx  xx  xx  xx  xx  xx	Accident <u>Year</u> 1997 1998 1999 2000 2001 2002 2003 2004 2005	(1) 4/30/2007 Rpt.Loss <sup>(a)</sup> xx  xx  xx  xx  xx  xx  xx  xx  xx	(2) 12 Month Fav Dev <sup>(a)</sup> xx  xx  xx  xx  xx  xx  xx  xx  xx	(3)  (2) / (1)  xx  xx  xx  xx  xx  xx  xx  xx  xx	Selection  xx  xx  xx  xx  xx  xx  xx  xx  xx	Accident <u>Year</u> 1998 1999 2000 2001 2002 2003 2004 2005 2006	(1) 4/30/2008 Rpt.Loss <sup>(a)</sup>	xx xx xx xx xx xx xx xx	(3)  (2) / (1)  xx  xx  xx  xx  xx  xx  xx  xx  xx	(4)  Selection  xx  xx  xx  xx  xx  xx  xx  xx  xx	Accident <u>Year</u> 1999 2000 2001 2002 2003 2004 2005 2006 2007	(1) 4/30/2009 Rpt.Loss <sup>(a)</sup> xx xx xx xx xx xx xx xx	xx xx xx	(3)  (2) / (1)  xx  xx  xx  xx  xx  xx  xx  xx  xx	xx xx xx xx

<sup>(</sup>a) All amounts are in thousands of dollars
Incurred losses for 1992 exclude effects of large loss.

Note: Personnel from the CMCRB have concluded that the impact of Act 57 has waned to the point that the Claim Settlement effect for this year and future years is zero(0.00). Thus this Exhibit will no longer be updated.

Sources: Column (1) Exhibit VI-B p. 1a CMCRB Data Base

## Incurred Indemnity and Funeral Claim Counts for All Classes Combined (excl. USLH)

				5.0.4.00.400	In	curred Inc	lemnity a	nd Funero	ıl Claim C	Counts for A	All Classe	s Combin	ed (excl.	USLH)						
Report  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	2000 240 250 252 254 254 254 254 254 254 254 254 254	2001 227 238 237 237 237 237 237 237 237 237 237 237	red Claims as  2002 241 244 246 246 246 246 246 246 246 246 246	2003 196 196 197 198 199 199 199 199 199 199 199 199 199	2004 219 227 230 231 231 231 231 231 231 231 231 231 231	2005 203 228 229 230 230 230 230 230 230 230 230 230 230	2006 156 163 165 166 166 166 166 166 166 166 166 166	2007 163 164 164 164 164 164 164 164 164 164 164	2008 193 206 203 205 204 204 204 204 204 204 204 204	2009 170 193 195 195 195 195 195 195 195 195	2010 168 177 177 177 177 177 177 177 177	2011 175 182 188 189 189 189 189 189	2012 169 195 199 200 200 201 201	2013 149 171 174 175 175 175 175	2014 258 286 289 290 290 289	2015 161 181 184 186 186	2016 140 147 149 149	2017 159 168 171	2018 150 166	2019 153
	Annual Claim	Count Deve	elopment																	
1:2 2:3 3:4 4:5 5:6 6:7 7:8 8:9 9:10 10:11 11:12 12:13 13:14 14:15 15:16 16:17 17:18 18:19 19:20	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.9854 1.0099 0.9951 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.1353 1.0104 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0536 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0400 1.0330 1.0053 1.0000 1.0000 1.0000 1.0000	1.1538 1.0205 1.0050 1.0000 1.0000 1.0050 1.0000	1.1477 1.0175 1.0057 1.0000 1.0000	1.1085 1.0105 1.0035 1.0000 0.9966	1.1242 1.0166 1.0109 1.0000	1.0500 1.0136 1.0000	1.0566 1.0179	1.1067	
C. S	Summary	/ Va our	10 V o orr	10 V o our	/ V o our	/ V = ===	A													
				10 Year Average <i>A</i>		6 Year /eighted		verage f Middle												
	_	_	_	1.0978 1.0134 1.0037 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	_	_		Four 1.0985 1.0144 1.0045 0.9999 0.9996 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Se	1.0985 1.0144 1.0045 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000			C	1.1193 1.0190 1.0045 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	<u>A</u>	2019 2018 2017 2016 2015 2014 2013 2012 2011 2010 2009 2008 2007 2008 2007 2006 2005 2004 2003 2002 2001 2000	171 169 172 149 186 289 175 201 189 177 195 204 164 166 230 231 199 246 237			

Source: A. Loss Development Data: CMCRB Database as of 04/30/20 - Validated 08/06/20

2000

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B. Annual Loss Development Ratios

C, Summary of Straight Averages for 10 and 6 years,

Coal Mine Compensation Rating Bureau

Traumatic Loss Development

Medical Only Claim Counts for All Classes Combined (excl. USLH)

A . A . A .	lill Oll -	. Dava awka al lio		ms Valued as	-f 0.4/20/00	٨	Medical O	nly Claim	Counts fo	or All Clas	ses Comb	ined (exc	cl. USLH)							
Report  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	2000 488 500 503 497 497 498 498 498 498 498 498 498 498	2001 519 536 539 535 535 535 535 535 535 535	2002 487 499 500 500 500 500 500 500 500 5	2003 453 462 461 461 461 461 461 461 461 461 461 461	2004 516 524 523 522 522 522 522 522 522 522	2005 476 479 480 479 479 479 479 479 479 479 479 479 479	2006 456 453 451 450 450 450 450 450 450 450 450 450	2007 488 494 495 495 495 495 495 495 495 495 495	2008 523 527 528 527 528 528 528 528 528 528 528 528	2009 479 469 469 469 469 469 469 469 469 469	2010 559 560 559 559 559 559 559 559 559	2011 628 632 627 627 627 627 627 627	2012 563 554 553 553 553 553 552 552	2013 472 477 478 478 478 479 479	2014 592 583 581 580 581 582	2015 402 399 397 396 396	2016 295 304 303 303	2017 321 327 326	2018 297 293	<u>2019</u> 319
B. An	nual Claim	Count Deve	elopment																	
1:2 2:3 3:4 4:5 5:6 6:7 7:8 8:9 9:10 10:11 11:12 12:13 13:14 14:15 15:16 16:17 17:18 18:19 19:20	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0019 0.9981 1.0019 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.9791 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0018 0.9982 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0064 0.9921 1.0000 1.0000 1.0000 1.0000 1.0000	0.9840 0.9982 1.0000 1.0000 0.9982 1.0000	1.0106 1.0021 1.0000 1.0000 1.0021 1.0000	0.9848 0.9966 0.9983 1.0017 1.0017	0.9925 0.9950 0.9975 1.0000	1.0305 0.9967 1.0000	1.0187 0.9969	0.9865	
1	0 Year	6 Year		10 Year Average		6 Year		verage f Middle												
1:2 2:3 3:4 4:5 5:6 6:7 7:8 8:9 9:10 10:11 11:12 12:13 13:14 14:15 15:16 16:17 17:18 18:19	0.9995 0.9978 0.9994 1.0004 1.0004 0.9998 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0039 0.9976 0.9973 1.0003 1.0006 0.9997 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.9978 0.9977 0.9977 0.9994 1.0004 1.0004 0.9998 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	ex. Hi&Lo 6 0.9982 0.9979 0.9996 1.0002 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0021 0.9971 0.9976 1.0000 1.0004 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0017 0.9977 0.9973 1.0003 1.0006 0.9997 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000		Four 1.0004 0.9977 0.9994 1.0003 1.0004 0.9998 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	<u>20</u>	elected 1.0000				1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	<u> </u>	A	2019 2018 2017 2016 2015 2014 2013 2012 2011 2010 2009 2008 2007 2006 2005 2004 2003 2002	319 293 326 303 396 582 479 552 627 559 469 528 495 450 479 522 461 500		
	1.0000	1.0000	1.0000		1.0000	1.0000		1.0000		1.0000				1.0000			2001 2000	535 498		

Medical Only claims are defined as claims with Medical Incurred dollars greater than zero and Indemnity Incurred dollars equal to zero.

Exhibit VI-C-2

Source: A. Loss Development Data: CMCRB Database as of 04/30/20 - Validated 08/06/20

B. Annual Loss Development Ratios

C, Summary of Straight Averages for 10 and 6 years,

Weighted Averages for 10 and 6 years, Straight Averages for 10 and 6 years excluding highest and lowest, Average of middle 4 of above 6 averages.

## Exhibit VI-C-3

# Coal Mine Compensation Rating Bureau Traumatic Loss Development

# Medical Only Incurred for All Classes Combined (excl. USLH)

							MEdice	ii Oilly liic	Julied 101	All Clusse	5 COIIIDII	ieu (exci.	USLII							
A. N	edical Only	Reported Inc	curred Losses	Valued as o	of 04/30/20															
<u>Report</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	2009	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
1	315,407	291,102	326,965	344,009	440,355	393,342	475,073	645,531	538,996	499,273	689,845	830,417	740,247	657,505	844,733	693,513	566,845	708,070	617,296	580,738
2	296,698	341,613	354,474	343,651	489,659	395,971	492,413	667,028	564,408	475,294	712,909	864,057	723,464	724,288	817,585	644,826	559,034	748,018	615,429	
3	300,203	340,771	351,193	342,029	499,930	570,553	464,396	651,680	574,474	487,309	732,324	846,540	709,906	754,367	819,307	617,302	541,639	746,688		
4	304,117	341,085	343,963	346,252	499,000	577,565	464,210	654,006	561,921	487,349	732,324	850,074	710,429	754,990	806,211	611,456	541,639			
5	304,601	341,085	345,393	346,252	499,175	577,565	464,210	657,948	569,251	487,454	732,324	851,341	710,507	755,607	807,295	611,456				
6	305,104	341,085	345,393	346,252	499,175	577,565	464,210	663,201	578,077	487,454	732,324	851,341	710,586	756,064	808,080					
7	305,104	341,085	345,393	346,252	499,175	577,565	464,210	663,201	584,120	487,454	732,324	851,341	680,951	756,064						
8	305,104	347,675	345,393	346,252	499,182	439,393	464,210	663,201	586,976	487,454	732,324	851,341	680,951							
9	305,104	347,675	345,393	346,318	499,182	439,393	464,210	663,201	593,200	487,454	732,331	851,341								
10	305,104	347,675	345,393	346,318	499,182	439,463	464,210	663,201	600,587	488,067	732,331									
B. A 1:2 2:3 3:4 4:5 5:6 6:7 7:8 8:9 9:10		evelopment 1.0000	1.0000	1.0000 1.0002 1.0000	1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 0.7608 1.0000 1.0002	1.0000 1.0000 1.0000 1.0000 1.0000	1.0036 1.0060 1.0080 1.0000 1.0000 1.0000	1.0178 0.9781 1.0130 1.0155 1.0105 1.0049 1.0106 1.0125	0.9520 1.0253 1.0001 1.0002 1.0000 1.0000 1.0000 1.0000 1.00013	1.0334 1.0272 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0405 0.9797 1.0042 1.0015 1.0000 1.0000 1.0000	0.9773 0.9813 1.0007 1.0001 1.0001 0.9583 1.0000	1.1016 1.0415 1.0008 1.0006 1.0000	0.9679 1.0021 0.9840 1.0013 1.0010	0.9298 0.9573 0.9905 1.0000	0.9862 0.9689 1.0000	1.0564 0.9982	0.9970	

C.	Summary										
	10 Year	6 Year	10 Year	10 Year	6 Year	6 Year	Average				
	Straight	Straight	Weighted	Average	Average	Weighted	of Middle				
	<u>Average</u>	<u>Average</u>	<u>Average</u>	<u>ex. Hi&amp;Lo</u>	<u>ex. Hi&amp;Lo</u>	<u>Average</u>	<u>Four</u>	<u>Selected</u>	<u>Cumulative</u>	Acc. Year	<u>r Ultimate</u>
1:2	1.0042	1.0065	1.0054	1.0013	1.0019	1.0052	1.0042	1.0042	1.0042	2019	583,177
2:3	0.9999	0.9916	0.9994	1.0001	0.9876	0.9934	0.9961	1.0000	1.0000	2018	615,429
3:4	0.9962	0.9967	0.9964	0.9975	0.9980	0.9967	0.9968	1.0000	1.0000	2017	746,688
4:5	1.0023	1.0006	1.0022	1.0012	1.0006	1.0007	1.0012	1.0000	1.0000	2016	541,639
5:6	1.0025	1.0003	1.0023	1.0012	1.0002	1.0003	1.0010	1.0000	1.0000	2015	611,456
6:7	0.9969	0.9948	0.9963	1.0000	1.0000	0.9943	0.9970	1.0000	1.0000	2014	808,080
7:8	0.9766	1.0008	0.9770	1.0000	1.0000	1.0007	0.9944	1.0000	1.0000	2013	756,064
8:9	1.0011	1.0018	1.0012	1.0000	1.0000	1.0016	1.0010	1.0000	1.0000	2012	680,951
9:10	1.0014	1.0023	1.0016	1.0002	1.0004	1.0024	1.0014	1.0000	1.0000	2011	851,341

Source: A. Loss Development Data: CMCRB Database as of 04/30/20 - Validated 08/06/20

B. Annual Loss Development Ratios

C, Summary of Straight Averages for 10 and 6 years,

# Coal Mine Compensation Rating Bureau Traumatic - Medical Losses <u>Summary of Adjustments to Development Factors for Act 44</u>#

												Accio	lent Yea	<u>r</u>											
<u>Report</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	2000	2001	2002	2003	2004	<u>2005</u>	2006	2007	<u>2008</u>	2009	2010	2011	<u>2012</u>	<u>2013</u>	2014	<u>2015</u>	<u>2016</u>	<u>2017</u>	2018	2019
	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000
l		1.0000			1.0000	1.0000	1.0000		1.0000			1.0000				1.0000				1.0000		1.0000	1.0000		1.0000
2	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000	1.0000		1.0000		1.0000	1.0000		1.0000	1.0000	1.0000	1.0000	1.0000	
3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000	1.0000		
4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			
5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
6	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					
7	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000						
8	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000							
9	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000								
10	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000									
11	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000										
12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000											
13	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000												
14	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000													
15	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000														
16	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000															
17	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000																
18		1.0000			1.0000	1.0000	1.0000	1.0000	.,,,,,																
19		1.0000			1.0000																				
20		1.0000			1.0000		1.0000																		
20	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000																			

Source: Unity adjustments for Accident Years 1995 and subsequent

<sup>#</sup> Adjustments to development factors applicable to medical loss evaluated as of 04/30/2020 Act 44 became effective in 1993.

## Coal Mine Compensation Rating Bureau Traumatic Loss Development Paid Losses for All Classes Combined

Indemnity and Funeral Reported Paid Losses as of 04/30/20

<u>Report</u>	1998	1999	2000	<u>2001</u>	2002	2003	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	2008	2009	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	2014	<u>2015</u>	<u>2016</u>	<u>2017</u>	2018	<u>2019</u>
1	<u>.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	1,519,950	1,745,062	1,453,835	2,265,522	1,499,127	1,585,758	2,123,723	1,424,937	1,477,485	1,883,649	1,490,981	1,524,765	1,786,240	2,050,254	1,899,710	4,015,185	2,666,351	2,517,576	2,635,035	2,186,695	2,491,975
2	3,416,410	3,017,821	3,311,393	3,447,824	4,498,717	2,589,720	3,607,906	4,763,116	3,031,492	2,973,005	3,608,322	2,864,778	3,435,863	3,977,654	5,436,521	4,482,404	7,405,014	6,101,619	5,232,352	5,200,669	5,083,269	_,,
3	5,057,380	4,474,822	5,285,169	5,249,852	6,269,556	4,097,105	5,068,968	6,595,737	3,990,338	4,078,233	5,798,309	4,380,163	4,339,688	6,103,091	7,383,427		10,801,053	7,572,770	6,951,711	7,168,082		
4	5,832,214	6,135,793	5,944,494	6,234,883	7,427,776	5,182,592	5,951,422	7,770,869	4,714,994	5,032,592	6,658,499	4,536,641	6,078,298	7,555,055	8,102,574		11,716,598	9,243,177	8,203,849			
5	6,733,975	6,807,415	6,698,701	6,774,208	8,517,965	5,654,435	6,488,204	8,470,539	4,894,518	5,362,003	6,986,131	4,912,891	6,374,543	7,923,836	8,850,340	6,652,885	12,157,797	10,485,291				
6	7,213,884	7,415,056	7,237,063	6,969,310	9,582,098	6,009,319	6,696,634	8,926,585	4,966,788	5,648,220	7,214,898	5,041,132	6,690,310	8,262,491	9,105,598	7,003,338	12,181,905					
7	7,570,855	7,496,955	7,283,059	7,402,247	9,706,503	6,156,138	6,907,738	9,168,385	4,991,574	5,900,930	7,644,898	5,082,350	7,001,167	8,313,908	9,298,463	7,371,130						
8	7,822,684	7,575,369	7,329,084		10,138,868	6,524,987	6,965,528	9,422,725	5,014,153	5,986,526	7,907,461	5,123,568	7,146,676	8,347,645	9,608,807							
	8,111,694	7,654,237	7,462,119		10,368,436	6,705,837	7,020,184	9,810,124	5,059,383	6,164,246	8,052,763	5,164,786	7,433,505	8,380,513								
	8,184,230	7,731,940	7,468,382		10,619,368	6,755,866	7,139,264	9,993,283	5,160,329	6,244,573	8,342,088	5,206,003	7,433,505									
	8,357,349	7,805,017	7,474,646	7,789,732		6,839,005			5,422,689	6,340,857	8,901,130	5,425,367										
	8,408,704	7,879,189	7,480,909		11,009,570	6,873,904		10,392,475	5,671,285	6,488,602	8,944,239											
	8,460,058	8,038,850	7,481,735		11,120,644	6,908,899		10,542,895	5,694,209	6,942,382												
	8,717,825	8,050,069	7,481,735	8,081,870		6,946,798		10,679,371	5,717,956													
	8,731,745 8,742,665	8,050,069 8,050,069	7,481,735 7,481,735	8,115,379 8,142,053		6,981,697 7,016,692		10,920,744														
17	8,753,585	8,050,069	7,481,735	8,205,378		7,010,672	7,340,334															
	8,764,505	8,050,067	7,481,735 7,481,735	8,226,812		7,001,007																
	8,772,505	8,050,069	7,481,735	8,248,304	11,407,102																	
	8,772,260	8,050,069	7,481,735	0,2 10,00 1																		
20	3, 2,200	2,220,007	. , , ,																			

19 3,772,745 3,534,720 2,872,279 3,018,743

20 3,774,660 3,535,038 2,872,279

I	Medical Rep	orted Paid L	osses as of 0	4/30/20																		
Report	<u>1998</u>	<u>1999</u> 1,804,774	<u>2000</u> 1,676,127	<u>2001</u> 1,421,461	2002 2,013,689	2003 1,481,566	2004 2,435,389	2005 2,520,705	2006 1,948,500	2007 3,239,013	2008 2,201,565	2009 1,934,714	<u>2010</u> 2,751,976	<u>2011</u> 3,211,934	2012 3,607,221	2013 2,405,205	<u>2014</u> 3,932,999	<u>2015</u> 2,543,986	2016 2,330,259	<u>2017</u> 3,485,388	<u>2018</u> 3,814,701	<u>2019</u> 2,490,656
2	2,809,039	2,438,735	2,184,303	2,027,699	2,673,510	2,121,377	3,067,832	3,289,523	2,697,293	4,228,737	3,040,747	2,474,907	3,388,757	4,428,864	4,556,072	3,576,391	5,142,203	3,295,697	3,381,307	4,551,331	4,779,083	
3	3,069,291	2,657,295	2,352,615	2,236,309	3,007,596	2,326,077	3,293,472	3,433,690	2,989,067	4,505,191	3,288,243	2,729,947	3,681,854	4,791,312	4,910,148	3,732,065	5,725,513	3,579,670	3,601,813	4,900,816		
4	3,187,684	2,844,763	2,491,759	2,326,207	3,216,844	2,429,794	3,868,121	3,535,900	3,075,764	4,755,842	3,434,618	2,838,307	4,050,370	4,980,927	5,036,044	3,783,913	5,806,872	3,712,776	3,665,013			
5	3,334,465	3,021,424	2,617,138	2,425,392	3,378,060	2,544,069	3,923,267	3,673,096	3,157,818	4,895,811	3,482,499	2,888,987	4,182,550	5,232,645	5,071,629	3,837,635	5,825,434	3,863,705				
6	3,457,200	3,075,426	2,673,929	2,495,415	3,495,984	2,582,303	3,963,617	3,920,165	3,202,045	5,005,959	3,502,704	2,911,117	4,258,152	5,334,986	5,142,197	3,895,586	5,872,039					
7	3,495,355	3,097,474	2,698,511	2,581,983	3,544,378	2,683,561	4,005,779	4,000,731	3,238,455	5,123,649	3,511,257	2,933,165	4,295,252	5,480,157	5,165,531	3,989,755						
8	3,506,028	3,138,912	2,715,033	2,622,094	3,699,439	2,709,624	4,053,658	4,067,412	3,238,035	5,214,054	3,521,293	2,960,275	4,307,958	5,547,144	5,187,761							
9	3,530,921	3,214,245	2,725,884	2,671,237	3,711,954	2,751,055	4,069,440	4,101,236	3,301,685	5,294,667	3,531,557	2,993,791	4,313,902	5,698,271								
10	3,552,363	3,235,670	2,764,209	2,715,237	3,727,842	2,775,526	4,099,493	4,121,749	3,378,839	5,339,901	3,544,208	3,030,936	4,314,897									
11	3,612,059	3,271,628	2,785,789	2,768,418	3,738,687	2,801,700	4,156,729	4,152,472	3,500,778	5,404,879	3,552,431	3,068,930										
12	3,625,447	3,339,216	2,791,316	2,821,879	3,760,085	2,830,668	4,186,218	4,188,666	3,554,600	5,505,708	3,559,244											
13	3,640,675	3,530,763	2,794,972	2,865,653	3,783,035	2,860,666	4,197,884	4,398,535	3,591,568	5,690,592												
	3,686,245	3,531,885	2,799,305	2,899,480	3,795,599	2,889,252	4,212,622	4,408,224	3,600,198													
	3,716,598	3,532,238	2,823,807	2,925,169	3,944,740	2,926,491	4,228,643	4,496,066														
16	3,733,612	3,532,944	2,831,581	2,939,820	3,961,842	2,943,126	4,241,385															
	3,750,418	3,533,634	2,872,279	3,006,814	3,961,842	2,943,548																
18	3,764,284	3,533,807	2,872,279	3,017,086	3,961,842																	

Source: CMCRB Database as of 04/30/20 - Validated 08/06/20

Base   All PP   100%-0%   Base   All PP   100%-0%
(a) After AMA Guidelines     (a) After AMA Guidelines       (1) Number of Claims     # 9       (2) Average Amounts     \$812,317     \$462,502     \$812,317     \$120,694     \$276,217     \$120,694
(2) Average Amounts \$812,317 \$462,502 \$812,317 \$120,694 \$276,217 \$120,694
(2) Average Amounts \$812,317 \$462,502 \$812,317 \$120,694 \$276,217 \$120,694
(4)
(b) Social Security Offset (b) Social Security Onset
(1) Total (including above) \$127,656 \$276,217 \$127,656
(2) Difference- Social Security \$65,630 \$0 \$65,630 6,962 0 6,962
(Federal= b-1 minus a-2)
(3) Index (to a(2)) 8.0794% 0.0000% 8.0794% 5.7683% 0.0000% 5.7683%
(4) Complement 91.9206% 100.0000% 91.9206% 94.2317% 100.0000% 94.2317%
(c) Pension Offset (after Social Security Offset) (c) Pension Onset
(1) Total (including above) \$168,089 \$283,710 \$168,089
(2) Difference \$124,947 \$56,415 \$124,947 40,433 7,493 40,433
(Federal= c-1 minus b-1)
(3) % Pension (VII-G, P. 2) 12.50% 12.50% 12.50% 12.50% 12.50% 12.50%
(4) Net Pension 15,618 7,052 15,618 5,054 937 5,054
(5) Index (to a-2) 1.9227% 1.5247% 1.9227% 4.1876% 0.3391% 4.1876%
(6) Complement 98.0773% 98.4753% 98.0773%
(d) Combined Social Security and Pension Offsets (d) Combined Social Sec, Pension Onsets
(1) Average Amounts \$81,248 \$7,052 \$81,248 \$12,016 \$937 \$12,016 (b-2 plus c-4)
(2) Index (to a-2) 10.0021% 1.5247% 10.0021% 9.9559%
(3) Complement 89.9979% 98.4753% 89.9979% Factor 109.9559%
(4) Total Average 731,069 455,450 731,069 132,710
(e) Wage Level Increase
(1) Percentage from Exhibit VII-G. Page 1 0.0000%
(1) Percentage from Exhibit VII-G, Page 1 0.0000% (2) Complement 100.0000%
(3) Dollar Decrease 0 Dollar Increase \$0
(4) Factor 100.0000%
(f) Combined Social Security, Pension and Wage Level (f) Combined Percentage
(1) Percentage level Excl. AMA Guidelines (d-3 times e-2) 89.9979% (d-3) times (e-4) 109.9559%
(2) AMA Guidelines (a-3) <u>100.0000%</u> (a) First Fff and a file of Ant F7 (4 × 2) 100.0000%
(3) Full Effect of Act 57 (1 X 2) 89.9979% 109.9559%
(4) Percentage Decrease 10.0021% Increase 9.9559%
(g) Combined Dollar Effect
(1) (d-1) plus (e-3) Decrease \$81,248 Increase \$12,016
(2) Average after Act 57 (a-2 plus or minus g-1) \$731,069 \$132,710

	<u> </u>	State O.D.		<u>!</u>	Federal Excess	
	Dana	All DD	Weighted	Dana	All DD	Weighted
(a) After AMA Guidelines	<u>Base</u>	<u>All PP</u>	100%-0%	<u>Base</u> (a) After AMA (	All PP Guidelines	100%-0%
(a) Their Think Caldelines				<u>(a) mior mint (</u>	<u>Salaciii ics</u>	
(1) Number of Claims	# 66			# 66		
(2) Average Amounts	\$296,418	\$237,883	\$296,418	\$244,032	\$262,732	\$244,032
(3) Index (Base)	100%		100.0000%	100%		100.0000%
(b) Social Security Offset				(b) Social Secu	rity Onset	
				*		
(1) Total (including above)	- \$20,021	- ¢10.757	- \$20,021	\$250,893	\$269,484	\$250,893
(2) Difference- Social Security (Federal= b-1 minus a-2)	y \$20,021	\$12,757	\$20,021	6,861	6,752	6,861
(3) Index (to a(2))	6.7543%	5.3627%	6.7543%	2.8115%	2.5699%	2.8115%
(4) Complement	93.2457%	94.6373%	93.2457%	97.1885%	97.4301%	97.1885%
(c) Pension Offset (after Social S	Security Offset)			(c) Pension On	set	
				*	*	*
<ul><li>(1) Total (including above)</li><li>(2) Difference</li></ul>	- \$73,010	- ¢60.225	- \$72,010	\$278,638	\$294,372	\$278,638
(Federal= c-1 minus b-1)	\$73,010	\$60,335	\$73,010	27,745	24,888	27,745
(3) % Pension (VII-G, P. 2)	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%
(4) Net Pension	9,126	7,542	9,126	3,468	3,111	3,468
(5) Index (to a-2)	3.0788%	3.1704%	3.0788%	1.4212%	1.1841%	1.4212%
(6) Complement	96.9212%	96.8296%	96.9212%			
(d) Combined Social Security and	d Pension Offsets	<u>s</u>		(d) Combined S	Social Sec, Per	sion Onsets
(1) Average Amounts	\$29,147	\$20,299	\$29,147	\$10,329	\$9,863	\$10,329
(b-2 plus c-4)						
(2) Index (to a-2)	9.8332%	8.5331%	9.8332%			4.2327%
(3) Complement	90.1668%	91.4669%	90.1668%	Factor		104.2327%
(4) Total Average	267,271	217,584	267,271			254,361
(e) Wage Level Decrease				(e) Wage Leve	l Increase	
(1) Percentage from Exhibit V	/II-G, Page 1		0.0000%			
(2) Complement			100.0000%			
(3) Dollar Decrease			0	Dollar Increase	•	\$0
(4) Factor						100.0000%
(f) Combined Social Security, Pe	nsion and Wage	Level		(f) Combined P	ercentage	
(1) Percentage level Excl. AM	1A Guidelines (d-	3 times e-2)	90.1668%			104.2327%
(2) AMA Guidelines (a-3)	ir Calacinics (a	0 111100 0 2)	100.0000%			100.0000%
(3) Full Effect of Act 57 (1 X 2	2)		90.1668%			104.2327%
(4) Percentage Decrease			9.8332%	Increase		4.2327%
(g) Combined Dollar Effect						
(1) (d-1) plus (e-3)			\$29,147	Increase		\$10,329
(2) Average after Act 57 (a-2)	plus or minus g-1	1)	\$267,271	3.000		\$254,361
	ŭ					

	<u> </u>	State O.D.		Ţ	Federal Excess	
	Base	All PP	Weighted 100%-0%	Base	All PP	Weighted 100%-0%
(a) After AMA Guidelines	<u> </u>	<u>/ M. T. T.</u>	10070 070	(a) After AMA		10070 070
(1) Number of Claims	# 20			# 38		
<ul><li>(1) Number of Claims</li><li>(2) Average Amounts</li></ul>	# 38 \$543,716	\$369,752	\$543,716	# 36 \$72,195	\$147,835	\$72,195
(3) Index (Base)	100%	<b>4000</b> ,. <b>02</b>	100.0000%	100%	Ψ,σσσ	100.0000%
(b) Social Security Offset				(b) Social Secu	urity Onset	
(1) Total (including above)	-	-	-	\$75,001	\$147,872	\$75,001
(2) Difference- Social Security	\$14,219	\$4,156	\$14,219	2,806	37	2,806
(Federal= b-1 minus a-2) (3) Index (to a(2))	2.6152%	1.1240%	2.6152%	3.8867%	0.0250%	3.8867%
(4) Complement	97.3848%	98.8760%	97.3848%	96.1133%	99.9750%	96.1133%
( )						
(c) Pension Offset (after Social Se	ecurity Offset)			(c) Pension Or	<u>iset</u>	
(1) Total (including above)	-	_	-	\$91,909	\$160,354	\$91,909
(2) Difference	\$107,901	\$78,662	\$107,901	16,908	12,482	16,908
(Federal= c-1 minus b-1)						
(3) % Pension (VII-G, P. 2)	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%
<ul><li>(4) Net Pension</li><li>(5) Index (to a-2)</li></ul>	13,488 2.4806%	9,833 2.6593%	13,488 2.4806%	2,114 2.9275%	1,560 1.0554%	2,114 2.9275%
(6) Complement	97.5194%	97.3407%	97.5194%	2.521576	1.000470	2.521570
. , .						
(d) Combined Social Security and	Pension Offsets	<u> </u>		(d) Combined	Social Sec, Per	sion Onsets
(1) Average Amounts	\$27,707	\$13,989	\$27,707	\$4,920	\$1,597	\$4,920
(b-2 plus c-4)						
(2) Index (to a-2)	5.0958%	3.7833%	5.0958%	F		6.8142%
<ul><li>(3) Complement</li><li>(4) Total Average</li></ul>	94.9042% 516,009	96.2167% 355,763	94.9042% 516,009	Factor		106.8142% 77,115
(4) Total / Worago	010,000	000,700	010,000			77,110
(e) Wage Level Decrease				(e) Wage Leve	l Increase	
(1) Percentage from Exhibit VI	I-G, Page 1		0.0000%			
(2) Complement			100.0000%			
(3) Dollar Decrease			0	Dollar Increase	)	\$0
(4) Factor						100.0000%
(f) Combined Social Security, Pen	sion and Wage	<u>Level</u>		(f) Combined F	Percentage	
(1) Percentage level Excl. AM/	A Guidelines (d-	3 times e-2)	94.9042%			106.8142%
(2) AMA Guidelines (a-3)			<u>100.0000%</u>			100.0000%
(3) Full Effect of Act 57 (1 X 2)			94.9042%			106.8142%
(4) Percentage Decrease			5.0958%	Increase		6.8142%
(g) Combined Dollar Effect						
(1) (d-1) plus (e-3)			\$27,707	Increase		\$4,920
(2) Average after Act 57 (a-2 p	olus or minus g-1	)	\$516,009			\$77,115

	<u> </u>	State O.D.			Federal Excess	
	Base	All PP	Weighted 100%-0%	Base	All PP	Weighted 100%-0%
(a) After AMA Guidelines	<u>Dase</u>	All I	10070-070	(a) After AMA		10070-070
<ul><li>(1) Number of Claims</li><li>(2) Average Amounts</li></ul>	# 21 \$426,006	\$293,243	\$426,006	# 21 \$204.623	\$256,822	\$204,623
(3) Index (Base)	100%	φ293,243	100.0000%	\$204,823 100%	\$250,022	100.0000%
(b) Social Security Offset				(b) Social Sect	urity Onset	
(1) Total (including above)	-	-	-	\$211,598	\$260,038	\$211,598
(2) Difference- Social Security	y \$32,607	\$7,445	\$32,607	6,975	3,216	6,975
(Federal= b-1 minus a-2)	7.05.440/	0.50000/	7.05440/	0.40070/	4.05000/	0.40070/
<ul><li>(3) Index (to a(2))</li><li>(4) Complement</li></ul>	7.6541% 92.3459%	2.5389% 97.4611%	7.6541% 92.3459%	3.4087% 96.5913%	1.2522% 98.7478%	3.4087% 96.5913%
(4) Complement	32.343370	37.401170	32.343370	30.331370	30.1 41 0 70	30.331370
(c) Pension Offset (after Social S	Security Offset)			(c) Pension Or	<u>iset</u>	
(1) Total (including above)	-	-	-	\$247,256	\$282,501	\$247,256
(2) Difference	\$77,136	\$49,185	\$77,136	35,658	22,463	35,658
(Federal= c-1 minus b-1)						
(3) % Pension (VII-G, P. 2)	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%
(4) Net Pension	9,642	6,148 2.0966%	9,642	4,457	2,808 1.0933%	4,457 2.1783%
<ul><li>(5) Index (to a-2)</li><li>(6) Complement</li></ul>	2.2633% 97.7367%	97.9034%	2.2633% 97.7367%	2.1783%	1.0933%	2.1763%
(o) complement	07.1.00170	01.000170	01.100170			
(d) Combined Social Security an	d Pension Offsets	<u> </u>		(d) Combined	Social Sec, Per	sion Onsets
(1) Average Amounts	\$42,249	\$13,593	\$42,249	\$11,432	\$6,024	\$11,432
(b-2 plus c-4)						
(2) Index (to a-2)	9.9175%	4.6354%	9.9175%	<b>-</b> .		5.5870%
<ul><li>(3) Complement</li><li>(4) Total Average</li></ul>	90.0825% 383,757	95.3646% 279,650	90.0825% 383,757	Factor		105.5870% 216,055
(4) Total Average	303,737	270,000	303,737			210,000
(e) Wage Level Decrease				(e) Wage Leve	el Increase	
(1) Percentage from Exhibit \	/II-G, Page 1		0.0000%			
(2) Complement			100.0000%			
(3) Dollar Decrease			0	Dollar Increase	e	\$0
(4) Factor						100.0000%
(f) Combined Social Security, Pe	nsion and Wage	<u>Level</u>		(f) Combined F	Percentage	
(1) Percentage level Excl. AM	1A Guidelines (d-	3 times e-2)	90.0825%			105.5870%
(2) AMA Guidelines (a-3)			100.0000%			100.0000%
(3) Full Effect of Act 57 (1 X 2	2)		90.0825%			105.5870%
(4) Percentage Decrease			9.9175%	Increase		5.5870%
(g) Combined Dollar Effect						
(1) (d-1) plus (e-3)			\$42,249	Increase		\$11,432
(2) Average after Act 57 (a-2	plus or minus g-1	1)	\$383,757			\$216,055

# Coal Mine Compensation Rating Bureau Average Severity from Before Act 57 through Stages to After Act 57

Exhibit VII-A Page 5 Other Classes

For Information - NOT USED

	<u> </u>	State O.D.		<u>!</u>	Federal Excess	
	Door	A II DD	Weighted 100%-0%	Page	All DD	Weighted 100%-0%
(a) After AMA Guidelines	<u>Base</u>	<u>All PP</u>	100%-0%	<u>Base</u> (a) After AMA (	All PP Guidelines	100%-0%
(a) 7 liter 7 livis ( Caracimico				(d) Titol Titol Ti	<u>Jaiaomiloo</u>	
(1) Number of Claims	# 15			# 15		
(2) Average Amounts	\$287,140	\$205,919	\$287,140	\$219,296	\$248,672	\$219,296
(3) Index (Base)	100%		100.0000%	100%		100.0000%
(b) Social Security Offset				(b) Social Secu	irity Onset	
(1) Total (including above)	-	-	-	\$230,138	\$256,233	\$230,138
(2) Difference- Social Security	y \$20,783	\$10,342	\$20,783	10,842	7,561	10,842
(Federal= b-1 minus a-2)						
(3) Index (to a(2))	7.2379%	5.0224%	7.2379%	4.9440%	3.0406%	4.9440%
(4) Complement	92.7621%	94.9776%	92.7621%	95.0560%	96.9594%	95.0560%
(c) Pension Offset (after Social S	Security Offset)			(c) Pension On	<u>set</u>	
(1) Total (including above)	-	-	-	\$250,778	\$271,517	\$250,778
(2) Difference	\$55,529	\$37,569	\$55,529	20,640	15,284	20,640
(Federal= c-1 minus b-1)						
(3) % Pension (VII-G, P. 2)	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%
(4) Net Pension	6,941	4,696	6,941	2,580	1,911	2,580
(5) Index (to a-2)	2.4173%	2.2806%	2.4173%	1.1765%	0.7683%	1.1765%
(6) Complement	97.5827%	97.7194%	97.5827%			
(d) Combined Social Security an	d Pension Offsets	<u>8</u>		(d) Combined S	Social Sec, Per	sion Onsets
(1) Average Amounts	\$27,724	\$15,038	\$27,724	\$13,422	\$9,472	\$13,422
(b-2 plus c-4)						
(2) Index (to a-2)	9.6553%	7.3029%	9.6553%			6.1205%
(3) Complement	90.3447%	92.6971%	90.3447%	Factor		106.1205%
(4) Total Average	259,416	190,881	259,416			232,718
(e) Wage Level Decrease				(e) Wage Leve	l Increase	
(1) Percentage from Exhibit V	/II-G. Page 1		0.0000%			
(2) Complement	-, -3-		100.0000%			
(3) Dollar Decrease			0	Dollar Increase	•	\$0
(4) Factor						100.0000%
(f) Combined Social Security, Pe	nsion and Wage	<u>Level</u>		(f) Combined P	ercentage	
(4) Demonstrate level Evel AM	AA Cuidalinaa (d	O time = = = O\	00 24470/			400 40050/
<ul><li>(1) Percentage level Excl. AM</li><li>(2) AMA Guidelines (a-3)</li></ul>	ia Guidelines (d-	3 times e-2)	90.3447% 100.0000%			106.1205% 100.0000%
(3) Full Effect of Act 57 (1 X 2	2)		90.3447%			106.1205%
(4) Percentage Decrease	-/		9.6553%	Increase		6.1205%
(g) Combined Dollar Effect						
(1) (d-1) plus (e-3)			\$27,724	Increase		\$13,422
(2) Average after Act 57 (a-2	plus or minus g-1	1)	\$259,416			\$232,718

Weighted Level = 100% Base Scenario plus 0% 'All Permanent Partial' Scenario.

# COAL MINE COMPENSATION RATING BUREAU State Occupational Disease Classification Credibility

			(1)	(2)	(3)	(4)	(5) Credit	(6) Sility	(7) Claim	(8)	(9)	(10) Claim
			Estimated Miner Years	Claim Freq	uency per 100 <i>t</i> Trended to	Miner Years Indicated	Expected Awarded	- ,	Frequency Indicated w/	Change in Indication	10 Year 2010-2019	Frequency Per \$100 of
Classification	<u>1</u>	<u>Code</u>	2010-2019	(Eff 4/1/2020)	4/1/2021	(Eff 4/1/2021)	<u>Claims</u>	<u>Factor</u>	<u>Credibility</u>	After Cred.	<u>Payroll</u>	<u>Payroll</u>
Underground	d: Anthracite Bituminous	1011 1002	106.2 22,679.5	1.075218 0.160170	1.075218 0.160170	1.819346 0.163314	1.142 36.326	0.147 0.830	1.184605 0.162780	10.2% 1.6%	5,260,681 1,752,525,202	0.239142 0.021065
Surface:	Anthracite Bituminous	1016 1013	4,096.8 10,303.8	0.107317 <u>0.040367</u>	0.107317 0.040367	0.090385 <u>0.062855</u>	4.397 <u>4.159</u>	0.289 0.281	0.102424 <u>0.046686</u>	-4.6% <u>15.7%</u>	214,124,500 524,559,167	0.019597 0.009170
Four Standa	rd Classificatio	ns	37,186.3	0.123765	0.123765	0.132173	46.024		0.126881	4.8%	2,496,469,550	0.018899
	Coke Auger	1017 1019	892.7 140.0	0.012164 0.024712	0.012164 0.024712	0.007437 0.007310	0.109 0.035	0.045 0.026	0.011951 0.024260	-1.8% -1.8%	46,427,848 7,167,710	0.002298 0.004738
Co-Gen:	Anthracite Bituminous	1022 1024	1,844.0 2,044.6	0.024603 0.033436	0.024603 0.033436	0.078261 0.007445	0.454 0.684	0.093 0.114	0.029593 0.030473	20.3% -8.9%	95,981,210 107,321,277	0.005685 0.005805
Prep Plants:	Anthracite Bituminous	1026 1028	1,573.4 <u>4,284.1</u>	0.260588 <u>0.031788</u>	0.260588 0.031788	0.303415 <u>0.044749</u>	4.100 <u>1.362</u>	0.279 0.161	0.272537 <u>0.033875</u>	4.6% <u>6.6%</u>	82,839,464 <u>329,316,287</u>	0.051764 0.004407
Other Classe	es		10,778.8	0.062553		0.077587	6.742		0.065394	4.9%	669,053,796	0.010535
Total			47,965.1	0.110009		0.119906	52.766		0.113064	4.8%	3,165,523,346	0.017131

Source: (1) Estimated Miner Years from Exhibit VII-B-2

<sup>(2)</sup> Exhibit VII-B-1-B Col. 10

<sup>(3)</sup> Approved claim frequency trended to 4/1/2021 @ 0.0%

<sup>(4)</sup> Indicated Frequency - Exhibit VII-B-2; totals and subtotals are based on class frequencies weighted with 10 year estimated miner years.

<sup>(5)</sup> Expected Awarded Claims = (1)  $\times$  (2) / 100

<sup>(6)</sup> Factor  $Z = ((5) / 52.766) \land 0.5$ 

<sup>(7)=(4)\*(6)+((3)\*(1-(6))</sup> 

<sup>(8)=(7)/(2)-1</sup> Totals and subtotals are weighted with 10 year estimated miner years.

<sup>(9)</sup> From Exhibit X-A

<sup>(10)=(7)</sup> x (1) / ((9) x 100) / 1,000,000

# COAL MINE COMPENSATION RATING BUREAU State Occupational Disease Classification Credibility

			(1)	(2)	(3) Expected	(4)	(5)	(6)	(7) Average	(8)	(9)	(10)
			Approved		Awarded Claims	Estimated	Estimated		Weekly		Estimated	Frequency
			Claim Freq.	Payroll	2009-2018	Miner Years	Miner Years	Adjustment	Wage	Payroll	Miner Years	Per 100
<u>Classification</u>	<u>1</u>	<u>Code</u>	4/1/2020	2009-2018	(1) x (2)	<u>2010-2019</u>	<u>2019</u>	<u>Factor</u>	<u>2009</u>	<u>2009</u>	<u>2009-2018</u>	Miner Years
Underground	d: Anthracite	1011	0.221003	6,417,168	1.418213	106.2	3.1	1.067	836	1,335,866	131.9	1.075218
	Bituminous	1002	0.021121	1,668,096,919	35.231875	22,679.5	2,165.1	1.573	836	101,348,140	21,996.5	0.160170
Surface:	Anthracite	1016	0.020980	206,823,295	4.339153	4,096.8	408.0	1.067	836	16,445,462	4,043.3	0.107317
	Bituminous	1013	0.008080	550,867,407	4.451009	10,303.8	609.5	1.067	836	<u>61,784,394</u>	11,026.3	0.040367
Four Standar	d Classificatio	ns		2,432,204,789	45.440250	37,186.3	3,185.7			180,913,862	37,198.0	
	Coke	1017	0.002394	47,029,008	0.112587	892.7	78.6	1.067	836	5,173,552	925.6	0.012164
	Auger	1019	0.004930	7,553,959	0.037241	140.0	9.3	1.067	836	926,163	150.7	0.024712
Co-Gen:	Anthracite	1022	0.004818	95,766,727	0.461404	1,844.0	141.2	1.067	836	8,004,644	1,875.4	0.024603
	Bituminous	1024	0.006505	103,380,449	0.672490	2,044.6	202.9	1.067	836	7,866,413	2,011.3	0.033436
Prep Plants:	Anthracite	1026	0.050856	76.942.636	3.912995	1.573.4	217.3	1.067	836	6,749,748	1,501.6	0.260588
rieprianis.	Bituminous	1028	0.004220	311,539,063	1.314695	4,284.1	438.3	1.573	836	19,828,012	4,135.8	0.031788
Other Classe	·S			642,211,842		10,778.8	1,087.6			48,548,532	10,600.4	
Total				3,074,416,631		47,965.1	4,273.3			229,462,394	47,798.4	

Source: (1) Approved Claim Frequency (4/1/20): See Exhibit III from filing effective 4/1/2020 (See Exhibit X-F)

- (2) 10 years Payroll(2009-2018): See Exhibit X-A-1
- (3) Expected Awarded Claims = (1)x(2) / 1,000,000
- (4) Estimated Miner Years 2010-2019: See Exhibit VII-B-2
- (5) Estimated Miner Years 2019: See Exhibit VII-B-2
- (6) Wage Adjustment Factor was derived from CMCRB data. See Exhibit X-G
- (7) Average Weekly Wage 2009: See Exhibit XII-D
- (8) Payroll 2009: See Exhibit X-A-1
- (9) Estimated Miner Years 2009-2018 = (4)-(5)+(8)/((6)x(7)x52)
- (10) Frequency Per 100 Miner Years = (3)/((9)/100))

#### STATE OCCUPATIONAL DISEASE FREQUENCY WITH FEDERAL EXCESS FREQUENCY

ANTHRACITE	E UNDERGRO	UND (1011)												
		(,					0.920		EXPECTED	Statewide		Estimated	Frequency	
						IBNR +	AWARD		ULTIMATE	Average	Adjustment	Miner	Claims per 100	Weighted
YEAR	REPORTED	AWARDED	PENDING	DENIED	IBNR	PENDING	RATIO	Payroll	AWARDED	Weekly Wage	Factor	Years	Miner Years	Frequency
2010	0	0	0	0	0.0000	0.0000	0.000000	1,299,588	0.000000	845	1.067	27.7	0.000000	
2011	1	1	0	0	0.0000	0.0000	0.000000	1,257,944	1.000000	858	1.067	26.4	3.787879	
2012	0	0	0	0	0.0000	0.0000	0.000000	1,029,260	0.000000	888	1.067	20.9	0.000000	
2013	1	1	0	0	0.0000	0.0000	0.000000	381,876	1.000000	917	1.067	7.5	13.333333	
2014	0	0	0	0	0.0000	0.0000	0.000000	258,809	0.000000	932	1.067	5.0	0.000000	
2015	0	0	0	0	0.0000	0.0000	0.000000	254,336	0.000000	951	1.067	4.8	0.000000	
2016	0	0	0	0	0.0000	0.0000	0.000000	163,760	0.000000	978	1.067	3.0	0.000000	
2017	0	0	0	0	0.0000	0.0000	0.000000	252,383	0.000000	995	1.067	4.6	0.000000	
2018	0	0	0	0	0.0000	0.0000	0.000000	183,346	0.000000	1,025	1.067	3.2	0.000000	
2019	0	0	0	0	0.0361	0.0361	0.033240	179,379	0.033240	1,049	1.067	3.1	1.072245	
TOTAL	2	2	0	0	0.0361	0.0361	0.033240	5,260,681	2.033240			106.2	18.193457	
	e: State Freq	_	ŭ	Ü	0.0001	0.000.	0.0002.0	0,200,001	2.0002.0			100.2	1.819346	
	Excess Frequ		es 40 0%)										0.727738	
	- Excoss 110q	001107 (111110	.5 .6.6767										0.7 27 7 00	
BITUMINOUS	UNDERGROU	IND (1002)												
		(,					0.920		EXPECTED	Statewide		Estimated	Frequency	
						IBNR +	AWARD		ULTIMATE	Average	Adjustment	Miner	Claims per 100	
YEAR	REPORTED	AWARDED	PENDING	DENIED	IBNR	PENDING	RATIO	Payroll	AWARDED	Weekly Wage	Factor	Years	Miner Years	
2010	0	0	0	0	0.0000	0.0000	0.000000	125,393,576	0.000000	845	1.573	1,814.2	0.000000	
2011	2	2	Ō	0	0.0000	0.0000	0.000000	148,485,709	2.000000	858	1.573	2,115.8	0.094527	
2012	4	3	1	0	0.0000	1.0000	0.920000	153,618,908	3.920000	888	1.573	2,114.9	0.185352	
2013	7	6	0	i	0.0764	0.0764	0.070260	149,747,092	6.070260	917	1.573	1,996.4	0.304060	
2014	8	8	Ö	0	0.3553	0.3553	0.326885	271,230,707	8.326885	932	1.573	3,557.9	0.234039	
2015	6	5	Ö	i	0.6277	0.6277	0.577502	216,454,460	5.577502	951	1.573	2,782.6	0.200442	
2016	4	4	Ö	0	0.8601	0.8601	0.791329	148,556,407	4.791329	978	1.573	1,857.0	0.258014	
2017	0	0	0	0	1.5509	1.5509	1.426846	172,708,778	1.426846	995	1.573	2,122.1	0.067237	
2018	2	1	0	1	2.3887	2.3887	2.197622	180,553,142	3.197622	1,025	1.573	2,122.1	0.148485	
2019	0	0	0	0	3.3180	3.3180	3.052532	185,776,423	3.052532	1,049	1.573	2,165.1	0.140988	
	33	29		3						1,047	1.5/5			
TOTAL			ı	3	9.1772	10.1772	9.362978	1,752,525,202	38.362978			22,679.5	1.633144	
	e: State Freq		40 0071										0.163314	
rederal	Excess Frequ	bency (iime	/S 4U.U%)										0.065326	
A NITHER A CHTC	CUREAGE (1	017)												
ANTHRACITE	SURFACE (I	016)					0.000		EVENTED	61 1 11		F 12 1 1	-	
						IDAID :	0.920		EXPECTED	Statewide	A 15 1	Estimated	Frequency	
						IBNR +	AWARD		ULTIMATE	Average	Adjustment	Miner	Claims per 100	
YEAR			PENDING	DENIED	<u>IBNR</u>	<u>PENDING</u>	RATIO	<u>Payroll</u>	AWARDED	Weekly Wage	<u>Factor</u>	<u>Years</u>	Miner Years	
2010	0	0	0	0	0.0000	0.0000	0.000000	14,295,288	0.000000	845	1.067	304.9	0.000000	
2011	1	1	0	0	0.0000	0.0000	0.000000	21,034,600	1.000000	858	1.067	441.9	0.226296	
2012	0	0	0	0	0.0000	0.0000	0.000000	26,295,907	0.000000	888	1.067	533.7	0.000000	
2013	1	0	0	1	0.0000	0.0000	0.000000	22,449,824	0.000000	917	1.067	441.2	0.000000	
2014	0	0	0	0	0.0000	0.0000	0.000000	20,466,075	0.000000	932	1.067	395.8	0.000000	
2015	0	0	0	0	0.0000	0.0000	0.000000	24,218,779	0.000000	951	1.067	459.0	0.000000	
2016	2	2	0	0	0.0000	0.0000	0.000000	20,873,611	2.000000	978	1.067	384.7	0.519886	
2017	0	0	0	0	0.0726	0.0726	0.066792	21,167,074	0.066792	995	1.067	383.4	0.017421	
2018	0	0	0	0	0.1705	0.1705	0.156869	19,576,675	0.156869	1,025	1.067	344.2	0.045575	
2019	0	0	0	0	0.4198	0.4198	0.386253	23,746,667	0.386253	1,049	1.067	408.0	0.094670	
TOTAL	4	3	0	1	0.6630	0.6630	0.609914	214,124,500	3.609914			4,096.8	0.903848	
Average	e: State Freq	uency											0.090385	
Federal	Excess Frequ	uency (time	es 40.0%)										0.036154	
BITUMINOUS	SURFACE (1	013)												
							0.920		EXPECTED	Statewide		Estimated	Frequency	
YEAR						IBNR +	AWARD		ULTIMATE	Average	Adjustment	Miner	Claims per 100	
	REPORTED	AWARDED	PENDING	DENIED	<u>IBNR</u>	IBNR + PENDING	AWARD <u>RATIO</u>	<u>Payroll</u>	ULTIMATE AWARDED		Adjustment <u>Factor</u>			
2010	REPORTED 0	AWARDED 0	PENDING 0	DENIED 0	<u>IBNR</u> 0.0000			<u>Payroll</u> 72,711,558		Average		Miner	Claims per 100	
						<u>PENDING</u>	RATIO		<u>AWARDED</u>	Average Weekly Wage	<u>Factor</u>	Miner <u>Years</u>	Claims per 100 Miner Years	
2010	0	0	0	0	0.0000	<u>PENDING</u> 0.0000	<u>RATIO</u> 0.000000	72,711,558	0.000000	Average <u>Weekly Wage</u> 845	Factor 1.067	Miner <u>Years</u> 1,550.9	Claims per 100 Miner Years 0.000000	
2010 2011	0	0	0	0	0.0000 0.0000	9.0000 0.0000	RATIO 0.000000 0.000000	72,711,558 86,074,064	0.000000 1.000000	Average <u>Weekly Wage</u> 845 858	<u>Factor</u> 1.067 1.067	Miner <u>Years</u> 1,550.9 1,808.1	Claims per 100 <u>Miner Years</u> 0.000000 0.055307	
2010 2011 2012	0 1 2	0 1 2	0 0 0	0 0 0	0.0000 0.0000 0.0000	9ENDING 0.0000 0.0000 0.0000	RATIO 0.000000 0.000000 0.000000	72,711,558 86,074,064 76,452,811	AWARDED 0.000000 1.000000 2.000000	Average <u>Weekly Wage</u> 845 858 888	Factor 1.067 1.067 1.067	Miner <u>Years</u> 1,550.9 1,808.1 1,551.7	Claims per 100 <u>Miner Years</u> 0.000000 0.055307 0.128891	
2010 2011 2012 2013	0 1 2	0 1 2	0 0 0	0 0 0	0.0000 0.0000 0.0000 0.0000	PENDING 0.0000 0.0000 0.0000 0.0000	RATIO 0.000000 0.000000 0.000000 0.000000	72,711,558 86,074,064 76,452,811 61,349,745	AWARDED 0.000000 1.000000 2.000000 0.000000	Average <u>Weekly Wage</u> 845  858  888  917	Factor 1.067 1.067 1.067 1.067	Miner <u>Years</u> 1,550.9 1,808.1 1,551.7 1,205.8	Claims per 100 <u>Miner Years</u> 0.000000 0.055307 0.128891 0.000000	
2010 2011 2012 2013 2014	0 1 2 0	0 1 2 0 1	0 0 0 0	0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000	RATIO 0.000000 0.000000 0.000000 0.000000 0.000000	72,711,558 86,074,064 76,452,811 61,349,745 54,050,731	AWARDED 0.000000 1.000000 2.000000 0.000000 1.000000	Average <u>Weekly Wage</u> 845 858 888 917 932	Factor 1.067 1.067 1.067 1.067	Miner <u>Years</u> 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2	Claims per 100 <u>Miner Years</u> 0.000000 0.055307 0.128891 0.000000 0.095675	
2010 2011 2012 2013 2014 2015	0 1 2 0 1 2	0 1 2 0 1 2	0 0 0 0 0	0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	RATIO 0.000000 0.000000 0.000000 0.000000 0.000000	72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048	AWARDED 0.000000 1.000000 2.000000 0.000000 1.000000 2.000000	Average  Weekly Wage  845  858  888  917  932  951	Factor 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8	Claims per 100 <u>Miner Years</u> 0.000000 0.055307 0.128891 0.000000 0.095675 0.257798	
2010 2011 2012 2013 2014 2015 2016	0 1 2 0 1 2 0	0 1 2 0 1 2 0	0 0 0 0 0 0	0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294	RATIO 0.000000 0.000000 0.000000 0.000000 0.000000	72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048 29,127,089	AWARDED 0.000000 1.000000 2.000000 0.000000 1.000000 2.000000 0.027066	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978	Factor 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8	Claims per 100 <u>Miner Years</u> 0.000000 0.055307 0.128891 0.000000 0.095675 0.257798 0.005042	
2010 2011 2012 2013 2014 2015 2016 2017 2018	0 1 2 0 1 2 0 0	0 1 2 0 1 2 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00294 0.0958 0.1875	RATIO 0.000000 0.000000 0.000000 0.000000 0.000000	72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187	AWARDED 0.000000 1.000000 2.000000 0.000000 2.000000 2.000000 0.027066 0.088118 0.172491	Average  Weekly Waae  845  858  888  917  932  951  978  995 1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7	Claims per 100 Miner Years 0.000000 0.055307 0.128891 0.000000 0.095675 0.257798 0.005042 0.014679 0.027835	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	0 1 2 0 1 2 0 0 0	0 1 2 0 1 2 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00294 0.0958 0.1875 0.2870	RATIO 0.000000 0.000000 0.000000 0.000000 0.000000	72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154	AWARDED 0.000000 1.000000 2.000000 0.000000 1.000000 2.000000 0.027066 0.088118 0.172491 0.264040	Average <u>Weekly Waae</u> 845  858  888  917  932  951  978  995	Factor 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7 609.5	Claims per 100  Miner Years 0.000000 0.055307 0.128891 0.000000 0.095675 0.257798 0.005042 0.014679 0.027835 0.043321	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	0 1 2 0 1 2 0 0 0 0 0 0	0 1 2 0 1 2 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00294 0.0958 0.1875	RATIO 0.000000 0.000000 0.000000 0.000000 0.000000	72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187	AWARDED 0.000000 1.000000 2.000000 0.000000 2.000000 2.000000 0.027066 0.088118 0.172491	Average  Weekly Waae  845  858  888  917  932  951  978  995 1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7	Claims per 100 Miner Years 0.000000 0.055307 0.128891 0.000000 0.095675 0.257798 0.005042 0.014679 0.027835 0.043321 0.628548	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL	0 1 2 0 1 2 0 0 0 0 0 0	0 1 2 0 1 2 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00294 0.0958 0.1875 0.2870	RATIO 0.000000 0.000000 0.000000 0.000000 0.000000	72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154	AWARDED 0.000000 1.000000 2.000000 0.000000 1.000000 2.000000 0.027066 0.088118 0.172491 0.264040	Average  Weekly Waae  845  858  888  917  932  951  978  995 1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7 609.5	Claims per 100 Miner Years 0.000000 0.055307 0.128891 0.000000 0.095675 0.257798 0.005042 0.014679 0.027835 0.043321 0.628548 0.062855	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL	0 1 2 0 1 2 0 0 0 0 0 0	0 1 2 0 1 2 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00294 0.0958 0.1875 0.2870	RATIO 0.000000 0.000000 0.000000 0.000000 0.000000	72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154	AWARDED 0.000000 1.000000 2.000000 0.000000 1.000000 2.000000 0.027066 0.088118 0.172491 0.264040	Average  Weekly Waae  845  858  888  917  932  951  978  995 1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7 609.5	Claims per 100 Miner Years 0.000000 0.055307 0.128891 0.000000 0.095675 0.257798 0.005042 0.014679 0.027835 0.043321 0.628548	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL	0 1 2 0 1 2 0 0 0 0 0 0 0 6 e: State Frequ	0 1 2 0 1 2 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00294 0.0958 0.1875 0.2870	RATIO 0.000000 0.000000 0.000000 0.000000 0.000000	72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154	AWARDED 0.000000 1.000000 2.000000 0.000000 1.000000 2.000000 0.027066 0.088118 0.172491 0.264040	Average  Weekly Waae  845  858  888  917  932  951  978  995 1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7 609.5	Claims per 100 Miner Years 0.000000 0.055307 0.128891 0.000000 0.095675 0.257798 0.005042 0.014679 0.027835 0.043321 0.628548 0.062855	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal	0 1 2 0 1 2 0 0 0 0 0 0 0 6 e: State Frequ	0 1 2 0 1 2 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00294 0.0958 0.1875 0.2870 0.5997	RATIO 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.027066 0.088118 0.172491 0.264040 0.551715	72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154	AWARDED 0.000000 1.000000 2.000000 0.000000 1.000000 0.027066 0.088118 0.172491 0.264040 6.551715	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 1,025 1,049 Statewide	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7 609.5 10,303.8	Claims per 100  Miner Years	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal	0 1 2 0 1 2 0 0 0 0 6 e: State Frequence Excess Frequence	0 1 2 0 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997	RAIIO 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.027066 0.088118 0.172491 0.264040 0.551715	72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154 524,559,167	AWARDED 0.000000 1.000000 2.000000 0.000000 0.0027066 0.088118 0.172491 0.264040 6.551715  EXPECTED ULTIMATE	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995 1,025 1,049 Statewide Average	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7 609.5 10,303.8  Estimated Miner	Claims per 100 Miner Years	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal	0 1 2 0 1 2 0 0 0 0 6 e: State Frequiences Frequiences Frequiences DARD CLASSE	0 1 2 0 1 1 2 0 0 0 0 0 0 6 uency (times:	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0954 0.0955 0.2870 0.5997	RATIO 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.027066 0.088118 0.172491 0.264040 0.551715	72.711,558 86.074,064 76.452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154 524,559,167	AWARDED 0.000000 1.000000 2.000000 0.000000 0.027066 0.088118 0.172491 0.264040 6.551715  EXPECTED ULTIMATE AWARDED	Average Weekly Wage 845 848 858 888 917 932 951 978 995 1,025 1,049  Statewide Average Weekly Wage	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7 609.5 10,303.8  Estimated Miner Years	Claims per 100  Miner Years	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal	0 1 2 0 1 2 0 0 0 0 0 6 e: State Frequence Excess Frequen	0 1 2 2 0 1 1 2 2 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997	RATIO 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.027066 0.088118 0.172491 0.264040 0.551715 0.920 AWARD RATIO 0.000000	72.711,558 86.074,064 76.452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154 524,559,167	AWARDED 0.000000 1.000000 2.000000 0.000000 0.0027066 0.088118 0.172491 0.264040 6.551715  EXPECTED ULTIMATE AWARDED 0.000000	Average Weekly Wage  845 845 858 858 975 975 1,025 1,049  Statewide Average Weekly Wage 845	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7 609.5 10,303.8  Estimated Miner Years 3,697.7	Claims per 100 Miner Years 0.000000 0.055307 0.128891 0.000000 0.095675 0.257798 0.005042 0.014679 0.027835 0.043321 0.628548 0.062855 0.025142 Frequency Claims per 100 Miner Years 0.000000	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal FOUR STAND	0 1 2 0 1 2 0 0 0 0 0 6 e: State Frequence Excess Frequen	0 1 2 2 0 0 1 1 2 2 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0029 0.0294 0.0958 0.1875 0.2870 0.5997	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997	RAIIO 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.027066 0.088118 0.172491 0.264040 0.551715 0.920 AWARD RAIIO 0.000000	72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154 524,559,167	AWARDED 0.000000 1.000000 2.000000 0.000000 0.0027066 0.088118 0.172491 0.264040 6.551715  EXPECTED ULTIMATE AWARDED 0.000000 5.000000	Average Weekly Wage  845 858 858 8797 932 951 978 995 1,025 1,049  Statewide Average Weekly Wage 845 8485	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7 609.5 10,303.8  Estimated Miner Years 3,697.7 4,392.2	Claims per 100 Miner Years	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal FOUR STAND YEAR 2010 2011	0 1 2 0 1 1 2 0 0 0 0 6 e: State Frequence Excess Frequen	0 1 2 2 0 0 1 1 2 2 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0954 0.0958 0.1875 0.2870 0.5997	RATIO 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.027066 0.088118 0.172491 0.264040 0.551715 0.920 AWARD RATIO 0.000000 0.000000 0.920000	72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154 524,559,167	AWARDED 0.000000 1.000000 2.000000 0.000000 0.027066 0.088118 0.172491 0.264040 6.551715  EXPECTED ULTIMATE AWARDED 0.000000 5.000000 5.920000	Average  Weekly Wage  845 858 888 917 932 951 978 975 1,025 1,049  Statewide Average  Weekly Wage  845 858	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7 609.5 10,303.8  Estimated Miner Years 3,697.7 4,392.2 4,221.2	Claims per 100  Miner Years	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal FOUR STAND YEAR 2010 2011 2012 2013	0 1 2 0 1 2 0 0 0 0 0 6 e: State Frequ Excess Frequ DARD CLASSE  REPORTED 0 5 6 9	0 1 2 2 0 1 1 2 2 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0024 0.0958 0.1875 0.2870 0.5997	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997	RATIO 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.027066 0.088118 0.172491 0.264040 0.551715 0.920 AWARD RATIO 0.000000 0.000000 0.0920000 0.0920000 0.070260	72.711,558 86.074,064 76.452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154 524,559,167  Payroll 213,700,010 256,852,317 257,396,886 233,928,537	AWARDED 0.000000 1.000000 2.000000 0.000000 0.027066 0.088118 0.172491 0.264040 6.551715  EXPECTED ULTIMATE AWARDED 0.000000 5.920000 7.070260	Average Weekly Wage  845 848 858 858 971 972 951 978 995 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7 609.5 10,303.8  Estimated Miner Years 3,697.7 4,392.2 4,221.2 3,650.9	Claims per 100 Miner Years 0.000000 0.055307 0.128891 0.000000 0.095675 0.257798 0.005042 0.014679 0.027835 0.043321 0.628548 0.062855 0.025142 Frequency Claims per 100 Miner Years 0.000000 0.113838 0.140244 0.193658	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal FOUR STAND YEAR 2010 2011 2012 2013	0 1 2 0 1 2 0 0 0 0 0 6 e: State Frequence Excess Frequen	0 1 2 2 0 0 1 1 2 2 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.00294 0.0958 0.1875 0.2870 0.5997	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997	RAIIO 0.000000 0.000000 0.000000 0.000000 0.000000 0.027066 0.088118 0.172491 0.264040 0.551715 0.920 AWARD RAIIO 0.000000 0.000000 0.9200000 0.9200000 0.9200000 0.9200000 0.9720000 0.9720000 0.9720000 0.9720000 0.9720000 0.9720000 0.9720000 0.9720000 0.9720000 0.9720000 0.9720000 0.9720000	72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154 524,559,167  Payroll 213,700,010 256,852,317 257,396,886 233,928,537 346,006,322	AWARDED 0.000000 1.000000 2.000000 0.000000 0.0027066 0.088118 0.172491 0.264040 6.551715  EXPECTED ULTIMATE AWARDED 0.000000 5.000000 5.000000 7.070260 9.326885	Average Weekly Wage  845 848 888 917 932 951 1,025 1,049  Statewide Average Weekly Wage Weekly Wage 845 858 888 917 932	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7 609.5 10,303.8  Estimated Miner Years 3,697.7 4,392.2 4,221.2 3,650.9 5,003.9	Claims per 100  Miner Years	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal FOUR STAND YEAR 2010 2011 2012 2013 2014 2014	0 1 2 0 0 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0	0 1 2 2 0 0 1 1 2 2 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997  IBNR + PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	RAIIO 0.000000 0.000000 0.000000 0.000000 0.000000 0.027066 0.088118 0.172491 0.264040 0.551715 0.920 AWARD RAIIO 0.000000 0.920000 0.920000 0.070260 0.326885 0.577502	72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154   Payroll 213,700,010 256,852,317 257,396,886 233,928,537 346,006,322 281,861,623	AWARDED 0.000000 1.000000 2.000000 1.000000 2.000000 0.027066 0.088118 0.172491 0.264040 6.551715  EXPECTED ULTIMATE AWARDED 0.000000 5.000000 5.920000 7.070260 9.326885 7.577502	Average Weekly Wage  845 888 888 917 932 951 978 995 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917 932 951	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7 609.5 10,303.8  Estimated Miner Years 3,697.7 4,392.2 4,221.2 3,650.9 5,003.9 4,022.2	Claims per 100  Miner Years	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal FOUR STAND YEAR 2010 2011 2012 2013 2014 2015 2016	0 1 2 0 1 2 0 0 0 0 6 e: State Freque   Excess Freque   DARD CLASSE  REPORTED 0 5 6 9 9 8 6	0 1 2 2 0 0 1 1 2 2 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.00294 0.0958 0.1875 0.2870 0.5997	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997   IBNR + PENDING 0.0000 0.0000 1.0000 0.0000 1.0000 0.0764 0.3553 0.6277 0.8896	RATIO 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.027066 0.088118 0.172491 0.264040 0.551715 0.920 AWARD RATIO 0.000000 0.000000 0.000000 0.9200000 0.070260 0.326885 0.577502 0.818395	72.711,558 86.074,064 76.452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154 524,559,167  Payroll 213,700,010 256,852,317 257,396,886 233,928,537 346,006,322 281,861,623 198,720,867	AWARDED 0.000000 1.000000 2.000000 0.000000 0.027066 0.088118 0.172491 0.264040 6.551715  EXPECTED ULTIMATE AWARDED 0.000000 5.020000 7.070260 9.326885 7.577502 6.818395	Average Weekly Wage  845 848 888 917 932 951 1,025 1,049  Statewide Average Weekly Wage Weekly Wage 888 917 932 951 978	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7 609.5 10,303.8  Estimated Miner Years 3,697.7 4,392.2 4,221.2 3,650.9 5,003.9 4,022.2 2,781.5	Claims per 100 Miner Years 0.000000 0.055307 0.128891 0.000000 0.095675 0.257798 0.005042 0.014679 0.027835 0.043321 0.628548 0.062855 0.025142 Frequency Claims per 100 Miner Years 0.000000 0.113838 0.140244 0.193658 0.186392 0.188392 0.245134	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal FOUR STAND YEAR 2010 2011 2012 2013 2014 2015 2016 2016 2017	0 1 2 0 1 2 0 0 0 0 0 6 e: State Freqi Excess Freqi Excess Freqi 0 5 6 9 9 8 6 0	0 1 2 2 0 0 1 1 2 2 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.00294 0.0958 0.1875 0.2870 0.5997 IBNR 0.0000 0.0000 0.0000 0.0000 0.0000 0.0764 0.3553 0.6277 0.8896	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0758 0.2870 0.5997	RAIIO 0.000000 0.000000 0.000000 0.000000 0.000000 0.027066 0.088118 0.172491 0.264040 0.551715 0.920 AWARD RAIIO 0.000000 0.000000 0.070260 0.326885 0.577502 0.818395 1.581756	72.711,558 86.074,064 76.452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154 524,559,167  Payroll 213,700,010 256,852,317 257,396,886 233,928,537 346,006,322 281,861,623 198,720,867 227,269,015	AWARDED 0.000000 1.000000 2.000000 1.000000 0.0027066 0.088118 0.172491 0.264040 6.551715  EXPECTED ULTIMATE AWARDED 0.000000 5.000000 5.000000 7.070260 9.326885 7.577502 6.818395 1.581756	Average Weekly Wage  845 848 888 917 932 951 978 1,025 1,049  Statewide Average Weekly Wage Weekly Wage 845 858 888 917 932 951 978	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7 609.5 10,303.8  Estimated Miner Years 3,697.7 4,392.2 4,221.2 3,650.9 5,003.9 4,022.2 2,781.5 3,110.4	Claims per 100  Miner Years	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal FOUR STAND YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2017 2018	0 1 2 0 0 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0	0 1 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997 IBNR 0.0000 0.0000 0.0000 0.0764 0.3553 0.6277 0.8896 1.7193 2.7467	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997   IBNR + PENDING 0.0000 0.0000 1.0000 0.0000 0.0764 0.9589 1.7193 0.8896 1.7193 2.7467	RAIIO 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.027066 0.088118 0.172491 0.264040 0.551715 0.920 AWARD RAIIO 0.000000 0.70260 0.326885 0.577502 0.818395 1.581756 2.526982	72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154 524,559,167  Payroll 213,700,010 256,852,317 257,396,886 233,928,537 346,006,322 281,861,623 198,720,867 227,269,015 235,555,350	AWARDED 0.000000 1.000000 2.000000 1.000000 2.000000 0.027066 0.088118 0.172491 0.264040 6.551715  EXPECTED ULTIMATE AWARDED 0.000000 5.000000 7.070260 9.326885 7.577502 6.818395 1.581756 3.526982	Average Weekly Wage  845 858 888 917 932 951 978 995 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917 932 951 978 975 1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7 609.5 10,303.8  Estimated Miner Years 3,697.7 4,392.2 4,221.2 3,650.9 4,022.2 2,781.5 3,110.4 3,120.6	Claims per 100  Miner Years	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal  FOUR STAND  YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2018	0 1 2 0 0 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.00294 0.0958 0.1875 0.2870 0.5997 0.5997	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997  IBNR + PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0764 0.3553 0.6277 0.8896 1.7193 2.7467 4.0609	RAIIO 0.00000 0.000000 0.000000 0.000000 0.000000	72.711,558 86.074,064 76.452.811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154 524,559,167  Payroll 213,700,010 256,852,317 257,396,886 233,928,537 346,006,322 281,861,623 198,720,867 227,269,015 235,555,350 245,178,623	AWARDED 0.000000 1.000000 2.000000 0.000000 0.027066 0.088118 0.172491 0.264040 6.551715  EXPECTED ULTIMATE AWARDED 0.000000 5.920000 7.070260 9.32685 7.577502 6.818395 1.581756 3.526982 3.736065	Average Weekly Wage  845 848 888 917 932 951 978 1,025 1,049  Statewide Average Weekly Wage Weekly Wage 845 858 888 917 932 951 978	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 1.550.9 1.808.1 1.551.7 1.205.8 1.045.2 775.8 536.8 600.3 619.7 609.5 10,303.8  Estimated Miner Years 3.697.7 4.392.2 4.221.2 3.650.9 5.003.9 4.022.2 2.781.5 3.110.4 3,120.6 3,185.7	Claims per 100  Miner Years 0.000000 0.055307 0.128891 0.000000 0.095675 0.257798 0.005042 0.014679 0.027835 0.043321 0.628548 0.062855 0.025142  Frequency Claims per 100  Miner Years 0.00000 0.113838 0.140244 0.193658 0.186392 0.188392 0.245134 0.05085 0.013023 0.113023 0.117276	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal  FOUR STAND  YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL	0 1 2 0 0 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 2 2 0 0 1 1 2 2 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997 IBNR 0.0000 0.0000 0.0000 0.0764 0.3553 0.6277 0.8896 1.7193 2.7467	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997   IBNR + PENDING 0.0000 0.0000 1.0000 0.0000 0.0764 0.9589 1.7193 0.8896 1.7193 2.7467	RAIIO 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.027066 0.088118 0.172491 0.264040 0.551715 0.920 AWARD RAIIO 0.000000 0.70260 0.326885 0.577502 0.818395 1.581756 2.526982	72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154 524,559,167  Payroll 213,700,010 256,852,317 257,396,886 233,928,537 346,006,322 281,861,623 198,720,867 227,269,015 235,555,350	AWARDED 0.000000 1.000000 2.000000 1.000000 2.000000 0.027066 0.088118 0.172491 0.264040 6.551715  EXPECTED ULTIMATE AWARDED 0.000000 5.000000 7.070260 9.326885 7.577502 6.818395 1.581756 3.526982	Average Weekly Wage  845 858 888 917 932 951 978 995 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917 932 951 978 975 1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 1,550.9 1,808.1 1,551.7 1,205.8 1,045.2 775.8 536.8 600.3 619.7 609.5 10,303.8  Estimated Miner Years 3,697.7 4,392.2 4,221.2 3,650.9 4,022.2 2,781.5 3,110.4 3,120.6	Claims per 100  Miner Years	
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal  FOUR STAND  YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average TOTAL Average	0 1 2 0 0 1 2 0 0 0 0 0 0 6 e: State Frequence Excess Fre	0 1 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.00294 0.0958 0.1875 0.2870 0.5997 0.5997	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997  IBNR + PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0764 0.3553 0.6277 0.8896 1.7193 2.7467 4.0609	RAIIO 0.00000 0.000000 0.000000 0.000000 0.000000	72.711,558 86.074,064 76.452.811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154 524,559,167  Payroll 213,700,010 256,852,317 257,396,886 233,928,537 346,006,322 281,861,623 198,720,867 227,269,015 235,555,350 245,178,623	AWARDED 0.000000 1.000000 2.000000 0.000000 0.027066 0.088118 0.172491 0.264040 6.551715  EXPECTED ULTIMATE AWARDED 0.000000 5.920000 7.070260 9.32685 7.577502 6.818395 1.581756 3.526982 3.736065	Average Weekly Wage  845 858 888 917 932 951 978 995 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917 932 951 978 975 1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 1.550.9 1.808.1 1.551.7 1.205.8 1.045.2 775.8 536.8 600.3 619.7 609.5 10,303.8  Estimated Miner Years 3.697.7 4.392.2 4.221.2 3.650.9 5.003.9 4.022.2 2.781.5 3.110.4 3,120.6 3,185.7	Claims per 100 Miner Years	0.132173
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal  FOUR STAND  YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average TOTAL Average	0 1 2 0 0 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 0 1 0	0.0000 0.0000 0.0000 0.0000 0.0000 0.00294 0.0958 0.1875 0.2870 0.5997 0.5997	PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294 0.0958 0.1875 0.2870 0.5997  IBNR + PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0764 0.3553 0.6277 0.8896 1.7193 2.7467 4.0609	RAIIO 0.00000 0.000000 0.000000 0.000000 0.000000	72.711,558 86.074,064 76.452.811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780 35,242,187 35,476,154 524,559,167  Payroll 213,700,010 256,852,317 257,396,886 233,928,537 346,006,322 281,861,623 198,720,867 227,269,015 235,555,350 245,178,623	AWARDED 0.000000 1.000000 2.000000 0.000000 0.027066 0.088118 0.172491 0.264040 6.551715  EXPECTED ULTIMATE AWARDED 0.000000 5.920000 7.070260 9.32685 7.577502 6.818395 1.581756 3.526982 3.736065	Average Weekly Wage  845 858 888 917 932 951 978 995 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917 932 951 978 975 1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 1.550.9 1.808.1 1.551.7 1.205.8 1.045.2 775.8 536.8 600.3 619.7 609.5 10,303.8  Estimated Miner Years 3.697.7 4.392.2 4.221.2 3.650.9 5.003.9 4.022.2 2.781.5 3.110.4 3,120.6 3,185.7	Claims per 100  Miner Years	0.132173 0.052869

Source: Claim counts - CMCRB OD Database as of 08/06/2020

BINR: Exhibit VII-C
Payroll- Exhibit X-A
The Award Ratios for all classes were set equal to the Grand Total Award Ratio calculated on Exhibit VII-B-2 Page 3.

The Award kanos for all classes were set equal to the Grand total Award kano calculated of Exhibit The Grand Total Award Ratio is equal to Awarded ÷ (Awarded plus Denied) = 46 / [46 + 04] = 0.920

The Wage Adjustment Factor was derived from CMCRB data. See Exhibit X-G

Estimated Miner Years = Payroll / (SAWW x Adj. Factor x 52)

Frequency per 100 Miner Years = (Expected Ult, Awarded / Est. Miner Years) x 100

File: C:\Users\Forum\OneDrive\Client\SCoal Mine\2020 Rate Flling\XL\[2020-07-B-2.xlsx]VII-B-1 Run Date: September 18, 2020 - 02:45:19 PM

### COAL MINE COMPENSATION RATING BUREAU

#### STATE OCCUPATIONAL DISEASE FREQUENCY WITH FEDERAL EXCESS FREQUENCY

COKE (1017)	)													
		IBNR F	actor adjus	ted by 0.40	00	IDVID :	0.920		EXPECTED	Statewide		Estimated	Frequency	
YEAR	REPORTED	AWARDED	DENIDING	DENIED	IBNR	IBNR + PENDING	AWARD RATIO	Payroll	ULTIMATE AWARDED	Average Weekly Wage	Adjustment Factor	Miner Years	Claims per 100 Miner Years	Weighted Frequency
2010	0	0	0	0	0.0000	0.0000	0.000000	5,435,658	0.000000	845	1.067	115.9	0.000000	Hequency
2011	0	0	0	0	0.0000	0.0000	0.000000	3,599,086	0.000000	858	1.067	75.6	0.000000	
2012	0	0	0	0	0.0000	0.0000	0.000000	5,738,105	0.000000	888	1.067	116.5	0.000000	
2013	0	0	0	0	0.0005	0.0005	0.000460	4,791,910	0.000460	917	1.067	94.2	0.000488	
2014	0	0	0	0	0.0014	0.0014	0.001288	4,464,398	0.001288	932	1.067	86.3	0.001492	
2015	0	0	0	0	0.0039	0.0039	0.003588	4,340,376	0.003588	951 978	1.067	82.3	0.004360	
2016 2017	0	0	0	0	0.0072	0.0072 0.0110	0.006624 0.010120	4,435,066 4,566,113	0.006624 0.010120	978 995	1.067 1.067	81.7 82.7	0.008108 0.012237	
2018	0	0	0	0	0.0110	0.0110	0.015456	4,484,744	0.010120	1,025	1.067	78.9	0.012237	
2019	0	0	0	0	0.0240	0.0240	0.022080	4,572,392	0.022080	1,049	1.067	78.6	0.028092	
TOTAL	0	0	0	0	0.0648	0.0648	0.059616	46,427,848	0.059616			892.7	0.074366	
	e: State Freq							, ,					0.007437	
Federal	Excess Freq	uency (time	s 40.0%)										0.002975	
AUGER (1019	<sup>2</sup> )	IDVID 5			00		0.000		EVENTED	61 1 11		F 12	-	
		IRNK F	actor adjus	ted by 0.40	00	IBNR +	0.920 AWARD		EXPECTED ULTIMATE	Statewide	A divistos out	Estimated Miner	Frequency	
YEAR	REPORTED	AWARDED	PENDING	DENIED	IBNR	PENDING	RATIO	Payroll	AWARDED	Average Weekly Wage	Adjustment Factor	Years	Claims per 100 Miner Years	
2010	0	0	0	0	0.0000	0.0000	0.000000	806,696	0.000000	845	1.067	17.2	0.000000	
2011	0	0	0	0	0.0000	0.0000	0.000000	1,176,255	0.000000	858	1.067	24.7	0.000000	
2012	0	0	0	0	0.0000	0.0000	0.000000	808,208	0.000000	888	1.067	16.4	0.000000	
2013	0	0	0	0	0.0001	0.0001	0.000092	1,025,399	0.000092	917	1.067	20.2	0.000455	
2014	0	0	0	0	0.0002	0.0002	0.000184	806,976	0.000184	932	1.067	15.6	0.001179	
2015	0	0	0	0	0.0005	0.0005	0.000460	582,619	0.000460	951	1.067	11.0	0.004182	
2016 2017	0	0	0	0	0.0006	0.0006	0.000552 0.001012	372,496 449,009	0.000552 0.001012	978 995	1.067 1.067	6.9 8.1	0.008000 0.012494	
2017	0	0	0	0	0.0011	0.0011	0.001012	600,138	0.001012	1,025	1.067	10.6	0.012494	
2019	0	0	0	0	0.0028	0.0028	0.002524	539,914	0.002576	1,049	1.067	9.3	0.027699	
TOTAL	0	0	0	0	0.0075	0.0075	0.006900	7,167,710	0.006900	.,		140.0	0.073103	
	e: State Freq												0.007310	
	Excess Freq		s 40.0%)										0.002924	
ANTHRACITE	CO-GEN (1			Ll l 0 40	00		0.000		EVDECTED	C44		Fation at a al	F	
ANTHRACITE	CO-GEN (1		actor adjus	ted by 0.40	00	IRNIP +	0.920 AWARD		EXPECTED	Statewide	Adjustment	Estimated	Frequency	
		IBNR F	-			IBNR +	AWARD	Payroll	ULTIMATE	Average	Adjustment Factor	Miner	Claims per 100	
ANTHRACITE  YEAR 2010	CO-GEN (1)  REPORTED 0		-	ted by 0.40 DENIED 0	00 <u>IBNR</u> 0.0000	IBNR + PENDING 0.0000		<u>Payroll</u> 8,481,228			Adjustment <u>Factor</u> 1.067			
<u>YEAR</u> 2010 2011	REPORTED 0 0	IBNR F  AWARDED  0 0	PENDING 0 0	DENIED 0 0	<u>IBNR</u> 0.0000 0.0000	PENDING 0.0000 0.0000	AWARD <u>RATIO</u> 0.000000 0.000000	8,481,228 11,720,035	ULTIMATE <u>AWARDED</u> 0.000000 0.000000	Average <u>Weekly Wage</u> 845 858	<u>Factor</u> 1.067 1.067	Miner <u>Years</u> 180.9 246.2	Claims per 100 <u>Miner Years</u> 0.000000 0.000000	
<u>YEAR</u> 2010 2011 2012	REPORTED 0 0 0	AWARDED 0 0 0	PENDING 0 0 0	DENIED 0 0 0	IBNR 0.0000 0.0000 0.0000	PENDING 0.0000 0.0000 0.0000	AWARD <u>RATIO</u> 0.000000 0.000000 0.000000	8,481,228 11,720,035 10,273,004	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000	Average Weekly Wage 845 858 888	Factor 1.067 1.067 1.067	Miner <u>Years</u> 180.9 246.2 208.5	Claims per 100 <u>Miner Years</u> 0.000000 0.000000 0.000000	
YEAR 2010 2011 2012 2013	REPORTED 0 0 0 0 0 0	AWARDED  0 0 0 0	PENDING 0 0 0 0	DENIED 0 0 0 0 0	IBNR 0.0000 0.0000 0.0000 0.0009	PENDING 0.0000 0.0000 0.0000 0.0009	AWARD <u>RATIO</u> 0.000000 0.000000 0.000000 0.000828	8,481,228 11,720,035 10,273,004 8,342,651	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000 0.000828	Average <u>Weekly Wage</u> 845  858  888  917	Factor 1.067 1.067 1.067 1.067	Miner <u>Years</u> 180.9 246.2 208.5 164.0	Claims per 100 <u>Miner Years</u> 0.000000 0.000000 0.000000 0.000505	
YEAR 2010 2011 2012 2013 2014	REPORTED 0 0 0 0 0 0	AWARDED  O  O  O  O  O	PENDING 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0	IBNR 0.0000 0.0000 0.0000 0.0009 0.0028	PENDING 0.0000 0.0000 0.0000 0.0009 0.0028	AWARD <u>RATIO</u> 0.000000 0.000000 0.000000 0.000828 0.002576	8,481,228 11,720,035 10,273,004 8,342,651 9,060,883	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000 0.000828 0.002576	Average <u>Weekly Wage</u> 845 858 888 917 932	Factor 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 180.9 246.2 208.5 164.0 175.2	Claims per 100 <u>Miner Years</u> 0.000000 0.000000 0.000000 0.000505 0.001470	
YEAR 2010 2011 2012 2013 2014 2015	REPORTED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	AWARDED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PENDING 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0	IBNR 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095	PENDING 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095	AWARD <u>RATIO</u> 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740	8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740	Average  Weekly Wage  845  858  888  917  932  951	1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 180.9 246.2 208.5 164.0 175.2 198.4	Claims per 100 <u>Miner Years</u> 0.000000 0.000000 0.000000 0.000505 0.001470 0.004405	
YEAR 2010 2011 2012 2013 2014 2015 2016	REPORTED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	AWARDED  O  O  O  O  O  O  O  O	PENDING 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	IBNR 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146	PENDING 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146	AWARD <u>RATIO</u> 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432	8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978	1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 180.9 246.2 208.5 164.0 175.2 198.4 165.8	Claims per 100  Miner Years 0.000000 0.000000 0.000000 0.0000005 0.001470 0.004405 0.008101	
YEAR 2010 2011 2012 2013 2014 2015	REPORTED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	AWARDED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PENDING 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0	IBNR 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095	PENDING 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095	AWARD <u>RATIO</u> 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740	8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740	Average  Weekly Wage  845  858  888  917  932  951	1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 180.9 246.2 208.5 164.0 175.2 198.4	Claims per 100 <u>Miner Years</u> 0.000000 0.000000 0.000000 0.000505 0.001470 0.004405	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017	REPORTED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	AWARDED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PENDING 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	IBNR 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213	PENDING 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213	AWARD RATIO 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596	8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596	Average <u>Weekly Wage</u> 845  858  888  917  932  951  978  995	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 180.9 246.2 208.5 164.0 175.2 198.4 165.8 159.8	Claims per 100  Miner Years 0.000000 0.000000 0.000000 0.000505 0.001470 0.004405 0.008101 0.012263	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018	REPORTED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	AWARDED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	IBNR 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213 0.0434	PENDING 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213 0.0434	AWARD RATIO 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928	8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928	Average  Weekly Wage  845  858  888  917  932  951  978  995  1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 180.9 246.2 208.5 164.0 175.2 198.4 165.8 159.8 204.0	Claims per 100  Miner Years 0.000000 0.000000 0.000000 0.000505 0.001470 0.004405 0.008101 0.012263 0.019573	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average	REPORIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	BNR F   AWARDED	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	IBNR 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213 0.0434 0.0431	PENDING 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213 0.0434 0.0431	AWARD RATIO 0.000000 0.000000 0.000000 0.0000828 0.002576 0.008740 0.013432 0.019596 0.039928 0.039652	8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 1.039652	Average  Weekly Wage  845  858  888  917  932  951  978  995  1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 180.9 246.2 208.5 164.0 175.2 198.4 165.8 159.8 204.0 141.2	Claims per 100 Miner Years 0.000000 0.000000 0.000000 0.000000 0.00055 0.001470 0.004405 0.008101 0.012263 0.019573 0.736297 0.782614	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average	REPORTED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	BNR F   AWARDED	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	IBNR 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213 0.0434 0.0431	PENDING 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213 0.0434 0.0431	AWARD RATIO 0.000000 0.000000 0.000000 0.0000828 0.002576 0.008740 0.013432 0.019596 0.039928 0.039652	8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 1.039652	Average  Weekly Wage  845  858  888  917  932  951  978  995  1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 180.9 246.2 208.5 164.0 175.2 198.4 165.8 159.8 204.0 141.2	Claims per 100 Miner Years 0.000000 0.000000 0.000000 0.000005 0.001470 0.004405 0.008101 0.012263 0.019573 0.736297 0.782614	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average	REPORIED  0 0 0 0 0 0 0 0 1 1 es: State Freq	AWARDED	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	IBNR 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213 0.0434 0.0431	PENDING 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213 0.0434 0.0431	AWARD RATIO 0.000000 0.000000 0.000000 0.0000828 0.002576 0.008740 0.013432 0.019596 0.039928 0.039652	8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 1.039652	Average  Weekly Wage  845  858  888  917  932  951  978  995  1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 180.9 246.2 208.5 164.0 175.2 198.4 165.8 159.8 204.0 141.2	Claims per 100 Miner Years 0.000000 0.000000 0.000000 0.000000 0.00055 0.001470 0.004405 0.008101 0.012263 0.019573 0.736297 0.782614	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average	REPORIED  0 0 0 0 0 0 0 0 1 1 es: State Freq	BNR F  AWARDED 0 0 0 0 0 0 0 0 0 0 0 0 0 uency uency (time	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	IBNR 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213 0.0434 0.0431	PENDING 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213 0.0434 0.0431	AWARD RAIIO 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.015596 0.039928 0.039652 0.124752	8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 1.039652 1.124752	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 975 1,025 1,049	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 180.9 246.2 208.5 164.0 175.2 198.4 165.8 159.8 204.0 141.2	Claims per 100 Miner Years 0.000000 0.000000 0.000000 0.000000 0.00055 0.001470 0.004405 0.008101 0.012263 0.019573 0.736297 0.782614 0.078261 0.031304	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average	REPORIED  0 0 0 0 0 0 0 0 1 1 es: State Freq	BNR F  AWARDED 0 0 0 0 0 0 0 0 0 0 0 0 0 uency uency (time	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	IBNR 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213 0.0434 0.0431	PENDING 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213 0.0434 0.0431 0.1356	AWARD RAMO 0.000000 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 0.039652 0.124752	8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 1.039652 1.124752	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995 1,025 1,049 Statewide	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 180.9 246.2 208.5 164.0 175.2 198.4 165.8 204.0 141.2 1.844.0	Claims per 100 Miner Years 0.000000 0.000000 0.000000 0.00055 0.001470 0.004405 0.008101 0.012263 0.019573 0.736297 0.782614 0.078261 0.031304	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal	REPORIED  0 0 0 0 0 0 0 0 1 1 es: State Freq	BNR F  AWARDED 0 0 0 0 0 0 0 0 0 0 0 0 0 uency uency (time	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 s 40.0%)	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	IBNR 0.0000 0.0000 0.0000 0.0009 0.0028 0.0028 0.00146 0.0213 0.0434 0.0431 0.1356	PENDING 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213 0.0434 0.0431	AWARD RAIIO 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.015596 0.039928 0.039652 0.124752	8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127 95,981,210	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 1.039652 1.124752	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 975 1,025 1,049	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 180.9 246.2 208.5 164.0 175.2 198.4 165.8 159.8 204.0 141.2	Claims per 100  Miner Years	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average	REPORTED  0 0 0 0 0 0 0 0 1 1 1 e: State Frequence Excess Frequence CO-GEN (16)	IBNR F  AWARDED 0 0 0 0 0 0 0 0 1 1 Usency uency (time) 024) IBNR F	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 s 40.0%)	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	IBNR 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213 0.0434 0.0431	PENDING 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213 0.0434 0.0431 0.1356	AWARD RATIO 0.000000 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 0.039652 0.124752	8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 1.039652 1.124752 EXPECTED ULTIMATE	Average  Weekly Wage  845  848  858  888  917  932  951  978  995  1,025  1,049   Statewide  Average	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 180.9 246.2 208.5 164.0 175.2 198.4 165.8 159.8 204.0 141.2 1.844.0	Claims per 100 Miner Years 0.000000 0.000000 0.000000 0.00055 0.001470 0.004405 0.008101 0.012263 0.019573 0.736297 0.782614 0.078261 0.031304	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal BITUMINOUS	REPORTED	AWARDED	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 s 40.0%)	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	BNR   0.0000   0.0000   0.0001   0.001356   0.001356   0.0000   0.001356   0.001356   0.001356   0.001356   0.001356   0.0000   0.000000   0.000000   0.00000   0.00000   0.00000   0.00000   0.00000   0.0000000   0.000000   0.000000   0.000000   0.0000000   0.00000000	PENDING 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213 0.0434 0.0431 0.1356	AWARD RATIO 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 0.039652 0.124752  0.920 AWARD RATIO 0.000000 0.000000	8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127 95,981,210	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 1.039652 1.124752  EXPECTED ULTIMATE <u>AWARDED</u> 0.000000 0.000000	Average  Weekly Wage  845  858  888  917  932  951  978  975  1,025  1,049   Statewide  Average  Weekly Wage  845  858	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 180.9 246.2 208.5 164.0 175.2 198.4 165.8 159.8 204.0 141.2 1.844.0 Estimated Miner Years 186.3 191.2	Claims per 100 Miner Years 0.000000 0.000000 0.000000 0.00055 0.001470 0.004405 0.008101 0.012263 0.019573 0.736297 0.782614 0.078261 0.031304  Frequency Claims per 100 Miner Years 0.000000 0.000000	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal BITUMINOUS  YEAR 2010 2011 2011	REPORTED	BNR F	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 s 40.0%)  PENDING 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	BNR   0.00000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.00000   0.00000   0.00000   0.00000   0.0000   0.00000   0.00000   0.00000   0.000000   0.0000000	PENDING 0.0000 0.0000 0.0000 0.0009 0.0028 0.00146 0.0213 0.0434 0.1356	AWARD RAIIO 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 0.039652 0.124752  0.920 AWARD RAIIO 0.000000 0.0000000 0.0000000	8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127 95,981,210  Payroll 8,732,701 9,102,411 9,047,745	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 1.039652 1.124752  EXPECTED ULTIMATE <u>AWARDED</u> 0.000000 0.0000000	Average Weekly Wage 845 845 858 888 917 917 978 975 1,025 1,049  Statewide Average Weekly Wage Weekly Wage 845 858	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 180.9 246.2 208.5 164.0 175.2 198.4 165.8 204.0 141.2 1.844.0  Estimated Miner Years 186.3 191.2 183.6	Claims per 100 Miner Years 0.000000 0.000000 0.000000 0.000000 0.00055 0.001470 0.004405 0.008101 0.012263 0.019573 0.736297 0.782614 0.078261 0.031304  Frequency Claims per 100 Miner Years 0.000000 0.0000000	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal BITUMINOUS  YEAR 2010 2011 2012 2013	REPORIED  0 0 0 0 0 0 0 0 0 0 0 0 1 1 e: State Freq Excess Freq CO-GEN (16) REPORIED 0 0 0 0	BNR F	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	BNR   0.0000   0.0002   0.0043   0.0431   0.1356   0.0000   0.0002   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0001   0.00	PENDING 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213 0.0431 0.1356  BBNR + PENDING 0.0000 0.0000 0.0000 0.0000	AWARD RATIO 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 0.039652 0.124752  0.920 AWARD RATIC 0.000000 0.000000 0.001012	8,481,228 11,720,030 11,720,030 12,73,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127 95,981,210  Payroll 8,732,701 9,102,411 9,047,745 10,355,884	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 1.039652 1.124752 EXPECTED ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000	Average Weekly Wage  845 848 888 917 932 951 978 995 1.025 1.049  Statewide Average Weekly Wage 845 858 888 917	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 180.9 246.2 208.5 164.0 175.2 198.4 165.8 204.0 141.2 1.844.0  Estimated Miner Years 186.3 191.2 183.6 203.5	Claims per 100  Miner Years	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal BITUMINOUS  YEAR 2010 2011 2012 2013	REPORTED	BNR F   AWARDED	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 s 40.0%)  PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	BNR   0.0000   0.0001   0.0014   0.0014   0.0014   0.0014   0.0014   0.0014   0.0014   0.0014   0.0014   0.0014   0.0000   0.0000   0.0000   0.0000   0.0000   0.0016   0.0016   0.0016   0.0016   0.0016   0.0016   0.0016   0.0016   0.0016   0.0016   0.0000   0.0016   0.00	PENDING 0.0000 0.0000 0.0000 0.0000 0.0005 0.00146 0.0213 0.0434 0.0431 0.1356	AWARD RATIO 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 0.039652 0.124752  0.920 AWARD RATIO 0.000000 0.000000 0.000000 0.001012 0.003312	8,481,228 11,720,030 11,720,030 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127 95,981,210  Payroll 8,732,701 9,047,745 10,355,884 11,721,184	ULTIMATE AWARDED 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 1.039652 1.124752 EXPECTED ULTIMATE AWARDED 0.000000 0.000000 0.001012 0.003312	Average Weekly Wage 845 858 858 8797 932 951 978 975 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917 932	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 180.9 246.2 208.5 164.0 175.2 198.4 165.8 204.0 141.2 1.844.0 Estimated Miner Years 186.3 191.2 183.6 203.5 226.7	Claims per 100  Miner Years 0.000000 0.000000 0.000000 0.00055 0.001470 0.004405 0.008101 0.012263 0.019573 0.736297 0.782614 0.078261 0.031304  Frequency Claims per 100 Miner Years 0.000000 0.000000 0.000000 0.000000	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal BITUMINOUS  YEAR 2010 2011 2012 2013 2014 2015	REPORTED  0 0 0 0 0 0 0 0 0 1 1 1 se: State Frequence Excess Frequence Excess Frequence Excess Frequence CO-GEN (10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	BNR F   AWARDED	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	BNR   0.0000   0.0004   0.0036   0.0000   0.0000   0.0006   0.00	PENDING 0.0000 0.0000 0.0000 0.0009 0.0028 0.00146 0.0213 0.0431 0.1356   IBNR + PENDING 0.0000 0.0000 0.0000 0.0011 0.0000 0.0011 0.0036	AWARD RAIIO 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 0.039652 0.124752  0.920 AWARD RAIIO 0.000000 0.000000 0.000000 0.001012 0.003312 0.003844	8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127 95,981,210  Payroll 8,732,701 9,102,411 9,047,745 10,355,884 11,721,184 11,748,205	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 1.039652 1.124752  EXPECTED ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000 0.0000112 0.003312 0.003812	Average Weekly Wage 845 845 848 888 917 932 951 978 975 1,025 1,049  Statewide Average Weekly Wage Weekly Wage 845 858 888 917 932 951	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 180.9 246.2 208.5 164.0 175.2 198.4 165.8 204.0 141.2 1.844.0  Estimated Miner Years 186.3 191.2 183.6 203.5 226.7 222.7	Claims per 100  Miner Years 0.000000 0.000000 0.000000 0.000000 0.00055 0.001470 0.004405 0.008101 0.012263 0.019573 0.736297 0.782214 0.078261 0.031304  Frequency Claims per 100 Miner Years 0.000000 0.000000 0.000000 0.000007 0.001461 0.004420	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal BITUMINOUS  YEAR 2010 2011 2011 2012 2013 2014 2015 2016	REPORTED	BNR F   AWARDED	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 s 40.0%)  PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	BNR   0.0000   0.0004   0.0000   0.0000   0.0000   0.0000   0.0006   0.00	PENDING 0.0000 0.0000 0.0000 0.0000 0.0005 0.0021 0.0021 0.0434 0.0431 0.1356  BBNR + PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0001 0.0036 0.0114 0.0036 0.0118	AWARD RATIO 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.015596 0.039928 0.039652 0.124752  0.920 AWARD RATIO 0.00000 0.000000 0.000000 0.000000 0.000000	8,481,228 11,720,335 10,273,304 8,342,651 9,060,883 10,469,089 8,974,602 8,819,700 11,600,891 8,219,127 95,981,210  Payroll 8,732,701 9,102,411 9,047,745 10,355,884 11,721,184 11,748,205 11,327,552	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 1.039652 1.124752  EXPECTED ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.0001012 0.003312 0.009844	Average Weekly Wage  845 848 888 917 932 951 978 975 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917 932 951 973	Factor 1.067	Miner Years 180.9 246.2 208.5 164.0 175.2 198.4 165.8 204.0 141.2 1.844.0  Estimated Miner Years 186.3 191.2 183.6 203.5 226.7 222.7	Claims per 100  Miner Years 0.000000 0.000000 0.000000 0.00055 0.001470 0.004405 0.008101 0.012263 0.019573 0.736297 0.782614 0.078261 0.031304  Frequency Claims per 100 Miner Years 0.000000 0.000000 0.000000 0.000497 0.001461 0.004402 0.008107	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal BITUMINOUS  YEAR 2010 2011 2012 2013 2014 2015 2016 2017	REPORTED	BNR F   AWARDED	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	BNR   0.0000   0.0002   0.0043   0.0431   0.1356   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.00107   0.0184   0.0276   0.0184   0.0276   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.000000   0.000000   0.00000000	PENDING 0.0000 0.0000 0.0000 0.0009 0.0028 0.0095 0.0146 0.0213 0.0434 0.0431 0.1356   IBNR + PENDING 0.0000 0.0000 0.0000 0.0000 0.0001 0.0011 0.0036 0.0107 0.0184 0.0276	AWARD RAIIO 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 0.039652 0.124752  0.920 AWARD RAIIO 0.000000 0.000000 0.000000 0.000000 0.001012 0.003312 0.009844 0.016928 0.025392	8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127 95,981,210  Payroll 8,732,701 9,102,411 9,047,745 10,355,884 11,721,184 11,748,205 11,327,552 11,435,057	ULTIMATE AWARDED 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 1.039652 1.124752 EXPECTED ULTIMATE AWARDED 0.000000 0.000000 0.000000 0.000000 0.000312 0.003312 0.009844 0.016928 0.025392	Average Weekly Wage  845 858 888 917 932 951 978 995 1,025 1,049  Statewide Average Weekly Wage Weekly Wage 845 858 888 917 932 951 978	Factor 1.067	Miner Years 180.9 246.2 208.5 164.0 175.2 198.4 165.8 204.0 141.2 1.844.0 Estimated Miner Years 186.3 191.2 183.6 203.5 226.7 222.7 208.8 207.1	Claims per 100  Miner Years 0.000000 0.000000 0.000000 0.000005 0.001470 0.004405 0.008101 0.012263 0.019573 0.736297 0.782614 0.078261 0.031304  Frequency Claims per 100 Miner Years 0.000000 0.000000 0.000000 0.000000 0.0000420 0.0004420 0.008107 0.012261	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal BITUMINOUS  YEAR 2010 2011 2011 2012 2013 2014 2015 2016	REPORTED	BNR F   AWARDED	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	BNR   0.0000   0.0004   0.0000   0.0000   0.0000   0.0000   0.0006   0.00	PENDING 0.0000 0.0000 0.0000 0.0000 0.0005 0.0021 0.0021 0.0434 0.0431 0.1356  BBNR + PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0001 0.0036 0.0114 0.0036 0.0118	AWARD RATIO 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.015596 0.039928 0.039652 0.124752  0.920 AWARD RATIO 0.00000 0.000000 0.000000 0.000000 0.000000	8,481,228 11,720,330 10,273,300 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127 95,981,210  Payroll 8,732,701 9,102,411 9,047,745 10,355,884 11,721,184 11,748,205 11,327,552	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 1.039652 1.124752  EXPECTED ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.0001012 0.003312 0.009844	Average Weekly Wage  845 848 888 917 932 951 978 975 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917 932 951 973	Factor 1.067	Miner Years 180.9 246.2 208.5 164.0 175.2 198.4 165.8 204.0 141.2 1.844.0  Estimated Miner Years 186.3 191.2 183.6 203.5 226.7 222.7	Claims per 100  Miner Years 0.000000 0.000000 0.000000 0.00055 0.001470 0.004405 0.008101 0.012263 0.019573 0.736297 0.782614 0.078261 0.031304  Frequency Claims per 100 Miner Years 0.000000 0.000000 0.000000 0.000497 0.001461 0.004402 0.008107	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal BITUMINOUS  YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018	REPORTED	BNR F   AWARDED   0   0   0   0   0   0   0   0   0	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	IBNR 0.0000 0.0000 0.0009 0.0009 0.0028 0.00146 0.0213 0.0434 0.0431 0.1356	PENDING 0.0000 0.0000 0.0000 0.0009 0.0021 0.00146 0.0213 0.1356  IBNR + PENDING 0.0000 0.0000 0.0000 0.0010 0.0001 0.0001	AWARD RAIIO 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 0.039652 0.124752  0.920 AWARD RAIIO 0.000000 0.000000 0.000000 0.001012 0.003312 0.009844 0.016928 0.025392 0.041492	8,481,228 11,720,3004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127 95,981,210  Payroll 8,732,701 9,102,411 9,047,745 10,355,884 11,721,184 11,748,205 11,327,552 11,435,057 12,043,297	ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 1.039652 1.124752  EXPECTED ULTIMATE <u>AWARDED</u> 0.000000 0.000000 0.000000 0.001012 0.003312 0.009844 0.016928 0.025392 0.041492	Average Weekly Wage 845 845 848 888 917 978 975 1,025 1,049  Statewide Average Weekly Wage Weekly Wage 845 858 888 917 932 951 978 995 1,025	Factor 1.067	Miner Years 180.9 246.2 208.5 164.0 175.2 198.4 165.8 204.0 141.2 1.844.0 Estimated Miner Years 186.3 191.2 183.6 203.5 226.7 222.7 208.8 207.1 211.8	Claims per 100  Miner Years	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal BITUMINOUS  YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Pederal	REPORTED	BNR F   AWARDED   0   0   0   0   0   0   0   0   0	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	BNR   0.0000   0.0004   0.0000   0.00	PENDING 0.0000 0.0000 0.0000 0.0000 0.0005 0.0021 0.0021 0.0434 0.0431 0.1356  BBNR + PENDING 0.0000 0.0000 0.0000 0.0000 0.0001 0.0000 0.0000 0.0001 0.0000 0.0001 0.0000 0.0001 0.0000 0.0001 0.0000 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0002 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001	AWARD RATIO 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 0.039652 0.124752  0.920 AWARD RATIO 0.000000 0.000000 0.000000 0.001012 0.003312 0.009844 0.016928 0.025392 0.041492 0.057040	8,481,228 11,720,335 10,273,304 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127 95,981,210  Payroll 8,732,701 9,102,411 9,047,745 10,355,884 11,721,184 11,748,205 11,327,552 11,435,057 12,043,297 11,807,241	ULTIMATE AWARDED 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 1.039652 1.124752  EXPECTED ULTIMATE AWARDED 0.000000 0.000000 0.001012 0.003112 0.003112 0.003102 0.009844 0.016928 0.025392 0.041492 0.057040	Average Weekly Wage 845 845 848 888 917 978 975 1,025 1,049  Statewide Average Weekly Wage Weekly Wage 845 858 888 917 932 951 978 995 1,025	Factor 1.067	Miner Years 180.9 246.2 208.5 164.0 175.2 198.4 165.8 159.8 204.0 141.2 1.844.0 Estimated Miner Years 186.3 191.2 183.6 203.5 226.7 208.8 207.1 211.8 202.9	Claims per 100  Miner Years	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal BITUMINOUS  YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Pederal	REPORTED  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	BNR F   AWARDED   0   0   0   0   0   0   0   0   0	PENDING 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	BNR   0.0000   0.0004   0.0000   0.00	PENDING 0.0000 0.0000 0.0000 0.0000 0.0005 0.0021 0.0021 0.0434 0.0431 0.1356  BBNR + PENDING 0.0000 0.0000 0.0000 0.0000 0.0001 0.0000 0.0000 0.0001 0.0000 0.0001 0.0000 0.0001 0.0000 0.0001 0.0000 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0002 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001	AWARD RATIO 0.000000 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 0.039652 0.124752  0.920 AWARD RATIO 0.000000 0.000000 0.000000 0.001012 0.003312 0.009844 0.016928 0.025392 0.041492 0.057040	8,481,228 11,720,335 10,273,304 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127 95,981,210  Payroll 8,732,701 9,102,411 9,047,745 10,355,884 11,721,184 11,748,205 11,327,552 11,435,057 12,043,297 11,807,241	ULTIMATE AWARDED 0.000000 0.000000 0.000828 0.002576 0.008740 0.013432 0.019596 0.039928 1.039652 1.124752  EXPECTED ULTIMATE AWARDED 0.000000 0.000000 0.001012 0.003112 0.003112 0.003102 0.009844 0.016928 0.025392 0.041492 0.057040	Average Weekly Wage 845 845 848 888 917 978 975 1,025 1,049  Statewide Average Weekly Wage Weekly Wage 845 858 888 917 932 951 978 995 1,025	Factor 1.067	Miner Years 180.9 246.2 208.5 164.0 175.2 198.4 165.8 159.8 204.0 141.2 1.844.0 Estimated Miner Years 186.3 191.2 183.6 203.5 226.7 208.8 207.1 211.8 202.9	Claims per 100  Miner Years 0.000000 0.000000 0.000000 0.000000 0.00055 0.001470 0.004405 0.008101 0.012263 0.019573 0.736297 0.78261 0.031304  Frequency Claims per 100 Miner Years 0.00000 0.000000 0.000000 0.000000 0.000000	

Source: Claim counts - CMCRB OD Database as of 08/06/2020

Payroll- Exhibit VII-C-6, p.4
Payroll- Exhibit X-A
The Award Ratios for all classes were set equal to the Grand Total Award Ratio calculated on Exhibit VII-B-2 Page 3.

The Award kanos for all classes were set equal to the Grand total Award kano calculated of Exhibit The Grand Total Award Ratio is equal to Awarded ÷ (Awarded plus Denied) = 46 / [46 + 04] = 0.920

The Wage Adjustment Factor was derived from CMCRB data. See Exhibit X-G

Estimated Miner Years = Payroll / (SAWW x Adj. Factor x 52)

Frequency per 100 Miner Years = (Expected Ult, Awarded / Est. Miner Years) x 100

File: C:\Users\Forum\OneDrive\Client\Coal Mine\2020 Rate Flling\XL\[2020-07-B-2.xlsx]VII-B-2 Run Date: September 18, 2020 - 02:45:19 PM

### COAL MINE COMPENSATION RATING BUREAU

#### STATE OCCUPATIONAL DISEASE FREQUENCY WITH FEDERAL EXCESS FREQUENCY

ANTHRACITE	PREP PLANT	(1026)												
		IBNR I	Factor adjus	ted by 1.00	000	IBNR +	0.920 AWARD		EXPECTED ULTIMATE	Statewide	A =0:1	Estimated	Frequency	\\/-:
YEAR	REPORTED	AWARDED	PENDING	DENIED	IBNR	PENDING	RATIO	<u>Payroll</u>	AWARDED	Average Weekly Wage	Adjustment <u>Factor</u>	Miner <u>Years</u>	Claims per 100 Miner Years	Weighted <u>Frequency</u>
2010	1	1	0	0	0.0000	0.0000	0.000000	5,762,086	1.000000	845	1.067	122.9	0.813670	1104001107
2011	0	0	0	0	0.0000	0.0000	0.000000	7,236,583	0.000000	858	1.067	152.0	0.000000	
2012	0	0	0	0	0.0000	0.0000	0.000000	8,671,140	0.000000	888	1.067	176.0	0.000000	
2013	0	0	0	0	0.0021	0.0021	0.001932	8,265,665	0.001932	917	1.067	162.5	0.001189	
2014	1	1	0	0	0.0063	0.0063	0.005796	8,234,771	1.005796	932	1.067	159.2	0.631781	
2015 2016	0	0	0	0	0.0173 0.0286	0.0173 0.0286	0.015916 0.026312	7,606,274 7,018,927	1.015916 0.026312	951 978	1.067 1.067	144.2 129.3	0.704519 0.020350	
2017	1	1	0	0	0.0268	0.0268	0.028312	7,746,154	1.043056	995	1.067	140.3	0.743447	
2018	0	0	0	0	0.0903	0.0903	0.083076	9,651,288	0.083076	1,025	1.067	169.7	0.048955	
2019	0	0	0	0	0.1659	0.1659	0.152628	12,646,576	0.152628	1,049	1.067	217.3	0.070238	
TOTAL	4	4	0	0	0.3573	0.3573	0.328716	82,839,464	4.328716			1,573.4	3.034149	
	e: State Freq												0.303415	
Federal	Excess Frequency	uency (time	es 40.0%)										0.121366	
BITUMINOUS	PREP PLANT	(1028)												
		IBNR I	Factor adjus	ted by 0.40	000		0.920		EXPECTED	Statewide		Estimated	Frequency	
VE. 5						IBNR +	AWARD		ULTIMATE	Average	Adjustment	Miner	Claims per 100	
<u>YEAR</u> 2010	REPORTED 0	AWARDED 0	PENDING 0	DENIED 0	<u>IBNR</u> 0.0000	0.0000	RATIO 0.000000	Payroll 26,313,130	0.000000	Weekly Wage 845	<u>Factor</u> 1.573	<u>Years</u> 380.7	Miner Years 0.000000	
2011	0	0	0	0	0.0000	0.0000	0.000000	35,155,068	0.000000	858	1.573	500.7	0.000000	
2012	0	0	0	0	0.0000	0.0000	0.000000	34,211,729	0.000000	888	1.573	471.0	0.000000	
2013	0	0	0	0	0.0036	0.0036	0.003312	34,253,697	0.003312	917	1.573	456.7	0.000725	
2014	0	0	0	0	0.0132	0.0132	0.012144	43,520,040	0.012144	932	1.573	570.9	0.002127	
2015	0	0	0	0	0.0305	0.0305	0.028060	33,564,176	0.028060	951	1.573	431.5	0.006503	
2016	1	1	0	0	0.0386	0.0386	0.035512	23,689,882	1.035512	978	1.573	296.1	0.349717	
2017 2018	0	0	0	0	0.0696 0.1206	0.0696 0.1206	0.064032 0.110952	28,803,457 32,199,872	0.064032 0.110952	995 1,025	1.573 1.573	353.9 384.1	0.018093 0.028886	
2016 2019	0	0		0	0.1206	0.1206	0.110732	37,605,236	0.110732	1,023	1.573	438.3	0.041435	
TOTAL	1	1	0	0	0.4735	0.4735	0.435620	329,316,287	1.435620	1,047	1.575	4,284.1	0.447486	
	e: State Freq		Ü	ŭ	0. 17 00	0.1700	0.100020	027,010,207	11.100020			1,20	0.044749	
	Excess Freq		es 40.0%)										0.017900	
TOTAL OTHER	CLASSES						0.920		EXPECTED	Statewide		Estimated	Frequency	
TOTAL OTHER	CLASSES					IBNR +	0.920 AWARD		EXPECTED ULTIMATE	Statewide Average	Adjustment	Estimated Miner	Frequency Claims per 100	
	CLASSES  REPORTED	AWARDED	PENDING	DENIED	<u>IBNR</u>	IBNR + PENDING	0.920 AWARD <u>RATIO</u>	<u>Payroll</u>	EXPECTED ULTIMATE AWARDED	Statewide Average <u>Weekly Wage</u>	Adjustment <u>Factor</u>	Estimated Miner <u>Years</u>	Frequency Claims per 100 <u>Miner Years</u>	
<u>YEAR</u> 2010	REPORTED 1	1	0	0	0.0000	<u>PENDING</u> 0.0000	AWARD RATIO 0.000000	55,531,499	ULTIMATE AWARDED 1.000000	Average <u>Weekly Wage</u> 845		Miner <u>Years</u> 1,003.9	Claims per 100 Miner Years 0.099612	
<u>YEAR</u> 2010 2011	REPORTED 1 0	1	0	0	0.0000	9.0000 0.0000 0.0000	AWARD <u>RATIO</u> 0.000000 0.000000	55,531,499 67,989,438	ULTIMATE <u>AWARDED</u> 1.000000 0.000000	Average <u>Weekly Wage</u> 845 858		Miner <u>Years</u> 1,003.9 1,190.6	Claims per 100 <u>Miner Years</u> 0.099612 0.000000	
<u>YEAR</u> 2010 2011 2012	REPORTED 1 0 0	1 0 0	0 0 0	0 0 0	0.0000 0.0000 0.0000	PENDING 0.0000 0.0000 0.0000	AWARD <u>RATIO</u> 0.000000 0.000000 0.000000	55,531,499 67,989,438 68,749,931	ULTIMATE <u>AWARDED</u> 1.000000 0.000000 0.000000	Average <u>Weekly Wage</u> 845 858 888		Miner <u>Years</u> 1,003.9 1,190.6 1,172.0	Claims per 100 <u>Miner Years</u> 0.099612 0.000000 0.000000	
YEAR 2010 2011 2012 2013	REPORTED 1 0	1	0	0 0 0	0.0000 0.0000 0.0000 0.0083	PENDING 0.0000 0.0000 0.0000 0.0083	AWARD <u>RATIO</u> 0.000000 0.000000 0.000000 0.007636	55,531,499 67,989,438 68,749,931 67,035,206	ULTIMATE <u>AWARDED</u> 1.000000 0.000000 0.000000 0.007636	Average Weekly Wage 845 858 888 917		Miner <u>Years</u> 1,003.9 1,190.6 1,172.0 1,101.1	Claims per 100 <u>Miner Years</u> 0.099612 0.000000 0.000000 0.000693	
<u>YEAR</u> 2010 2011 2012	REPORTED 1 0 0	1 0 0 0	0 0 0	0 0 0	0.0000 0.0000 0.0000	PENDING 0.0000 0.0000 0.0000	AWARD <u>RATIO</u> 0.000000 0.000000 0.000000	55,531,499 67,989,438 68,749,931	ULTIMATE <u>AWARDED</u> 1.000000 0.000000 0.000000	Average <u>Weekly Wage</u> 845 858 888		Miner <u>Years</u> 1,003.9 1,190.6 1,172.0	Claims per 100 <u>Miner Years</u> 0.099612 0.000000 0.000000	
YEAR 2010 2011 2012 2013 2014	REPORTED 1 0 0	1 0 0 0	0 0 0 0	0 0 0 0	0.0000 0.0000 0.0000 0.0083 0.0275	PENDING 0.0000 0.0000 0.0000 0.0083 0.0275	AWARD <u>RATIO</u> 0.000000 0.000000 0.000000 0.007636 0.025300	55,531,499 67,989,438 68,749,931 67,035,206 77,808,252	ULTIMATE <u>AWARDED</u> 1.000000 0.000000 0.000000 0.007636 1.025300	Average <u>Weekly Wage</u> 845 858 888 917 932		Miner <u>Years</u> 1,003.9 1,190.6 1,172.0 1,101.1 1,233.9	Claims per 100 <u>Miner Years</u> 0.099612 0.000000 0.000000 0.000693 0.083094	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017	REPORTED 1 0 0 0 1 1 1 1 1 1 1	1 0 0 0 1 1 1	0 0 0 0 0 0	0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774	PENDING 0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774	AWARD RATIO 0.000000 0.000000 0.000000 0.007636 0.025300 0.066608 0.099360 0.163208	55,531,499 67,989,438 68,749,931 67,035,206 77,808,252 68,310,739 55,838,525 61,819,490	ULTIMATE <u>AWARDED</u> 1.000000 0.000000 0.000000 0.007636 1.025300 1.066608 1.099360 1.163208	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995		Miner <u>Years</u> 1,003.9 1,190.6 1,172.0 1,101.1 1,233.9 1,090.1 888.6 951.9	Claims per 100  Miner Years 0.099612 0.000000 0.000000 0.000693 0.083094 0.097845 0.123718 0.122199	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018	REPORTED 1 0 0	1 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184	PENDING 0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184	AWARD <u>RATIO</u> 0.000000 0.000000 0.000000 0.007636 0.025300 0.066608 0.099360 0.163208 0.292928	55,531,499 67,989,438 68,749,931 67,035,206 77,808,252 68,310,739 55,838,525 61,819,490 70,580,230	ULTIMATE <u>AWARDED</u> 1.000000 0.000000 0.000000 0.007636 1.025300 1.066608 1.099360 1.163208 0.292928	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995 1,025		Miner <u>Years</u> 1,003.9 1,190.6 1,172.0 1,101.1 1,233.9 1,090.1 888.6 951.9 1,059.1	Claims per 100  Miner Years 0.099612 0.000000 0.000000 0.000693 0.083094 0.097845 0.123718 0.122199 0.027658	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	REPORTED 1 0 0 0 1 1 1 1 0 1 1 1 1 1 1 1 1	1 0 0 0 1 1 1 1 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952	PENDING 0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952	AWARD RATIO 0.000000 0.000000 0.000000 0.007636 0.025300 0.066608 0.099360 0.163208 0.292928 0.455584	55,531,499 67,989,438 68,749,931 67,035,206 77,808,252 68,310,739 55,838,525 61,819,490 70,580,230 75,390,486	ULTIMATE <u>AWARDED</u> 1.000000 0.000000 0.000000 0.007636 1.025300 1.066608 1.099360 1.163208 0.292928 1.455584	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995		Miner <u>Years</u> 1,003.9 1,190.6 1,172.0 1,101.1 1,233.9 1,090.1 888.6 951.9 1,059.1 1,087.6	Claims per 100  Miner Years	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL	REPORTED 1 0 0 0 1 1 1 1 1 0 1 6	1 0 0 0 1 1 1 1 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184	PENDING 0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184	AWARD <u>RATIO</u> 0.000000 0.000000 0.000000 0.007636 0.025300 0.066608 0.099360 0.163208 0.292928	55,531,499 67,989,438 68,749,931 67,035,206 77,808,252 68,310,739 55,838,525 61,819,490 70,580,230	ULTIMATE <u>AWARDED</u> 1.000000 0.000000 0.000000 0.007636 1.025300 1.066608 1.099360 1.163208 0.292928	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995 1,025		Miner <u>Years</u> 1,003.9 1,190.6 1,172.0 1,101.1 1,233.9 1,090.1 888.6 951.9 1,059.1	Claims per 100  Miner Years	0.077507
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average	REPORTED 1 0 0 0 1 1 1 1 0 1 6 es: State Freq	1 0 0 0 1 1 1 1 0 0 1 6	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952	PENDING 0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952	AWARD RATIO 0.000000 0.000000 0.000000 0.007636 0.025300 0.066608 0.099360 0.163208 0.292928 0.455584	55,531,499 67,989,438 68,749,931 67,035,206 77,808,252 68,310,739 55,838,525 61,819,490 70,580,230 75,390,486	ULTIMATE <u>AWARDED</u> 1.000000 0.000000 0.000000 0.007636 1.025300 1.066608 1.099360 1.163208 0.292928 1.455584	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995 1,025		Miner <u>Years</u> 1,003.9 1,190.6 1,172.0 1,101.1 1,233.9 1,090.1 888.6 951.9 1,059.1 1,087.6	Claims per 100  Miner Years	0.077587 0.031035
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal	REPORIED  0 0 1 1 1 0 1 6 Excess Frequence	1 0 0 0 1 1 1 1 0 0 1 6	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952	PENDING 0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952	AWARD RATIO 0.000000 0.000000 0.000000 0.007636 0.025300 0.066608 0.099360 0.163208 0.292928 0.455584	55,531,499 67,989,438 68,749,931 67,035,206 77,808,252 68,310,739 55,838,525 61,819,490 70,580,230 75,390,486	ULTIMATE <u>AWARDED</u> 1.000000 0.000000 0.000000 0.007636 1.025300 1.066608 1.099360 1.163208 0.292928 1.455584	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995 1,025		Miner <u>Years</u> 1,003.9 1,190.6 1,172.0 1,101.1 1,233.9 1,090.1 888.6 951.9 1,059.1 1,087.6	Claims per 100 Miner Years 0.099612 0.000000 0.000000 0.000000 0.0083094 0.097845 0.123718 0.122199 0.027658 0.133834 0.688653 0.068865	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average	REPORIED  0 0 1 1 1 0 1 6 Excess Frequence	1 0 0 0 1 1 1 1 0 0 1 6	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952	PENDING 0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952	AWARD RAIIO 0.000000 0.000000 0.000000 0.007636 0.025300 0.066608 0.099360 0.163208 0.292928 0.455584 1.110624	55,531,499 67,989,438 68,749,931 67,035,206 77,808,252 68,310,739 55,838,525 61,819,490 70,580,230 75,390,486	ULTIMATE <u>AWARDED</u> 1.000000 0.000000 0.000000 0.007636 1.025300 1.066608 1.099360 1.163208 0.292928 1.455584 7.110624	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 975 1,025 1,049		Miner Years 1,003.9 1,190.6 1,172.0 1,101.1 1,233.9 1,090.1 888.6 951.9 1,059.1 1,087.6	Claims per 100 Miner Years 0.099612 0.000000 0.000000 0.000000 0.0083094 0.097845 0.123718 0.122199 0.027658 0.133834 0.688653 0.068865 0.027546	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal	REPORIED  0 0 1 1 1 0 1 6 Excess Frequence	1 0 0 0 1 1 1 1 0 0 1 6	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952	PENDING 0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952	AWARD RATIO 0.000000 0.000000 0.000000 0.007636 0.025300 0.066608 0.099360 0.163208 0.292928 0.455584	55,531,499 67,989,438 68,749,931 67,035,206 77,808,252 68,310,739 55,838,525 61,819,490 70,580,230 75,390,486	ULTIMATE <u>AWARDED</u> 1.000000 0.000000 0.000000 0.007636 1.025300 1.066608 1.099360 0.292928 1.455584 7.110624 EXPECTED	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995 1,025 1,049 Statewide	Factor	Miner <u>Years</u> 1,003.9 1,190.6 1,172.0 1,101.1 1,233.9 1,090.1 888.6 951.9 1,059.1 1,087.6	Claims per 100  Miner Years	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal	REPORIED  0 0 1 1 1 0 1 6 Excess Frequence	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952	PENDING 0.0000 0.0000 0.0000 0.0003 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952 1.2072	AWARD RATIO 0.000000 0.000000 0.000000 0.007636 0.025300 0.066608 0.097360 0.163208 0.292928 0.455584 1.110624	55,531,499 67,989,438 68,749,931 67,035,206 77,808,252 68,310,739 55,838,525 61,819,490 70,580,230 75,390,486 669,053,796	ULTIMATE <u>AWARDED</u> 1.000000 0.000000 0.000000 1.025300 1.066608 1.099360 1.163208 0.292928 1.455584 7.110624 EXPECTED ULTIMATE	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995 1,025 1,049 Statewide Average		Miner Years 1,003,9 1,190.6 1,172.0 1,101.1 1,233.9 1,090.1 888.6 951.9 1,059.1 1,087.6 10,778.8	Claims per 100 Miner Years 0.099612 0.000000 0.000000 0.000000 0.0083094 0.097845 0.123718 0.122199 0.027658 0.133834 0.688653 0.068865 0.027546	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal	REPORTED  1 0 0 1 1 1 1 0 1 6 es: State Frequence	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0003 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952 1.2072	PENDING 0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952 1.2072	AWARD RAIIO 0.000000 0.000000 0.000000 0.007636 0.025330 0.066608 0.099360 0.163208 0.292928 0.455584 1.110624	55,531,499 67,989,438 68,749,931 67,035,206 77,808,252 68,310,739 55,838,525 61,819,490 70,580,230 75,390,486	ULTIMATE <u>AWARDED</u> 1.000000 0.000000 0.000000 1.025300 1.066608 1.099360 1.163208 0.292928 1.455584 7.110624 EXPECTED ULTIMATE	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995 1,025 1,049 Statewide	<u>Factor</u>	Miner Years 1,003,9 1,190.6 1,172.0 1,101.1 1,233.9 1,090.1 888.6 951.9 1,059.1 1,087.6 10,778.8  Estimated Miner	Claims per 100  Miner Years	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal GRAND TOTA  YEAR 2010 2011	REPORTED  1 0 0 1 1 1 1 0 1 6 es: State Frequence Excess	1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0003 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952 1.2072	PENDING 0.0000 0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952 1.2072  IBNR + PENDING 0.0000 0.0000	AWARD RATIO 0.000000 0.000000 0.000000 0.007636 0.025300 0.066608 0.097360 0.163208 0.292928 0.455584 1.110624  0.920 AWARD RATIO 0.000000 0.0000000	55,531,499 67,989,438 68,749,931 67,035,206 77,808,252 68,310,739 55,838,525 61,819,490 70,580,230 75,390,486 669,053,796	ULTIMATE AWARDED 1.000000 0.000000 0.000000 1.007636 1.025300 1.066608 1.075300 1.163208 0.292928 1.455584 7.110624  EXPECTED ULTIMATE AWARDED 1.000000 5.000000	Average  Weekly Wage  845  848  888  917  932  951  978  975  1,025  1,049   Statewide  Average  Weekly Wage  845  848  848	<u>Factor</u>	Miner Years 1,003,9 1,190.6 1,172.0 1,101.1 1,233.9 1,090.1 888.6 951.9 1,059.1 1,087.6 10,778.8  Estimated Miner Years 4,701.6 5,582.8	Claims per 100  Miner Years	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal GRAND TOTA  YEAR 2010 2011 2011	REPORIED  1 0 0 1 1 1 1 0 1 6 e: State Frequence Excess F	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952 1.2072	PENDING 0.0000 0.0000 0.0000 0.0008 0.00274 0.1080 0.1774 0.3184 0.4952 1.2072  IBNR + PENDING 0.0000 0.0000 0.0000	AWARD RAIIC 0.000000 0.000000 0.000000 0.007636 0.025300 0.066608 0.099360 0.163208 0.292928 0.455584 1.110624  0.920 AWARD RAIIC 0.000000 0.000000 0.09200000	55,531,499 67,989,438 68,749,931 67,035,206 77,808,252 68,310,739 55,838,525 61,819,490 70,580,230 75,390,486 669,053,796	ULTIMATE <u>AWARDED</u> 1.000000 0.000000 0.0007636 1.025300 1.066608 1.099360 1.163208 0.292928 1.455584 7.110624 EXPECTED ULTIMATE <u>AWARDED</u> 1.000000 5.000000	Average Weekly Wage 845 845 858 888 917 951 978 975 1,025 1,049  Statewide Average Weekly Wage Weekly Wage 845 858	<u>Factor</u>	Miner Years 1,003.9 1,179.6 1,172.0 1,101.1 1,233.9 1,090.1 888.6 951.9 1,059.1 1,087.6 10,778.8 Estimated Miner Years 4,701.6 5,582.8 5,393.2	Claims per 100 Miner Years 0.099612 0.000000 0.000000 0.000000 0.0097845 0.123718 0.122199 0.027658 0.133834 0.688653 0.068865 0.027546  Frequency Claims per 100 Miner Years 0.021269 0.089561 0.109768	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal GRAND TOTA  YEAR 2010 2011 2012 2013	REPORIED  1 0 0 0 1 1 1 0 0 1 6 es: State Frequence Excess Frequence Exces	1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0003 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952 1.2072 IBNR 0.0000 0.0000 0.0000 0.0000	PENDING 0.0000 0.0000 0.0000 0.0003 0.0275 0.0724 0.1080 0.1734 0.3184 0.4952 1.2072  IBNR + PENDING 0.0000 0.0000 1.0000 1.0000 1.0000	AWARD RATIO 0.000000 0.000000 0.000000 0.007896 0.025300 0.066608 0.097300 0.163208 0.29228 0.455584 1.110624  0.920 AWARD RATIO 0.000000 0.9200000 0.9200000 0.9200000 0.9200000 0.97896	55,531,499 67,989,438 68,749,931 67,035,206 677,808,252 68,310,739 55,838,525 61,819,490 70,580,230 75,390,486 669,053,796  Payroll 269,231,509 324,841,755 326,146,817 300,963,743	ULTIMATE <u>AWARDED</u> 1.000000 0.000000 0.0007636 1.025300 1.066608 1.09360 0.292928 1.455584 7.110624  EXPECTED ULTIMATE <u>AWARDED</u> 1.000000 5.920000 7.077896	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 1,025 1,049 Statewide Average <u>Weekly Wage</u> 845 858 888 8917	<u>Factor</u>	Miner Years 1,003.9 1,190.6 1,172.0 1,101.1 1,233.9 1,090.1 888.6 951.9 1,059.1 1,087.6 10,778.8  Estimated Miner Years 4,701.6 5,582.8 5,393.2 4,752.0	Claims per 100  Miner Years	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal GRAND TOTA  YEAR 2010 2011 2012 2013 2014	REPORTED  1 0 0 1 1 1 1 0 1 6 es: State Frequence Excess	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.075 0.0724 0.1080 0.1774 0.3184 0.4952 1.2072 IBNR 0.0000 0.0000 0.0000 0.0847 0.3828	PENDING 0.0000 0.0000 0.0000 0.0000 0.00275 0.0724 0.1080 0.1774 0.3184 0.4952 1.2072  IBNR + PENDING 0.0000 0.0000 1.0000 0.00007 0.0847 0.3828	AWARD RATIO 0.000000 0.000000 0.000000 0.007636 0.025300 0.066608 0.097360 0.163208 0.292928 0.455584 1.110624  0.920 AWARD RATIO 0.000000 0.000000 0.9200000 0.077896 0.352185	55,531,499 67,989,438 68,749,931 67,035,206 77,808,252 68,310,739 55,838,525 61,819,490 70,580,230 75,390,486 669,053,796	ULTIMATE AWARDED 1.000000 0.000000 0.0007636 1.025300 1.066608 1.079360 0.292928 1.455584 7.110624  EXPECTED ULTIMATE AWARDED 1.000000 5.000000 5.920000 7.077896 10.352185	Average Weekly Wage  845 858 888 917 932 951 978 975 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917 932	<u>Factor</u>	Miner Years 1,003,9 1,190.6 1,172.0 1,101.1 1,233,9 1,090.1 888.6 951.9 1,059.1 1,087.6 10,778.8  Estimated Miner Years 4,701.6 5,582.8 5,393.2 4,752.0 6,237.8	Claims per 100  Miner Years	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal  GRAND TOTA  YEAR 2010 2011 2012 2013 2014 2015	REPORIED  1 0 0 0 1 1 1 0 0 1 6 es: State Frequence Excess Frequence Exces	1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0083 0.0724 0.1080 0.1774 0.3184 0.4952 1.2072 IBNR 0.0000 0.0000 0.0000 0.0000 0.0847 0.3828 0.7001	PENDING 0.0000 0.0000 0.0000 0.0008 0.00274 0.1080 0.1774 0.3184 0.4952 1.2072  IBNR + PENDING 0.0000 0.0000 0.0000 0.0000 0.0000 0.0847 0.3828 0.7001	AWARD RAIIC 0.000000 0.000000 0.000000 0.007636 0.025300 0.066608 0.099360 0.163208 0.292928 0.455584 1.110624  0.920 AWARD RAIIC 0.000000 0.000000 0.920000 0.077896 0.352185 0.644110	55,531,499 67,989,438 68,749,931 67,035,206 77,808,252 68,310,739 55,838,525 61,819,490 70,580,230 75,390,486 669,053,796  Payroll 269,231,509 324,841,755 326,146,817 300,963,743 423,814,574 350,172,362	ULTIMATE AWARDED 1.000000 0.000000 0.0007636 1.025300 1.066608 1.097360 1.163208 0.292928 1.455584 7.110624  EXPECTED ULTIMATE AWARDED 1.000000 5.000000 5.920000 7.077896 10.352185 8.644110	Average Weekly Wage 845 845 848 87 917 932 951 978 975 1,025 1,049  Statewide Average Weekly Wage Weekly Wage 845 858 888 917 932 951	<u>Factor</u>	Miner Years 1,003.9 1,190.6 1,172.0 1,101.1 1,233.9 1,090.1 888.6 951.9 1,059.1 1,087.6 10,778.8  Estimated Miner Years 4,701.6 5,582.8 5,393.2 4,752.0 6,237.8 5,112.3	Claims per 100 Miner Years 0.099612 0.000000 0.000000 0.000000 0.000000 1.023718 0.123718 0.122199 0.027658 0.133834 0.688653 0.068865 0.027546  Frequency Claims per 100 Miner Years 0.021269 0.089561 0.109768 0.148946 0.165959	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal GRAND TOTA  YEAR 2010 2011 2012 2013 2014	REPORIED  1 0 0 1 1 1 1 0 1 6 es: State Frequence Excess	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.075 0.0724 0.1080 0.1774 0.3184 0.4952 1.2072 IBNR 0.0000 0.0000 0.0000 0.0847 0.3828	PENDING 0.0000 0.0000 0.0000 0.0000 0.00275 0.0724 0.1080 0.1774 0.3184 0.4952 1.2072  IBNR + PENDING 0.0000 0.0000 1.0000 0.00007 0.0847 0.3828	AWARD RATIO 0.000000 0.000000 0.000000 0.007636 0.025300 0.066608 0.097360 0.163208 0.292928 0.455584 1.110624  0.920 AWARD RATIO 0.000000 0.000000 0.9200000 0.077896 0.352185	55,531,499 67,789,438 68,749,931 67,035,206 77,808,252 68,310,739 55,838,525 61,819,490 70,580,230 75,390,486 669,053,796	ULTIMATE AWARDED 1.000000 0.000000 0.0007636 1.025300 1.066608 1.079360 0.292928 1.455584 7.110624  EXPECTED ULTIMATE AWARDED 1.000000 5.000000 5.920000 7.077896 10.352185	Average Weekly Wage  845 858 888 917 932 951 978 975 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917 932	<u>Factor</u>	Miner Years 1,003.9 1,190.6 1,172.0 1,101.1 1,233.9 1,090.1 888.6 951.9 1,059.1 1,087.6 10,778.8  Estimated Miner Years 4,701.6 5,582.8 5,393.2 4,752.0 6,237.8 5,112.3 3,670.1	Claims per 100  Miner Years	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal GRAND TOTA  YEAR 2010 2011 2011 2012 2013 2014 2015 2016	REPORIED  1 0 0 1 1 1 1 0 1 6 es: State Frequence Excess	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952 1.2072 IBNR 0.0000 0.0000 0.0000 0.0000 0.0847 0.3828 0.7001 0.9976	PENDING 0.0000 0.0000 0.0000 0.0000 0.0083 0.0275 0.0724 0.1080 0.1734 0.3184 0.4952 1.2072  IBNR + PENDING 0.0000 0.0000 1.0000 0.0847 0.3828 0.7001 0.9976	AWARD RAIIO 0.000000 0.000000 0.0077896 0.352185 0.644111 0.917755	55,531,499 67,989,438 68,749,931 67,035,206 77,808,252 68,310,739 55,838,525 61,819,490 70,580,230 75,390,486 669,053,796  Payroll 269,231,509 324,841,755 326,146,817 300,963,743 423,814,574 350,172,362	ULTIMATE AWARDED 1.000000 0.000000 0.000000 1.0025300 1.066608 1.097360 1.163208 0.292928 1.455584 7.110624  EXPECTED ULTIMATE AWARDED 1.000000 5.0920000 7.077896 10.352185 8.644110 7.917755	Average Weekly Wage  845 858 888 917 932 951 978 995 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917 932 951 978	<u>Factor</u>	Miner Years 1,003.9 1,190.6 1,172.0 1,101.1 1,233.9 1,090.1 888.6 951.9 1,059.1 1,087.6 10,778.8  Estimated Miner Years 4,701.6 5,582.8 5,393.2 4,752.0 6,237.8 5,112.3	Claims per 100 Miner Years	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal GRAND TOTA  YEAR 2010 2011 2012 2013 2014 2015 2016 2017	REPORIED  1 0 0 1 1 1 1 0 1 6 e: State Frequence Excess F	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.00275 0.0724 0.1080 0.1774 0.3184 0.4952 1.2072 IBNR 0.0000 0.0000 0.0000 0.0000 0.0847 0.3828 0.7974 0.3828 0.7974	PENDING 0.0000 0.0000 0.0000 0.0000 0.00275 0.0724 0.1080 0.1774 0.3184 0.4952 1.2072  IBNR + PENDING 0.0000 0.0000 1.0000 0.0847 0.3828 0.7901 0.9976 1.8967	0.920 0.00000 0.00000 0.00000 0.00000 0.007636 0.025300 0.066608 0.099360 0.163208 0.292928 0.455584 1.110624 0.920 AWARD RAIIQ 0.000000 0.000000 0.920000 0.077896 0.352185 0.644110 0.917755 1.744964	55,531,499 67,989,438 68,749,931 67,035,206 677,808,252 68,310,739 55,838,525 61,819,490 70,580,230 75,390,486 669,053,796  Payroll 269,231,509 324,841,755 326,146,817 300,963,743 423,814,574 350,172,362 254,559,392 289,088,505	ULTIMATE AWARDED 1.000000 0.000000 0.0007636 1.025300 1.066608 1.099360 0.292928 1.455584 7.110624  EXPECTED ULTIMATE AWARDED 1.000000 5.000000 5.920000 7.077896 10.352185 8.644110 7.917755 2.7444964	Average Weekly Wage  845 858 888 917 932 951 978 975 1,025 1,049  Statewide Average Weekly Wage  845 858 888 917 932 951 978 975	<u>Factor</u>	Miner Years 1,003.9 1,190.6 1,172.0 1,101.1 1,233.9 1,090.1 888.6 951.9 1,059.1 1,087.6 10,778.8 Estimated Miner Years 4,701.6 5,582.8 5,393.2 4,752.0 6,237.8 5,112.3 3,670.1 4,062.3 4,179.7 4,273.3	Claims per 100  Miner Years	
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal  GRAND TOTA  YEAR 2010 2011 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL	REPORIED  1 0 0 1 1 1 0 1 6 e: State Frequence Excess Fre	AWARDED  AWARDED  AWARDED  1 5 5 7 10 8 7 1 1 1 46	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.00275 0.0724 0.1080 0.1774 0.3184 0.4952 1.2072 IBNR 0.0000 0.0000 0.0000 0.0000 0.0000 0.0828 0.7001 0.9976 1.8967 3.0651	PENDING 0.0000 0.0000 0.0000 0.0000 0.00275 0.0724 0.1080 0.1774 0.3184 0.4952 1.2072  IBNR + PENDING 0.0000 1.0000 0.0000 1.0000 0.08428 0.7001 0.99767 3.0651	AWARD RAIIC 0.000000 0.000000 0.000000 0.007636 0.025300 0.066608 0.099360 0.163208 0.292928 0.455584 1.110624  0.920 AWARD RAIIC 0.000000 0.920000 0.077896 0.352185 0.644110 0.9177755 0.644110 0.9177755 1.744964 2.819910	55,531,499 67,989,438 68,749,931 67,035,206 77,808,252 68,310,739 55,838,525 61,819,490 70,580,230 75,390,486 669,053,796  Payroll 269,231,509 324,841,755 326,146,817 300,963,743 423,814,574 350,172,362 254,559,392 289,088,505 306,135,580	ULTIMATE AWARDED 1.000000 0.000000 0.0007636 1.025300 1.066608 1.099360 1.163208 0.292928 1.455584 7.110624  EXPECTED ULTIMATE AWARDED 1.000000 5.000000 5.920000 7.077896 10.352185 8.644110 7.917755 2.744964 3.819910	Average Weekly Wage  845 845 848 87 917 932 951 978 975 1,025 1,049  Statewide Average Weekly Wage Weekly Wage 975 858 888 917 932 951 978 975 1,025	<u>Factor</u>	Miner Years 1,003.9 1,190.6 1,172.0 1,101.1 1,233.9 1,090.1 1,059.1 1,087.6 10,778.8  Estimated Miner Years 4,701.6 5,582.8 5,393.2 4,752.0 6,237.8 5,112.3 3,670.1 4,062.3 4,179.7	Claims per 100 Miner Years	0.031035
YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL Average Federal GRAND TOTJ  YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2018 2019 2018 2019 2018 2019 2018 2019 2018 2019 2018 2019 2018 2019 2018 2019 2018 2019 2018 2019 2018 2019 2018 2019 2018 2019 2018 2019 2018 2019 2018 2019 2018 2019 2018	REPORIED  1 0 0 1 1 1 1 0 1 6 e: State Frequence Excess F	AWARDED  AWARD  AWARDED  AWARDED  AWARDED  AWARDED  AWARDED  AWARDED  AWARD	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DENIED 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000 0.0000 0.0000 0.0000 0.0003 0.0724 0.1744 0.1080 0.1774 0.3184 0.4952 1.2072 IBNR 0.0000 0.0000 0.0000 0.0847 0.3828 0.7001 0.9976 1.8965 1.8965 4.5561	PENDING 0.0000 0.0000 0.0000 0.0003 0.0275 0.0724 0.1080 0.1774 0.3184 0.4952 1.2072  IBNR + PENDING 0.0000 0.0000 0.0000 1.0000 0.0847 0.3828 0.7001 0.9976 1.8967 3.0651 4.5561	AWARD RAIIO 0.000000 0.000000 0.000000 0.007896 0.920 AWARD RAIIO 0.000000 0.007896 0.352185 0.644110 0.917755 1.744964 2.819910 4.191649	55,531,499 67,989,438 68,749,931 67,035,206 77,808,252 68,310,739 55,838,525 61,819,490 70,580,230 75,390,486 669,053,796  Payroll 269,231,509 324,841,755 326,146,817 300,963,743 423,814,574 350,172,362 254,559,392 289,088,505 306,135,580 320,569,109	ULTIMATE AWARDED 1.000000 0.000000 0.0007636 1.025300 1.066608 1.099360 1.163208 0.292928 1.455584 7.110624  EXPECTED ULTIMATE AWARDED 1.000000 5.0200000 7.077896 10.352185 8.644110 7.917755 2.744964 3.819910 5.191649	Average Weekly Wage  845 845 848 87 917 932 951 978 975 1,025 1,049  Statewide Average Weekly Wage Weekly Wage 975 858 888 917 932 951 978 975 1,025	<u>Factor</u>	Miner Years 1,003.9 1,190.6 1,172.0 1,101.1 1,233.9 1,090.1 888.6 951.9 1,059.1 1,087.6 10,778.8 Estimated Miner Years 4,701.6 5,582.8 5,393.2 4,752.0 6,237.8 5,112.3 3,670.1 4,062.3 4,179.7 4,273.3	Claims per 100 Miner Years	

Source: Claim counts - CMCRB OD Database as of 08/06/2020

IBNR: Exhibit VII-C-6, p.4

IBNR: Exhibit VII-C-6, p.4
Payroll- Exhibit VII-C-6, p.4
The Award Ratios for all classes were set equal to the Grand Total Award Ratio calculated on Exhibit VII-B-2 Page 3.
The Grand Total Award Ratio is equal to Awarded ÷ (Awarded plus Denied) = 46 / [46 + 04] = 0.920
The Wage Adjustment Factor was derived from CMCRB data. See Exhibit X-G
Estimated Miner Years = Payroll / (SAWW x-Adj. Factor x-52)
Frequency per 100 Miner Years = (Expected Ult. Awarded / Est. Miner Years) x 100
File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Filling\XL\[2020-07-B-2.xlsx]VII-B-3

Run Date: September 18, 2020 - 02:45:19 PM

COAL MINE COMPENSATION RATING BUREAU STATE OCCUPATIONAL DISEASE ANTHRACITE UNDERGROUND (1011)

Claims with File Dates on or before 12-31-2019, Valued as of 4-30-2020
Incremental Frequency and IBNR

													Incre	mental Fre		d IBNR													
Reported CI Months  12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240	1993 0 1 1 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1994 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1995 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1996 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1997 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1998 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1999 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2000	2001 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1	2002 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2003 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2004 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2005	Yer 2006 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2007 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2008 0 0 0 0 0 0 0 0 0 0 0 0 0	2009 0 0 0 0 0 0 0 0 0	2010 0 0 0 0 0 0 0 0 0	1	2012 0 0 0 0 0 0 0	2013 0 0 1 1 1 1	2014 0 0 0 0 0	2015 0 0 0 0	2016 0 0 0	2017 0 0 0	2018 0 0	2019 0		
Incremental 12-24 24-36 36-48 48-60 60-72 72-84 84-96 96-108 108-120 120-132 132-144 144-156 156-168 168-180 180-192 192-204 204-216 216-228 228-240	Changes  0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0	0 1 0 0 0	0 0 0 0 0	0 0 0 0	0 0 0	0 0	0			
Payroll (\$Millions)  12-24 24-36 36-48 48-60 60-72 72-84 88-96 96-108 108-120 120-132 132-144 144-156 156-168 168-180 180-192 192-204 204-216 216-228 228-240	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2001 1.63652 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2002 1.38655 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2003 1.35427 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2004 1.34532 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2005 1.41757 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2006 1.44252 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2007 1.66254 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2008 2.13671 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2009 1.33587 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2010 1.29959 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2011 1.25794 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2012 1.02926 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2013 0.38188 0.00000 2.61862 0.00000 0.00000 0.00000 0.00000	2014 0.25881 0.00000 0.00000 0.00000 0.00000 0.00000	2015 0.25434 0.00000 0.00000 0.00000 0.00000	2016 0.16376 0.00000 0.00000 0.00000	2017 0.25238 0.00000 0.00000	2018 0.18335 0.00000	2019 0.17938	Average 0.00000 0.20143 0.00000	Smoothed 0.20143 0.00000
IBNR Claims Cumulative times Payroll	Factor								0.00000	0.00000	0.00000	0.00000		0.00000	0.00000		0.00000			0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.20143 0.03613		

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2020

Payrolls: Exhibit X-A-2

COAL MINE COMPENSATION RATING BUREAU STATE OCCUPATIONAL DISEASE BITUMINOUS UNDERGROUND (1002)

Claims with File Dates on or before 12-31-2019, Valued as of 4-30-2020

													Incre	mental Fre		d IBNR							`	Sidiiris Willi	The Bales	on or below	7 12-01-201	7, Valuea as	01 1 00 2020
Reported C Months  12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240	1993 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1994 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1995 0 1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1996 0 0 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1997 1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1998 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1	1999 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2000 0 0 1 1 1 1 9 9 9 9 9 9 9 9 9 9 9 9 9	2001 2 2 2 2 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4	2002 1 1 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3	2003 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2004 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2	2005 1 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Yec 2006		2008 0 0 0 1 1 2 2 2 2 2 2 2 2 2 2 2 2	2009 0 0 0 0 0 0 0 0 0	2010 0 0 0 0 0 0 0 0 0 0	2011 0 1 1 2 2 2 2 2 2 2 2	2012 0 3 3 4 4 4 4	2013 2 3 3 3 3 6 7	2014 0 1 2 4 6 8	2015 0 1 1 3 6	2016 0 0 2 3 4	2017 0 0 0	2018	2019 0		
Incrementa 12-24 24-36 36-48 48-60 60-72 72-84 84-96 96-108 108-120 120-132 132-144 144-156 156-168 168-180 180-192 192-204 204-216 216-228 228-240	0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 1 1 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 1 0 0 0 0 0	3 0 0 1 0 0 0	1 0 0 0 3 1	1 1 2 2 2 2 2	1 0 2 3 3	2 1 1	0 0	1			
12-24 24-36 36-48 48-60 60-72 72-84 48-96 96-108 108-120 120-132 132-144 144-156 156-168 168-180 180-192 192-204 204-216 216-228 228-240	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2000 47.52056 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2001 48.52263 0.00000 0.02061 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2002 49.25035 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2003 54.21550 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2004 65.49767 0.01527 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2005 70.87262 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2006 70.46594 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2007 79.90427 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2008 101.35398 0.00000 0.00987 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2009 101.34814 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000	2011 148.48571 0.00673 0.00000 0.00673 0.00000 0.00000 0.00000 0.00000 0.00000	2012 153.61891 1 0.01953 0.00000 0.00000 0.00061 0.00000 0.00000 0.00000	2013 149.74709 0.00668 0.00000 0.00000 0.00000 0.02003 0.00668	2014 271.23071 2 0.00369 0.00369 0.00737 0.00737 0.00737	2015 216.45446 0.000462 0.00000 0.00924 0.01386	2016 148.55641 0.01346 0.00673 0.00673	2017 172.70878 0.00000 0.00000	2018 180.55314 0.00554	2019 185.77642	Average 0.00463 0.00080 0.00425 0.00289 0.00319 0.00051 0.00000	Smoothed 0.00463 0.00425 0.00319 0.00289 0.00159 0.00000
IBNR Claims Cumulative times Payro	Factor								0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		0.00051 0.07637	0.00131 0.35531		0.00579 0.86014		0.01323 2.38872			

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2020

Payrolls: Exhibit X-A-2

 $\label{line:c:users} Forum\\OneDrive\\Clients\\Coal\ Mine\\2020\ Rate\ Flling\\XL\\[2020-07-C.xlsx]VII-C-2\\Run\ Date:\ September\ 18,\ 2020\ -\ 11:14:55\ AM$ 

COAL MINE COMPENSATION RATING BUREAU STATE OCCUPATIONAL DISEASE ANTHRACITE SURFACE (1016)

Claims with File Dates on or before 12-31-2019, Valued as of 4-30-2020

													Incre	mental Fre		d IBNR							,	Jaims with	riie Dates c	on or before	12-31-201	9, Valuea as	01 4-30-2020
Reported Cl Months  12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240	1993   1993   1   2   4   4   4   4   4   4   4   4   4	1994 1 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	1995 1 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	1996 0 1 1 1 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1997 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1998	1999 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2000 0 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2001	2002 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2003 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2004	2005	Yec 2006 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2007 1 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2008	2009 0 0 0 0 0 0 0 0 0	2010 0 0 0 0 0 0 0 0 0	2011	2012 0 0 0 0 0 0 0	2013 0 0 1 1 1 1	2014 0 0 0 0 0	2015 0 0 0 0	2016	2017 0 0 0	2018 0 0	2019 0		
Incremental 12-24 24-36 36-48 48-60 60-72 72-84 84-96 96-108 108-120 120-132 132-144 144-156 156-168 168-180 180-192 192-204 204-216 216-228 228-240	Changes  0 0 0 0 0 0 0 0 0	0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 1 0 0 0 0	0 0 0 0 0	0 0 0 0	0 0 1	0 0	0			
12-24 24-36 36-48 48-60 60-72 72-84 84-96 96-108 108-120 120-132 132-144 144-156 156-168 168-180 180-192 192-204 204-216 216-228 228-240	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2001 13.94080 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2002 12.25126 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2003 12.16621 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2004 12.35973 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2005 12.14091 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2006 11.94638 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2007 14.55558 0.06870 0.00000 0.08870 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2008 16.95431 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2009 16.44546 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000		2011 21.03460 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2012 26.29591 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2013 22.44982 0.00000 0.04454 0.00000 0.00000 0.00000 0.00000	2014 20.46608 0.00000 0.00000 0.00000 0.00000 0.00000	2015 24.21878 0.00000 0.00000 0.00000 0.00000	2016 20.87361 0.00000 0.00000 0.04791	2017 21.16707 0.00000 0.00000	2018 19.57668 0.00000	2019 23.74667	Average 0.00528 0.00543 0.00897 0.00000	Smoothed 0.00897 0.00528 0.00343 0.00000
IBNR Claims Cumulative times Payroll	Factor												0.00000		0.00000		0.00000	0.00000	0.00000	0.00000	0.00000		0.00000	0.00000	0.00343 0.07260	0.00871 0.17051	0.01768 0.41984		

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2020

Payrolls: Exhibit X-A-2

 $\label{line:c:scal} File: C:\Users\Forum\OneDrive\Clients\Coal\Mine\2020\Rate\Flling\XL\[2020-07-C.xlsx]VII-C-3$ 

Run Date: September 18, 2020 - 11:14:55 AM

COAL MINE COMPENSATION RATING BUREAU STATE OCCUPATIONAL DISEASE BITUMINOUS SURFACE (1013)

Claims with File Dates on or before 12-31-2019, Valued as of 4-30-2020

													Incre	mental Free	quency an	d IBNR							(	Claims with	File Dates o	n or before	12-31-201	9, Valued as	of 4-30-2020
Reported C Months 12 24 36 48 60 72 84 96 108 122 132 144 156 168 180 192 204 216 228 240	loims 1993 1 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3	1994 1 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1995 1 1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1996 0 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1997 0 2 2 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1998 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1	1999 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2001 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2002	2003 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2004	2005	Yec 2006 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2007 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2008 0 0 0 0 0 0 0 0 0 0 0 0	2009 0 0 0 0 0 0 0 0 0 0	2010 0 0 0 0 0 0 0 0 0	2011 0 0 1 1 1 1 1 1 1 1	2012 0 0 0 1 2 2 2 2 2	2013 0 0 0 0 0 0	2014 0 0 0 1 1 1 1	2015 0 1 2 2 2 2	2016 0 0 0	2017 0 0 0	2018 0 0	2019 0		
Incrementa 12-24 24-36 36-48 48-60 60-72 72-84 84-96 96-108 108-120 120-132 132-144 144-156 156-168 168-180 180-192 192-204 204-216 216-228 228-240	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 0 0 0 0 0	0 0 1 1 0 0	0 0 0 0 0 0 0	0 0 1 1 0 0	1 1 0 0 0	0 0 0	0 0	0			
12-24 24-36 36-48 48-60 60-72 72-84 48-96 96-108 108-120 120-132 132-144 144-156 156-168 168-180 180-192 192-204 204-216 216-228 228-240	0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000		2002 53.50209 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2003 47.87374 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2005 64.87156 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000	2007 63.29577 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000			72.71156 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	86.07406	0.00000	2013 61.34975 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2014 54.05073 0.00000 0.00000 0.11850 0.00000 0.00000	2015 40.93405 0.02443 0.00000 0.00000	2016 29.12709 0.00000 0.00000 0.00000	33.14078	2018 35.24219 0.00000		Average 0.00188 0.00277 0.00243 0.00101 0.00000	Smoothed 0.00277 0.00243 0.00188 0.00101 0.00000
IBNR Claim Cumulative times Payro	Factor								0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000		0.00000	0.00000		0.00000	0.00000		0.00101 0.02942	0.00289 0.09578		0.00809 0.28700		

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2020

Payrolls: Exhibit X-A-2

 $\label{line:c:users} Forum\\OneDrive\\Clients\\Coal\ Mine\\2020\ Rate\ Flling\\XL\\[2020-07-C.xlsx]VII-C-4\\Run\ Date:\ September\ 18,\ 2020\ -\ 11:14:55\ AM$ 

PAB Effective Date - April 01, 2021 112,924.330800 COAL MINE COMPENSATION RATING BUREAU STATE OCCUPATIONAL DISEASE

OTHER CLASSIFICATIONS - STATE Claims with File Dates on or before 12-31-2019, Valued as of 4-30-2020

	Claims with file Dates on or before 12-31-2019, Valued as of 4-30-2020									
Reported Claims           Months         1993         1994         1995         1996         1997         1998         1999         2000           12         0         0         0         1         0         0         0         1         0         0         0         1         0         0         0         1         1         0         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1		Claims with File Dates on or before 12-31-2019, Valued as of 4-30-2020  2013								
1										
12-24 24-36 36-48 48-60 60-72 72-84 84-96 96-108 108-120 120-132 132-144 1-56 0.00000	\$ 32,92543 36,81203 41,30010 49,30786 53,12798 53,54405 59,39238 56,31762 48,54853 55,53150 67,98944 68,74973 67,035	No.   No.								
	0.0000 0.									

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2020 Payrolls: Exhibit X-A-2

 $\label{line:composition} File: C:\Users\Forum\\OneDrive\\Clients\\Coal\Mine\\2020\ Rate\ Filing\\XL\\[2020-07-C.xlsx]\\VII-C-5\ Run\ Date: September\ 18,\ 2020\ -\ 11:14:55\ AM$ 

COAL MINE COMPENSATION RATING BUREAU STATE OCCUPATIONAL DISEASE ALL CLASSIFICATIONS

Claims with File Dates on or before 12-31-2019, Valued as of 4-30-2020

Reported Claims  Reported Claims  Reported Claims  Reported Claims  Reported Claims  Reported Claims												014-00-2020																	
Reported CI Months  12  24  36  48  60  72  84  96  108  120  132  144  156  168  180  192  204  216  228  240	adms 1993 2 8 12 2 14 16 16 17 17 17 17 17 17 17 17 17 17 17 17 17	1994 5 13 14 17 17 17 17 17 17 17 17 17 17 17 17 17	1995 2 6 6 12 13	1996 0 3 4 4 5 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	1997 4 8 8 9 10 10 11 12 12 12 12 12 12 12 12 12 12 12 12	1998 1 1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1999 3 4 6 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	2000 0 5 6 6 6 6 14 14 14 14 14 14 14 14 14 14	2001 3 3 3 4 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	2002 3 3 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	2003 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2004 2 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	2005 3 5 5 5 5 6 6 6 6 6 6 6 6 6	Ye 2006 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2007 1 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	2008 1 1 1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2009 0 0 0 0 0 0 0 0 0	2010	2011 2 3 4 5 5 5 5 5 5 5 5 5	2012 0 3 3 4 6 6 6	2013 2 3 5 5 5 5 8 9	2014 0 1 2 6 8 10	2015 0 2 4 6 9	2016 1 3 5 7	2017 1 1 1	2018	2019		
Incremento 12-24 24-36 36-48 48-60 60-72 72-84 84-96 96-108 108-120 120-132 132-144 144-156 156-168 168-180 180-192 192-204 204-216 216-228 228-240	Changes	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 1 0 0 0 0 0 0 0 0	0 0 1 1 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	1 1 1 0 0 0 0	3 0 1 2 0 0 0	1 2 0 0 3 1	1 1 4 2 2	2 2 2 3	2 2 2	0 0	1			
Payroll (\$Millions)  12-24 24-36 36-48 48-60 60-72 72-84 84-96 96-108 108-120 120-132 132-144 144-156 156-168 180-192 192-204 204-216 216-228 228-240	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2001 0.00000 0.00644 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2002 53.20228 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2003 1156.90982 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2004 1184.72788 2 0.00541 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	2005 2002.43064 2 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2006 200.40787 0.00499 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2007 218.81054 0.00914 0.00000 0.00457 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2008 249.81710 0.00000 0.00000 0.00400 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2009 229.46239 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2010 269.23152 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000		2012 326.14682 0.00920 0.00000 0.00307 0.00613 0.00000 0.00000 0.00000	2013 300.96375 0.00332 0.00665 0.00000 0.00000 0.00997 0.00332	2014 423.81458 3 0.00236 0.00236 0.00944 0.00472	2015 850.17237 2 0.00571 0.00571 0.00571 0.00577	2016 254.55940 0.00786 0.00786 0.00786	2017 289.08850 3 0.00000 0.00000	2018 306.13559 0.00327	2019 20.56911	Average 0.00376 0.00197 0.00332 0.00197 0.00332 0.00151 0.00026 0.000000	Smoothed 0.00374 0.00332 0.00197 0.00180 0.00151 0.00026 0.00000
IBNR Claims Cumulative times Payrol	Factor								0.00000	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000		0.00000	0.00000	0.00026 0.07825	0.00076 0.32210	0.00227 0.79489	0.00407 1.03606	0.00604 1.74609	0.00936 2.86543	0.01312 4.20587		

Source: Counts and Payrolls: Sum of Exhibits VII-C-1 thru VII-C-5

# COAL MINE COMPENSATION RATING BUREAU STATE OCCUPATIONAL DISEASE ALL CLASSIFICATIONS

# **IBNR By Class**

# CLASSIFICATION

			Anthracite	Bituminous	Anthracite	Bituminous
A. IBNR Factor	<u>Coke</u>	<u>Auger</u>	Co-Gen	Co-Gen	Prep Plant	Prep Plant
<u>Year</u>	1017	1019	1022	1024	1026	1028
2010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2011	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2012	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2013	0.00026	0.00026	0.00026	0.00026	0.00026	0.00026
2014	0.00076	0.00076	0.00076	0.00076	0.00076	0.00076
2015	0.00227	0.00227	0.00227	0.00227	0.00227	0.00227
2016	0.00407	0.00407	0.00407	0.00407	0.00407	0.00407
2017	0.00604	0.00604	0.00604	0.00604	0.00604	0.00604
2018	0.00936	0.00936	0.00936	0.00936	0.00936	0.00936
2019	0.01312	0.01312	0.01312	0.01312	0.01312	0.01312
B. Adjustment Factor	0.40000	0.40000	0.40000	0.40000	1.00000	0.40000
·						
C. Payroll Per \$1M						
2010	5.43566	0.80670	8.48123	8.73270	5.76209	26.31313
2011	3.59909	1.17626	11.72004	9.10241	7.23658	35.15507
2012	5.73811	0.80821	10.27300	9.04775	8.67114	34.21173
2013	4.79191	1.02540	8.34265	10.35588	8.26567	34.25370
2014	4.46440	0.80698	9.06088	11.72118	8.23477	43.52004
2015	4.34038	0.58262	10.46909	11.74821	7.60627	33.56418
2016	4.43507	0.37250	8.99460	11.32755	7.01893	23.68988
2017	4.56611	0.44901	8.81970	11.43506	7.74615	28.80346
2018	4.48474	0.60014	11.60089	12.04330	9.65129	32.19987
2019	4.57239	0.53991	8.21913	11.80724	12.64658	37.60524
D. IBNR						
2010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2011	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2012	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2013	0.0005	0.0001	0.0009	0.0011	0.0021	0.0036
2014	0.0014	0.0002	0.0028	0.0036	0.0063	0.0132
2015	0.0039	0.0005	0.0025	0.0107	0.0173	0.0305
2016	0.0072	0.0006	0.0146	0.0184	0.0286	0.0386
2017	0.0110	0.0011	0.0213	0.0276	0.0468	0.0696
2018	0.0168	0.0022	0.0434	0.0451	0.0903	0.1206
2019	0.0240	0.0028	0.0431	0.0620	0.1659	0.1974
				2.2320	2207	

Source: IBNR Factor - Exhibit VII-C-6 Adjustment Factor - Judgement

Payrolls: Exhibit X-A-2 IBNR = A times B times C

# COAL MINE COMPENSATION RATING BUREAU STATE OCCUPATIONAL DISEASE ALL CLASSIFICATIONS

# **IBNR By Class**

# CLASSIFICATION

					Anthracite	
A. IBNR Factor	<u>Coke</u>	<u>Auger</u>	Co-Gen	Co-Gen		<u>Prep Plant</u>
<u>Year</u>	<u>1017</u>	<u>1019</u>	<u>1022</u>	<u>1024</u>	<u>1026</u>	<u>1028</u>
2000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2003	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2004	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2005	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2006	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2007	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2008	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2009	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
B. Adjustment Factor	0.40000	0.40000	0.40000	0.40000	1.00000	0.40000
C. Payroll Per \$1M						
2000	12.09257	1.20588	4.47346	1.87072	1.31947	8.57476
2001	10.37583	1.42913	5.23447	2.12133	3.60965	10.15503
2002	10.48501	1.15084	6.35854	2.38612	3.78169	12.64983
2003	11.53408	1.10222	7.13766	3.05252	3.72130	14.75232
2004	12.04913	1.05880	7.35151	6.37448	4.40665	18.06729
2005	12.86098	1.02654	7.85529	8.52475	5.17007	17.69036
2006	12.73739	1.06683	8.40539	9.39758	4.88588	17.05097
2007	13.66993	1.12116	9.16045	10.78921	5.75644	18.89519
2008	9.76115	2.48856	7.95834	8.46856	6.39077	21.25026
2009	5.17355	0.92616	8.00464	7.86641	6.74975	19.82801
D. IBNR						
2000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2007	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2008	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2009	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Source: IBNR Factor - Exhibit VII-C-6 Adjustment Factor - Judgement

Payrolls: Exhibit X-A-2 IBNR = A times B times C

Exhibit VII-E-a Page 1 <u>Underground Antrhacite</u>

# State O.D. Severity- Before Act 57

-	Awar Permane	ent Basis	Commute Compror As Set	nised- tled	Total A Perman Commute	ent plus ed/Comp.	Pending, Permanent			Total Claims	
	(1 Count	Amount	(2) Count	Amount	(3) = (1	(2) Amount	(4) Count	Amount	Count	(5) Amount	
a. Numbers and A	mounts										
(i) List	1	668,133 885,199	-	-			-	-			
	1	1,830,535	-	-			-	-			
	1	516,032 626,815	-	-			-	-			
	1	1,503,360	- 1	183,659			-	-			
	-	-	1	620,231			-	-			
	-	-	- 1	476,889			-	-			
	-	-	-	-			-	-			
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(i) Total	# 6	\$6,030,075	# 3	\$1,280,779	# 9	\$7,310,854	# 0	\$0	# 9	\$7,310,854	
(ii) Average b. Percentage of A	warded and C	\$1,005,012 commuted/Com	npromised within	\$426,926 Total Awarded		\$812,317		\$0		\$812,317	
(i) Number	# 6		# 3		# 9						
(ii) Percentage c. Difference Betw	66.6667%	Awarded Perm	33.3333%	Average Comr	100%	omised Claim					
(i) Average	een Avelage 7	\$1,005,012	anent Claim and	\$426,926	matea/Compr	Jillised Clailli					
(ii) Difference (Col						(\$578,086)					
d. Pending claims (i) Awarded Mix	66.6667%	arded and Com	33.3333%	ng Awarded Mi	<u>IA</u>						
(ii) Total	# 0.0000		# 0.0000				# 0				
e. Pending Average (i) Pending Ave.	ge from Above	e; Commuted a \$0	and Compromise	d less Awarded \$0	d Difference						
(ii) C/C Difference		\$0		(\$578,086)							
(iii) (e-i) + (e-ii)	_	\$0	_	\$0	limited to zer	o: negative offse	t is impossible				
(iv) Total (d-ii) x (e-iii)		\$0		\$0							
(v) Total of (e-iv)								\$0			
f. Calculation of In						Ponding			T.	otal	
-	Count	warded Amount	Average		Count	Pending Amount	Average		Count	otal Amount	Averag
(i) Permanent	#6	\$6,030,075	\$1,005,012		# 0.0000	\$0	\$0		# 6.0000	\$6,030,075	\$1,005,012
(ii) Comm./Comp.	#3 #9	\$1,280,779 \$7,310,854	\$426,926 \$812,317		# 0.0000	\$0 \$0	\$0 \$0		# 3.0000	\$1,280,779 \$7,310,854	\$426,926
(iii) Total (iv) Average Sever		\$7,310,854 ustment	\$812,317		# 0.0000	\$0	\$0		# 9.0000	\$7,310,854	\$812,317 \$812,317
(v) Impact	,										\$(

#### State O.D. Severity- Before Act 57

	Awar Permane		Commuter Comprom As Sett	nised-	Total A Perman Commute	ent plus	Pendir Permane			Total Claims	
-	(1 Count		(2) Count	Amount		1) + (2) Amount	(4 Count		Count	(5) Amount	
a Numbers and A		runount	Count	7 illiodili	Count	runount	Count	runount	Count	741104111	
<ul><li>a. Numbers and A</li><li>(i) List</li></ul>	1	928,663	-	-			-	-			
	-	-	1	150,902 221,552			-	-			
	-	-	1	474,471			-	-			
	-	-	1	93,663 195,614			-	-			
	-	-	1	371,035			-	-			
	1	960,251	-	156,806			-	-			
	1 1	1,210,600 1,702,506	-	-			-	-			
	- '	-	1	524,018			-	-			
	- 1	1,287,520	1	143,066			-	-			
	-	-	1	205,178			-	-			
	1	1,625,431	1 -	46,904			-	-			
	-	-	1	100,697			-	-			
	-	-	1	180,738 47,267			-	-			
	-	-	1	176,491 685,991			-	-			
	-	-	1	263,430			-	-			
	-	-	1	142,385 205,484			-	-			
	-	-	1	125,096			-	-			
	-	-	1 1	134,776 136,401			-	-			
	-	-	1	132,027			-	-			
	-	-	1 1	142,326 139,271			-	-			
	-	-	1	166,179			-	-			
	-	-	1 1	139,884 275,164			-	-			
	-	-	1	158,201 234,550			-	-			
	-	-	1	593,433			-	-			
	-	-	1	275,226 133,062			-	-			
	-	-	1	146,307			-	-			
	-	-	1	115,397 108,127			-	-			
	-	-	1	259,331			-	-			
	-	-	1 1	44,026 92,592			-	-			
	-	-	1	168,941			- ,	-			
	-	-	1	320,407			- 1	1,214,100			
	-	-	1	194,828 254,817			-	-			
	1	1,174,383	-	-			-	-			
	-	-	1	138,329 88,620			-	-			
	-	-	1	93,406			-	-			
	-	-	1 1	38,629 92,928			-	-			
	-	-	1	90,427 83,749			-	-			
	-	-	1	94,764			-	-			
	-	-	1	95,327 92,572			-	-			
	-	-	1	48,094			-	-			
	-	-	1	236,048 39,042			-	-			
	-	-	1	96,324 228,442			-	-			
	-	-	ı	220,442			-	-			
(i) Total	#7	\$8,889,356	# 58 \$	10,432,765	# 65	\$19,322,121	# 1	\$1,214,100	# 66	\$20,536,221	
(ii) Average b. Percentage of A	warded and C	\$1,269,908 Commuted/Com	promised within	\$179,875 Total Awarded		\$297,263		\$1,214,100		\$311,155	
(i) Number	#7		# 58		# 65						
(ii) Percentage	10.7692%	Aardad Darm	89.2308%	A	100%	aminad Claim					
c. Difference Between (i) Average	een Average i	\$1,269,908	ineni Ciaim anu 7	\$179,875	iuteu/Compi	omiseu Ciaim					
(ii) Difference (Col.						(\$1,090,033)					
<ul> <li>d. Pending claims</li> <li>(i) Awarded Mix</li> </ul>	Split into Awa 10.7692%	arded and Comi	muted/Comp usir 89.2308%	ng Awarded Mix	<u>K</u>						
(ii) Total	# 0.1077		# 0.8923				# 1				
e. Pending Average			nd Compromised		Difference						
(i) Pending Ave.		\$1,214,100		\$1,214,100							
(ii) C/C Difference (iii) (e-i) + (e-ii)	_	\$0 \$1,214,100	(3	\$1,090,033) \$124,067							
(iv) Total		\$130,749		\$110,706							
(d-ii) x (e-iii)								004: :==			
(v) Total of (e-iv)  f. Calculation of In	npact of Adius	stment						\$241,455			
22.22.000.0111	A	warded				Pending				otal	
(i) Dec	Count	Amount	Average		Count	Amount \$120.740	Average		Count	Amount	Average
<ul><li>(i) Permanent</li><li>(ii) Comm./Comp.</li></ul>	# 7 # 58	\$8,889,356 \$10,432,765	\$1,269,908 \$179,875		# 0.1077 # 0.8923	\$130,749 \$110,706	\$1,214,100 \$124,067		# 7.1077 # 58.8923	\$9,020,105 \$10,543,471	\$1,269,062 \$179,030
(iii) Total	# 65	\$19,322,121	\$297,263		# 1.0000	\$241,455	\$241,455		# 66.0000	\$19,563,576	\$296,418
(iv) Average Sever	rity before Adj	ustment									\$311,155 (\$14,737)
(v) Impact											(ψ1+,131)

#### State O.D. Severity- Before Act 57

	Awar Permane		Commut Compro As Se	mised-	Total Awarded- Permanent plus Commuted/Comp.	Pending, Permanent			Total Claims	
-	(1 Count		(2 Count		(3) = (1) + (2) Count Amount	(4) Count	Amount	Count	(5) Amount	
a. Numbers and A										
(i) List	1	889,415		-		=	-			
	1	958,638	1 -	41,018		-	-			
	1 1	638,963 312,086	-	-		-	-			
	-	-	1	61,838		-	-			
	1 1	760,386 573,985	-	-		-	-			
	- 1	847,462	1	576,452 -		-	-			
	1	1,060,663	-	-		-	-			
	1 1	840,282 693,420	-	-		<del>-</del>	-			
	1	84,623	- 1	402,974		-	-			
	1	790,791	-	-		-	-			
	1 1	641,382 971,378	-	-		-	-			
	- 1	716,318	1	612,818		-	-			
	1	496,838	-	-		-	-			
	1	542,488 670,751	-	-		-	-			
	1	1,419,872	-	-		-	-			
	1	521,697 798,863	-	-		-	-			
	- 1	-	1	36,818		-	-			
	- '	1,089,764	1	249,384		-	-			
	1 1	610,823 731,544	-	-		-	-			
	- '	-	1	137,409		Ē	-			
	-	-	1	132,254 118,439		-	-			
	-	-	1 1	64,803 119,076		-	-			
	-	-	1	189,705		-	-			
	-	-	1	255,794		-	-			
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(1) T-1-1	# 04	£47 CC0 420	# 44	¢2 000 700	# 20 000 001 010	# 0	60	# 20	¢20 661 212	
(i) Total (ii) Average	# 24	\$17,662,432 \$735,935	# 14	\$2,998,780 \$214,199	# 38 \$20,661,212 \$543,716	# 0	\$0 \$0	# 38	\$20,661,212 \$543,716	
b. Percentage of A	warded and C		promised within						40.00,000	
(i) Number	# 24		# 14		# 38					
(ii) Percentage	63.1579% een Average A	Awarded Perma	36.8421%	Average Comr	100% muted/Compromised Clain	1				
(i) Average		\$735,935	Ciaim and	\$214,199		<u> </u>				
(ii) Difference (Col.					(\$521,736)					
d. Pending claims (i) Awarded Mix	Split into Awa 63.1579%	arded and Comr	nuted/Comp us 36.8421%	sing Awarded M	<u>x</u>					
(ii) Total	# 0.0000		# 0.0000			# 0				
e. Pending Average	ge from Above		nd Compromise		d Difference					
<ul><li>(i) Pending Ave.</li><li>(ii) C/C Difference</li></ul>		\$0 \$0		\$0 (\$521,736)						
(iii) (e-i) + (e-ii)	_	\$0	_	\$0	limited to zero: negative of	fset is impossible				
(iv) Total		\$0		\$0						
(d-ii) x (e-iii) (v) Total of (e-iv)							\$0			
f. Calculation of In	npact of Adjus	stment					ΨΟ			
-	A	warded			Pending				otal	
(i) Permanant	Count # 24	Amount \$17,662,432	Average \$735,935		Count Amount # 0.0000 \$0	Average \$0		Count # 24.0000	Amount \$17,662,432	Avera \$735,93
(i) Permanent (ii) Comm./Comp.	# 24 # 14	\$17,662,432 \$2,998,780	\$735,935 \$214,199		# 0.0000 \$0 # 0.0000 \$0	\$0 \$0		# 24.0000 # 14.0000	\$17,662,432 \$2,998,780	\$735,93 \$214,19
(iii) Total	# 38	\$20,661,212	\$543,716		# 0.0000 \$0	\$0		# 38.0000	\$20,661,212	\$543,71
(iv) Average Sever	rity before Adj	ustment								\$543,71
(v) Impact										\$

Exhibit VII-E-a Page 4 Surface Bituminous

#### State O.D. Severity- Before Act 57

American and American   American   American   American   Cours   Cours   American   American   Cours   American   Ame		Awar Permane		Commut Compro As Se	mised-	Permar	warded- nent plus ed/Comp.	Pending, Permanent I	on Basis		Total Claims	
1	-	(1	)	(2	!)	(3) = (	1) + (2)	(4)		Count	(5)	
1   148653	a Numbers and A		711100111	Count	711104111	Count	711104111	Count	711104111	Count	7 tillouit	
1   1054   12   1054   12   1054   12   1054   12   1054		1		-	-			-	-			
1   1710    1710		- '	-					-	-			
(i) Total   # 4 \$5,65,863   # 17 \$3,782,273   # 21 \$8,946,136   # 0 \$0   # 21 \$8,946,136   # 0 \$0   # 22 \$8,946,136   # 0 \$0   \$0		-						-	-			
(I) Tradel		- 1	1,768,142 -	- 1	- 517,789			-	-			
1) Total   8.4   \$5,169,863   8.17   \$3,782,273   8.21   \$5,944,136   8.0   \$5   \$2,21   \$8,944,136   19,942,136   19,942,136   19,944,		-	-		45,538			-	-			
(i) Total # 4 \$5,163,863 #17 \$3,782,773 #21 \$8,946,136 #0 \$0 #21 \$3,942,135 #1 \$10,110 #		-	-		105,666			-	-			
0) Total # # \$ \$5,163,863 # \$7 \$3,782,273 # \$21 \$8,946,136 # 0 \$0 # \$21 \$8,946,136 # 0 \$0 # \$21 \$8,946,136 # 0 \$0 \$0 # \$21 \$8,946		-	-	1	225,319			-	-			
1   15,500		-	-					-	-			
0) Total # 4 \$5,183,863 # 17 \$3,762,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,138   0) Average # 4 \$1,289,966 # \$222,487 \$48,006 # 0 \$0 # 21 \$8,946,138   0) Average # 5 \$1,289,966 # \$222,487 \$48,006 # 0 \$0 # 21 \$8,946,138   0) Average # 5 \$1,289,966 # \$222,487 \$48,006 # 0 \$0 # 21 \$8,946,138   0) Average # 5 \$1,289,966 # \$222,487 \$48,006 # 0 \$0 # 21 \$8,946,138   0) Average # 5 \$1,289,966 # \$222,487 \$48,006 # 0 \$0 # 21 \$8,946,138   0) Average # 5 \$1,289,966 # \$222,487 \$48,006 # 0 \$0 # 21 \$8,946,138   0) Average # 5 \$1,289,966 # \$222,487 \$48,006 # 0 \$0 # 21 \$8,946,138   0) Average # 5 \$1,289,966 # \$222,487 \$48,006 # 0 \$0 # 21 \$8,946,138   0) Average # 5 \$1,289,966 # \$222,487 \$48,006 # 0 \$0 # 21 \$8,946,138   0) Average # 5 \$1,289,966 # \$222,487 \$48,006 # 0 \$0 # 21 \$8,946,138   0) Average # 5 \$1,289,966 # \$222,487 \$48,006 # 0 \$0 # 21 \$8,946,138   0) Average # 5 \$1,289,966 # \$222,487 \$48,006 # 0 \$0 # 21 \$8,946,138   0) Average # 5 \$1,289,966 # \$222,487 \$48,006 # 0 # 0 # 0 # 0 # 0 # 0 # 0 # 0 # 0		- 1	826 015	1	96,052			-	-			
(i) Total # 4   55,50,803   # 17   \$3,762,773   # 21   \$8,946,136   # 0   \$50   # 21   \$3,846,136   # 0   \$6		- '	-					-	-			
(i) Total # 4 \$5,163,663 # 17 \$3,762,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136 (ii) Avarage 1 \$1,290,966 \$222,487 \$34,760,06 \$0 \$0 \$421 \$8,946,136 (iii) Avarage 1 \$1,290,966 \$222,487 \$34,760,06 \$0 \$0 \$421 \$8,946,136 (iii) Avarage 1 \$1,290,966 \$222,487 \$34,760,06 \$0 \$0 \$421 \$8,946,136 (iii) Avarage 1 \$1,290,966 \$222,487 \$34,760,06 \$0 \$0 \$421 \$8,946,136 (iii) Avarage 1 \$1,290,966 \$1,		-	-		58,298			-	-			
(i) Tatel # 4 \$5.163.883 # 17 \$3.782.273 # 21 \$8.946.136 # 0 \$0 # 21 \$8.946.136 (ii) Average \$1.290.986 \$222.487 \$426.006 \$0 \$0 # 21 \$8.946.136 (iii) Average \$1.290.986 \$222.487 \$426.006 \$0 \$0 \$2 \$426.006 \$0 \$4		-	-					-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage of Indiana		-	-	-				-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage of Indiana		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage of Indiana		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage of Indiana		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage of Indiana		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage of Indiana		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage of Indiana		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage   19,0476%   80,9524%   1000%   (iiii) Percentage   19,0476%   80,9524%   1000%   (iiii) Olifference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim   (i) Average   \$1,290,966   \$222,487   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (ii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Total   # 0,0000   # 0,0000   # 0,0000   # 0,0000   (iii) (e-i) + (e-ii)   \$0   \$0   (iii) (e-ii)   \$0   \$0		-	=	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage   19,0476%   80,9524%   1000%   (iiii) Percentage   19,0476%   80,9524%   1000%   (iiii) Olifference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim   (i) Average   \$1,290,966   \$222,487   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (ii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Total   # 0,0000   # 0,0000   # 0,0000   # 0,0000   (iii) (e-i) + (e-ii)   \$0   \$0   (iii) (e-ii)   \$0   \$0		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage   19,0476%   80,9524%   1000%   (iiii) Percentage   19,0476%   80,9524%   1000%   (iiii) Olifference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim   (i) Average   \$1,290,966   \$222,487   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (ii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Total   # 0,0000   # 0,0000   # 0,0000   # 0,0000   (iii) (e-i) + (e-ii)   \$0   \$0   (iii) (e-ii)   \$0   \$0		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage   19,0476%   80,9524%   1000%   (iiii) Percentage   19,0476%   80,9524%   1000%   (iiii) Olifference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim   (i) Average   \$1,290,966   \$222,487   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (ii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Total   # 0,0000   # 0,0000   # 0,0000   # 0,0000   (iii) (e-i) + (e-ii)   \$0   \$0   (iii) (e-ii)   \$0   \$0		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage   19,0476%   80,9524%   1000%   (iiii) Percentage   19,0476%   80,9524%   1000%   (iiii) Olifference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim   (i) Average   \$1,290,966   \$222,487   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (ii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Total   # 0,0000   # 0,0000   # 0,0000   # 0,0000   (iii) (e-i) + (e-ii)   \$0   \$0   (iii) (e-ii)   \$0   \$0		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage   19,0476%   80,9524%   1000%   (iiii) Percentage   19,0476%   80,9524%   1000%   (iiii) Olifference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim   (i) Average   \$1,290,966   \$222,487   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (ii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Total   # 0,0000   # 0,0000   # 0,0000   # 0,0000   (iii) (e-i) + (e-ii)   \$0   \$0   (iii) (e-ii)   \$0   \$0		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage   19,0476%   80,9524%   1000%   (iiii) Percentage   19,0476%   80,9524%   1000%   (iiii) Olifference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim   (i) Average   \$1,290,966   \$222,487   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (ii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Total   # 0,0000   # 0,0000   # 0,0000   # 0,0000   (iii) (e-i) + (e-ii)   \$0   \$0   (iii) (e-ii)   \$0   \$0		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage   19,0476%   80,9524%   1000%   (iiii) Percentage   19,0476%   80,9524%   1000%   (iiii) Olifference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim   (i) Average   \$1,290,966   \$222,487   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (ii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Total   # 0,0000   # 0,0000   # 0,0000   # 0,0000   (iii) (e-i) + (e-ii)   \$0   \$0   (iii) (e-ii)   \$0   \$0		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage   19,0476%   80,9524%   1000%   (iiii) Percentage   19,0476%   80,9524%   1000%   (iiii) Olifference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim   (i) Average   \$1,290,966   \$222,487   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (ii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Total   # 0,0000   # 0,0000   # 0,0000   # 0,0000   (iii) (e-i) + (e-ii)   \$0   \$0   (iii) (e-ii)   \$0   \$0		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage   19,0476%   80,9524%   1000%   (iiii) Percentage   19,0476%   80,9524%   1000%   (iiii) Olifference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim   (i) Average   \$1,290,966   \$222,487   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (ii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Total   # 0,0000   # 0,0000   # 0,0000   # 0,0000   (iii) (e-i) + (e-ii)   \$0   \$0   (iii) (e-ii)   \$0   \$0		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage of Indiana		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage of Indiana		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage of Indiana		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage of Indiana		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage of Indiana		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage of Indiana		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage of Indiana		-	-	-	-			-	-			
(i) Total # 4 \$5,163,863 # 17 \$3,782,273 # 21 \$8,946,136 # 0 \$0 # 21 \$8,946,136   (ii) Average \$1,290,966 \$222,487 \$426,006 \$0 \$0 \$426,006   (iii) Percentage of Awarded and Commuted/Compromised within Total Awarded   (iii) Percentage   19,0476%   80,9524%   1000%   (iiii) Percentage   19,0476%   80,9524%   1000%   (iiii) Olifference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim   (i) Average   \$1,290,966   \$222,487   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (ii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Olifference (Col. 2 minus Col. 1)   (\$1,068,479)   (iii) Total   # 0,0000   # 0,0000   # 0,0000   # 0,0000   (iii) (e-i) + (e-ii)   \$0   \$0   (iii) (e-ii)   \$0   \$0		-	-	-	-			-	-			
In   Average   \$1,290,966   \$222,487   \$426,006   \$0   \$426,006   \$0   \$426,006   \$0   \$0   \$0   \$0   \$0   \$0   \$0		-	-	-	-			-	-			
In   Average   \$1,290,966   \$222,487   \$426,006   \$0   \$426,006   \$0   \$426,006   \$0   \$0   \$0   \$0   \$0   \$0   \$0		-	=	=	-			=	-			
(ii) Number # # 4 # 17 # 21   100476% 80.9524% 100%   100%	(ii) Average		\$1,290,966		\$222,487			# 0		# 21		
Total   Formation   Formatio			ommuted/Com		ı ı otar Awarded	# 21						
(ii) Average \$1,290,966 \$222,487 (iii) Difference (Col. 2 minus Col. 1)	(ii) Percentage	19.0476%		80.9524%		100%						
Count   Amount   Average   Amo		een Average A		anent Claim and		nuted/Compi	omised Claim					
(ii) Awarded Mix	(ii) Difference (Col.		1)				(\$1,068,479)					
Total			arded and Com		sing Awarded Mi	<u>x</u>						
(ii) Pending Ave. \$0 (\$1,068,479) (\$1,068,47								# 0				
(ii) C/C Difference         \$0         (\$1,068,479)         limited to zero: negative offset is impossible           (iii) (e-i) + (e-ii)         \$0         \$0         \$0           (v) Total         \$0         \$0           (d-ii) x (e-iii)         \$0         \$0           (V) Total of (e-iv)         \$0           F. Calculation of Impact of Adjustment         Pending         Total           Count         Amount         Average         Count Amount Average         Count Amount Average         Count #4 4,0000 \$5,163,863 \$1,290,966         #0,0000 \$0         \$0         #17,0000 \$5,163,863 \$1,290,966         \$1,290,966         #0,0000 \$0         \$0         #17,0000 \$3,782,273 \$222,487         \$222,487         #0,0000 \$0         \$0         \$0         #17,0000 \$3,782,273 \$222,487         \$222,487         \$40,0000 \$0         \$0         \$0         #17,0000 \$8,946,136 \$426,006         \$426,006         \$40,0000 \$0         \$0         \$0         \$0         \$0         \$8,946,136 \$426,006         \$426,006         \$426,006         \$426,006         \$426,006         \$426,006         \$426,006         \$426,006         \$426,006         \$426,006         \$426,006         \$426,006         \$426,006         \$426,006         \$426,006         \$426,006         \$426,006<		e from Above		and Compromise		Difference						
(iii) (e-i) + (e-ii) (iv) Total (iv) Total (d-ii) × (e-iii) (d-ii) × (e-iii)         \$0												
Cd-ii) x (e-iii)   S0   S0   S0   S0   S0   S0   S0   S	(iii) (e-i) + (e-ii)	_	\$0	_	\$0	limited to ze	ro: negative offse	et is impossible				
(v) Total of (e-iv)         \$0           F. Calculation of Impact of Adjustments         Pending         Total           Count New Yearage         Count New Yearage         Count New Yearage         Average         Count New Yearage         Average         Count New Yearage         Amount Average         Average           (i) Permanent         # 4         \$5,163,863         \$1,290,966         # 0,0000         \$0         \$0         # 4,0000         \$5,163,863         \$1,290,966           (ii) Comm./Comp.         # 17         \$3,782,273         \$222,487         # 0,0000         \$0         \$0         # 17,0000         \$3,782,273         \$222,487           (iii) Total         # 21         \$8,946,136         \$426,006         # 0,0000         \$0         \$0         # 21,0000         \$8,946,136         \$426,006           (iv) Average Severity before Adjustment         \$426,006         # 0,0000         \$0         \$0         # 21,0000         \$8,946,136         \$426,006			\$0		\$0							
F. Calculation of Impact of Adjustment         Pending         Total           Count Nount Nount Nerrage         Count Nount No									\$0			
Count   Amount   Average   Count   Amount   Average   Count   Amount   Average   Count   Amount   Average							Dandir -			_	stel	
(i) Permanent #4 \$5,163,863 \$1,290,966 #0.0000 \$0 \$0 #4.0000 \$5,163,863 \$1,290,966 (ii) Comm./Comp. #17 \$3,782,273 \$222,487 #0.0000 \$0 \$0 #17.0000 \$3,782,273 \$222,487 (iii) Total #21 \$8,946,136 \$426,006 #0.0000 \$0 \$0 \$0 #21.0000 \$8,946,136 \$426,006 (iv) Average Severity before Adjustment \$426,006 \$426,006	-			Average				Average				Average
(iii) Total #21 \$8,946,136 \$426,006 #0.0000 \$0 \$0 #21.0000 \$8,946,136 \$426,006 (iv) Average Severity before Adjustment \$426,006		# 4	\$5,163,863	\$1,290,966		# 0.0000	\$0	\$0		# 4.0000	\$5,163,863	\$1,290,966
(iv) Average Severity before Adjustment \$426,006												
				ψ <del>1</del> 20,000		# 0.0000	φU	φυ		π Δ1.0000	ψυ,σ40,130	
(v) Impact \$0	(v) Impact											\$0

Exhibit VII-E-a Page 5 Other Classes

# State O.D. Severity- Before Act 57

a. Numbers and Amo	Permanen (1) Count  Dunts 1	Amount 1,562,132	As Se (2 Count			ed/Comp. (1) + (2) Amount	Permanent E (4) Count	Amount	Count	Total Claims (5) Amount	
	ounts 1	1,562,132	-								
	1 - - -	-	- ,								
	- - - - 1	-		-			-	-			
	- - - 1	-	1	284,685			-	-			
	- 1	-	1	135,836 237,682			-	-			
	- 1	-	1	156,367			-	-			
		558,046	- 1	84,610			-	-			
	-	-	1	77,359			-	-			
	- ,	-	1	94,646			-	-			
	1	471,777	1	205,042			-	-			
	-	-	1	143,280			-	-			
	-	-	1	153,193			-	-			
	-	-	1	71,376 71,074			-	-			
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) Total	#3	\$2,591,955	# 12	\$1,715,151	# 15	\$4,307,106	# 0	\$0	# 15	\$4,307,106	
ii) Average		\$863,985		\$142,929		\$287,140		\$0		\$287,140	
. Percentage of Awa  ) Number	rded and Co # 3	mmuted/Comp	promised withir # 12	ı ıotal Awarded	# 15						
	# 3 0.0000%		# 12 80.0000%		# 15 100%						
. Difference Between		warded Perma		d Average Comm		omised Claim					
) Average		\$863,985		\$142,929							
ii) Difference (Col. 2						(\$721,056)					
I. Pending claims Sp		ded and Comm		sing Awarded Mix	<u>K</u>						
	0.0000% # 0.0000		80.0000% # 0.0000				# 0				
Pending Average f		Commuted a		ed less Awarded	Difference		# U				
) Pending Ave.		\$0		\$0							
ii) C/C Difference		\$0		(\$721,056)							
ii) (e-i) + (e-ii)		\$0	_	\$0	limited to zer	ro: negative offset	is impossible				
v) Total		\$0		\$0							
(d-ii) x (e-iii)											
v) Total of (e-iv)								\$0			
Calculation of Impa						Donding			τ.	otal	
	Count	arded Amount	Average	-	Count	Pending Amount	Average		Count	otal Amount	Aver
		\$2,591,955	\$863,985		# 0.0000	Amount \$0	Average \$0		# 3.0000	Amount \$2,591,955	\$863,9
) Permanent	# 0 1		\$142,929		# 0.0000	\$0 \$0	\$0 \$0		# 12.0000	\$2,591,955 \$1,715,151	\$142,9
i) Permanent		a1.7 ID IDI									
ii) Comm./Comp.	# 12	\$1,715,151 \$4,307,106				\$0 \$0					
i) Permanent ii) Comm./Comp. iii) Total iv) Average Severity	# 12 # 15	\$4,307,106	\$287,140		# 0.0000		\$0		# 15.0000	\$4,307,106	\$287,1 \$287,1

	Award Permanen		Commuted Comprom As Settl	ised-	Total Aw Permane Commute	ent plus	Pending, Permanent I			Total Claims	
•	(1) Count		(2) Count	Amount	(3) = (1) Count		(4) Count	Amount	Count	(5) Amount	
a. Numbers and A											
(i) List	1 1	-	-	-			-	-			
	1	310,754	-	-			-	-			
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	1	279,921	- 1	-			-	-			
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(i) Total (ii) Average	# 6	\$590,674 \$98,446	# 3	\$0 \$0	# 9	\$590,674 \$65,630	# 0	\$0 \$0	# 9	\$590,674 \$65,630	
b. Percentage of A						7-3,000		40		+00,000	
(i) Number (ii) Percentage	# 6 66.6667%		# 3 33.3333%		# 9 100%						
c. Difference Betw		warded Perma		verage Comm		mised Claim					
(i) Average	2 minus Cal 1	\$98,446		\$0		(\$98,446)					
(ii) Difference (Col d. Pending claims			nuted/Comp usin	g Awarded Mix	<u>(</u>	(\$90,440)					
(i) Awarded Mix	66.6667%		33.3333%				# 0				
(ii) Number e. Pending Average	# 0.0000 ge from Above;	Commuted a	# 0.0000 nd Compromised	less Awarded	Difference		# 0				
(i) Pending Ave.		\$0		\$0							
(ii) C/C Difference (iii) (e-i) + (e-ii)	_	\$0 \$0		(\$98,446) \$0	limited to zero	: negative offset	is impossible				
(iv) Total		\$0		\$0		011000					
(d-ii) x (e-iii)								\$0			
(v) Total of (e-iv) f. Calculation of Ir	npact of Adjustr	ment_						φυ			
	Aw	/arded	A.u			ending	A. (a. e		Count		A
(i) Permanent	Count # 6	Amount \$590,674	Average \$98,446		Count # 0.0000	Amount \$0	Average \$0		Count # 6.0000	Amount \$590,674	Average \$98,446
(ii) Comm./Comp.	# 3	\$0	\$0		# 0.0000	\$0	\$0		# 3.0000	\$0	\$0
(iii) Total (iv) Average Seve	# 9 rity before Adjus	\$590,674	\$65,630		# 0.0000	\$0	\$0		# 9.0000	\$590,674	\$65,630 \$65,630
(v) Impact	my belole Aujus	ou i to i ll									\$05,630

	Awarde Permanen		Commuted Comprom As Sett	nised-	Permar	warded- nent plus ed/Comp.	Pending, Permanent I	on 3asis		Total Claims	
·-	(1) Count	Amount	(2) Count	Amount		1) + (2) Amount	(4) Count	Amount	Count	(5) Amount	
a. Numbers and A	.mounts										
(i) List	- 1 -	-	- 1	-			-	-			
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	-	-	1 1	15,239			-	-			
	1	313,919	-	-			-	-			
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	-	-	1 1	93 48,733			-	-			
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	-	-	1 1	20,782			-	-			
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(i) Total (ii) Average	#7	\$651,079 \$93,011	# 58	\$670,289 \$11,557	# 65	\$1,321,368 \$20,329	# 1	\$0 \$0	# 66	\$1,321,368 \$20,021	
b. Percentage of A	warded and Co		promised within		1	Ψ20,020		ΨΟ		ψ20,021	
(i) Number (ii) Percentage	# 7 10.7692%		# 58 89.2308%		# 65 100%						
c. Difference Between		warded Perma		Average Com		omised Claim					
(i) Average		\$93,011		\$11,557		(\$04.455)					
(ii) Difference (Col. d. Pending claims			nuted/Comp usir	ng Awarded M	ix	(\$81,455)					
(i) Awarded Mix	10.7692%		89.2308%								
(ii) Number e. Pending Average	# 0.1077	Commuted a	# 0.8923	l loss Awarde	d Difference		# 1				
(i) Pending Ave.	, / WOVE,	\$0	compromised	\$0							
(ii) C/C Difference		\$0 \$0	_	(\$81,455) \$0	limited to 70	ro: nogativo offac	t io impossible				
(iii) (e-i) + (e-ii) (iv) Total		\$0 \$0		\$0 \$0	minica lo 2e	ro: negative offse	r ia impossibie				
(d-ii) x (e-iii)								**			
(v) Total of (e-iv)  f. Calculation of In	npact of Adiustr	ment						\$0			
	Aw	arded				Pending				otal	
(i) Permanent	Count # 7	Amount \$651,079	Average \$93,011		Count # 0.1077	Amount \$0	Average \$0		Count # 7.1077	Amount \$651,079	Average \$91,602
(ii) Comm./Comp.	# 58	\$670,289	\$11,557		# 0.1077	\$0	\$0 \$0		# 58.8923	\$670,289	\$11,382
(iii) Total		\$1,321,368	\$20,329		# 1.0000	\$0	\$0		# 66.0000	\$1,321,368	\$20,021
(iv) Average Sever (v) Impact	ny belore Adjus	ounent									\$20,021 \$0

	Awarde Permanen		Commuted Comprom As Settl	ised-	Total Av Perman Commute	ent plus	Pending, Permanent			Total Claims	
	(1) Count	Amount	(2) Count	Amount	(3) = (1 Count	I) + (2) Amount	(4) Count	Amount	Count	(5) Amount	
a. Numbers and A	Amounts										
(i) List	_ 1 	-	- 1	-			-	-			
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(i) Total	# 24	\$483,247	# 14	\$57,083	# 38	\$540,330	# 0	\$0	# 38	\$540,330	
(ii) Average b. Percentage of A	Awarded and Co	\$20,135 mmuted/Comp	promised within T	\$4,077 otal Awarded	 [	\$14,219		\$0		\$14,219	
(i) Number	# 24	•	# 14		# 38						
(ii) Percentage c. Difference Betw	63.1579% veen Average Av	warded Permar	36.8421% nent Claim and A	verage Comr	100% nuted/Compre	omised Claim					
(i) Average		\$20,135		\$4,077							
(ii) Difference (Col d. Pending claims			nuted/Comp usin	g Awarded Mi	ix	(\$16,058)					
(i) Awarded Mix	63.1579%		36.8421%		<u> </u>		".0				
(ii) Number e. Pending Avera	# 0.0000 ge from Above;	Commuted ar	# 0.0000 nd Compromised	less Awarded	d Difference		# 0				
(i) Pending Ave.		\$0	,	\$0							
(ii) C/C Difference (iii) (e-i) + (e-ii)		\$0 \$0		(\$16,058) \$0	limited to zer	o: negative offse	t is impossible				
(iv) Total		\$0		\$0		5.100					
(d-ii) x (e-iii) (v) Total of (e-iv)								\$0			
f. Calculation of Ir								ΨΟ			
•	Count	arded Amount	Average		Count	Pending Amount	Average	•	To Count	tal Amount	Average
(i) Permanent	# 24	\$483,247	\$20,135		# 0.0000	\$0	\$0		# 24.0000	\$483,247	\$20,135
(ii) Comm./Comp. (iii) Total	# 14 # 38	\$57,083 \$540,330	\$4,077 \$14,219		# 0.0000 # 0.0000	\$0 \$0	\$0 \$0		# 14.0000 # 38.0000	\$57,083 \$540,330	\$4,077 \$14,219
(iv) Average Seve			Ψ14,Δ13		π U.UUUU	ΨU	Ψ		,, 50.0000	ψ <b>υ+</b> υ,υ <b>3</b> υ	\$14,219
(v) Impact											\$0

_	Award Permanen		Commuted Comprom As Sett	nised-	Total A Perman Commute	ent plus	Pending, Permanent	on Basis		Total Claims	
	(1) Count	Amount	(2) Count	Amount	(3) = ( Count	1) + (2) Amount	(4) Count	Amount	Count	(5) Amount	
a. Numbers and A	mounts										
(i) List	1	248,687	-	-			-	-			
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	-	-	1 1	41,206			-	-			
	1	300,609	- 1	-			-	-			
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	-	-	1 1	24,056			-	-			
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(i) Total (ii) Average	# 4	\$549,295 \$137,324	# 17	\$135,455 \$7,968	# 21	\$684,750 \$32,607	# 0	\$0 \$0	# 21	\$684,750 \$32,607	
b. Percentage of A	warded and Co		romised within			ψ02,001		ΨΟ		ψ32,001	
(i) Number	# 4		# 17		# 21						
(ii) Percentage c. Difference Between	19.0476% een Average Av	varded Permai	80.9524% nent Claim and A	Average Com	100% nuted/Compr	omised Claim					
(i) Average		\$137,324	rain and /	\$7,968							
(ii) Difference (Col.						(\$129,356)					
d. Pending claims (i) Awarded Mix	Split into Award 19.0476%	ged and Comm	nuted/Comp usin 80.9524%	ng Awarded Mi	X						
(ii) Number	# 0.0000		# 0.0000				# 0				
e. Pending Averag	ge from Above;		d Compromised		Difference			_	_		
<ul><li>(i) Pending Ave.</li><li>(ii) C/C Difference</li></ul>		\$0 \$0		\$0 (\$129,356)							
(iii) (e-i) + (e-ii)	_	\$0	_	\$0	limited to zer	o: negative offse	t is impossible				
(iv) Total		\$0		\$0							
(d-ii) x (e-iii) (v) Total of (e-iv)								\$0			
f. Calculation of Im								Ψ			
-	Aw	arded	Δ			Pending	A			tal	A
(i) Permanent	Count # 4	Amount \$549,295	Average \$137,324		Count # 0.0000	Amount \$0	Average \$0		Count # 4.0000	Amount \$549,295	Averag \$137,324
(ii) Comm./Comp.	# 17	\$135,455	\$7,968		# 0.0000	\$0	\$0		# 17.0000	\$135,455	\$7,968
(iii) Total	# 21	\$684,750	\$32,607		# 0.0000	\$0	\$0		# 21.0000	\$684,750	\$32,607
(iv) Average Sever (v) Impact	nty before Adjus	stment									\$32,607 \$0
(.)paot											Ψ

a. Numbers and Amo (i) List	Count (1) Count	Amount	(2) Count  - 1 1 1 1 1 - 1 1 1 1 1 1 1 1	Amount  38,427 - 53,052 - 1,051 38,041	(3) = (1) Count	1) + (2) Amount	(4) Count	Amount	Count	(5) Amount	
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(i) Total	# 3	\$181,168	# 12	\$130,571	# 15	\$311,738	# 0	\$0	# 15	\$311,738	
(ii) Average	-dad and Can	\$60,389	anning durible.	\$10,881		\$20,783		\$0		\$20,783	
<ul><li>b. Percentage of Awar</li><li>(i) Number</li></ul>	# 3	nmutea/Comp	# 12	lotal Awarded	# 15						
(ii) Percentage 20	0.0000%		80.0000%		100%						
c. Difference Between	Average Aw	arded Permar \$60,389	nent Claim and	Average Comn \$10,881	nuted/Compro	omised Claim					
(i) Average (ii) Difference (Col. 2 r	minus Col. 1)			\$10,001		(\$49,508)					
d. Pending claims Sp	olit into Award			ng Awarded Mi	<u>K</u>						
	0.0000% # 0.0000		80.0000% # 0.0000				# 0				
e. Pending Average f	# 0.0000 from Above;	Commuted ar		d less Awarded	Difference		# U				
(i) Pending Ave.		\$0		\$0							
(ii) C/C Difference		\$0 \$0		(\$49,508) \$0	limited to zer	o: negative offset	is impossible				
(iii) (e-i) + (e-ii) (iv) Total		\$0 \$0		\$0 \$0		o. nogative Ulisel	io impossible				
(d-ii) x (e-iii)		•		•							
(v) Total of (e-iv)	ot of Adioa	ont						\$0			
f. Calculation of Impa		<u>ient</u> irded			F	Pending			Tot	tal	
	Count	Amount	Average	•	Count	Amount	Average	•	Count	Amount	Averag
(i) Permanent		\$181,168 \$120,571	\$60,389		# 0.0000	\$0 \$0	\$0 \$0		# 3.0000	\$181,168 \$120,571	\$60,389 \$10,881
(ii) Comm./Comp. (iii) Total		\$130,571 \$311,738	\$10,881 \$20,783		# 0.0000	\$0	\$0		# 12.0000	\$130,571	*111 201
(iv) Average Severity I	# 15		+=0,.00		# U.UUNN	<b>S</b> 0	\$0		# 15,0000		
(v) Impact					# 0.0000	\$0	\$0		# 15.0000	\$311,738	\$20,783 \$20,783 \$20,783

	Award Permaner		Commuted Comprom As Sett	ised-	Total Aw Permane Commute	ent plus	Pending, Permanent I			Total Claims	
_	(1) Count		(2) Count	Amount	(3) = (1 Count		(4) Count	Amount	Count	(5) Amount	
. Numbers and Ar											
) List	1	155,563 190,699	-	-			-	-			
	1	204,241	-	-			-	-			
	1	154,237	-	-			Ē	-			
	1	167,647 177,168	-	-			= =	-			
	-	-	1	74,966			-	-			
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) Total	# 6	\$1,049,554	# 3	\$74,966	# 9	\$1,124,521	# 0	\$0	# 9	\$1,124,521	
) Average		\$174,926		\$24,989		\$124,947		\$0		\$124,947	
. Percentage of Av ) Number	varded and Co # 6	mmuted/Comp	promised within 7 # 3	otal Awarded	# 9						
	66.6667%		# 3 33.3333%		100%						
Difference Betwe						mised Claim					
) Average		\$174,926		\$24,989							
i) Difference (Col.				a Amaricate		(\$149,937)					
. Pending claims ?	Split into Awai 66.6667%	ued and Comn	nuted/Comp usin 33.3333%	ig Awarded Mix	<u>c</u>						
	# 0.0000		# 0.0000				# 0				
) Awarded Mix		Commuted a			Difference		*				
) Awarded Mix i) Number	e from Above			\$0							
Awarded Mix  Number  Pending Average Pending Ave.	e from Above	\$0		(\$149,937)	P 20 11	nogotive effe-t	ia impagaible				
Awarded Mix ) Number Pending Average Pending Ave. ) C/C Difference	e from Above	\$0 \$0	_			LIEGATIVE OTISET	is impossible				
Awarded Mix ) Number Pending Average Pending Ave. ) C/C Difference i) (e-i) + (e-ii)	e from Above	\$0 \$0 \$0	_	\$0	limited to zero	. nogativo oncot					
) Awarded Mix i) Number . Pending Average ) Pending Ave. i) C/C Difference ii) (e-i) + (e-ii) v) Total	e from Above	\$0 \$0	_		limited to zero	. nogativo onoot					
) Awarded Mix i) Number . Pending Average ) Pending Ave. i) C/C Difference ii) (e-i) + (e-ii) v) Total (d-ii) x (e-iii)	e from Above	\$0 \$0 \$0	_	\$0	limited to zero	. nogauro oncoc		\$0			
) Awarded Mix i) Number . Pending Average ) Pending Ave. i) C/C Difference ii) (e-i) + (e-ii) y) Total (d-ii) x (e-iii) /) Total of (e-iv)	 pact of Adjust	\$0 \$0 \$0 \$0	_	\$0				\$0			
) Awarded Mix i) Number . Pending Average ) Pending Ave. i) C/C Difference ii) (e-i) + (e-ii) y) Total (d-ii) x (e-iii) /) Total of (e-iv)	pact of Adjust Av	\$0 \$0 \$0 \$0 \$0		\$0	Pi	ending		\$0		otal	
) Awarded Mix j) Number Pending Average ) Pending Ave. i) C/C Difference ii) (e-i) + (e-ii) v) Total (d-ii) x (e-iii) v) Total of (e-iv) Calculation of Im	pact of Adjust Av Count	\$0 \$0 \$0 \$0 \$0 tment warded Amount	Average	\$0	P	ending Amount	Average	\$0	Count	Amount	
) Awarded Mix i) Number . Pending Average ) Pending Ave. i) C/C Difference ii) (e-i) + (e-ii) v) Total (d-ii) x (e-iii) v) Total of (e-iv) Calculation of Im  — ) Permanent	pact of Adjust Av Count # 6	\$0 \$0 \$0 \$0 \$0 \$0 \$ment warded Amount \$1,049,554	Average \$174,926	\$0	Count # 0.0000	ending Amount \$0	\$0	<b>\$</b> 0	Count # 6.0000	Amount \$1,049,554	Aver \$174,9
) Awarded Mix i) Number . Pending Average ) Pending Ave. i) C/C Difference ii) (e-i) + (e-ii) v) Total (d-ii) x (e-iii) // Total of (e-iv) Calculation of Im  — ) Permanent i) Comm./Comp.	pact of Adjust Av Count # 6 # 3	\$0 \$0 \$0 \$0 \$0 \$0 \$1,049,554 \$74,966	Average \$174,926 \$24,989	\$0	Count # 0.0000 # 0.0000	ending Amount		\$0	Count # 6.0000 # 3.0000	Amount \$1,049,554 \$74,966	\$174,9 \$24,9
) Awarded Mix i) Number . Pending Average ) Pending Ave. i) C/C Difference ii) (e-i) + (e-ii) v) Total	pact of Adjust Av Count # 6 # 3 # 9	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,049,554 \$74,966 \$1,124,521	Average \$174,926	\$0	Count # 0.0000	ending Amount \$0 \$0	\$0 \$0	\$0	Count # 6.0000	Amount \$1,049,554	\$174,9

	Awar Permane		Commute Compro As Se	mised-	Permai	warded- nent plus red/Comp.	Pending Permanent	, on Basis		Total Claims	
-	(1 Count		(2) Count			1) + (2) Amount	(4) Count	Amount	Count	(5) Amount	
a. Numbers and A											
(i) List	1	391,277	- 1	104,073			-	-			
	-	-	1	154,557			-	-			
	-	-	1	136,909			=	-			
	-	-	1	52,654 50,800			-	-			
	-	-	1	24,722 102,695			-	-			
	1	252,829	- '	-			-	-			
	1 1	386,415 347,041	-	-			-	-			
	-	-	1	160,345			-	-			
	- 1	317,109	- 1	29,476			-	-			
	-	-	1	8			-	-			
	1	275,893	- 1 -	15,162			-	-			
	-	-	1 1	- 06 624			Ē	-			
	-	-	1	86,634			=	-			
	-	-	1 1	197 102,804			-	-			
	-	-	1	-			=	-			
	-	-	1	- 79			-	-			
	-	-	1	75,223			=	-			
	-	-	1	-			-	-			
	-	-	1	59,211			-	-			
	-	-	1 1	-			-	-			
	-	-	1	77,103			-	-			
	-	-	1 1	145,128			-	-			
	-	-	1 1	- 141,050			-	-			
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	-	-	1	164,069 62,236			-	-			
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	-	-	1 1	70,355 54,804			-	-			
	-	-	1	6,193			-	-			
	-	-	1	45,562			-	-			
	-	-	1	91,305			- 1	- 319,222			
	-	-	1	117,370			=	-			
	-	-	1 1	6,277			=	-			
	1	256,372	- 1	=			-	-			
	-	-	1	-			-	-			
	-	-	1	3,762			-	-			
	-	-	1	43,991			=	-			
	-	-	1	48,933 30,036			-	-			
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	-	-	1 1	41,478 50,661			-	-			
	-	-	1	14,833 5,684			-	-			
	-	-	1	9,656			-	-			
	-	-	1 1	131,579			-	-			
(i) Total (ii) Average	#7	\$2,226,936 \$318,134	# 58	\$2,517,617 \$43,407	# 65	\$4,744,553 \$72,993	# 1	\$319,222 \$319,222	# 66	\$5,063,776 \$76,724	
b. Percentage of A	warded and C		promised within			ψ12,000		ψοτο,ΣΣΣ		ψ10,124	
(i) Number	# 7		# 58		# 65						
(ii) Percentage c. Difference Between	10.7692%	\warded Derma	89.2308%	Average Comm	100%	romiced Claim					
(i) Average	oon morago n	\$318,134	morn ordini dire	\$43,407	idiod/ Comp	omicoa ciami					
(ii) Difference (Col.						(\$274,727)					
<ul> <li>d. Pending claims</li> <li>(i) Awarded Mix</li> </ul>	Split into Awa 10.7692%	irded and Comr	nuted/Comp us 89.2308%	ing Awarded Mix	<u>(</u>						
(ii) Number	# 0.1077		# 0.8923				#1				
e. Pending Average	ge from Above		nd Compromise		Difference						
<ul><li>(i) Pending Ave.</li><li>(ii) C/C Difference</li></ul>		\$319,222 \$0		\$319,222 (\$274,727)							
(iii) (e-i) + (e-ii)	_	\$319,222	_	\$44,496							
(iv) Total		\$34,378		\$39,704							
(d-ii) x (e-iii)								\$7/ 000			
(v) Total of (e-iv)  f. Calculation of In	npact of Adius	tment						\$74,082			
	A	warded				Pending				otal	
(i) Decrees	Count	Amount	Average		Count	Amount	Average		Count # 7 1077	Amount	Average
<ul><li>(i) Permanent</li><li>(ii) Comm./Comp.</li></ul>	# 7 # 58	\$2,226,936 \$2,517,617	\$318,134 \$43,407		# 0.1077 # 0.8923	\$34,378 \$39,704	\$319,222 \$44,496		# 7.1077 # 58.8923	\$2,261,314 \$2,557,321	\$318,150 \$43,424
(iii) Total	# 65	\$4,744,553	\$72,993		# 1.0000	\$74,082	\$74,082		# 66.0000	\$4,818,635	\$73,010
(iv) Average Sever	rity before Adju	ustment									\$76,724
(v) Impact											(\$3,714)

	Aware Permane		Commuted Comprom As Sett	ised-	Permai	warded- nent plus red/Comp.	Pending, Permanent I			Total Claims	
•	(1 Count	) Amount	(2) Count	Amount		1) + (2) Amount	(4) Count	Amount	Count	(5) Amount	
a. Numbers and A											
(i) List	1	188,261	- ,	-			-	-			
	1	170,532	- 1	-			-	-			
	1	152,935	-	-			-	-			
	-	-	1	21,870			-	-			
	1 1	248,246	-	-			-	-			
	- 1	233,498	_ 1 	138,847			-	-			
	1	234,559	-	-			-	-			
	1 1	179,614	-	-			- -	-			
	1	-	- 1	-			-	-			
	1	165,967	- '	-			-	-			
	1 1	223,203	-	-			-	-			
	- 1	- 153,623	1	56,532			=	-			
	1	102,573	-	-			-	-			
	1	204,224	-	-			<del>-</del>	-			
	1	352,465	-	-			-	-			
	1	109,085 215,985	-	-			-	-			
	- 1	110,003	1	13,784			-	-			
	-	-	1	86,772			-	-			
	1 1	165,539 163,228	-	-			-	-			
	-	-	1	62,463 81,837			=	-			
	-	-	1	57,122			-	-			
	-	-	1 1	30,450 48,117			- -	-			
	-	-	1 1	128,904			-	-			
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(i) Total	# 24	\$3,373,539	# 14	\$726,698	# 38	\$4,100,236	# 0	\$0	# 38	\$4,100,236	
(ii) Average b. Percentage of A	warded and C	\$140,564 commuted/Com	promised within 1	\$51,907 Fotal Awarded	<u> </u>	\$107,901		\$0		\$107,901	
(i) Number	# 24		# 14		# 38						
(ii) Percentage c. Difference Betw	63.1579% een Average A	Awarded Perma	36.8421% ment Claim and A	Average Com	100% muted/Comp	romised Claim					
(i) Average		\$140,564	Cidiii dilu /	\$51,907		OOO OIGIIII					
(ii) Difference (Col						(\$88,657)					
<ul> <li>d. Pending claims</li> <li>(i) Awarded Mix</li> </ul>	Split into Awa 63.1579%	uded and Comr	muted/Comp usir 36.8421%	ig Awarded M	<u>IX</u>						
(ii) Number	# 0.0000		# 0.0000				# 0				
e. Pending Average (i) Pending Ave.	ge from Above	; Commuted a \$0	nd Compromised	l less Awarde \$0	d Difference						
(ii) C/C Difference		\$0 \$0		φυ (\$88,657)							
(iii) (e-i) + (e-ii)	_	\$0		\$0	limited to ze	ro: negative offse	et is impossible				
(iv) Total		\$0		\$0							
(d-ii) x (e-iii) (v) Total of (e-iv)								\$0			
f. Calculation of Ir						- "					
•	Count	warded Amount	Average		Count	Pending Amount	Average		Count	otal Amount	Average
(i) Permanent	# 24	\$3,373,539	\$140,564		# 0.0000	\$0	Average \$0		# 24.0000	\$3,373,539	\$140,564
(ii) Comm./Comp.	# 14	\$726,698	\$51,907		# 0.0000	\$0	\$0		# 14.0000	\$726,698	\$51,907
(iii) Total (iv) Average Seve	# 38 rity before Adii	\$4,100,236	\$107,901		# 0.0000	\$0	\$0		# 38.0000	\$4,100,236	\$107,901 \$107,901
(v) Impact	, 20.010 nujt										\$0

	Aware Permane		Commute Compron As Set	nised-	Permai	warded- nent plus red/Comp.	Pending, Permanent			Total Claims	
-	(1 Count		(2) Count	Amount		1) + (2) Amount	(4) Count	Amount	Count	(5) Amount	
a. Numbers and A											
(i) List	1	409,901 169,470	-	<del>-</del>			-	-			
	- '	-	1	- CE E44			-	-			
	-	-	1 1	65,511 39,612			-	-			
	- 1 -	175,274	1	-			-	-			
	-	-	1 1	6,944 117,209			-	-			
	-	-	1 1	- 21,489			-	-			
	-	-	1	135,185			-	-			
	-	-	1 1	85,247			-	-			
	1	270,088	1	-			-	-			
	-	-	1 1	93,318			-	-			
	-	-	1	17,855			-	-			
	-	-	1	12,745			-	-			
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(i) Total (ii) Average	# 4	\$1,024,734 \$256,183	# 17	\$595,116 \$35,007		\$1,619,850 \$77,136	# 0	\$0 \$0	# 21	\$1,619,850 \$77,136	
b. Percentage of A	# 4	ommuted/Com	promised within # 17	ı olal Awarded	<u> </u> # 21						
(ii) Percentage	19.0476%	Awardad Desire	80.9524%	Averege Ce	100%	rominod Claia					
c. Difference Between (i) Average	æn Average A	\$256,183	nent Cialm and	\$35,007	nutea/Comp	omisea Claim					
(ii) Difference (Col.		1)				(\$221,177)					
d. Pending claims (i) Awarded Mix	19.0476%	rded and Comr	80.9524%	ng Awarded ivi	<u>IX</u>						
(ii) Number	# 0.0000	. 0	# 0.0000	diam'r.	10.00		# 0				
e. Pending Average (i) Pending Ave.	e from Above	; Commuted a \$0	na Compromíse	d less Awarded \$0	<u>Difference</u>						
(ii) C/C Difference	_	\$0	_	(\$221,177)	B9 1:						
(iii) (e-i) + (e-ii) (iv) Total		\$0 \$0		\$0 \$0	ilmited to ze	ro: negative offse	et is impossible				
(d-ii) x (e-iii)		*-		**							
(v) Total of (e-iv)  f. Calculation of In	nact of Adius	tment						\$0			
. CalculatiOH OI III	A	<u>tment</u> warded				Pending				otal	
(i) Dormana	Count	Amount	Average		Count	Amount	Average		Count # 4 0000	Amount \$1,024,734	Avera
(i) Permanent (ii) Comm./Comp.	# 4 # 17	\$1,024,734 \$595,116	\$256,183 \$35,007		# 0.0000 # 0.0000	\$0 \$0	\$0 \$0		# 4.0000 # 17.0000	\$1,024,734 \$595,116	\$256,18 \$35,00
(iii) Total	# 21	\$1,619,850	\$77,136		# 0.0000	\$0	\$0		# 21.0000	\$1,619,850	\$77,13
(iv) Average Sever (v) Impact	ity before Adju	ustment									\$77,13 \$
(.,past											ų

	Award Permanen		Commute Compron As Set	nised-	Total Av Permane Commute	ent plus	Pending, Permanent			Total Claims	
-	(1) Count	Amount	(2) Count	Amount	(3) = (1 Count		(4) Count	Amount	Count	(5) Amount	
a. Numbers and A											
(i) List	1	437,225	- 1	- 5,133			-	-			
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	-	-	1	99,273			-	-			
	1	102,470	- 1	=			=	=			
	-	-	1	-			-	-			
	1	93,951	- 1	-			-	-			
	-	-	1 1	58,835			-	-			
	-	-	1	2,709			-	-			
	-	-	1 1	33,344			=	-			
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(i) Total	# 3	\$633,645 \$211,215	# 12	\$199,294	# 15	\$832,939	# 0	\$0 \$0	# 15	\$832,939	
b. Percentage of A	warded and Co	\$211,215 mmuted/Com	promised within	\$16,608 Total Awarded	<u> </u>	\$55,529		\$0		\$55,529	
(i) Number	# 3		# 12		# 15						
(ii) Percentage c. Difference Between	20.0000%	worded Berma	80.0000%	Average Com	100%	micod Claim					
(i) Average	con Avelage Al	\$211,215	non ordin and	\$16,608	mateu/compit	miscu OldIIII					
(ii) Difference (Col.						(\$194,607)					
d. Pending claims (i) Awarded Mix	Split into Award 20.0000%	ded and Comr	nuted/Comp usi 80.0000%	ng Awarded Mi	<u>ix</u>						
(ii) Number	# 0.0000		# 0.0000				# 0				
e. Pending Averag	ge from Above;		nd Compromise		d Difference		<u></u>				
<ul><li>(i) Pending Ave.</li><li>(ii) C/C Difference</li></ul>		\$0 \$0		\$0 (\$194,607)							
(iii) (e-i) + (e-ii)	_	\$0	_	\$0	limited to zero	o: negative offse	t is impossible				
(iv) Total		\$0		\$0							
(d-ii) x (e-iii) (v) Total of (e-iv)								\$0			
f. Calculation of In								ΨV			
-		arded Amount	Λυστοσο			ending	Augrees		Count		A
(i) Permanent	Count # 3	Amount \$633,645	Average \$211,215		Count # 0.0000	Amount \$0	Average \$0		Count # 3.0000	Amount \$633,645	Avera \$211,21
(ii) Comm./Comp.	# 12	\$199,294	\$16,608		# 0.0000	\$0	\$0		# 12.0000	\$199,294	\$16,60
(iii) Total	# 15	\$832,939	\$55,529		# 0.0000	\$0	\$0		# 15.0000	\$832,939	\$55,52
(iv) Average Sever (v) Impact	rity before Adjus	stment									\$55,52 \$
(*) impaot											ų.

#### Federal Excess Before Offsets

	Awarde Permanent		Commute Compro As Se	mised-	Permar	warded- nent plus ed/Comp.	Pending, Permanent I			Total Claims	
•	(1) Count	Amount	(2) Count			1) + (2) Amount	(4) Count	Amount	Count	(5) Amount	
a. Numbers and A		711104111	Count	7 1110 1111	Count	, unoun	Count	711100111	Count	, anoun	
(i) List	1 1	22	-	-			-	-			
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	1 -	11	- 1	219,531			-	-			
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(i) Total (ii) Average	# 6	\$40 \$7		\$1,086,211 \$362,070	# 9	\$1,086,250 \$120,694	# 0	\$0 \$0	# 9	\$1,086,250 \$120,694	
b. Percentage of A (i) Number	# 6	u.eu/Com	# 3	i i otai Awalued	# 9						
(ii) Percentage	66.6667%		33.3333%	1.4	100%						
c. Difference Betw (i) Average	een Average Av	varded Perma \$7	nent Claim and	Average Comn \$362,070	nuted/Compr	omised Claim					
(ii) Difference (Col		)				\$362,064					
d. Pending claims (i) Awarded Mix	Split into Award 66.6667%	ded and Comr	nuted/Comp us 33.3333%	ing Awarded Mi	<u>(</u>						
(ii) Number	# 0.0000		# 0.0000				# 0				
e. Pending Average	ge from Above;		nd Compromise		Difference			- <u></u>			
<ul><li>(i) Pending Ave.</li><li>(ii) C/C Difference</li></ul>		\$0 \$0		\$0 \$362,064							
(iii) (e-i) + (e-ii)		\$0	_	\$362,064							
(iv) Total		\$0		\$0							
(d-ii) x (e-iii) (v) Total of (e-iv)								\$0			
f. Calculation of Ir						5 P					
•	Count	arded Amount	Average	•	Count	Pending Amount	Average		Count	otal Amount	Average
(i) Permanent	# 6	\$40	\$7		# 0.0000	\$0	Average \$0		# 6.0000	\$40	\$7
(ii) Comm./Comp.	#3 \$	1,086,211	\$362,070		# 0.0000	\$0	\$0		# 3.0000	\$1,086,211	\$362,070
(iii) Total (iv) Average Seve		1,086,250 tment	\$120,694		# 0.0000	\$0	\$0		# 9.0000	\$1,086,250	\$120,694 \$120,694
(v) Impact	,	-									\$0

#### Federal Excess Before Offsets

	Awarde Permanent		Commuted Comprom As Sett	ised-	Total Av Perman Commute	ent plus	Pending, Permanent			Total Claims	
-	(1) Count	Amount	(2) Count	Amount	(3) = (1 Count		(4) Count	Amount	Count	(5) Amount	
a. Numbers and A											
(i) List	1	-	- 1	- 211 562			-	-			
	-	-	1	211,562 214,501			-	-			
	-	-	1 1	265,519 228,484			-	-			
	-	-	1	229,086			-	-			
	-	-	1	277,544 207,893			-	-			
	1	-	- '	-			-	-			
	1	-	-	-			-	-			
	- '	-	1	241,825			-	-			
	- 1	-	1	103,383			-	-			
	- '	-	1	296,159			-	-			
	- 1	-	1	244,717			-	-			
	- '	-	1	454,298			-	-			
	-	-	1	270,874 483,612			-	-			
	-	-	1	286,242			-	-			
	-	-	1	273,511 544,857			-	-			
	-	-	1	426,235			-	-			
	-	-	1	264,694 186,378			-	-			
	-	-	i	287,784			-	-			
	-	-	1	313,500 246,284			-	-			
	-	-	1	708,215			-	-			
	-	-	1	367,982 103,676			-	-			
	-	-	1	103,676 550,179			-	-			
	-	-	1 1	213,477 369,762			-	-			
	-	-	1	267,331			-	-			
	-	-	1	488,285			-	-			
	-	-	1	174,783 255,993			-	-			
	-	-	1	120,003			-	-			
	-	-	1 1	221,243 269,661			-	-			
	-	-	1	298,212			-	-			
	-	-	1 1	136,910 109,060			-	-			
	-	-	1	95,742				-			
	-	-	1	250,045			1 -	-			
	-	-	1	134,532			-	-			
	- 1	-	- 1	295,780			-	-			
	- 1	-	1	368,816			-	-			
	-	-	1	46,115 103,550			-	-			
	-	-	1	337,889			-	-			
	-	-	1	301,121 277,437			-	-			
	-	-	1	323,264			-	-			
	-	-	1	342,916 266,280			-	-			
	-	-	i	266,887			-	-			
	-	-	1	288,552 275,536			-	-			
	-	-	i	315,676			-	-			
	-	-	1	155,918 202,287			-	-			
	_	<del>-</del>		202,201			-	-			
(i) Total	#7	\$0	# 58 \$	15,862,057	# 65 \$	15,862,057	# 1	\$0	# 66	\$15,862,057	
(ii) Average	worded and Co-	\$0	arominad with!	\$273,484		\$244,032		\$0		\$240,334	
b. Percentage of A (i) Number	warded and Con #7	ninuted/Comp	promised within 1 # 58	otal Awarded	# 65						
(ii) Percentage	10.7692%		89.2308%		100%						
c. Difference Between					nuted/Compre	mised Claim	_		_		
(i) Average		\$0		\$273,484		<b>6070 404</b>					
(ii) Difference (Col. d. Pending claims			nuted/Comp valid	na Awardad Ma		\$273,484					
(i) Awarded Mix	10.7692%	ed and Comi	89.2308%	ig Awarded ivii	<u>x</u>						
(ii) Number	# 0.1077		# 0.8923				# 1				
e. Pending Average	ge from Above;		nd Compromised		Difference						
(i) Pending Ave.		\$0 \$0		\$0 \$272.494							
(ii) C/C Difference (iii) (e-i) + (e-ii)		\$0 \$0	_	\$273,484 \$273,484							
(iv) Total		\$0 \$0		\$244,032							
(d-ii) x (e-iii)		•									
(v) Total of (e-iv)								\$244,032			
f. Calculation of In		<u>nent</u> arded				ending			т	otal	
-	Count	Amount	Average		Count	Amount	Average		Count	otai Amount	Averag
(i) Permanent	# 7	\$0	\$0		# 0.1077	\$0	\$0		# 7.1077	\$0	Averag \$(
(ii) Comm./Comp.	# 58 \$1	5,862,057	\$273,484		# 0.8923	\$244,032	\$273,484		# 58.8923	\$16,106,089	\$273,484
(iii) Total		5,862,057	\$244,032		# 1.0000	\$244,032	\$244,032		# 66.0000	\$16,106,089	\$244,032
(iv) Average Sever (v) Impact	rity before Adjust	ment									\$240,334 \$3,693
(,,paot											ψυ,υσ

Exhibit VII-E-d Page 3 Surface Anthracite

#### Federal Excess Before Offsets

	Award Permanen		Commut Compro As Se	mised-	Permai	Awarded- nent plus ted/Comp.	Pending, Permanent I			Total Claims	
•	(1) Count		(2 Count			(1) + (2) Amount	(4) Count	Amount	Count	(5) Amount	
a. Numbers and A											
(i) List	1	-	- 1	- 81,380			-	-			
	1	12,401	- '	-			-	-			
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	- 1	-	- 1 -	309,656			-	-			
	1	-	- 1	145,635			-	-			
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	1	-	-	-			-	-			
	1	45,510					-	-			
	1	-	- 1	274,280			-	-			
	1 1	-	-	- -			-	-			
	- 1	- 0	1	125,653			-	-			
	1	2	-	-			-	-			
	1	-	-	-			-	-			
	1 1	- 0	-	-			-	-			
	1	-	- 1	237,357			-	-			
	1	1,207	- 1	277,916			-	-			
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	- 1 -	24 -	1	104,644			-	-			
	-	-	1 1	177,777 105,086			-	-			
	-	-	1 1	160,002 105,665			-	-			
	-	-	1 1	233,925 345,266			=	-			
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(i) Total	# 24	\$59,163	# 14	\$2,684,242	# 38	\$2,743,405	# 0	\$0	# 38	\$2,743,405	
(ii) Average		\$2,465		\$191,732		\$72,195		\$0		\$72,195	
<ul> <li>b. Percentage of A</li> <li>(i) Number</li> </ul>	warded and Co # 24	mmuted/Com	promised within # 14	l'otal Awarded	# 38						
(ii) Percentage	63.1579%		36.8421%		100%						
c. Difference Betw (i) Average	een Average A	warded Perma \$2,465	nent Claim and	1 Average Comm \$191,732	nuted/Comp	romised Claim					
(ii) Difference (Col		)				\$189,266					
<ul> <li>d. Pending claims</li> <li>(i) Awarded Mix</li> </ul>	Split into Awar 63.1579%	ded and Comr	nuted/Comp us 36.8421%	ing Awarded Mix	<u>(</u>						
(ii) Number	# 0.0000		# 0.0000				# 0				
<ul> <li>e. Pending Average</li> <li>(i) Pending Ave.</li> </ul>	ge from Above;	Commuted a \$0	nd Compromise	ed less Awarded \$0	Difference						
(ii) C/C Difference		\$0	_	\$189,266							
(iii) (e-i) + (e-ii) (iv) Total		\$0 \$0		\$189,266 \$0							
(d-ii) x (e-iii)		ΨΟ		ΨΟ							
(v) Total of (e-iv)	nnoot of Adicate	mont						\$0			
f. Calculation of Ir		ment /arded				Pending			To	otal	
(i) Decree:	Count	Amount	Average	•	Count	Amount	Average		Count	Amount	Average
<ul><li>(i) Permanent</li><li>(ii) Comm./Comp.</li></ul>	# 24 # 14	\$59,163 \$2,684,242	\$2,465 \$191,732		# 0.0000 # 0.0000	\$0 \$0	\$0 \$0		# 24.0000 # 14.0000	\$59,163 \$2,684,242	\$2,465 \$191,732
(iii) Total	# 38	\$2,743,405	\$72,195		# 0.0000	\$0	\$0		# 38.0000	\$2,743,405	\$72,195
(iv) Average Seve (v) Impact	nty before Adjus	stment									\$72,195 \$0
											**

Exhibit VII-E-d Page 4 Surface Bituminous

# Federal Excess Before Offsets

<u>nent B</u>	Amount  - 9	(2) Count  1 1 - 1 1 1 1 1 - 1 1 1 1 1 1 1	529,104 96,936 307,316 264,885 311,342 230,136 351,867 347,244 96,754 324,765 96,184 297,087	(3) = ( Count	1) + (2) Amount	(4) Count	Amount	Count	Total Claims (5) Amount	
	- - -	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	96,936 307,316 - 264,885 311,342 230,136 351,867 347,244 96,754 324,765 96,184 297,087			- - - - - -	- - - - -			
	- - -	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	96,936 307,316 - 264,885 311,342 230,136 351,867 347,244 96,754 324,765 96,184 297,087			- - - - - -				
	- - -	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	96,936 307,316 - 264,885 311,342 230,136 351,867 347,244 96,754 324,765 96,184 297,087			- - - - -	- - - - -			
	3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	307,316 - 264,885 311,342 230,136 351,867 347,244 96,754 324,765 96,184 297,087			- - - -	- - -			
	3	1 1 1 1 1 1 1 1 -	264,885 311,342 230,136 351,867 347,244 96,754 324,765 96,184 297,087			- - -	-			
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	-	1 1 1 1 1 -	347,244 96,754 324,765 96,184 297,087			=	-			
	-	1 1 1 - 1	324,765 96,184 297,087			-	-			
	- - - - - -	1 - 1 1	297,087			-	-			
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	- - -		191,264 41,786			-	-			
	-	1	317,895			-	-			
	-	1 1	149,363 343,146			-	-			
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	\$12	# 17	\$4,297,075	# 21	\$4,297,087	# 0	\$0 *0	# 21	\$4,297,087	
Comi	\$3 muted/Comp	promised within	\$252,769 Total Awarded		\$204,623		\$0		\$204,623	
		# 17		# 21						
		80.9524%		100%						
Awa	sa Permai \$3	nent Claim and	\$252,769	nuted/Compr	omised Claim					
ol. 1)	Ų.		Ψ202,· 00		\$252,766					
varde	d and Comm	nuted/Comp usin	ng Awarded Mi	<u>x</u>						
		80.9524% # 0.0000				# 0				
ve; C	commuted ar	nd Compromised	d less Awarded	d Difference		π 0				
	\$0	-	\$0							
	\$0 \$0	_	\$252,766							
	\$0 \$0		\$252,766 \$0							
			·-							
							\$0			
				F	Pendina			Tr	otal	
ustme Aware	Amount	Average		Count	Amount	Average		Count	Amount	Averag
	\$12	\$3		# 0.0000	\$0	\$0		# 4.0000	\$12	\$
Awar										\$252,769 \$204,623
Award \$4		ψ <b>∠</b> ∪ <del>1</del> ,∪ <b>∠</b> J		π U.UUUU	ψU	ψ		,, Z1.0000	ψτ,∠∂1,∪01	\$204,62
\$4, \$4,	HISH									\$(
	me var	\$0 \$0 \$0 \$0 \$0 ment varded	\$0 \$0 \$0 \$0 \$0 \$0 ment arded Amount Average \$12 \$3 \$4,297,075 \$252,769 \$4,297,087 \$204,623	\$0 \$0 \$0 \$252,766 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$252,766 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0	\$0 \$0 \$252,766 \$0 \$0 \$252,766 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$252,766 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$252,766 \$0 \$252,766 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$4,297,087 \$204,623 \$#0.0000 \$0 \$0 \$0 #21,0000	\$0 \$0 \$252,766 \$0 \$252,766 \$0 \$0 \$252,766 \$0 \$0 \$252,766 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$12 \$0,007

# Federal Excess Before Offsets

	Award Permanen		Commute Compro As Se	mised-	Perma	warded- nent plus ted/Comp.	Pending, Permanent			Total Claims	
-	(1) Count		(2) Count		(3) = Count	(1) + (2) Amount	(4) Count	Amount	Count	(5) Amount	
. Numbers and A	mounts										
i) List	1	-	- 4	-			-	-			
	-	-	1	325,080 379,982			-	-			
	-	-	i	210,218			-	-			
	- 1	-	1	331,965			-	-			
	- 1	26	1	207,921			-	-			
	-	-	1	127,158			-	-			
	- 1	-	1	745,100			-	-			
	- '	-	1	57,307			-	-			
	-	-	1	277,377			-	-			
	-	-	1	320,780			-	-			
	-	-	1 1	175,415 131,111			-	-			
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) Total i) Average	#3	\$26 <b>\$</b> 9	# 12	\$3,289,413 \$274,118	# 15	\$3,289,438 \$219,296	# 0	\$0 \$0	# 15	\$3,289,438 \$219,296	
. Percentage of A						ψ <u>υ</u> 10,200		Ψ.		ψ210,200	
) Number i) Percentage	# 3 20.0000%		# 12 80.0000%		# 15 100%						
. Difference Between	een Average A		nent Claim and		nuted/Comp	romised Claim					
) Average	0	\$9		\$274,118		¢074.400					
i) Difference (Col.				inn Arra - 1 - 1 • •		\$274,109					
<ol> <li>Pending claims</li> <li>Awarded Mix</li> </ol>	Split into Awar 20.0000%	ued and Comn	nuted/Comp us 80.0000%	ing Awarded Mi	<u>X</u>						
i) Number	# 0.0000		# 0.0000				# 0				
. Pending Average		Commuted a		ed less Awarded	<u>Diff</u> erence		,, 0				
i) Pending Ave.		\$0	-	\$0							
i) C/C Difference	_	\$0	_	\$274,109							
ii) (e-i) + (e-ii)		\$0		\$274,109							
v) Total		\$0		\$0							
(d-ii) x (e-iii)								**			
r) Total of (e-iv) Calculation of Im	npact of Adinet	ment						\$0			
Calculation of III	Aw	/arded				Pending				otal	
	Count	Amount	Average		Count	Amount	Average		Count	Amount	Ave
	# 3	\$26	\$9		# 0.0000	\$0 \$0	\$0 ©0		# 3.0000 # 12.0000	\$26 \$3,289,413	\$274,
) Permanent									44 T Z 11010101		\$7//
i) Comm./Comp.	# 12	\$3,289,413 \$3,289,438	\$274,118		# 0.0000		\$0 \$0				
	# 12 # 15	\$3,289,438	\$274,118 \$219,296		# 0.0000	\$0 \$0	\$0 \$0		# 15.0000	\$3,289,438	\$21 \$21

	Awarde Permanent		Commute Compro As Se	mised-		warded- ent plus ed/Comp.	Pending, Permanent I			Total Claims	
•	(1) Count	Amount	(2) Count			1) + (2) Amount	(4) Count	Amount	Count	(5) Amount	
a. Numbers and A		7 1110 0111	Count	, anoun	Count	, unount	Count	711100111	Count	, unoun	
(i) List	1 1	22	-	-			-	-			
	1	22,916	-	-			-	-			
	1 1	7	-	-			-	-			
	1	39,752	- 1	219,531			-	-			
	-	-	i 1	461,664 405,016			-	- - -			
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(i) Total (ii) Average	# 6	\$62,697 \$10,449	# 3	\$1,086,211 \$362,070	# 9	\$1,148,908 \$127,656	# 0	\$0 \$0	# 9	\$1,148,908 \$127,656	
b. Percentage of A								• -			
(i) Number (ii) Percentage	# 6 66.6667%		# 3 33.3333%		# 9 100%						
c. Difference Betw						omised Claim					
(i) Average	2 minus Col. 4	\$10,449		\$362,070		\$351,621					
(ii) Difference (Col d. Pending claims				ing Awarded Mix	<u>(</u>	ψυυ 1,02 Ι					
(i) Awarded Mix	66.6667%		33.3333%				40				
(ii) Number e. Pending Average	# 0.0000 ge from Above;	Commuted a	# 0.0000 nd Compromise	ed less Awarded	Difference		# 0				
(i) Pending Ave.		\$0	, 2	\$0							
(ii) C/C Difference (iii) (e-i) + (e-ii)		\$0 \$0	_	\$351,621 \$351,621							
(iii) (e-i) + (e-ii) (iv) Total		\$0 \$0		\$331,021							
(d-ii) x (e-iii)								^^			
(v) Total of (e-iv)  f. Calculation of Ir	npact of Adiustr	nent						\$0			
	Aw	arded		-		Pending	<del></del>			otal	
(i) Permanent	Count # 6	Amount \$62,697	Average \$10,449		Count # 0.0000	Amount \$0	Average \$0		Count # 6.0000	Amount \$62,697	Average \$10,449
<ul><li>(i) Permanent</li><li>(ii) Comm./Comp.</li></ul>		\$02,097 \$1,086,211	\$362,070		# 0.0000	\$0 \$0	\$0 \$0		# 3.0000	\$02,097 \$1,086,211	\$362,070
(iii) Total	#9 \$	\$1,148,908	\$127,656		# 0.0000	\$0	\$0		# 9.0000	\$1,148,908	\$127,656
(iv) Average Sever (v) Impact	my before Adjus	sunent									\$127,656 \$0
											**

_	Award Permaner	nt Basis	Commuted Comprom As Settl	ised-	Permar Commut		Pending, Permanent			Total Claims	
	(1) Count	) Amount	(2) Count	Amount	(3) = ( Count	1) + (2) Amount	(4) Count	Amount	Count	(5) Amount	
a. Numbers and A											
(i) List	1	-	- 4	-			-	-			
	-	-	1 1	211,562 214,501			-	-			
	-	-	1 1	265,519 228,484			-	-			
	-	-	1	229,086			-	-			
	-	-	1 1	293,382 207,893			-	-			
	1	-	-	-			-	-			
	1	2,425	-	-			-	-			
	-	-	1 1	241,825 103,383			= -	-			
	1	-	- 1	-			-	-			
	-	-	1	309,736 244,717			-	-			
	1	2,301	- 1	454,298			-	-			
	-	-	1	270,874			-	-			
	-	-	1	483,705 333,864			= -	-			
	-	-	1	273,511			-	-			
	-	-	1 1	544,857 426,235			-	-			
	-	-	1 1	313,511 186,378			-	-			
	-	-	1	322,000			-	-			
	-	-	1 1	339,272 246,284			-	-			
	-	-	1	708,215			-	-			
	-	-	1 1	370,435 103,676			-	-			
	-	=	1 1	550,179 213,477			=	-			
	-	-	1	401,081			-	-			
	-	-	1	267,331 488,285			<del>-</del> -	-			
	-	-	1	174,783			-	-			
	-	-	1 1	255,993 161,233			-	-			
	-	-	1 1	221,243			-	-			
	-	-	i	269,661 329,684			-	-			
	-	-	1	136,910 109,060			-	-			
	-	-	i	95,742			=	-			
	-	-	1	250,045			1 -	-			
	-	-	1	160,271			-	-			
	1	-	- 1	315,357			-	-			
	-	-	1	371,245 46,115			-	-			
	-	-	1	103,550			-	-			
	-	-	1	337,889 301,121			= -	-			
	-	-	1	277,437			-	-			
	-	-	1	323,264 368,912			-	-			
	-	=	1 1	266,280			=	=			
	-	-	1	266,887 288,552			-	-			
	-	-	1	330,521 315,676			= -	-			
	-	-	1	176,700			-	-			
	-	-	1	202,287			-	-			
(i) Total	#7	\$4,726	# 58 \$1	6,303,975	# 65	\$16,308,700	# 1	\$0 \$0	# 66	\$16,308,700	
(ii) Average b. Percentage of A	warded and Co	\$675 cmmuted/Com	promised within T	\$281,103 otal Awarded		\$250,903		\$0		\$247,102	
(i) Number	# 7	nateu/CUIII	# 58	oral Awdided	# 65						
(ii) Percentage	10.7692%		89.2308%		100%						
c. Difference Between	een Average A	warded Perma \$675	nent Claim and A	verage Comr \$281,103	nuted/Compr	omised Claim					
(i) Average (ii) Difference (Col.	. 2 minus Col.			ψ <u>∠</u> υ Ι, Ι <b>υ</b> δ		\$280,428					
d. Pending claims	Split into Awar			g Awarded Mi	<u>x</u>						
(i) Awarded Mix	10.7692%		89.2308%				# 4				
(ii) Number e. Pending Average	# 0.1077 ge from Above;	Commuted a	# 0.8923 nd Compromised	less Awarder	d Difference		# 1				
(i) Pending Ave.	,	\$0	22	\$0	2.01100						
(ii) C/C Difference	_	\$0		\$280,428							
(iii) (e-i) + (e-ii) (iv) Total		\$0 \$0		\$280,428 \$250,228							
(d-ii) x (e-iii)		Ψυ		ψ2.00,220							
(v) Total of (e-iv)								\$250,228			
f. Calculation of In						Panding			-	otal	
-	Count	varded Amount	Average		Count	Pending Amount	Average		Count	otal Amount	Average
(i) Permanent	# 7	\$4,726	\$675		# 0.1077	\$0	\$0		# 7.1077	\$4,726	\$665
(ii) Comm./Comp.		316,303,975	\$281,103		# 0.8923	\$250,228	\$280,428		# 58.8923	\$16,554,203	\$281,093
(iii) Total (iv) Average Sever		316,308,700 stment	\$250,903		# 1.0000	\$250,228	\$250,228		# 66.0000	\$16,558,928	\$250,893 \$247,102
(v) Impact	, naju										\$3,791

	Awaro		Commu Compro	ted and	Total A	Awarded- nent plus	Pending,		idiiiis		
	Permaner (1)	nt Basis	As Se	ettled	Commu	ted/Comp. (1) + (2)	Permanent E	Basis		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount	
a. Numbers and A	Amounts 1	-	-	-			-	_			
()	- 1	- 12,401	1	81,380			-	-			
	1	19	-	-			-	-			
	- 1 	-	1	309,656			-	-			
	1 1	-	-	-			-	-			
	1	-	- 1	145,635			-	-			
	1	-	-	-			-	-			
	1	- 45,510	-	-			-	-			
	=	45,510	1	274,280			-	-			
	1 1	-	-	-			-	-			
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	1 1	0 2,675	-	-			-	-			
	- 1	105,178	1	237,357			-	-			
	- 1	-	1	277,916			-	-			
	1	24	-	-			-	-			
	-	-	1 1	104,644 177,777			-	-			
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(i) Total (ii) Average	# 24	\$165,810 \$6,909	# 14	\$2,684,242 \$191,732	# 38	\$2,850,052 \$75,001	# 0	\$0 \$0	# 38	\$2,850,052 \$75,001	
b. Percentage of A						ψ10,001		Ψ.		ψ1 0,00 T	
(i) Number (ii) Percentage	# 24 63.1579%		# 14 36.8421%		# 38 100%						
c. Difference Betw						romised Claim					
(i) Average (ii) Difference (Co	l 2 minus Col	\$6,909 1)		\$191,732		\$184,823					
d. Pending claims	s Split into Awa			sing Awarded Mi	x	¥ 15 1,5=5					
(i) Awarded Mix (ii) Number	63.1579% # 0.0000		36.8421% # 0.0000				# 0				
e. Pending Avera					Difference		,, 0				
(i) Pending Ave. (ii) C/C Difference		\$0 \$0		\$0 \$184,823							
(iii) (e-i) + (e-ii)	· _	\$0	-	\$184,823							
(iv) Total		\$0		\$0							
(d-ii) x (e-iii) (v) Total of (e-iv)								\$0			
f. Calculation of I		tment warded				Pending	·		т,	otal	
	Count	Amount	Average		Count	Amount	Average		Count	Amount	Average
(i) Permanent (ii) Comm./Comp.	# 24 # 14	\$165,810 \$2,684,242	\$6,909 \$191,732		# 0.0000 # 0.0000	\$0 \$0	\$0 \$0		# 24.0000 # 14.0000	\$165,810 \$2,684,242	\$6,909 \$191,732
(iii) Total	# 38	\$2,850,052	\$75,001		# 0.0000	\$0 \$0	\$0 \$0		# 38.0000	\$2,850,052	\$75,001
(iv) Average Seve (v) Impact	erity before Adju	stment									\$75,001 \$0
(*)paot											ΨΟ

	Award Permaner		Commute Compron As Seti	nised-	Permar	warded- nent plus ed/Comp.	Pending, Permanent I			Total Claims	
•	(1) Count	Amount	(2) Count	Amount	(3) = ( Count	1) + (2) Amount	(4) Count	Amount	Count	(5) Amount	
a. Numbers and A											
(i) List	1	- 22 0E1	-	-			-	-			
	- '	33,851 -	1	529,104			-	-			
	-	-	1	96,936 309,703			-	-			
	1	46,562	- 1	- 264,885			-	-			
	-	-	1	311,342			-	-			
	-	-	1 1	230,136 375,930			-	-			
	-	-	1 1	349,722 96,754			-	-			
	-	-	1	340,868			-	-			
	-	-	1 1	96,184 297,087			-	-			
	. 1 -	-	- 1	191,264			-	-			
	-	-	1	41,786			-	-			
	-	-	1	317,895 165,003			-	-			
	-	-	_ 1	348,544			-	-			
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(i) Total	# 4	\$80,412	# 17	\$4,363,144	# 21	\$4,443,556	# 0	\$0	# 21	\$4,443,556	
(ii) Average b. Percentage of A	worded and Co	\$20,103	romicod within	\$256,656		\$211,598		\$0		\$211,598	
(i) Number	# 4	ommuteu/Comp	# 17	Total Awarded	# 21						
(ii) Percentage	19.0476%		80.9524%		100%						
c. Difference Betw (i) Average	een Average A	warded Perma \$20,103	nent Claim and	Average Comm \$256,656	nuted/Compi	omised Claim					
(ii) Difference (Col.	. 2 minus Col.			<b>\$200,000</b>		\$236,552					
d. Pending claims		rded and Comr	nuted/Comp usin 80.9524%	ng Awarded Mix	<u>(</u>						
(i) Awarded Mix (ii) Number	19.0476% # 0.0000		# 0.0000				# 0				
e. Pending Average					Difference						
<ul><li>(i) Pending Ave.</li><li>(ii) C/C Difference</li></ul>		\$0 \$0		\$0 \$236,552							
(ii) C/C Difference (iii) (e-i) + (e-ii)	_	\$0 \$0	_	\$236,552							
(iv) Total		\$0		\$0							
(d-ii) x (e-iii) (v) Total of (e-iv)								\$0			
f. Calculation of In								ψυ			
	Av	varded	A.u			Pending	A.,			otal	A
(i) Permanent	Count # 4	Amount \$80,412	Average \$20,103		Count # 0.0000	Amount \$0	Average \$0		Count # 4.0000	Amount \$80,412	Average \$20,103
(ii) Comm./Comp.	# 17	\$4,363,144	\$256,656		# 0.0000	\$0	\$0		# 17.0000	\$4,363,144	\$256,656
(iii) Total (iv) Average Sever	# 21	\$4,443,556	\$211,598		# 0.0000	\$0	\$0		# 21.0000	\$4,443,556	\$211,598 \$211,598
(iv) Average Sever (v) Impact	ny beloré Adju	ounent									\$211,598 \$0

	Award Permaner		Commute Compron As Set	nised-	Permar	warded- nent plus red/Comp.	Pending, Permanent I			Total Claims	
	(1) Count	Amount	(2) Count	Amount	(3) = ( Count	1) + (2) Amount	(4) Count	Amount	Count	(5) Amount	
a. Numbers and A											
(i) List	1	-	- 4	- 246 404			-	-			
	-	-	1 1	346,104 379,982			-	-			
	-	-	1 1	210,218 384,560			-	-			
	1	50,311	- 1	208,972			-	-			
	-	-	1	127,158			-	-			
	- 1	-	1 -	745,100			-	-			
	-	-	1 1	57,307 277,377			-	-			
	-	-	1	358,450			-	-			
	-	-	1 1	175,415 131,111			-	-			
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(i) Total (ii) Average	# 3	\$50,311 \$16,770	# 12	\$3,401,753 \$283,479	# 15	\$3,452,064 \$230,138	# 0	\$0 \$0	# 15	\$3,452,064 \$230,138	
b. Percentage of A											
(i) Number (ii) Percentage	# 3 20.0000%		# 12 80.0000%		# 15 100%						
c. Difference Betw		warded Perma		Average Comm		romised Claim					
(i) Average		\$16,770		\$283,479		****					
(ii) Difference (Col d. Pending claims			nuted/Comp usi	na Awardad Mi	v	\$266,709					
(i) Awarded Mix	20.0000%	aca ana com	80.0000%	ng / waraca ivii.	<u>.</u>						
(ii) Number	# 0.0000		# 0.0000				# 0				
e. Pending Average (i) Pending Ave.	ge from Above;	Commuted a \$0	na Compromise	d less Awarded \$0	Difference						
(ii) C/C Difference	=	\$0	-	\$266,709							
(iii) (e-i) + (e-ii)		\$0	_	\$266,709							
(iv) Total (d-ii) x (e-iii)		\$0		\$0							
(v) Total of (e-iv)								\$0			
f. Calculation of Ir						Dandis -	-			atal .	-
•	Count	varded Amount	Average		Count	Pending Amount	Average		Count	otal Amount	Average
(i) Permanent	# 3	\$50,311	\$16,770		# 0.0000	\$0	\$0		# 3.0000	\$50,311	\$16,770
(ii) Comm./Comp.		\$3,401,753 \$3,452,064	\$283,479		# 0.0000	\$0 \$0	\$0 \$0		# 12.0000 # 15.0000	\$3,401,753 \$3,452,064	\$283,479 \$230,138
(iii) Total (iv) Average Seve		\$3,452,064 stment	\$230,138		# 0.0000	φU	\$0		# 15.0000	\$3,452,064	\$230,138 \$230,138
(v) Impact	.,										\$0
	E-150 IV A										

Exhibit VII-E-f Page 1 Underground Antrhacite

#### Federal Excess After Social Security and Private Pension Offsets

	Award Permanen		Commute Comproi As Se	mised-		warded- ient plus ed/Comp.	Pending, Permanent I			Total Claims	
•	(1) Count		(2) Count			1) + (2) Amount	(4) Count	Amount	Count	(5) Amount	
a. Numbers and A		, uno and	Count	, anount	Count	711104111	Count	711100111	Count	, anoun	
(i) List	1	4,608	-	-			-	-			
	1 1	0 168,932	-	-			<del>-</del>	-			
	1 1	214 2,159	-	-			-	-			
	1	186,393	- ,	-			=	-			
	- - -	-	1 1 1	283,812 461,664 405,016			- - -	- - -			
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(i) Total (ii) Average	# 6	\$362,306 \$60,384	# 3	\$1,150,492 \$383,497	# 9	\$1,512,798 \$168,089	# 0	\$0 \$0	# 9	\$1,512,798 \$168,089	
b. Percentage of A	warded and Co # 6		promised within # 3		# 9						
(ii) Number (ii) Percentage	# 6 66.6667%		# 3 33.3333%		# 9 100%						
c. Difference Betw			nent Claim and		nuted/Compr	omised Claim					
(i) Average (ii) Difference (Col	. 2 minus Col. 1	\$60,384		\$383,497		\$323,113					
d. Pending claims				ing Awarded Mix	<u>x</u>	ψ0±0,110					
(i) Awarded Mix (ii) Number	66.6667% # 0.0000		33.3333% # 0.0000				# 0				
e. Pending Average		Commuted a		ed less Awarded	Difference		π ∪				
(i) Pending Ave.		\$0	_	\$0	_						
(ii) C/C Difference (iii) (e-i) + (e-ii)	_	\$0 \$0	_	\$323,113 \$323,113							
(iv) Total		\$0		\$0							
(d-ii) x (e-iii)								••			
(v) Total of (e-iv)  f. Calculation of Ir	npact of Adjust	ment						\$0			
Carcalation of II	Aw	varded				Pending				otal	
(i) Permanant	Count # 6	Amount \$362,306	Average \$60,384		Count # 0.0000	Amount \$0	Average \$0		Count # 6.0000	Amount \$362,306	Average \$60,384
<ul><li>(i) Permanent</li><li>(ii) Comm./Comp.</li></ul>		\$1,150,492	\$383,497		# 0.0000	\$0 \$0	\$0 \$0		# 3.0000	\$362,306 \$1,150,492	\$383,497
(iii) Total	# 9	\$1,512,798	\$168,089		# 0.0000	\$0	\$0		# 9.0000	\$1,512,798	\$168,089
(iv) Average Sever (v) Impact	rity before Adju	stment									\$168,089 \$0
(*/paot											Ψ

#### Underground Bituminous

			Commute	d and	Total Av	warded-	ompromise or				
·=	Awai Permane	ent Basis	Compron As Sett		Perman Commute	ed/Comp.	Pending, Permanent			Total Claims	
	(1 Count	Amount	(2) Count	Amount	(3) = (1 Count	Amount	(4) Count	Amount	Count	(5) Amount	
a. Numbers and A											
(i) List	1	-	- 1	314,213			=	-			
	-	-	1	319,654			-	-			
	-	-	1 1	265,519 281,139			-	-			
	-	-	1	242,595 313,585			-	-			
	- ,	-	i	309,383			-	-			
	1 1	3 47	-	-			-	-			
	1	143,289	- 1	- 241,825			-	-			
	- ,	-	1	112,556			-	-			
	- 1 -	0 -	1	309,744			-	-			
	- 1	94,706	1	259,879			-	-			
	- '	-	1	454,298			-	-			
	-	-	1 1	351,832 483,705			-	-			
	-	-	1	334,061			-	-			
	-	-	1	275,002 544,857			-	-			
	-	-	1	426,235 313,591			-	-			
	-	-	1	261,601			-	-			
	-	-	1 1	322,000 339,272			-	-			
	-	-	1	305,324			-	-			
	-	-	1	708,215 370,435			-	-			
	-	-	1	160,311 550,179			-	-			
	-	-	1	284,433			-	-			
	-	-	1 1	401,081 358,264			-	-			
	-	-	1	488,285 253,504			-	-			
	-	-	1	317,946			=	-			
	-	-	1	161,233 291,598			=	-			
	-	-	1	324,465			-	-			
	-	-	1 1	335,807 136,910			=	-			
	-	-	1	154,623 159,745			-	-			
	-	-	-	-			1	- 0			
	-	-	1 1	267,957 160,271			=	-			
		-	1	321,519			=	-			
	- 1 -	0 -	1	371,245			-	-			
	-	-	1	46,115 103,550			-	-			
	-	-	1	341,651			-	-			
	-	-	1	345,112 326,371			=	-			
	-	-	1	353,300			-	-			
	-	-	1	368,912 307,758			-	-			
	-	-	1	317,548 303,386			-	-			
	-	-	1	336,166			-	-			
	-	-	1 1	325,332 176,700			-	-			
	-	-	1	295,120			-	-			
(i) Total	#7	\$238,045	# 58 \$	17,906,915	# 65 \$	18,144,960	# 1	\$0	# 66	\$18,144,960	
(ii) Average		\$34,006		\$308,740		\$279,153		\$0		\$274,924	
<ul> <li>b. Percentage of A</li> <li>(i) Number</li> </ul>	warded and C # 7	Commuted/Comp	promised within *# 58	Total Awarded	# 65						
(ii) Percentage	# 7 10.7692%		# 58 89.2308%		100%						
c. Difference Betw						omised Claim					
(i) Average (ii) Difference (Col.	2 minus Ccl	\$34,006		\$308,740		\$274,733					
d. Pending claims			nuted/Comp usi	ng Awarded Mi	<u>x</u>	ψ <b>∠17,13</b> 3					
(i) Awarded Mix	10.7692%	-	89.2308%	-							
(ii) Number	# 0.1077	· Committed -	# 0.8923	d lose Aurerd	I Difference		# 1				
<ul> <li>e. Pending Average</li> <li>(i) Pending Ave.</li> </ul>	ge nom Above	e; Commuted a \$0	na compromiser	d less Awarded \$0	inerence						
(ii) C/C Difference	_	\$0	_	\$274,733							
(iii) (e-i) + (e-ii)		\$0 \$0		\$274,733 \$245,147							
(iv) Total (d-ii) x (e-iii)		φU		φ <u>2</u> 40, 14 <i>1</i>							
(v) Total of (e-iv)								\$245,147			
f. Calculation of In					п	ending			-	otal	
-	Count	warded Amount	Average		Count	renaing Amount	Average		Count	otal Amount	Average
(i) Permanent	#7	\$238,045	\$34,006		# 0.1077	\$0	\$0		# 7.1077	\$238,045	\$33,491
(ii) Comm./Comp.		\$17,906,915	\$308,740		# 0.8923	\$245,147	\$274,733		# 58.8923	\$18,152,062	\$308,225
(iii) Total (iv) Average Sever		\$18,144,960 ustment	\$279,153		# 1.0000	\$245,147	\$245,147		# 66.0000	\$18,390,107	\$278,638 \$274,924
(v) Impact	,										\$3,714
Source:	Exhibit IX-A										

#### Federal Excess After Social Security and Private Pension Offsets

	Award Permaner		Commute Compro As Se	mised-	Permai	Awarded- nent plus ted/Comp.	Pending, Permanent I	on Basis		Total Claims	
•	(1) Count		(2) Count			(1) + (2) Amount	(4) Count	Amount	Count	(5) Amount	
a. Numbers and A											
(i) List	1	0	- 1	- 81,380			-	-			
	1	18,610	- '	-			=	-			
	1 1	4,923	-	-			- -	-			
	- 1	-	- 1 -	331,527			-	-			
	1	-	- 1	145,635			-	-			
	1 1	8	-	=			=	-			
	1	0	-	-			=	-			
	1	45,510	-	-			- -	-			
	1	- 0	- 1 -	274,280			-	-			
	1	- 36	-	-			-	-			
	- 1	328	1	125,653			-	-			
	1	1,197	-	-			-	-			
	1 1	1	-	-			-	-			
	1	1 1,114	-	-			-	-			
	1	65,699	- 1	- 251,140			=	-			
	1	210,533	=	-			=	-			
	1	0	- 1 -	319,096 -			= =	-			
	- 1 -	3,581	- 1	- 161,243			-	-			
	-	-	1 1	259,614 162,208			-	-			
	-	-	1	190,452			-	-			
	-	-	1 1	153,782 339,714			- -	-			
	-	-	- 1 -	345,266			-	-			
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(i) Total (ii) Average	# 24	\$351,543 \$14,648	# 14	\$3,140,990 \$224,356	# 38	\$3,492,532 \$91,909	# 0	\$0 \$0	# 38	\$3,492,532 \$91,909	
b. Percentage of A					# 20			•		•	
(i) Number (ii) Percentage	# 24 63.1579%		# 14 36.8421%		# 38 100%						
c. Difference Betw			nent Claim and		uted/Comp	romised Claim					
(i) Average (ii) Difference (Col	. 2 minus Col.	\$14,648 1)		\$224,356		\$209,709					
d. Pending claims	Split into Awar			ing Awarded Mix	<u>C</u>						
(i) Awarded Mix (ii) Number	63.1579% # 0.0000		36.8421% # 0.0000				# 0				
e. Pending Average	ge from Above;		nd Compromise		Difference						
<ul><li>(i) Pending Ave.</li><li>(ii) C/C Difference</li></ul>		\$0 \$0		\$0 \$209,709							
(iii) (e-i) + (e-ii)		\$0	_	\$209,709							
(iv) Total (d-ii) x (e-iii)		\$0		\$0							
(v) Total of (e-iv)								\$0			
f. Calculation of Ir		ment varded				Pending			To	otal	
	Count	Amount	Average	•	Count	Amount	Average		Count	Amount	Average
<ul><li>(i) Permanent</li><li>(ii) Comm./Comp.</li></ul>	# 24 # 14	\$351,543 \$3,140,990	\$14,648 \$224,356		# 0.0000 # 0.0000	\$0 \$0	\$0 \$0		# 24.0000 # 14.0000	\$351,543 \$3,140,990	\$14,648 \$224,356
(iii) Total	# 38	\$3,492,532	\$91,909		# 0.0000	\$0	\$0		# 38.0000	\$3,492,532	\$91,909
(iv) Average Seve (v) Impact	rity before Adju	stment									\$91,909 \$0
(.,paot											ΨΟ

Exhibit VII-E-f Page 4 Surface Bituminous

#### Federal Excess After Social Security and Private Pension Offsets

	Award Permanen		Commute Comproi As Se	mised-	Permai	Awarded- nent plus ted/Comp.	Pending, Permanent I	on Basis		Total Claims	
· <del>-</del>	(1) Count		(2) Count			(1) + (2) Amount	(4) Count	Amount	Count	(5) Amount	
a. Numbers and A									-		
(i) List	1	1 172,699	-	-			- -	-			
	- '	-	1 1	529,104 162,408			-	-			
	- - 1	195,666	1	332,889			-	-			
	- '	-	1 1	264,885 318,286			=	-			
	-	-	1	312,759			=	-			
	-	-	1	375,930 361,512			-	-			
	-	-	1 1	186,704 340,868			-	-			
	-	-	1	160,251 297,087			-	-			
	1	-	- 1	283,175			-	-			
	-	-	1	41,786			-	-			
	-	-	1 1	335,750 165,003			- -	-			
	-	-	1 -	355,622			-	-			
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(i) Total	# 4	\$368,366	# 17	\$4,824,018	# 21	\$5,192,384	# 0	\$0	# 21	\$5,192,384	
(ii) Average		\$92,092		\$283,766		\$247,256		\$0		\$247,256	
<ul> <li>b. Percentage of A</li> <li>(i) Number</li> </ul>	warded and Co # 4	mmuted/Com	promised within # 17	Total Awarded	# 21						
(ii) Percentage	19.0476%		80.9524%		100%						
c. Difference Between (i) Average	een Average A	warded Perma \$92,092	nent Claim and	Average Comm \$283,766	nuted/Comp	romised Claim					
(ii) Difference (Col.		)				\$191,674					
<ul> <li>d. Pending claims</li> <li>(i) Awarded Mix</li> </ul>	Split into Awar 19.0476%	ded and Comr	muted/Comp us 80.9524%	ing Awarded Mix	<u> </u>						
(ii) Number	# 0.0000		# 0.0000				# 0				
e. Pending Average (i) Pending Ave.	ge from Above;	Commuted a \$0	nd Compromise	ed less Awarded \$0	Difference						
(ii) C/C Difference		\$0	_	\$191,674							
(iii) (e-i) + (e-ii) (iv) Total		\$0 \$0		\$191,674 \$0							
(d-ii) x (e-iii)		φU		φυ							
(v) Total of (e-iv)								\$0			
f. Calculation of In		<u>ment</u> /arded				Pending			To	otal	
() P	Count	Amount	Average	-	Count	Amount	Average		Count	Amount	Average
<ul><li>(i) Permanent</li><li>(ii) Comm./Comp.</li></ul>	# 4 # 17	\$368,366 \$4,824,018	\$92,092 \$283,766		# 0.0000 # 0.0000	\$0 \$0	\$0 \$0		# 4.0000 # 17.0000	\$368,366 \$4,824,018	\$92,092 \$283,766
(iii) Total	# 21	\$5,192,384	\$247,256		# 0.0000	\$0	\$0		# 21.0000	\$5,192,384	\$247,256
(iv) Average Sever (v) Impact	rity before Adjus	stment									\$247,256 \$0
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#### Federal Excess After Social Security and Private Pension Offsets

	Award Permanen		Commut Compro As Se	mised-	Perma	Awarded- nent plus ted/Comp.	Pending, Permanent I			Total Claims	
-	(1) Count		(2 Count			(1) + (2) Amount	(4) Count	Amount	Count	(5) Amount	
a Niverham and A		runount	Count	rinoditi	Count	Amount	Count	Amount	Count	Amount	
<ul><li>a. Numbers and A</li><li>(i) List</li></ul>	1	163	-	-			-	-			
	-	-	1 1	351,160 379,982			<del>-</del> -	-			
	-	-	1 1	264,754			-	-			
	1	145,233	-	384,560			<del>-</del>	-			
	-	-	1	208,972 173,057			-	-			
	- ,	-	1	745,100			-	-			
	- 1	- 3	1	88,610			<del>-</del>	-			
	-	-	1 1	277,377 361,159			-	-			
	-	-	1	217,091			=	-			
	-	-	1 -	164,455			-	-			
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	-	-	-	-			-	-			
	-	-	-	-			-	-			
(i) Total	#3	\$145,399	# 12	\$3,616,276	# 15	\$3,761,675	# 0	\$0	# 15	\$3,761,675	
(ii) Average		\$48,466		\$301,356		\$250,778		\$0		\$250,778	
<ul> <li>b. Percentage of A</li> <li>(i) Number</li> </ul>	warded and Co # 3	mmuted/Com	promised within # 12	i l'otal Awarded	# 15						
(ii) Percentage	20.0000%		80.0000%		100%						
c. Difference Betw	een Average A		nent Claim and		nuted/Comp	romised Claim					
(i) Average (ii) Difference (Col.	. 2 minus Col. 1	\$48,466		\$301,356		\$252,890					
d. Pending claims	Split into Awar			ing Awarded Mi	<u>(</u>	, , , , , , , , , , , , , , , , , , , ,					
(i) Awarded Mix	20.0000% # 0.0000		80.0000%				# 0				
(ii) Number e. Pending Average		Commuted a	# 0.0000 nd Compromise	ed less Awarded	Difference		# 0				
(i) Pending Ave.		\$0		\$0							
(ii) C/C Difference (iii) (e-i) + (e-ii)	_	\$0 \$0	-	\$252,890 \$252,890							
(iv) Total		\$0 \$0		\$252,690 \$0							
(d-ii) x (e-iii)											
(v) Total of (e-iv)  f. Calculation of In	nnact of Adjust	ment						\$0			
i. Carculation of If		ment varded				Pending			To	otal	
	Count	Amount	Average	•	Count	Amount	Average		Count	Amount	Average
<ul><li>(i) Permanent</li><li>(ii) Comm./Comp.</li></ul>	# 3 # 12	\$145,399 \$3,616,276	\$48,466 \$301,356		# 0.0000 # 0.0000	\$0 \$0	\$0 \$0		# 3.0000 # 12.0000	\$145,399 \$3,616,276	\$48,466 \$301,356
(iii) Total	# 15	\$3,761,675	\$250,778		# 0.0000	\$0	\$0		# 15.0000	\$3,761,675	\$250,778
(iv) Average Sever											\$250,778
(v) Impact											\$0

# COAL MINE COMPENSATION RATING BUREAU Wage Level Adjustment to Current Level State Occupational Disease Model

				(0 11 1)
a)	Average	Weekly	Waae	(Smoothed):

a) Average weekly wage (sme	<u>someaj:</u>						
		U/G	U/G	Surface	Surface	Wage Level	
	<u>Year</u>		<u>Bituminous</u>	<u>Anthracite</u>	<u>Bituminous</u>	<u>Decrease</u>	
Pre Act 57:	1990	\$517.11	682.94	483.29	518.75	5.1817%	
	1991	533.43	707.04	497.48	535.55	5.1817%	
	1992	550.28	731.99	512.08	552.89	5.1817%	
	1993	567.65	757.82	527.11	570.80	5.1817%	
	1994	585.57	784.56	542.58	589.28	5.1817%	
	1995	604.06	812.24	558.51	608.36	5.1817%	
Mixed Pre & Post Act 57:	1996	623.14	840.90	574.91	628.07	3.3220%	***
Post Act 57:	1997	642.81 *	870.58 *	591.78 *	648.40	0.0%	
	1998	663.11 *	901.29 *	609.15 *	669.40	0.0%	
	1999	684.04 *	933.10 *	627.04 *	691.08	0.0%	
	2000	705.64 *	966.02 *	645.44 *	713.46	0.0%	
	2001	727.92 *	1,000.11 *	664.39 *	736.56	0.0%	
	2002	750.91 *	1,035.40 *	683.89 *	760.41	0.0%	
	2003	774.61 *	1,071.93 *	703.97 *	785.04	0.0%	
	2004	799.07 *	1,109.76 *	724.63 *	810.46	0.0%	
	2005	824.30 *	1,148.92 *	745.90 *	836.71	0.0%	
	2006	850.33 *	1,189.46 *	767.80 *	863.80	0.0%	
	2007	877.18 *		790.34 *	891.77	0.0%	
	2008	904.87 *		813.54 *	920.65	0.0%	
	2009	933.44 *		837.42 *	950.47	0.0%	
	2010	962.92 *		862.00 *	981.24	0.0%	
	2011	993.32 *		887.31 *	1,013.02	0.0%	
	2012			913.35 *	1,045.82	0.0%	
	2013			940.16 *	1,079.69	0.0%	
	2014			967.76 *	1,114.66	0.0%	
	2015			996.17 *	1,150.75	0.0%	
	2016			1,025.41 *	1,188.02	0.0%	
	2017			1,055.51 *	1,226.49	0.0%	
	2018			1,086.50 *	1,266.21	0.0%	
	<u>2019</u>			1,118.39 *	1,307.21	0.0%	
	Average:		1,000.70	1,110.07	1,007.21	1.1471%	
	Avolugo.					1.17/1/0	
Pi	rojected to:						
Pre Act 57:	4/1/2022		1,858.27	1,212.73	1,346.18		
Post Act 57:	4/1/2022			1,149.89 *	1,276.43		
1 031 ACT 37.	4/1/2022	1,233.07	1,701.70	1,147.07	1,270.43		
b) Conversion Calculation:							
Conversion Factor:		5.1817%	5.1817%	5.1817%	5.1817%		
Conversion racion.		5.1017/0	3.1017/0	3.1017/6	5.1017/0	Note:	
Post Act 57:	1996	\$590.85	\$797.33	\$545.12	¢505 50	Pre Act 57 times (1.0 - Fo	actorl
Post Act 57:	1997	·	•	•	-	•	
				561.12		Pre Act 57 times (1.0 - Fo	
Post Act 57:	1998			577.59		Pre Act 57 times (1.0 - Fo	
Post Act 57:	1999			594.54		Pre Act 57 times (1.0 - Fo	
Post Act 57:	2000			612.00		Pre Act 57 times (1.0 - Fc	
Post Act 57:	2001	690.20		629.96		Pre Act 57 times (1.0 - Fo	
Post Act 57:	2002			648.45		Pre Act 57 times (1.0 - Fo	•
Post Act 57:	2003			667.49		Pre Act 57 times (1.0 - Fo	
Post Act 57:	2004			687.08		Pre Act 57 times (1.0 - Fo	•
Post Act 57:	2005			707.25		Pre Act 57 times (1.0 - Fo	•
Post Act 57:	2006			728.01		Pre Act 57 times (1.0 - Fo	
Post Act 57:	2007			749.39		Pre Act 57 times (1.0 - Fo	•
Post Act 57:	2008	857.99	1,208.82	771.38		Pre Act 57 times (1.0 - Fo	
Post Act 57:	2009	885.08	1,251.47	794.03	901.22	Pre Act 57 times (1.0 - Fo	actor)
Post Act 57:	2010	913.02	1,295.63	817.34	930.40	Pre Act 57 times (1.0 - Fo	actor)
Post Act 57:	2011	941.85	1,341.35	841.33		Pre Act 57 times (1.0 - Fo	
Post Act 57:	2012	971.59	1,388.68	866.03	991.63	Pre Act 57 times (1.0 - Fo	actor)
Post Act 57:	2013	1,002.27	1,437.68	891.45	1,023.75	Pre Act 57 times (1.0 - Fo	actor)
Post Act 57:	2014	1,033.91	1,488.41	917.62	1,056.90	Pre Act 57 times (1.0 - Fo	actor)
Post Act 57:	2015	1,066.56	1,540.93	944.55	1,091.12	Pre Act 57 times (1.0 - Fo	actor)
Post Act 57:	2016	1,100.23	1,595.30	972.28	1,126.46	Pre Act 57 times (1.0 - Fo	actor)
Post Act 57:	2017	1,134.97	1,651.59	1,000.82	1,162.94	Pre Act 57 times (1.0 - Fo	actor)
Post Act 57:	2018	1,170.81	1,709.87	1,030.20	1,200.59	Pre Act 57 times (1.0 - Fo	actor)
Post Act 57:	2019	1,207.77	1,770.21	1,060.44	1,239.47	Pre Act 57 times (1.0 - Fo	actor)
Post Act 57:	4/1/2022	1,253.87	1,761.98	1,149.89	1,276.43	Pre Act 57 times (1.0 - Fo	actor)

<sup>\*</sup> Post Act 57 for 1997-2019 and Projected to 04/01/2022

Source: Average Weekly Wage (Smoothed) - Exhibit VII-H, pages 1, 2, 3 and 4 - Column (8)

Projected 04/01/2022 Weekly Wage - Exhibit VII-H, pages 1, 2, 3 and 4 - Column (6)

Wage level decrease - Exhibit VII-G, Page 2.

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<sup>\*\*</sup> Post Act 57 applies to one 1996 case on or after 8-23-96 - Pre Act 57 applies to four 1996 cases on or before 8-22-96

<sup>\*\*\*</sup> Factor reflects that 234/365ths of 1996 was Pre Act 57.

# **COAL MINE COMPENSATION RATING BUREAU**

# WAGE LEVEL OFFSET (Act 57, Section 309) and PENSION PERCENTAGE

State Occupational Disease and Federal Excess

<b>Calculation of Wage Offset</b>	Average E	<u>Benefits</u>	State OD
	Before	After	Claim Count
(a) Wage Ranges	<u>Offset</u>	<u>Offset</u>	
Above 869.55	527.00	527.00	32
\$790.50 - 869.55	527.00	503.09	10
\$447.95 - 790.49	408.00	370.95	63
\$395.25 - 447.94	272.00	263.50	11
\$316.20 - 395.24	263.50	263.50	3
\$289.95 - 316.19	263.50	247.94	0
\$0.00 - 289.94	207.00	188.21	1
Average/Total	\$431.90	\$409.52	120

# (b) <u>Selected State Indemnity Factor:</u>

(i) After ÷ Before (\$409.52 ÷ \$431.90)
 94.8183%
 (ii) Complement (1.0 minus 0.948183)
 5.1817%
 (iii) Reduced by 10% for Phase-in of Act 5: 4.6635%
 (See Exhibit VII-G, Page 1)

# Source:

Wage Ranges - Pennsylvania Compensation Rating Bureau

Evaluation of SB801 Amendments to Section 309 of Act 57

Above \$869.55 - Claims eligible for maximum under either wage calculation.

\$790.50-869.55 - Claims at maximum under current but 2/3 of wage under proposed method.

\$447.95-790.49 - Claims at 2/3 under either wage calculation.

\$395.25-447.94 - Claims at 2/3 under current method but 50% of maximum under proposed method.

\$316.20-395.24 - Claims at 50% under either method.

\$289.95-316.19 - Claims at 50% under current method but 90% of maximum under proposed method.

\$.00-289.94 - Claims at 90% under either method.

Average Benefits Before and After Act 57

State Claim Counts - Claimant wages from 1987 through 1996 Exposure Years from CMCRB database, projected to 1996 level.

# **Calculation of Pension Offset Percentage**

	Estimates
(a) Union Membership	50.0%
(b) Pension Paid by Employers	50.0%
(c) Present Employer Directly Liable for Pension	50.0%
(d) Resulting Offset for State O.D.	12.5%

Sources: Percentage of Miners eligible: estimate.

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## Wage Level Adjustment to Current Level - State Occupational Disease Model

Anthracite Underground (1011)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Claimants'				(1) Adjusted		Exponentially
	Statewide		(2) Adjusted			To Claimants'	Adjusted	Fitted
		<u>Avg Wage</u>		(3)/(1)	· · · · · · · · · · · · · · · · · · ·	Wage Level		Wages
1990		539.87	539.87	1.2885	539.87		539.87	517.11
1991	436.00	0.00				510.68	510.68	533.43
1992		608.33	608.33	1.3370	608.33		608.33	550.28
1993		419.67	419.67	0.8835 Low		556.37	556.37	567.65
1994		0.00				577.45	577.45	585.57
1995	509.00	0.00				596.19	596.19	604.06
1996	527.00	0.00				617.27	617.27	623.14
1997	542.00	0.00				634.84	634.84	642.81
1998	561.00	0.00				657.10	657.10	663.11
1999	588.00	501.00	528.38	0.8986	528.38		528.38	684.04
2000	611.00	0.00				715.66	715.66	705.64
2001	644.00	0.00				754.31	754.31	727.92
2002	662.00	0.00				775.40	775.40	750.91
2003	675.00	0.00				790.62	790.62	774.61
2004	690.00	0.00				808.19	808.19	799.07
2005	716.00	0.00				838.65	838.65	824.30
2006	745.00	0.00				872.61	872.61	850.33
2007	779.00	0.00				912.44	912.44	877.18
2008	807.00	0.00				945.23	945.23	904.87
2009	836.00	0.00				979.20	979.20	933.44
2010	845.00	0.00				989.74	989.74	962.92
2011	858.00	1400.00	1476.51	1.7209 High		1004.97	1004.97	993.32
2012	888.00	0.00				1040.11	1040.11	1024.68
2013	917.00	1009.57	1064.74	1.1611	1064.74		1064.74	1057.04
2014	932.00	0.00				1091.65	1091.65	1090.41
2015	951.00	0.00				1113.90	1113.90	1124.84
2016	978.00	0.00				1145.53	1145.53	1160.36
2017	995.00	0.00				1165.44	1165.44	1196.99
2018	1025.00	0.00				1200.58	1200.58	1234.79
2019	1049.00	0.00				1228.69	1228.69	1273.78
2020	1081.00							

High 1.7209 Low 0.8835

Average Ratio Claimant/State - High & Low 1.1713

Projected

4/1/2022

2021 1,108.00 2022 1,136.00

2023 1,164.00

Projected Avg. Wage at Claimants' Level

1,129.00 \* 1.1713 = \$1,322.39

Act 57 Factor: 94.8183%

(1) Statewide average weekly wage

1,129.00

(2) CMCRB database, reported State OD average weekly wage

the reported wages were adjusted to pre-act 57 wage level by dividing them by the wage offset of (1.0 minus .051817)

(3)= Column (2) adjusted for Act 57

(4) = (3)/(1)

(5) Actual adjusted wages excluding High and Low

(6) Wage history based on State OD wages, except for high, low, and zeroes where SAWW times average indices was used

(7) Adjusted Wages using Cols. (5) & (6)

(8) Fitted Wages using Regression on data in Col.(7)

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PAB

Effective Date - April 01, 2021

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### Wage Level Adjustment to Current Level - State Occupational Disease Model

**Bituminous Underground (1002)** 

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	(1)	Claimants'	(0)	( ')	(0)	(1) Adjusted		Exponentially
	Statewide		(2) Adjusted		(3) Fx. High I	To Claimants'	Adjusted	Fitted
		Avg Wage	For Act 57	(3)/(1)		Wage Level	•	Wages
1990		779.92	779.92	1.8614	779.92		779.92	
1991	436.00	827.00	827.00	1.8968	827.00		827.00	707.04
1992	455.00	652.04	652.04	1.4331	652.04		652.04	731.99
1993	475.00	729.40	729.40	1.5356	729.40		729.40	757.82
1994	493.00	1043.85	1043.85	2.1173	1043.85		1043.85	784.56
1995	509.00	1525.00	1525.00	2.9961 Hig	h	837.78	837.78	812.24
1996	527.00	706.64	706.64	1.3409	706.64		706.64	840.90
1997	542.00	672.19	708.92	1.3080	708.92		708.92	870.58
1998	561.00	1058.08	1115.90	1.9891	1115.90		1115.90	901.29
1999	588.00	675.00	711.89	1.2107	711.89		711.89	933.10
2000	611.00	901.03	950.27	1.5553	950.27		950.27	966.02
2001	644.00	604.79	637.84	0.9904 Lov	V	1059.99	1059.99	1000.11
2002	662.00	800.15	843.88	1.2747	843.88		843.88	1035.40
2003	675.00	1324.39	1396.77	2.0693	1396.77		1396.77	1071.93
2004	690.00	876.68	924.59	1.3400	924.59		924.59	1109.76
2005	716.00	912.44	962.30	1.3440	962.30		962.30	1148.92
2006	745.00					1226.23	1226.23	1189.46
2007	779.00	0.00				1282.19	1282.19	1231.43
2008	807.00	1164.02	1227.63	1.5212	1227.63		1227.63	1274.88
2009	836.00	0.00				1376.01	1376.01	1319.86
2010	845.00	0.00				1390.82	1390.82	1366.44
2011	858.00	1269.97	1339.37	1.5610	1339.37		1339.37	1414.65
2012	888.00		1399.48	1.5760	1399.48		1399.48	1464.57
2013	917.00	1500.49	1582.49	1.7257	1582.49		1582.49	1516.25
2014	932.00		1522.49	1.6336	1522.49		1522.49	1569.75
2015			1960.43	2.0614	1960.43		1960.43	1625.14
2016			1652.54	1.6897	1652.54		1652.54	1682.48
2017						1637.71	1637.71	1741.85
2018			2220.03	2.1659	2220.03		2220.03	1803.31
2019		0.00				1726.59	1726.59	1866.95
2020	1081.00							

High 2.9961 Low 0.9904

Average Ratio Claimant/State - High & Low 1.6459

Projected

4/1/2022

2021 1,108.00 2022 1,136.00

2023 1,164.00

Projected Avg. Wage at Claimants' Level

1,129.00 \* 1.6459 = \$1,858.27

Act 57 Factor: 94.8183%

(1) Statewide average weekly wage

1,129.00

(2) CMCRB database, reported State OD average weekly wage

the reported wages were adjusted to pre-act 57 wage level by dividing them by the wage offset of (1.0 minus .051817)

(3)= Column (2) adjusted for Act 57

(4) = (3)/(1)

(5) Actual adjusted wages excluding High and Low

(6) Wage history based on State OD wages, except for high, low, and zeroes where SAWW times average indices was used

(7) Adjusted Wages using Cols. (5) & (6)

(8) Fitted Wages using Regression on data in Col.(7)

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PAB

### Wage Level Adjustment to Current Level - State Occupational Disease Model Anthracite Surface (1016)

Page 3

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Claimants'				(1) Adjusted	(5) & (6)	Exponentially
	Statewide	Actual	(2) Adjusted		(3) Ex. High 1	o Claimants'	Adjusted	Fitted
	<u>Avg Wage</u>	<u>Avg Wage</u>	For Act 57	(3)/(1)	& Low	<u>Wage Level</u>	Avg Wages	Wages
1990	419.00	549.31	549.31	1.3110	549.31		549.31	483.29
1991	436.00	492.75	492.75	1.1302	492.75		492.75	497.48
1992	455.00	565.40	565.40	1.2426	565.40		565.40	512.08
1993	475.00	548.61	548.61	1.1550	548.61		548.61	527.11
1994	493.00	543.95	543.95	1.1033	543.95		543.95	542.58
1995	509.00	651.62	651.62	1.2802	651.62		651.62	558.51
1996		453.71	453.71	0.8609	453.71		453.71	574.91
1997	542.00	530.26	559.24	1.0318	559.24		559.24	591.78
1998	561.00		785.63	1.4004	785.63		785.63	609.15
1999			602.70	1.0250	602.70		602.70	627.04
2000	611.00	133.68	140.99	0.2307 Low		656.31	656.31	645.44
2001	644.00	517.49	545.77	0.8475	545.77		545.77	664.39
2002	662.00	589.00	621.19	0.9384	621.19		621.19	683.89
2003	675.00	633.40	668.01	0.9897	668.01		668.01	703.97
2004	690.00	1568.35	1654.06	2.3972 High		741.17	741.17	724.63
2005	716.00	575.91	607.38	0.8483	607.38		607.38	745.90
2006						800.25	800.25	767.80
2007	779.00	733.08	773.14	0.9925	773.14		773.14	790.34
2008						866.85	866.85	813.54
2009	836.00	0.00				898.00	898.00	837.42
2010	845.00	0.00				907.67	907.67	862.00
2011	858.00	466.84	492.35	0.5738	492.35		492.35	887.31
2012	888.00	0.00				953.86	953.86	913.35
2013	917.00	0.00				985.01	985.01	940.16
2014	932.00	0.00				1001.12	1001.12	967.76
2015	951.00	0.00				1021.53	1021.53	996.17
2016		1419.00	1496.55	1.5302	1496.55		1496.55	1025.41
2017						1068.79	1068.79	1055.51
2018						1101.02	1101.02	1086.50
2019	1049.00	0.00				1126.80	1126.80	1118.39
2020	1081.00							
			High	2.3972				

0.2307 Low

Average Ratio Claimant/State - High & Low 1.0742

Projected

2021 1,108.00 2022 1,136.00 2023 1,164.00

4/1/2022 1,129.00

Projected Avg. Wage at Claimants' Level

1,129.00 \* 1.0742 = \$1,212.73

Act 57 Factor: 94.8183%

- (1) Statewide average weekly wage
- (2) CMCRB database, reported State OD average weekly wage

the reported wages were adjusted to pre-act 57 wage level by dividing them by the wage offset of (1.0 minus .051817)

(3)= Column (2) adjusted for Act 57

(4) = (3)/(1)

- (5) Actual adjusted wages excluding High and Low
- (6) Wage history based on State OD wages, except for high, low, and zeroes where SAWW times average indices was used

(7) Adjusted Wages using Cols. (5) & (6)

(8) Fitted Wages using Regression on data in Col.(7)

Run Date: August 29, 2020 - 08:29:33 PM

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Effective Date - April 01, 2021 235,303.550829

# Wage Level Adjustment to Current Level - State Occupational Disease Model Bituminous Surface (1013)

Page 4

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Claimants'				(1) Adjusted	(5) & (6)	Exponentially
	Statewide	Actual	(2) Adjusted		(3) Ex. High I	o Claimants'	Adjusted	Fitted
	<u>Avg Wage</u>	<u>Avg Wage</u>	For Act 57	(3)/(1)	<u> </u>	Wage Level	Avg Wages	Wages
1990	419.00	481.50	481.50	1.1492	481.50		481.50	518.75
1991	436.00	595.45	595.45	1.3657	595.45		595.45	535.55
1992	455.00	652.89	652.89	1.4349	652.89		652.89	552.89
1993	475.00	705.41	705.41	1.4851 Hig	gh	566.37	566.37	570.80
1994	493.00	621.91	621.91	1.2615	621.91		621.91	589.28
1995	509.00	477.90	477.90	0.9389	477.90		477.90	608.36
1996	527.00	628.07	644.84	1.2236	644.84		644.84	628.07
1997	542.00	698.16	736.31	1.3585	736.31		736.31	648.40
1998	561.00	500.00	527.32	0.9400	527.32		527.32	669.40
1999	588.00	569.19	600.30	1.0209	600.30		600.30	691.08
2000	611.00	0.00				728.54	728.54	713.46
2001	644.00	0.00				767.88	767.88	736.56
2002	662.00	0.00				789.35	789.35	760.41
2003	675.00	0.00				804.85	804.85	785.04
2004	690.00	0.00				822.73	822.73	810.46
2005	716.00	676.00	712.94	0.9957	712.94		712.94	836.71
2006	745.00	0.00				888.31	888.31	863.80
2007	779.00	0.00				928.85	928.85	891.77
2008	807.00	0.00				962.24	962.24	920.65
2009	836.00	0.00				996.82	996.82	950.47
2010	845.00	0.00				1007.55	1007.55	981.24
2011	858.00	1111.56	1172.31	1.3663	1172.31		1172.31	1013.02
2012	888.00	1157.60	1220.86	1.3748	1220.86		1220.86	1045.82
2013	917.00	0.00				1093.40	1093.40	1079.69
2014	932.00	946.16	997.87	1.0707	997.87		997.87	1114.66
2015	951.00	734.85	775.01	0.8149 Lov	W	1133.94	1133.94	1150.75
2016	978.00	0.00				1166.13	1166.13	1188.02
2017	995.00	0.00				1186.40	1186.40	1226.49
2018	1025.00	0.00				1222.17	1222.17	1266.21
2019	1049.00	0.00				1250.79	1250.79	1307.21
2020	1081.00						,	

High 1.4851 Low 0.8149

Average Ratio Claimant/State - High & Low 1.1924

Projected

4/1/2022

2021 1,108.00 2022 1,136.00

2023 1,164.00

Projected Avg. Wage at Claimants' Level

1,129.00 \* 1.1924 = \$1,346.18

Act 57 Factor: 94.8183%

(1) Statewide average weekly wage

1,129.00

(2) CMCRB database, reported State OD average weekly wage

the reported wages were adjusted to pre-act 57 wage level by dividing them by the wage offset of (1.0 minus .051817)

only one of the three claims in 1996 was adjusted by the pre-act 57 wage level

(3)= Column (2) adjusted for Act 57

(4) = (3)/(1)

(5) Actual adjusted wages excluding High and Low

(6) Wage history based on State OD wages, except for high, low, and zeroes where SAWW times average indices was used

(7) Adjusted Wages using Cols. (5) & (6)

(8) Fitted Wages using Regression on data in Col.(7)

Run Date: August 29, 2020 - 08:29:33 PM

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PAB

Effective Date - April 01, 2021

# COAL MINE COMPENSATION RATING BUREAU State OD Losses Social Security Offset

#### Social Security - Cost of Living Adjustment History and Projection

The following annual cost of living percentage is used to adjust the Social Security benefit calculated at time of accident to retirement age.

<u>Year</u>	Annual <u>Changes</u>
1991	3.7%
1992	3.0%
1993	2.6%
1994	2.8%
1995	2.6%
1996	2.9%
1997	
	2.1%
1998	1.3%
1999	2.5%
2000	3.5%
2001	2.6%
2002	1.4%
2003	2.1%
2004	2.7%
2005	4.1%
2006	3.3%
2007	2.3%
2008	5.8%
2009	0.0%
2010	0.0%
2011	3.6%
2012	1.7%
2013	1.5%
2014	1.7%
2015	0.0%
2016	0.3%
2017	2.0%
2018	2.8%
2019	1.6%
2020	1.3%
_0_0	
Average All years	2.3%
Average latest 10 years	1.7%
Average latest 5 years	1.6%
Average latest 3 years	1.9%
Selected Annual Change Last Year's Selection was 2.4%	2.3%

Source: Social Security Administration Web Site

#### Social Security Formulas - Historic Primary Insurance Amounts (PIA) and Projections

The following projections are used to calculate the PIA (i.e., SS Benefit) in the SS Offset Model.

	Monthly Wage Amounts Break Points:							
			Plus		Plus		Annual	
	90%	Percent	32%	Percent	15%	Percent	SS Wage	Percent
<u>Year</u>	of First:	<u>Change</u>	of next:	<u>Change</u>	of next:	<u>Change</u>	<u>Base</u>	<u>Change</u>
1991	370		1,860		2,220		53,400	
1992	387	4.6%	1,946	4.6%	2,292	3.2%	55,500	3.9%
1993	401	3.6%	2,019	3.8%	2,380	3.8%	57,600	3.8%
1994	422	5.2%	2,123	5.2%	2,505	5.3%	60,600	5.2%
1995	426	0.9%	2,141	0.8%	2,533	1.1%	61,200	1.0%
1996	437	2.6%	2,198	2.7%	2,590	2.3%	62,700	2.5%
1997	455	4.1%	2,286	4.0%	2,709	4.6%	65,400	4.3%
1998	477	4.8%	2,398	4.9%	2,825	4.3%	68,400	4.6%
1999	505	5.9%	2,538	5.8%	3,007	6.4%	72,600	6.1%
2000	531	5.1%	2,671	5.2%	3,148	4.7%	76,200	5.0%
2001	561	5.6%	2,820	5.6%	3,319	5.4%	80,400	5.5%
2002	592	5.5%	2,975	5.5%	3,508	5.7%	84,900	5.6%
2003	606	2.4%	3,047	2.4%	3,597	2.5%	87,000	2.5%
2004	612	1.0%	3,077	1.0%	3,636	1.1%	87,900	1.0%
2005	627	2.5%	3,152	2.4%	3,721	2.3%	90,000	2.4%
2006	656	4.6%	3,299	4.7%	3,895	4.7%	94,200	4.7%
2007	680	3.7%	3,420	3.7%	4,025	3.3%	97,500	3.5%
2008	711	4.6%	3,577	4.6%	4,212		102,000	4.6%
2009	744	4.6%	3,739	4.5%	4,417	4.9%	106,800	4.7%
2010	761	2.3%	3,825	2.3%	4,314	-2.3%	106,800	0.0%
2011	749	-1.6%	3,768	-1.5%	4,383	1.6%	106,800	0.0%
2012	767	2.4%	3,857	2.4%	4,551	3.8%	110,100	3.1%
2013	791	3.1%	3,977	3.1%	4,707	3.4%	113,700	3.3%
2014	816	3.2%	4,101	3.1%	4,833	2.7%	117,000	2.9%
2015	826	1.2%	4,154	1.3%	4,895	1.3%	118,500	1.3%
2016	856	3.6%	4,301	3.5%	4,718	-3.6%	118,500	0.0%
2017	885	3.4%	4,451	3.5%	5,264	11.6%	127,200	7.3%
2018	895	1.1%	4,502	1.1%	5,303	0.7%	128,400	0.9%
2019	926	3.5%	4,657	3.4%	5,492	3.6%	132,900	3.5%
2020	960	3.7%	4,825	3.6%	5,690	3.6%	137,700	3.6%
2021	996	3.8%	5,006	3.8%	5,898	3.7%	142,800	3.7%
Average All years		3.4%		3.4%		3.3%		3.4%
Average latest 10 years		2.9%		2.9%		3.1%		3.0%
Average latest 5 years		3.1%		3.1%		4.6%		3.8%
Average latest 3 years		3.6%		3.6%		3.6%		3.6%
Last Year's Selection		2.5%		2.5%		2.5%		2.5%
Selection		2.5%		2.5%		2.5%		2.5%
<u>Projections</u>		<u>Selected</u>		<u>Selected</u>		<u>Selected</u>		<u>Selected</u>
2021	996	Actual	5,006	Actual	5,898	Actual	142,800	Actual
2022	1,021	2.5%	5,131	2.5%	6,045	2.5%	146,400	2.5%
2023	1,047	2.5%	5,259	2.5%	6,196	2.5%	150,100	2.5%
Average Break Point For Policies effective be	1,015 tween		5,100		6,008		145,500	

For Policies effective between

4-1-2021 and 4-1-2022

Note: Weighted average of the three calendar years: 2021, 2022, 2023.

Weights: 2021 28.125% 2022 68.750% 2023 3.125% 100.00%

### Notes:

The above weights assume 1-year policies effective between 4-1-2021 and 4-1-2022 E.G.: 28.125% of the losses will occur between 4-1-2021 and 12-31-2021.
68.750% of the losses will occur between 1-1-2022 and 12-31-2022.
3.125% of the losses will occur between 1-1-2023 and 3-31-2023.

Source: Social Se curity Administration Web Site

# COAL MINE COMPENSATION RATING BUREAU State OD Losses Social Security Offset

## Social Security Formulas - Primary Insurance Amount (PIA) Calculations Example Calculations

I. Break Point Monthly Wage Amounts and Factors (Exhibit VII-J, Page 2)

Break Points (Projected to average accident date of 4-1-2022 with a 4-1-2021 filing effective date.)

			Monthly Wages	
	Yearly	First	Second	Third
	<u>Maximum</u>	<u>Break Point</u>	<u>Break Point</u>	<b>Break Point</b>
Wage Amount:	145,500	1,015	5,100	6,008
Factor:		90%	32%	15%

#### II. Example Calculations

		Adjusted	PI	A at each Breakpoint		
Example <u>Number</u>	Monthly <u>Wage</u>	Monthly <u>Wage (a)</u>	First (b)	Second (c)	Third (d)	Total <u>PIA</u>
1	2,000	2,000	1,015 <u>90%</u> 914	985 <u>32%</u> 315	0 <u>15%</u> 0	1,229
2	4,000	4,000	1,015 <u>90%</u> 914	2,985 <u>32%</u> 955	0 <u>15%</u> 0	1,869
3	6,000	6,000	1,015 <u>90%</u> 914	4,985 <u>32%</u> 1,595	0 <u>15%</u> 0	2,509
4	8,000	8,000	1,015 <u>90%</u> 914	5,100 <u>32%</u> 1,632	1,885 <u>15%</u> 283	2,828
5	10,000	10,000	1,015 <u>90%</u> 914	5,100 <u>32%</u> 1,632	3,885 <u>15%</u> 583	3,128
6	12,000	12,000	1,015 <u>90%</u> 914	5,100 <u>32%</u> 1,632	5,885 <u>15%</u> 883	3,428

#### Notes:

- (a) Monthly Wage limited to Monthly Maximum (\$145,500/12 = \$12,000)
- (b) minimum of adjusted monthly wage and \$1015

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- (c) minimum of (adjusted monthly wage less \$1015) and \$5,100
- (d) minimum of (adjusted monthly wage less \$1015 less \$5,100) and \$6,008

Source: Exhibit VII-J, Page 2

#### Page 1

#### ANTHRACITE UNDERGROUND (0160)

			ounts								
	(1)	(2)	(3)	(4)	(5) Pending	(6) Denied	(7) Denied	(8) Ultimate	(9) Ultimate	(10)	(11) IBNR
Year	Reported	Awarded	Pending	Denied	Awarded (3) * 30%	Reopened	Awarded	Awarded (2)+(5)+(7)	Denied (1)-(8)	IBNR	Awarded (10)xAwd Ratio
2000	# 0	# 0	# O	# 0	# 0.00	# 0.00	# 0.00	# 0.00	# 0.00	# 0.0000	# 0.0000
2001	-	-	-	-	-	-	-	-	-	-	-
2002	-	=	-	-	-	=	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-
2004 2005	-	-	-	-	-	_	-	-	-	-	-
2006	_	_	_	_	-	_	_	_	_	_	-
2007	-	_	-	-	-	-	_	_	-	_	-
2008	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-	-	-	-	-
2012	- 1	-	-	-	-	_	-	1.00	-	-	-
2013 2014		-	-	-	-	-	_	1.00	_	_	-
2014	_	_	_	- -	-		_	_	_	_	- -
2016	_	_	-	-	-	_	_	-	_	_	-
2017	-	-	-	-	-	_	-	-	-	-	-
2018	-	-	-	-	-	-	-	-	-	-	-
<u>2019</u>										0.0145	0.0049
Total	1	1	-	-	-	-	-	1.00	-	0.0145	0.0049
		(12)	(13)	(14)	(15)	(16)	(17)	(18)			
		Total	Payroll	(14)	Statewide	(10)	Estimated	Frequency			
				F							
		Awarded	(\$M)	Frequency	Average	Adjustment		Per 100			-
Year		<u>(8)+(11)</u>		(12)/(13)	Weekly Wage		<u>Years</u>	Miner Years			
2000		# 0.0000	\$ 1.3702	-	611	1.067	40.4	-			
2001		-	1.6365	-	644		45.8	-			
2002		-	1.3865	-	662		37.7	-			
2003		-	1.3543	-	675		36.2	-			
2004		-	1.3453	-	690		35.1	-			
2005		-	1.4176	-	716		35.7	-			
2006		-	1.4425	-	745		34.9	-			
2007		-	1.6625	-	779		38.5	-			
2008		-	2.1367	-	807	1.067	47.7	-			
2009		=	1.3359	-	836		28.8	-			
2010		-	1.2996	-	845		27.7	-			
2011		-	1.2579	-	858		26.4	-			
2012		-	1.0293	-	888		20.9	-			
2013		1.0000	0.3819	2.6185	917		7.5	13.3333			
2014		-	0.2588	-	932	1.067	5.0	-			
2015		-	0.2543	-	951	1.067	4.8	-			
2016		-	0.1638	-	978	1.067	3.0	-			
2017		-	0.2524	-	995	1.067	4.6	-			
2018		-	0.1833	-	1,025		3.2	-			
2019		0.0049	0.1794	0.0276	1,049		3.1	0.1596			
Total		1.0049	20.3487	0.0494			487.0	0.2064			

Sources: Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.15)xCol.(4);2000 & Prior (0.05)xCol.(4);2001 & Subseq.

Col.(7): (0.20)xCol.(6);2000 & Prior

(1.00)xCol.(6);2001 & Subseq. Col.(10): 40% of Exh. VII-C-1 thru VII-C-6

Col.(13): Exh. X-A

Run Date: September 18, 2020 - 11:14:55 AM

IBNR Award Ratio (2000 & Prior): 0.4180

IBNR Award Ratio (2001 & Subseq.): 0.3424

PAB Effective Date - April 01, 2021 97,873.241266

Col.(15): Exhibit XII-D

Col.(16): Exhibit X-G

Col.(18): (12) / (17) x 100

Col.(17): (13) / ((15) x (16) x 52)

times 1000000

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#### BITUMINOUS UNDERGROUND (0158)

		C	ounts							·	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
					Pending	Denied	Denied	Ultimate	Ultimate	18118	IBNR
Voor	Reported	Awarded	Pending	Denied	Awarded	Reopened	Awarded	Awarded	Denied	IBNR	Awarded
Year 2000	# 3	# 1	# 0	# 2	<u>(3) * 30%</u> # 0.00	# 0.30	# 0.06	<u>(2)+(5)+(7)</u> # 1.06	<u>(1)-(8)</u> # 1.94	# 0.0000	(10)xAwd Ratio # 0.0000
2001	2	1	# O	1	n 0.00	0.05	0.05	1.05	0.95	# 0.0000 -	# 0.0000 -
2002	1	-	-	1	-	0.05	0.05	0.05	0.95	_	-
2003	-	-	-	-	-	-	-	-	-	-	-
2004	1	-	-	1	-	0.05	0.05	0.05	0.95	-	-
2005	1	1	-	-	-	-	=	1.00	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-
2007 2008	2	1	-	- 1	-	0.05	0.05	1.05	0.95	-	-
2009	2	-	-	-	-	0.05	0.05	1.05	0.73	_	-
2010	1	1	_	_	-	_	_	1.00	_	_	-
2011	2	2	_	_	-	_	_	2.00	_	_	_
2012	4	1	-	3	-	0.15	0.15	1.15	2.85	-	-
2013	6	-	3	3	0.90	0.15	0.15	1.05	4.95	0.0305	0.0105
2014	3	-	-	3	-	0.15	0.15	0.15	2.85	0.1421	0.0487
2015	5	-	3	2	0.90	0.10	0.10	1.00	4.00	0.2511	0.0860
2016	3	-	-	3	-	0.15	0.15	0.15	2.85	0.3441	0.1178
2017	3	-	-	- 1	- 0.40	0.05	- 0.05	- 0.75	- 0.25	0.6204	0.2124
2018 2019	3 1	-	2	ı	0.60 0.30	0.05	0.05	0.65 0.30	2.35 0.70	0.9555 1.3272	0.3272 0.4544
Total	38	8	9	21	2.70	1.25	1.01	11.71	26.29	3.6709	1.2569
					(- <del>-</del> )						
		(12)	(13)	(14)	(15)	(16)	(17)	(18)			
		Total	Payroll		Statewide		Estimated	Frequency			
		Awarded	(\$M)	Frequency	Average	Adjustment	Miner	Per 100			_
Year		<u>(8)+(11)</u>		(12)/(13)	Weekly Wage	<u>Factor</u>	<u>Years</u>	Miner Years			
2000		# 1.0600	\$ 47.5206	0.0223	611	1.573	950.8	0.1115			
2001		1.0500	48.5226	0.0216	644	1.573	921.1	0.1140			
2002		0.0500	40.8380	0.0012	662	1.573	754.2	0.0066			
2003		-	36.4984	-	675	1.573	661.1	-			
2004		0.0500	46.0739	0.0011	690	1.573	816.3	0.0061			
2005		1.0000	66.2758	0.0151	716	1.573	1,131.6	0.0884			
2006		-	70.4659	-	745	1.573	1,156.4	-			
2007		-	79.9043	-	779	1.573	1,254.0	-			
2008		1.0500	101.3540	0.0104	807	1.573	1,535.4	0.0684			
2009		-	101.3481	-	836	1.573	1,482.1	-			
2010		1.0000	125.3936	0.0080	845	1.573	1,814.2	0.0551			
2011		2.0000	148.4857	0.0135	858	1.573	2,115.8	0.0945			
2012		1.1500	153.6189	0.0075	888	1.573	2,114.9	0.0544			
2013		1.0605	145.1463	0.0073	917		1,935.1	0.0548			
2014		0.1987	183.4320	0.0011	932		2,406.2	0.0083			
2015		1.0860	140.5703	0.0077	951	1.573	1,807.1	0.0601			
2016		0.2678	118.5455	0.0023	978	1.573	1,481.9	0.0181			
2017		0.2124	172.7088	0.0023	995	1.573	2,122.1	0.0101			
2017		0.2124	180.5998	0.0012	1,025	1.573	2,122.1	0.0100			
2018 2019		0.7772	185.9629	0.0034	1,023	1.573		0.0434			
		12.9669		·	1,049	1.5/3	2,167.3	0.0348			
Total		12.7007	2,193.2654	0.0059			30,781.7	0.0421			

Sources: Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.15)xCol.(4);2000 & Prior (0.05)xCol.(4);2001 & Subseq.

Col.(7): (0.20)xCol.(6);2000 & Prior (1.00)xCol.(6);2001 & Subseq.

Col.(13): Exh. X-A

Col.(10): 40% of Exh. VII-C-1 thru VII-C-6

Col.(15): Exhibit XII-D Col.(16): Exhibit X-G

Col.(17): (13) / ((15) x (16) x 52) times 1000000

Col.(18): (12) / (17) x 100

IBNR Award Ratio (2000 & Prior): 0.4180

IBNR Award Ratio (2001 & Subseq.): 0.3424

#### ANTHRACITE SURFACE(0153)

			ounts							·	·
	(1)	(2)	(3)	(4)	(5) Pending	(6) Denied	(7) Denied	(8) Ultimate	(9) Ultimate	(10)	(11) IBNR
Voor	Reported	Awarded	Pending	Denied	Awarded (3) * 30%	Reopened		Awarded (2)+(5)+(7)	Denied (1)-(8)	IBNR	Awarded
Year 2000	# 1	# 1	# 0	# 0	( <u>3) · 30%</u> # 0.00	# 0.00	# 0.00	# 1.00	# 0.00	# 0.0000	(10)xAwd Ratio # 0.0000
2001	1	1	-	-	# 0.00	11 0.00	11 0.00	1.00	11 0.00	11 0.0000	# 0.0000 -
2002	_	-	-	-	-	-	-	-	-	-	-
2003	2	1	-	1	-	0.05	0.05	1.05	0.95	-	-
2004	1	1	-	-	-	-	-	1.00	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-
2006	1	-	-	1	-	0.05	0.05	0.05	0.95	-	-
2007 2008	2	-	ı	ı	0.30	0.05	0.05	0.35	1.65	-	-
2008	-	-	-	-	-	-	-	-	-	-	-
2010	_	_	_	_	-	_	_	_	_	_	-
2011	1	1	_	_	-	_	_	1.00	_	_	_
2012	-	- -	-	-	-	-	_	-	_	_	-
2013	-	-	-	-	-	-	-	-	-	-	-
2014	1	-	-	1	-	0.05	0.05	0.05	0.95	-	-
2015	-	-	-	-	-	-	-	-	-	-	-
2016	1	-	1	-	0.30	-	-	0.30	0.70	-	-
2017	-	-	-	-	-	-	-	-	-	0.0290	0.0099
2018	-	-	-	-	-	-	-	-	-	0.0682 0.1679	0.0234 0.0575
<u>2019</u> Total	<u>-</u>		2	4	0.60	0.20	0.20	5.80	5.20	0.2652	0.0908
		(12)	(13)	(14)	(15)	(16)	(17)	(18)			
		Total	Payroll		Statewide		Estimated	Frequency			
		Awarded	(\$M)	Frequency	Average	Adjustment	Miner	Per 100			
Year		(8)+(11)		(12)/(13)	Weekly Wage	<u>Factor</u>	<u>Years</u>	Miner Years			-
2000		# 1.0000	\$ 16.8078	0.0595	611	1.067	495.8	0.2017			
2001		1.0000	12.9237	0.0774	644	1.067	361.7	0.2765			
2002		_	11.0466	-	662	1.067	300.7	_			
2003		1.0500	11.9282	0.0880	675	1.067	318.5	0.3297			
2004		1.0000	12.3597	0.0809	690	1.067	322.8	0.3098			
2005		-	12.1409	-	716	1.067	305.6	-			
2006		0.0500	12.0653	0.0041	745	1.067	291.9	0.0171			
2007		0.3500	14.8666	0.0235	779	1.067	344.0	0.1017			
2008		-	16.2202	-	807	1.067	362.3	5.1017			
2009		_	15.8935	_	836	1.067	342.6	_			
2010		-	13.3192	_	845	1.067	284.1	_			
2011		1.0000	19.5074	0.0513	858	1.067	409.8	0.2440			
				0.0313		1.067					
2012		-	24.7347	-	888		502.0	-			
2013		0.0500	20.7200	0.0027	917	1.067	407.2	0.0127			
2014		0.0500	18.9113	0.0026	932	1.067	365.7	0.0137			
2015		- 0.0000	22.2344	- 0.0157	951	1.067	421.4	-			
2016		0.3000	19.2571	0.0156	978	1.067	354.9	0.0845			
2017		0.0099	19.0946	0.0005	995	1.067	345.9	0.0029			
2018		0.0234	18.3035	0.0013	1,025	1.067	321.8	0.0073			
<u>2019</u>		0.0575	20.6330	0.0028	1,049	1.067	354.5	0.0162			
Total		5.8908	332.9677	0.0177			7,213.2	0.0817			

Sources: Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.15)xCol.(4);2000 & Prior (0.05)xCol.(4);2001 & Subseq.

Col.(7): (0.20)xCol.(6);2000 & Prior (1.00)xCol.(6);2001 & Subseq.

Col.(10): 40% of Exh. VII-C-1 thru VII-C-6

Col.(13): Exh. X-A

Col.(15): Exhibit XII-D Col.(16): Exhibit X-G

Col.(17): (13) / ((15) x (16) x 52) times 1000000

Col.(18): (12) / (17) x 100

IBNR Award Ratio (2000 & Prior): 0.4180

IBNR Award Ratio (2001 & Subseq.): 0.3424

#### **BITUMINOUS SURFACE(0156)**

			ounts								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
V	Reported	Awarded	Pending	Denied	Pending Awarded	Denied Reopened	Denied Awarded	Ultimate Awarded	Ultimate Denied	IBNR	IBNR Awarded
Year 2000	# 0	# 0	# 0	# 0	<u>(3) * 30%</u> # 0.00	# 0.00	# 0.00	<u>(2)+(5)+(7)</u> # 0.00	<u>(1)-(8)</u> # 0.00	# 0.0000	(10)xAwd Ratio # 0.0000
2001	π 0	π 0	π 0	π 0	π 0.00	π 0.00 -	# 0.00 -	# 0.00 -	π 0.00	π 0.0000	π 0.0000
2002	_	_	-	-	-	-	_	_	_	-	-
2003	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	_	-	-	-	-	-
2008 2009	-	-	-	-	-	-	-	-	-	-	-
2010	_	_	_	- -	-		_	_	_	_	- -
2011	_	_	_	_	-	_	_	-	_	_	-
2012	2	-	-	2	-	0.10	0.10	0.10	1.90	-	-
2013	-	-	-	-	-	-	-	-	-	-	-
2014	2	1	-	1	-	0.05	0.05	1.05	0.95	-	-
2015	2	-	1	1	0.30	0.05	0.05	0.35	1.65	-	-
2016	-	-	-	-	-	-	-	-	-	0.0118	
2017 2018	-	-	-	-	-	-	-	-	-	0.0383 0.0750	0.0131 0.0257
<u>2019</u>	_	_	_	_	_	_	_	_	_	0.0730	0.0237
Total	6	1	1	4	0.30	0.20	0.20	1.50	4.50	0.2399	0.0821
		(12) Total Awarded	(13) Payroll	(14)	(15) Statewide Average	(16)	(17) Estimated Miner	(18) Frequency Per 100			
V			(\$M)	Frequency	•	Adjustment					-
Year		<u>(8)+(11)</u>	<b>*</b> 40.025	(12)/(13)	Weekly Wage		Years	Miner Years			
2000		# 0.0000	\$ 49.9356	-	611	1.067	1,473.0	-			
2001		-	58.1513	-	644	1.067	1,627.4	-			
2002		-	53.5021	-	662	1.067	1,456.6	-			
2003		-	47.8737	-	675	1.067	1,278.3	-			
2004		-	56.2173	-	690		1,468.4	-			
2005		-	64.8716	-	716	1.067	1,633.0	-			
2006		-	63.7985	-	745	1.067	1,543.4	-			
2007		-	64.8081	-	779	1.067	1,499.4	-			
2008		-	74.6012	-	807	1.067	1,666.1	-			
2009		-	63.3067	-	836	1.067	1,364.8	-			
2010		-	74.2552	-	845	1.067	1,583.8	-			
2011		-	87.7305	-	858	1.067	1,842.9	-			
2012		0.1000	77.8905	0.0013	888	1.067	1,580.9	0.0063			
2013		-	62.7181	-	917		1,232.7	-			
2014		1.0500	55.3686	0.0190	932	1.067	1,070.7	0.0981			
2015		0.3500	42.0001	0.0083	951	1.067	796.0	0.0440			
2016		0.0040	30.1312	0.0001	978	1.067	555.3	0.0007			
2017		0.0131	34.2490	0.0004	995	1.067	620.4	0.0021			
2018		0.0257	36.3052	0.0007	1,025	1.067	638.4	0.0040			
2019		0.0393	36.3956	0.0011	1,049	1.067	625.3	0.0063			
Total		1.5821	1,134.1101	0.0014			25,556.8	0.0062			

Sources: Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.15)xCol.(4);2000 & Prior (0.05)xCol.(4);2001 & Subseq.

Col.(7): (0.20)xCol.(6);2000 & Prior (1.00)xCol.(6);2001 & Subseq.

Col.(10): 40% of Exh. VII-C-1 thru VII-C-6

Col.(13): Exh. X-A

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IBNR Award Ratio (2000 & Prior): 0.4180

IBNR Award Ratio (2001 & Subseq.): 0.3424

Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G

Col.(17): (13) / ((15) x (16) x 52) times 1000000

Col.(18): (12) / (17) x 100

#### FOUR STANDARD CLASSES

		С	ounts								
	(1)	(2)	(3)	(4)	(5) Pending	(6) Denied	(7) Denied	(8) Ultimate	(9) Ultimate	(10)	(11) IBNR
Year	Reported	Awarded	Pending	Denied	Awarded (3) * 30%	Reopened		Awarded (2)+(5)+(7)	Denied (1)-(8)	IBNR	Awarded (10)xAwd Ratio
2000	# 4	# 2	# 0	# 2	# 0.00	# 0.30	# 0.06	# 2.06	# 1.94	# 0.0000	# 0.0000
2001	3	2	-	1	-	0.05	0.05	2.05	0.95	-	-
2002	1	-	-	1	-	0.05	0.05	0.05	0.95	-	-
2003	2	1	-	1	-	0.05	0.05	1.05	0.95	-	-
2004	2	1	-	1	-	0.05	0.05	1.05	0.95	-	-
2005	l 1	I	-	-	-	- 0.05	-	1.00	- 0.05	-	-
2006 2007	2	-	- 1	1	0.30	0.05 0.05	0.05 0.05	0.05 0.35	0.95 1.65	-	-
2007	2	1	-	1	0.50	0.05	0.05	1.05	0.95	_	_
2009	_	' -	_	-	_	0.05	-	1.05	0.75	_	_
2010	1	1	-	_	-	_	_	1.00	_	_	_
2011	3	3	-	-	-	=	_	3.00	_	_	-
2012	6	1	-	5	-	0.25	0.25	1.25	4.75	-	-
2013	7	1	3	3	0.90		0.15	2.05	4.95	0.0305	0.0105
2014	6	1	-	5	-	0.25	0.25	1.25	4.75	0.1421	0.0487
2015	7	-	4	3	1.20		0.15	1.35	5.65	0.2511	0.0860
2016	4	-	1	3	0.30		0.15	0.45	3.55	0.3558	0.1218
2017 2018	3	-	2	1	0.60		0.05	0.65	2.35	0.6877 1.0987	0.2355 0.3762
2018 2019	3 1	-	1	!	0.30		0.05	0.83	0.70	1.6244	0.5762 0.5562
Total	56	15	12	29	3.60		1.41	20.01	35.99	4.1904	1.4348
		(12)	(13)	(14)	(15)	(16)	(17)	(18)			
		Total	Payroll		Statewide		Estimated	Frequency			
		Awarded	(\$M)	Frequency	Average	Adjustment	Miner	Per 100			
Year		<u>(8)+(11)</u>	,	(12)/(13)	Weekly Wage		<u>Years</u>	Miner Years			-
2000		# 2.0600	\$ 115.6342	0.0178	611		2,960.0	0.0696	•		
2001		2.0500	121.2341	0.0169	644		2,956.0	0.0694			
2002		0.0500	106.7732	0.0005	662		2,549.2	0.0020			
2003		1.0500	97.6546	0.0108	675		2,294.1	0.0458			
2004		1.0500	115.9962	0.0091	690		2,642.6	0.0397			
2004		1.0000	144.7059	0.0069	716		3,105.9	0.0377			
2006		0.0500	147.7722	0.0007	745		3,026.6	0.0017			
2007		0.3500		0.0003	743			0.0017			
			161.2415				3,135.9				
2008		1.0500	194.3121	0.0054	807		3,611.5	0.0291			
2009		1 0000	181.8842	- 0.00.47	836		3,218.3	- 0.0070			
2010		1.0000	214.2676	0.0047	845		3,709.8	0.0270			
2011		3.0000	256.9815	0.0117	858		4,394.9	0.0683			
2012		1.2500	257.2734	0.0049	888		4,218.7	0.0296			
2013		2.0605	228.9663	0.0090	917		3,582.5	0.0575			
2014		1.2987	257.9707	0.0050	932		3,847.6	0.0338			
2015		1.4360	205.0591	0.0070	951		3,029.3	0.0474			
2016		0.5718	168.0976	0.0034	978		2,395.1	0.0239			
2017		0.2355	226.3048	0.0010	995		3,093.0	0.0076			
2018		1.0262	235.3918	0.0044	1,025		3,117.5	0.0329			
<u>2019</u>		0.8562	243.1709	0.0035	1,049		3,150.2	0.0272			
Total		21.4448	3,680.6919	0.0058			64,038.7	0.0335			

Sources: Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.15)xCol.(4);2000 & Prior (0.05)xCol.(4);2001 & Subseq.

Col.(7): (0.20)xCol.(6);2000 & Prior (1.00)xCol.(6);2001 & Subseq.

Col.(10): 40% of Exh. VII-C-1 thru VII-C-6

Col.(13): Sum of Pages 1 to 4

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Run Date: September 18, 2020 - 11:14:55 AM

IBNR Award Ratio (2000 & Prior): 0.4180

IBNR Award Ratio (2001 & Subseq.): 0.3424

Col.(16): N/A

Col.(15): Exhibit XII-D

Col.(17): Total of 4 std. classes Col.(18): (12) / (17) x 100

#### COKE(0154)

		Co	ounts								
	(1)	(2)	(3)	(4)	(5) Pending	(6) Denied	(7) Denied	(8) Ultimate	(9) Ultimate	(10)	(11) IBNR
Year	Reported	Awarded	Pending	Denied	Awarded (3) * 30%	Reopened		Awarded (2)+(5)+(7)	Denied (1)-(8)	IBNR	Awarded (10)xAwd Ratio
2000	# 0	# 0	# 0	# 0	# 0.00	# 0.00	# 0.00	# 0.00	# 0.00	# 0.0000	# 0.0000
2001	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-
2003 2004	=	-	-	-	-	-	-	-	-	-	-
2004	_	-	-	-	-	-	_	-	-	-	-
2006	_	_	_	_	_	_	_	_	_	_	_
2007	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-
2011 2012	-	-	-	-	-	-	-	-	-	-	-
2012	_	-	-	-	-	-	_	-	-	0.0002	0.0001
2014	_	_	_	_	_	_	_	_	_	0.0002	0.0002
2015	-	-	-	-	-	-	-	-	-	0.0016	0.0005
2016	-	-	-	-	-	-	-	-	-	0.0029	0.0010
2017	-	-	-	-	-	-	-	-	-	0.0044	0.0015
2018	-	-	-	-	-	-	-	-	-	0.0067	0.0023
<u>2019</u> Total										<u>0.0096</u> 0.0259	<u>0.0033</u> 0.0089
		(12) Total Awarded	(13) Payroll (\$M)	(14) Frequency	(15) Statewide Average	(16) Adjustment	(17) Estimated Miner	(18) Frequency Per 100			
Year		<u>(8)+(11)</u>	( , ,	(12)/(13)	Weekly Wage		<u>Years</u>	Miner Years			-
2000		# 0.0000	\$ 12.0926	-	611	1.067	356.7	-			
2001		-	10.3758	-	644	1.067	290.4	_			
2002		_	10.4850	_	662	1.067	285.5	_			
2003		_	11.5341	_	675	1.067	308.0	_			
2004		_	12.0491	_	690	1.067	314.7	_			
2005		_	12.8610	-	716	1.067	323.7	_			
2006		_	12.7374	-	745	1.067	308.1	_			
2007		_	13.6699	-	779	1.067	316.3	_			
2008		_	9.7611	-	807	1.067	218.0	_			
2009		_	5.1736	-	836	1.067	111.5	_			
2010		-	5.4357	-	845	1.067	115.9	_			
2011		-	3.5991	-	858	1.067	75.6	_			
2012		-	5.7381	-	888	1.067	116.5	_			
2013		0.0001	4.7919	0.0000	917	1.067	94.2	0.0001			
2014		0.0002	4.4644	0.0000	932	1.067	86.3	0.0002			
2015		0.0005	4.3404	0.0001	951	1.067	82.3	0.0006			
2016		0.0010	4.4351	0.0002	978	1.067	81.7	0.0012			
2017		0.0015	4.5661	0.0003	995	1.067	82.7	0.0018			
2018		0.0023	4.4847	0.0005	1,025	1.067	78.9	0.0029			
2019		0.0033	4.6265	0.0007	1,049	1.067	79.5	0.0041			
Total		0.0089	157.2216	0.0001			3,726.5	0.0002			

Sources: Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.15)xCol.(4);2000 & Prior (0.05)xCol.(4);2001 & Subseq. Col.(7): (0.20)xCol.(6);2000 & Prior

(1.00)xCol.(6);2001 & Subseq.

Col.(10): 40% of Exh. VII-C-1 thru VII-C-6

Col.(13): Exh. X-A

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IBNR Award Ratio (2000 & Prior): 0.4180

IBNR Award Ratio (2001 & Subseq.): 0.3424

Col.(15): Exhibit XII-D

Col.(16): Exhibit X-G

Col.(18): (12) / (17) x 100

Col.(17): (13) / ((15) x (16) x 52)

times 1000000

#### AUGER(0157)

The content of the			Co	ounts								
Reported   Awarded   Pending   Denied   Awarded   Reopened   Awarded   C31-308   C31		(1)			(4)						(10)	
2000	Year	Reported	Awarded	Pending	Denied	Awarded			Awarded	Denied	IBNR	Awarded
2001		# 0	# 0	# 0	# O		# 0.00	# 0.00			# 0.0000	# 0.0000
2003 2004 2005 2006 2006 2007 2007 2008 2009 2010 2010 2011 2011 2012 2013 2014 2015 2014 2017 2017 2018 2018 2019 2019 2019 2010 2011 2011 2012 2013 2014 2017 2017 2017 2018 2018 2019 2019 2019 2019 2019 2019 2019 2019		-	-	-	-	-	-	-	-	-	-	-
2004 2007 2008 2009 2010 2010 2011 2011 2012 2013 2013 2014 2015 2016 2016 2017 2017 2018 2018 2019 2019 2010 2011 2011 2011 2012 2012		-	-	-	-	-	-	-	-	-	-	-
2005 2007 2008 2009 2009 2010 2010 2011 2011 2012 2012		-	-	-	-	-	-	-	-	-	-	-
2006		-	-	-	-	-	-	-	-	-	-	-
2007 2018 2029 2010 2011 2011 2011 2012 2013 2013 2014 2016 2015 2016 2017 2016 2017 2017 2018 2018 2019 2019 2019 2019 2010 2011 2010 2011 2011		-	-	-	- -	-	-	_	_	_	_	-
2008 2009 2010 2010 2011 2011 2012 2013 2012 2013 2014 2016 2015 2016 2017 2017 2018 2018 2019 2019 2019 2019 2010 2011 2011 2011		_	_	-	-	-	-	_	_	_	_	-
2010 2011 2012 2012 2013 2013 2014 2016 2014 2016 2017 2017 2017 2017 2018 2018 2019 2019 2019 2019 2019 2019 2019 2019		-	-	-	-	-	-	-	-	-	-	-
2011		-	-	-	-	-	-	-	-	-	-	-
2012		-	-	-	-	-	-	-	-	-	-	-
2013		-	-	-	-	-	-	-	-	-	-	-
2014		-	-	-	-	-	-	-	-	-	0.0000	0.0000
2015 0.0002 0.0001 2017 0.0002 0.0001 2017 0.0004 0.0002 2018 0.0004 0.0002 2019 0.0009 0.0003 2019 0.0001 0.0003 2019 0.0011 0.00004    (12)		_	-	-	-	-	-	_	_	-		
2016		_	_	_	_	-	_	_	_			0.0001
2018   -		-	-	-	-	-	-	-	_	-		0.0001
Company		-	-	-	-	-	-	-	-	-		0.0002
Total		-	-	-	-	-	-	-	-	-		0.0003
(12)         (13)         (14)         (15)         (16)         (17)         (18)           Total         Payroll         Statewide         Estimated         Frequency           Awarded         (\$M)         Frequency         Average         Adjustment         Miner         Per 100           Year         (8]+(11)		<del>_</del>			<del></del>	=						
Total Awarded Awarded Pear (\$M)         Frequency (\$M)         Average (\$12)/(13)         Adjustment Miner Per 100         Per 100           Year (8)+(11)	IOIGI	-	-	-	-	-	-	-	-	-	0.0030	0.0010
Total Awarded Awarded Pear (\$M)         Frequency (\$M)         Average Adjustment Miner Per 100         Miner Years         Miner Years           2000         # 0.0000         \$1.2059         -         611         1.067         35.6         -           2001         -         1.4291         -         644         1.067         40.0         -           2002         -         1.1508         -         662         1.067         29.4         -           2003         -         1.1022         -         675         1.067         29.4         -           2004         -         1.0588         -         690         1.067         27.7         -           2005         -         1.0265         -         716         1.067         25.8         -           2006         -         1.0668         -         745         1.067         25.8         -           2007         -         1.1212         -         779         1.067         25.9         -           2008         -         2.5068         -         807         1.067         25.9         -           2009         -         0.9470         -         836         1.067 <th></th>												
Awarded         (\$M)         Frequency [12]/(13)         Average Meekly Wage Mage         Adjustment Miner Per 100         Miner Years           2000         # 0.0000         \$ 1.2059         -         611         1.067         35.6         -           2001         -         1.4291         -         644         1.067         40.0         -           2002         -         1.1508         -         662         1.067         31.3         -           2003         -         1.1022         -         675         1.067         29.4         -           2004         -         1.0588         -         690         1.067         27.7         -           2005         -         1.0265         -         716         1.067         25.8         -           2006         -         1.0668         -         745         1.067         25.8         -           2007         -         1.1212         -         779         1.067         25.9         -           2008         -         2.5068         -         807         1.067         26.0         -           2010         -         0.9470         -         836         1					(14)		(16)					
Year         (B)+(11)         (12)/(13)         Weekly Wage         Factor         Years         Miner Years           2000         # 0.0000         \$ 1.2059         -         611         1.067         35.6         -           2001         -         1.4291         -         644         1.067         40.0         -           2002         -         1.1508         -         662         1.067         31.3         -           2003         -         1.1022         -         675         1.067         29.4         -           2004         -         1.0588         -         690         1.067         27.7         -           2005         -         1.0265         -         716         1.067         25.8         -           2006         -         1.0668         -         745         1.067         25.8         -           2007         -         1.1212         -         779         1.067         25.9         -           2008         -         2.5068         -         807         1.067         26.0         -           2010         -         0.9470         -         836         1.067												
2000       # 0.0000       \$ 1.2059       -       611       1.067       35.6       -         2001       -       1.4291       -       644       1.067       40.0       -         2002       -       1.1508       -       662       1.067       31.3       -         2003       -       1.1022       -       675       1.067       29.4       -         2004       -       1.0588       -       690       1.067       27.7       -         2005       -       1.0265       -       716       1.067       25.8       -         2006       -       1.0668       -       745       1.067       25.8       -         2007       -       1.1212       -       779       1.067       25.9       -         2008       -       2.5068       -       807       1.067       56.0       -         2009       -       0.9470       -       836       1.067       20.4       -         2010       -       0.8275       -       845       1.067       17.6       -         2011       -       1.1763       -       858       1.067 <t< td=""><td></td><td></td><td></td><td>(\$M)</td><td></td><td><del>-</del></td><td></td><td>Miner</td><td></td><td></td><td></td><td>-</td></t<>				(\$M)		<del>-</del>		Miner				-
2001       -       1.4291       -       644       1.067       40.0       -         2002       -       1.1508       -       662       1.067       31.3       -         2003       -       1.1022       -       675       1.067       29.4       -         2004       -       1.0588       -       690       1.067       27.7       -         2005       -       1.0265       -       716       1.067       25.8       -         2006       -       1.0668       -       745       1.067       25.8       -         2007       -       1.1212       -       779       1.067       25.9       -         2008       -       2.5068       -       807       1.067       56.0       -         2009       -       0.9470       -       836       1.067       20.4       -         2010       -       0.8275       -       845       1.067       17.6       -         2012       -       0.8082       -       888       1.067       16.4       -					(12)/(13)	Weekly Wage			Miner Years			
2002       -       1.1508       -       662       1.067       31.3       -         2003       -       1.1022       -       675       1.067       29.4       -         2004       -       1.0588       -       690       1.067       27.7       -         2005       -       1.0265       -       716       1.067       25.8       -         2006       -       1.0668       -       745       1.067       25.8       -         2007       -       1.1212       -       779       1.067       25.9       -         2008       -       2.5068       -       807       1.067       56.0       -         2009       -       0.9470       -       836       1.067       20.4       -         2010       -       0.8275       -       845       1.067       17.6       -         2011       -       1.1763       -       858       1.067       24.7       -         2012       -       0.8082       -       888       1.067       16.4       -			# 0.0000		-				-			
2003       -       1.1022       -       675       1.067       29.4       -         2004       -       1.0588       -       690       1.067       27.7       -         2005       -       1.0265       -       716       1.067       25.8       -         2006       -       1.0668       -       745       1.067       25.8       -         2007       -       1.1212       -       779       1.067       25.9       -         2008       -       2.5068       -       807       1.067       56.0       -         2009       -       0.9470       -       836       1.067       20.4       -         2010       -       0.8275       -       845       1.067       17.6       -         2011       -       1.1763       -       858       1.067       24.7       -         2012       -       0.8082       -       888       1.067       16.4       -			-		-				-			
2004       -       1.0588       -       690       1.067       27.7       -         2005       -       1.0265       -       716       1.067       25.8       -         2006       -       1.0668       -       745       1.067       25.8       -         2007       -       1.1212       -       779       1.067       25.9       -         2008       -       2.5068       -       807       1.067       56.0       -         2009       -       0.9470       -       836       1.067       20.4       -         2010       -       0.8275       -       845       1.067       17.6       -         2011       -       1.1763       -       858       1.067       24.7       -         2012       -       0.8082       -       888       1.067       16.4       -			-		-				-			
2005       -       1.0265       -       716       1.067       25.8       -         2006       -       1.0668       -       745       1.067       25.8       -         2007       -       1.1212       -       779       1.067       25.9       -         2008       -       2.5068       -       807       1.067       56.0       -         2009       -       0.9470       -       836       1.067       20.4       -         2010       -       0.8275       -       845       1.067       17.6       -         2011       -       1.1763       -       858       1.067       24.7       -         2012       -       0.8082       -       888       1.067       16.4       -			-		-	675			-			
2006       -       1.0668       -       745       1.067       25.8       -         2007       -       1.1212       -       779       1.067       25.9       -         2008       -       2.5068       -       807       1.067       56.0       -         2009       -       0.9470       -       836       1.067       20.4       -         2010       -       0.8275       -       845       1.067       17.6       -         2011       -       1.1763       -       858       1.067       24.7       -         2012       -       0.8082       -       888       1.067       16.4       -			-		-				-			
2007       -       1.1212       -       779       1.067       25.9       -         2008       -       2.5068       -       807       1.067       56.0       -         2009       -       0.9470       -       836       1.067       20.4       -         2010       -       0.8275       -       845       1.067       17.6       -         2011       -       1.1763       -       858       1.067       24.7       -         2012       -       0.8082       -       888       1.067       16.4       -			-		-				-			
2008       -       2.5068       -       807       1.067       56.0       -         2009       -       0.9470       -       836       1.067       20.4       -         2010       -       0.8275       -       845       1.067       17.6       -         2011       -       1.1763       -       858       1.067       24.7       -         2012       -       0.8082       -       888       1.067       16.4       -			-		-				-			
2009       -       0.9470       -       836       1.067       20.4       -         2010       -       0.8275       -       845       1.067       17.6       -         2011       -       1.1763       -       858       1.067       24.7       -         2012       -       0.8082       -       888       1.067       16.4       -			-		-				-			
2010       -       0.8275       -       845       1.067       17.6       -         2011       -       1.1763       -       858       1.067       24.7       -         2012       -       0.8082       -       888       1.067       16.4       -			-		-				-			
2011       -       1.1763       -       858       1.067       24.7       -         2012       -       0.8082       -       888       1.067       16.4       -			-		-				-			
2012 - 0.8082 - 888 1.067 16.4 -			-		-				-			
	2011		-	1.1763	-	858	1.067	24.7	-			
0010 0000 1040 00000 017 1047 004 0000	2012				-				-			
	2013		0.0000	1.0469	0.0000	917	1.067	20.6	0.0001			
2014 0.0000 0.8616 0.0000 932 1.067 16.7 0.0002	2014		0.0000	0.8616	0.0000	932	1.067	16.7	0.0002			
2015 0.0001 0.6548 0.0001 951 1.067 12.4 0.0006	2015		0.0001	0.6548	0.0001	951	1.067	12.4	0.0006			
2016 0.0001 0.3928 0.0002 978 1.067 7.2 0.0011	2016		0.0001	0.3928	0.0002	978	1.067	7.2	0.0011			
2017 0.0002 0.5663 0.0003 995 1.067 10.3 0.0015	2017		0.0002	0.5663	0.0003	995	1.067	10.3	0.0015			
2018 0.0003 0.6001 0.0005 1,025 1.067 10.6 0.0028	2018						1.067		0.0028			
<u>2019</u>							1.067					
Total 0.0010 20.1428 0.0001 464.6 0.0002									0.0002			

Sources: Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.15)xCol.(4);2000 & Prior (0.05)xCol.(4);2001 & Subseq.

Col.(7): (0.20)xCol.(6);2000 & Prior (1.00)xCol.(6);2001 & Subseq.

Col.(10): 40% of Exh. VII-C-1 thru VII-C-6

Col.(13): Exh. X-A

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IBNR Award Ratio (2000 & Prior): 0.4180

IBNR Award Ratio (2001 & Subseq.): 0.3424

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Col.(17): (13) / ((15) x (16) x 52) times 1000000

Col.(18): (12) / (17) x 100

Col.(15): Exhibit XII-D

Col.(16): Exhibit X-G

#### ANTHRACITE CO-GEN (0181)

			ounts								
	(1)	(2)	(3)	(4)	(5) Pending	(6) Denied	(7) Denied	(8) Ultimate	(9) Ultimate	(10)	(11) IBNR
Year	Reported	Awarded	Pending	Denied	Awarded (3) * 30%	Reopened		Awarded (2)+(5)+(7)	Denied (1)-(8)	IBNR	Awarded (10)xAwd Ratio
2000	# 0	# 0	# 0	# O	# 0.00	# 0.00	# 0.00	# 0.00	# 0.00	# 0.0000	# 0.0000
2001	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-
2003	1	-	-	1	-	0.05	0.05	0.05	0.95	-	-
2004	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-
2008 2009	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-
2010	_	_	_	_	_	_	_	_	_	_	_
2012	_	_	_	_	_	_	_	_	_	_	_
2013	-	=	-	-	-	_	-	-	_	0.0004	0.0001
2014	-	-	-	-	-	-	-	-	-	0.0011	0.0004
2015	-	=	-	-	-	-	-	-	-	0.0038	0.0013
2016	-	-	-	-	-	-	-	-	-	0.0058	0.0020
2017	-	-	-	-	-	-	-	-	-	0.0085	0.0029
2018	-	-	-	-	-	-	-	-	-	0.0174	0.0059
<u>2019</u> Total	1			<u>l</u>		<u>0.05</u> 0.10	<u>0.05</u> 0.10	<u>0.05</u> 0.10	<u>0.95</u> 1.90	<u>0.0172</u> 0.0542	<u>0.0059</u> 0.0186
		(12) Total Awarded	(13) Payroll (\$M)	(14) Frequency	(15) Statewide Average	(16) Adjustment	(17) Estimated Miner	(18) Frequency Per 100			_
Year		(8)+(11)		(12)/(13)	Weekly Wage	<u>Factor</u>	<u>Years</u>	Miner Years			
2000		# 0.0000	\$ 4.4735	-	611	1.067	132.0	-			
2001		-	4.6618	-	644	1.067	130.5	-			
2002		-	5.6588	-	662	1.067	154.1	-			
2003		0.0500	7.0096	0.0071	675	1.067	187.2	0.0267			
2004		-	7.3515	-	690	1.067	192.0	-			
2005		-	7.8553	-	716	1.067	197.7	-			
2006		_	8.4125	-	745	1.067	203.5	-			
2007		-	9.1867	-	779	1.067	212.5	-			
2008		-	7.5214	-	807	1.067	168.0	_			
2009		_	7.5347	-	836	1.067	162.4	_			
2010		_	7.9580	-	845	1.067	169.7	_			
2011		_	10.9816	_	858	1.067	230.7	_			
2012		_	9.3118	_	888	1.067	189.0	_			
2013		0.0001	7.6308	0.0000	917		150.0	0.0001			
2014		0.0004	8.3609	0.0000	932		161.7	0.0002			
2015		0.0013	9.5548	0.0001	951	1.067	181.1	0.0007			
2013		0.0013	7.9533	0.0001	978	1.067	146.6	0.0007			
2016		0.0020	7.7936	0.0003	995	1.067	141.2	0.0014			
2017						1.067					
		0.0059	10.0538	0.0006	1,025		176.8	0.0034			
2019		0.0559	6.8216	0.0082	1,049	1.067	117.2	0.0477			
Total		0.1186	156.0860	8000.0			3,403.9	0.0035			

Sources: Cols.(1) to (4): CMCRB Claims Database

Col.(7): (0.20)xCol.(6);2000 & Prior (1.00)xCol.(6);2001 & Subseq.

Col.(10): 40% of Exh. VII-C-1 thru VII-C-6

Col.(13): Exh. X-A

File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-07-L.xlsx]p 8 Run Date: September 18, 2020 - 11:14:55 AM

PAB Effective Date - April 01, 2021 103,966.958391

Col.(15): Exhibit XII-D

Col.(16): Exhibit X-G

Col.(18): (12) / (17) x 100

Col.(17): (13) / ((15) x (16) x 52)

times 1000000

IBNR Award Ratio (2000 & Prior): 0.4180 IBNR Award Ratio (2001 & Subseq.): 0.3424 Col.(6): (0.15)xCol.(4);2000 & Prior (0.05)xCol.(4);2001 & Subseq.

#### BITUMINOUS CO-GEN(0182)

			ounts								
	(1)	(2)	(3)	(4)	(5) Pending	(6) Denied	(7) Denied	(8) Ultimate	(9) Ultimate	(10)	(11) IBNR
Year	Reported	Awarded	Pending	Denied	Awarded (3) * 30%	Reopened		Awarded (2)+(5)+(7)	Denied (1)-(8)	IBNR	Awarded (10)xAwd Ratio
2000	# 0	# 0	# 0	# 0	# 0.00	# 0.00	# 0.00	# 0.00	# 0.00	# 0.0000	# 0.0000
2001	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-
2006 2007	-	-	-	- 1	-	0.05	0.05	0.05	0.95	-	-
2007	-	-	-		-	0.03	0.03	0.03	0.73	-	_
2009	_	_	_	_	_	_	_	_	_	_	-
2010	-	-	-	-	-	-	-	_	_	_	-
2011	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-
2013	-	-	-	-	-	-	-	-	-	0.0004	0.0002
2014	-	-	-	-	-	-	-	-	-	0.0014	0.0005
2015 2016	-	-	-	-	-	-	-	-	-	0.0043 0.0074	0.0015 0.0025
2016	-	-	-	_	-	_	-	-	-	0.0074	0.0023
2018	_	_	_	_	_	_	_	_	_	0.0180	0.0062
2019								<u></u>		0.0248	0.0085
Total	1	_	-	1	-	0.05	0.05	0.05	0.95	0.0674	0.0231
		(12) Total	(13) Payroll	(14)	(15) Statewide	(16)	(17) Estimated	(18) Frequency			
		Awarded	(\$M)	Frequency	Average	Adjustment		Per 100			-
Year		<u>(8)+(11)</u>		(12)/(13)	Weekly Wage	= '	<u>Years</u>	Miner Years			
2000		# 0.0000	\$ 1.8707	-	611	1.067	55.2	-			
2001		-	2.1213	-	644		59.4	-			
2002		-	2.3861	-	662		65.0	-			
2003		-	3.0525	-	675		81.5	-			
2004		-	6.3745	-	690		166.5	-			
2005		-	8.5248	-	716		214.6	-			
2006		-	9.4236	-	745		228.0	-			
2007		0.0500	10.8291	0.0046	779	1.067	250.5	0.0200			
2008		-	8.4819	-	807	1.067	189.4	-			
2009		-	7.8664	-	836		169.6	-			
2010		-	8.7327	-	845		186.3	-			
2011		-	9.1024	-	858	1.067	191.2	-			
2012		-	9.0477	-	888	1.067	183.6	-			
2013		0.0002	10.3559	0.0000	917	1.067	203.5	0.0001			
2014		0.0005	11.7212	0.0000	932	1.067	226.7	0.0002			
2015		0.0015	11.7482	0.0001	951	1.067	222.7	0.0007			
2016		0.0025	11.3276	0.0002	978	1.067	208.8	0.0012			
2017		0.0038	11.4351	0.0003	995	1.067	207.1	0.0018			
2018		0.0062	12.0433	0.0005	1,025	1.067	211.8	0.0029			
2019		0.0085	11.8072	0.0007	1,049	1.067	202.9	0.0042			
Total		0.0731	168.2522	0.0004			3,524.3	0.0021			

Sources: Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.15)xCol.(4);2000 & Prior (0.05)xCol.(4);2001 & Subseq.

Col.(7): (0.20)xCol.(6);2000 & Prior (1.00)xCol.(6);2001 & Subseq.

Col.(10): 40% of Exh. VII-C-1 thru VII-C-6

Col.(13): Exh. X-A

Col.(15): Exhibit XII-D Col.(16): Exhibit X-G

Col.(17): (13) / ((15) x (16) x 52) times 1000000

Col.(18): (12) / (17) x 100

IBNR Award Ratio (2000 & Prior): 0.4180

IBNR Award Ratio (2001 & Subseq.): 0.3424

#### ANTHRACITE PREP PLANT(0183)

		Co	ounts								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Reported	Awarded	Pending	Denied	Pending Awarded	Denied Reopened	Denied Awarded	Ultimate Awarded	Ultimate Denied	IBNR	IBNR Awarded
Year	коропса	/waraca	ronaing	Defiled	(3) * 30%	ксоропса	, waraca	(2)+(5)+(7)	(1)-(8)	IDIAK	(10)xAwd Ratio
2000	# 0	# 0	# 0	# O	# 0.00	# 0.00	# 0.00	# 0.00	# 0.00	# 0.0000	# 0.0000
2001	-	=	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	_	-	-	-	-	-
2007	I	-	-	I	-	0.05	0.05	0.05	0.95	-	-
2008	-	-	-	-	-	-	-	-	-	-	-
2009 2010	-	-	-	-	-	-	-	1.00	-	-	-
2010	ı	ı	-	-	-	-	-	1.00	-	-	-
2011	_	_	_	_	-	_	_	_	_	_	_
2012	_	_	_	_	_	_	_	_	_	0.0008	0.0003
2014	1	_	_	1	_	0.05	0.05	0.05	0.95	0.0025	0.0009
2015	1	1	-	-	-	-	-	1.00	-	0.0069	0.0024
2016	-	-	-	-	-	_	_	-	_	0.0114	0.0039
2017	-	-	-	-	-	-	-	-	-	0.0187	0.0064
2018	-	-	-	-	-	-	-	-	-	0.0361	0.0124
<u>2019</u>										0.0664	0.0227
Total	4	2	-	2	-	0.10	0.10	2.10	1.90	0.1429	0.0489
		(12) Total	(13) Payroll	(14)	(15) Statewide	(16)	(17) Estimated	(18) Frequency			
		Awarded	(\$M)	Frequency	Average	Adjustment	Miner	Per 100			
Year		(8)+(11)	(ψ )	(12)/(13)	Weekly Wage		<u>Years</u>	Miner Years			-
2000		# 0.0000	\$ 1.3195	<u> </u>	611	1.067	38.9	MINCH TEGIS			
2000		π 0.0000	2.2163	_	644		62.0	_			
				_				_			
2002		-	2.3228	-	662		63.2	-			
2003		-	3.4080	-	675		91.0	_			
2004		-	4.4067	-	690		115.1	-			
2005		-	5.1701	-	716		130.1	-			
2006		-	4.8859	-	745		118.2	-			
2007		0.0500	5.8173	0.0086	779	1.067	134.6	0.0371			
2008		-	5.7335	-	807	1.067	128.0	-			
2009		-	6.2646	-	836	1.067	135.1	-			
2010		1.0000	4.8769	0.2050	845	1.067	104.0	0.9615			
2011		-	6.1233	-	858	1.067	128.6	-			
2012		-	7.5690	-	888	1.067	153.6	-			
2013		0.0003	7.0749	0.0000	917		139.1	0.0002			
2014		0.0509	6.5215	0.0078	932		126.1	0.0403			
2015		1.0024	6.1966	0.1618	951		117.4	0.8538			
2016		0.0039	5.5430	0.0007	978		102.1	0.0038			
2017		0.0064	6.0568	0.0011	995		109.7	0.0058			
2018		0.0124	6.9168	0.0018	1,025		121.6	0.0102			
2019		0.0227	10.5848	0.0021	1,049	1.067	181.9	0.0125			
Total		2.1489	109.0083	0.0197			2,300.3	0.0934			

Sources: Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.15)xCol.(4);2000 & Prior (0.05)xCol.(4);2001 & Subseq.

Col.(7): (0.20)xCol.(6);2000 & Prior (1.00)xCol.(6);2001 & Subseq.

Col.(10): 40% of Exh. VII-C-1 thru VII-C-6

Col.(13): Exh. X-A

IBNR Award Ratio (2000 & Prior): 0.4180

IBNR Award Ratio (2001 & Subseq.): 0.3424

PAB Effective Date - April 01, 2021 101,684.226037

Col.(15): Exhibit XII-D

Col.(16): Exhibit X-G

Col.(18): (12) / (17) x 100

Col.(17): (13) / ((15) x (16) x 52)

times 1000000

File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-07-L.xlsx]p 10 Run Date: September 18, 2020 - 11:14:55 AM

#### **BITUMINOUS PREP PLANT(0184)**

Per   Per				ounts								
Reported   Morarded   Pending   Denied   Signature   Reported   Morarded   Pending   Signature   Pending   Pendi		(1)			(4)						(10)	
2000	Year	Reported	Awarded	Pending	Denied	Awarded			Awarded	Denied	IBNR	Awarded
2001		# 1	# 0	# 0	# 1		# 0.15	# 0.03			# 0.0000	
2003		-	-	-	-	-	_	-	-	-	-	-
2004	2002	-	-	-	-	-	-	-	-	-	-	-
2005		-	-	-	-	-	-	-	-	-	-	-
2006		-	-	-	-	-	-	-	-	-	-	-
2007		-	-	-	-	-	-	-	-	-	-	-
2008		-	-	-	-	-	-	-	-	-	-	-
2009		-	-	-	-	-	-	-	-	-	-	-
2010		_	_	_	_	_	_	_	_	-	_	_
2011		_	_	_	_	_	_	_	_	_	_	_
2013		-	_	-	_	-	_	_	_	_	_	-
2014	2012	-	-	-	-	-	-	-	-	-	-	-
2015	2013	-	-	-	-	-	-	-	-	-	0.0014	
2016		-	-	-	-	-	-	-	-	-		
2017   -		-	-	-	-	-	-	-	-	-		
2018   -		-	-	-	-	-	-	-	-	-		
Company		-	-	-	-	-	-	-	-			
Total   1		-	-	-	-	-	-	-	-	-		
(12)         (13)         (14)         (15)         (16)         (17)         (18)           Total         Payroll         Statewide         Estimated         Frequency           Awarded         (\$M)         Frequency         Average         Adjustment         Miner         Per 100           2000         # 0.0300         \$ 8.5748         0.0035         611         1.573         171.6         0.0175           2001         - 10.1550         - 644         1.573         192.8         -           2002         - 10.0945         - 662         1.573         186.4         -           2004         - 13.4602         - 675         1.573         184.7         -           2005         - 16.5483         - 716         1.573         282.6         -           2006         - 17.0510         - 745         1.573         282.6         -           2007         - 18.8952         - 779         1.573         290.5         -           2008         - 21.2503         - 807         1.573         290.0         -           2009         - 19.8280         - 836         1.573         290.0         -           2011         - 26.3131         -		<u></u>			<u>-</u>		0.15	0.03	0.03	0.97		
2000         # 0.0300         \$ 8.5748         0.0035         611         1.573         171.6         0.0175           2001         - 10.1550         - 644         1.573         192.8         -           2002         - 10.0945         - 662         1.573         186.4         -           2003         - 10.1952         - 675         1.573         184.7         -           2004         - 13.4602         - 690         1.573         238.5         -           2005         - 16.5483         - 716         1.573         282.6         -           2006         - 17.0510         - 745         1.573         279.8         -           2007         - 18.8952         - 779         1.573         296.5         -           2008         - 21.2503         - 807         1.573         290.0         -           2010         - 26.3131         - 845         1.573         380.7         -           2011         - 35.1551         - 858         1.573         500.9         -           2012         - 34.2117         - 888         1.573         471.0         -           2013         0.0005         33.6400         0.0000         917<			Total	Payroll		Statewide		Estimated	Frequency			
2001       -       10.1550       -       644       1.573       192.8       -         2002       -       10.0945       -       662       1.573       186.4       -         2003       -       10.1952       -       675       1.573       184.7       -         2004       -       13.4602       -       690       1.573       238.5       -         2005       -       16.5483       -       716       1.573       282.6       -         2006       -       17.0510       -       745       1.573       279.8       -         2007       -       18.8952       -       779       1.573       296.5       -         2008       -       21.2503       -       807       1.573       321.9       -         2009       -       19.8280       -       836       1.573       290.0       -         2011       -       35.1551       -       858       1.573       380.7       -         2012       -       34.2117       -       888       1.573       471.0       -         2013       0.0005       33.6400       0.0000       917	Year		(8)+(11)		(12)/(13)	Weekly Wage	<u>Factor</u>	<u>Years</u>	Miner Years			_
2002       -       10.0945       -       662       1.573       186.4       -         2003       -       10.1952       -       675       1.573       184.7       -         2004       -       13.4602       -       690       1.573       238.5       -         2005       -       16.5483       -       716       1.573       282.6       -         2006       -       17.0510       -       745       1.573       279.8       -         2007       -       18.8952       -       779       1.573       296.5       -         2008       -       21.2503       -       807       1.573       321.9       -         2009       -       19.8280       -       836       1.573       290.0       -         2010       -       26.3131       -       845       1.573       380.7       -         2011       -       35.1551       -       888       1.573       500.9       -         2013       0.0005       33.4400       0.0000       917       1.573       448.5       0.0001         2014       0.0018       31.8544       0.0001 <td< td=""><td>2000</td><td></td><td># 0.0300</td><td>\$ 8.5748</td><td>0.0035</td><td>611</td><td>1.573</td><td>171.6</td><td>0.0175</td><td></td><td></td><td></td></td<>	2000		# 0.0300	\$ 8.5748	0.0035	611	1.573	171.6	0.0175			
2003       -       10.1952       -       675       1.573       184.7       -         2004       -       13.4602       -       690       1.573       238.5       -         2005       -       16.5483       -       716       1.573       282.6       -         2006       -       17.0510       -       745       1.573       279.8       -         2007       -       18.8952       -       779       1.573       296.5       -         2008       -       21.2503       -       807       1.573       321.9       -         2009       -       19.8280       -       836       1.573       290.0       -         2010       -       26.3131       -       845       1.573       380.7       -         2011       -       35.1551       -       858       1.573       500.9       -         2012       -       34.2117       -       888       1.573       471.0       -         2013       0.0005       33.6400       0.0000       917       1.573       448.5       0.0001         2014       0.0018       31.8544       0.0001 <td< td=""><td>2001</td><td></td><td>-</td><td>10.1550</td><td>-</td><td>644</td><td>1.573</td><td>192.8</td><td>_</td><td></td><td></td><td></td></td<>	2001		-	10.1550	-	644	1.573	192.8	_			
2004       -       13.4602       -       690       1.573       238.5       -         2005       -       16.5483       -       716       1.573       282.6       -         2006       -       17.0510       -       745       1.573       279.8       -         2007       -       18.8952       -       779       1.573       296.5       -         2008       -       21.2503       -       807       1.573       321.9       -         2009       -       19.8280       -       836       1.573       290.0       -         2010       -       26.3131       -       845       1.573       380.7       -         2011       -       35.1551       -       858       1.573       500.9       -         2012       -       34.2117       -       888       1.573       471.0       -         2013       0.0005       33.6400       0.0000       917       1.573       448.5       0.0001         2014       0.0018       31.8544       0.0001       932       1.573       417.9       0.0014         2015       0.0042       24.3206       0.0002	2002		-	10.0945	-	662	1.573	186.4	_			
2004       -       13.4602       -       690       1.573       238.5       -         2005       -       16.5483       -       716       1.573       282.6       -         2006       -       17.0510       -       745       1.573       279.8       -         2007       -       18.8952       -       779       1.573       296.5       -         2008       -       21.2503       -       807       1.573       321.9       -         2009       -       19.8280       -       836       1.573       290.0       -         2010       -       26.3131       -       845       1.573       380.7       -         2011       -       35.1551       -       858       1.573       500.9       -         2012       -       34.2117       -       888       1.573       471.0       -         2013       0.0005       33.6400       0.0000       917       1.573       448.5       0.0001         2014       0.0018       31.8544       0.0001       932       1.573       417.9       0.0014         2015       0.0042       24.3206       0.0002	2003		-	10.1952	-	675	1.573	184.7	_			
2005       -       16.5483       -       716       1.573       282.6       -         2006       -       17.0510       -       745       1.573       279.8       -         2007       -       18.8952       -       779       1.573       296.5       -         2008       -       21.2503       -       807       1.573       321.9       -         2009       -       19.8280       -       836       1.573       290.0       -         2010       -       26.3131       -       845       1.573       380.7       -         2011       -       35.1551       -       858       1.573       500.9       -         2012       -       34.2117       -       888       1.573       471.0       -         2013       0.0005       33.6400       0.0000       917       1.573       448.5       0.0001         2014       0.0018       31.8544       0.0001       932       1.573       417.9       0.0004         2015       0.0042       24.3206       0.0002       951       1.573       312.7       0.0013         2016       0.0053       20.0794	2004		_	13.4602	-	690	1.573		_			
2006       -       17.0510       -       745       1.573       279.8       -         2007       -       18.8952       -       779       1.573       296.5       -         2008       -       21.2503       -       807       1.573       321.9       -         2009       -       19.8280       -       836       1.573       290.0       -         2010       -       26.3131       -       845       1.573       380.7       -         2011       -       35.1551       -       858       1.573       500.9       -         2012       -       34.2117       -       888       1.573       471.0       -         2013       0.0005       33.6400       0.0000       917       1.573       448.5       0.0001         2014       0.0018       31.8544       0.0001       932       1.573       417.9       0.0004         2015       0.0042       24.3206       0.0002       951       1.573       312.7       0.0013         2016       0.0053       20.0794       0.0003       978       1.573       353.9       0.0027         2018       0.0165 <td< td=""><td>2005</td><td></td><td>_</td><td></td><td>-</td><td>716</td><td></td><td></td><td>_</td><td></td><td></td><td></td></td<>	2005		_		-	716			_			
2007       -       18.8952       -       779       1.573       296.5       -         2008       -       21.2503       -       807       1.573       321.9       -         2009       -       19.8280       -       836       1.573       290.0       -         2010       -       26.3131       -       845       1.573       380.7       -         2011       -       35.1551       -       858       1.573       500.9       -         2012       -       34.2117       -       888       1.573       471.0       -         2013       0.0005       33.6400       0.0000       917       1.573       448.5       0.0001         2014       0.0018       31.8544       0.0001       932       1.573       417.9       0.0004         2015       0.0042       24.3206       0.0002       951       1.573       312.7       0.0013         2016       0.0053       20.0794       0.0003       978       1.573       353.9       0.0027         2018       0.0165       32.1999       0.0005       1,025       1.573       384.1       0.0043         2019       0.02	2006		_	17.0510	_	745			_			
2008       -       21.2503       -       807       1.573       321.9       -         2009       -       19.8280       -       836       1.573       290.0       -         2010       -       26.3131       -       845       1.573       380.7       -         2011       -       35.1551       -       858       1.573       500.9       -         2012       -       34.2117       -       888       1.573       471.0       -         2013       0.0005       33.6400       0.0000       917       1.573       448.5       0.0001         2014       0.0018       31.8544       0.0001       932       1.573       417.9       0.0004         2015       0.0042       24.3206       0.0002       951       1.573       312.7       0.0013         2016       0.0053       20.0794       0.0003       978       1.573       251.0       0.0021         2017       0.0095       28.8035       0.0003       995       1.573       384.1       0.0043         2019       0.0270       37.6233       0.0007       1,049       1.573       438.5       0.0062	2007		_	18.8952	-	779	1.573	296.5	_			
2009       -       19.8280       -       836       1.573       290.0       -         2010       -       26.3131       -       845       1.573       380.7       -         2011       -       35.1551       -       858       1.573       500.9       -         2012       -       34.2117       -       888       1.573       471.0       -         2013       0.0005       33.6400       0.0000       917       1.573       448.5       0.0001         2014       0.0018       31.8544       0.0001       932       1.573       417.9       0.0004         2015       0.0042       24.3206       0.0002       951       1.573       312.7       0.0013         2016       0.0053       20.0794       0.0003       978       1.573       251.0       0.0021         2017       0.0095       28.8035       0.0003       995       1.573       384.1       0.0043         2019       0.0270       37.6233       0.0007       1,049       1.573       438.5       0.0062	2008		_		-	807			_			
2010       -       26.3131       -       845       1.573       380.7       -         2011       -       35.1551       -       858       1.573       500.9       -         2012       -       34.2117       -       888       1.573       471.0       -         2013       0.0005       33.6400       0.0000       917       1.573       448.5       0.0001         2014       0.0018       31.8544       0.0001       932       1.573       417.9       0.0004         2015       0.0042       24.3206       0.0002       951       1.573       312.7       0.0013         2016       0.0053       20.0794       0.0003       978       1.573       251.0       0.0021         2017       0.0095       28.8035       0.0003       995       1.573       353.9       0.0027         2018       0.0165       32.1999       0.0005       1,025       1.573       384.1       0.0043         2019       0.0270       37.6233       0.0007       1,049       1.573       438.5       0.0062			_		_				_			
2011       -       35.1551       -       858       1.573       500.9       -         2012       -       34.2117       -       888       1.573       471.0       -         2013       0.0005       33.6400       0.0000       917       1.573       448.5       0.0001         2014       0.0018       31.8544       0.0001       932       1.573       417.9       0.0004         2015       0.0042       24.3206       0.0002       951       1.573       312.7       0.0013         2016       0.0053       20.0794       0.0003       978       1.573       251.0       0.0021         2017       0.0095       28.8035       0.0003       995       1.573       353.9       0.0027         2018       0.0165       32.1999       0.0005       1,025       1.573       384.1       0.0043         2019       0.0270       37.6233       0.0007       1,049       1.573       438.5       0.0062			_		_				_			
2012       -       34.2117       -       888       1.573       471.0       -         2013       0.0005       33.6400       0.0000       917       1.573       448.5       0.0001         2014       0.0018       31.8544       0.0001       932       1.573       417.9       0.0004         2015       0.0042       24.3206       0.0002       951       1.573       312.7       0.0013         2016       0.0053       20.0794       0.0003       978       1.573       251.0       0.0021         2017       0.0095       28.8035       0.0003       995       1.573       353.9       0.0027         2018       0.0165       32.1999       0.0005       1,025       1.573       384.1       0.0043         2019       0.0270       37.6233       0.0007       1,049       1.573       438.5       0.0062			_		_				_			
2013       0.0005       33.6400       0.0000       917       1.573       448.5       0.0001         2014       0.0018       31.8544       0.0001       932       1.573       417.9       0.0004         2015       0.0042       24.3206       0.0002       951       1.573       312.7       0.0013         2016       0.0053       20.0794       0.0003       978       1.573       251.0       0.0021         2017       0.0095       28.8035       0.0003       995       1.573       353.9       0.0027         2018       0.0165       32.1999       0.0005       1,025       1.573       384.1       0.0043         2019       0.0270       37.6233       0.0007       1,049       1.573       438.5       0.0062			_		_				_			
2014       0.0018       31.8544       0.0001       932       1.573       417.9       0.0004         2015       0.0042       24.3206       0.0002       951       1.573       312.7       0.0013         2016       0.0053       20.0794       0.0003       978       1.573       251.0       0.0021         2017       0.0095       28.8035       0.0003       995       1.573       353.9       0.0027         2018       0.0165       32.1999       0.0005       1,025       1.573       384.1       0.0043         2019       0.0270       37.6233       0.0007       1,049       1.573       438.5       0.0062												
2015     0.0042     24.3206     0.0002     951     1.573     312.7     0.0013       2016     0.0053     20.0794     0.0003     978     1.573     251.0     0.0021       2017     0.0095     28.8035     0.0003     995     1.573     353.9     0.0027       2018     0.0165     32.1999     0.0005     1,025     1.573     384.1     0.0043       2019     0.0270     37.6233     0.0007     1,049     1.573     438.5     0.0062												
2016       0.0053       20.0794       0.0003       978       1.573       251.0       0.0021         2017       0.0095       28.8035       0.0003       995       1.573       353.9       0.0027         2018       0.0165       32.1999       0.0005       1,025       1.573       384.1       0.0043         2019       0.0270       37.6233       0.0007       1,049       1.573       438.5       0.0062												
2017       0.0095       28.8035       0.0003       995       1.573       353.9       0.0027         2018       0.0165       32.1999       0.0005       1,025       1.573       384.1       0.0043         2019       0.0270       37.6233       0.0007       1,049       1.573       438.5       0.0062												
2018       0.0165       32.1999       0.0005       1,025       1.573       384.1       0.0043         2019       0.0270       37.6233       0.0007       1,049       1.573       438.5       0.0062												
<u>2019</u> <u>0.0270</u> <u>37.6233</u> <u>0.0007</u> 1,049 1.573 <u>438.5</u> <u>0.0062</u>												
						1,049	1.3/3					

Sources: Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.15)xCol.(4);2000 & Prior (0.05)xCol.(4);2001 & Subseq. Col.(7): (0.20)xCol.(6);2000 & Prior

(1.00)xCol.(6);2001 & Subseq.

Col.(10): 40% of Exh. VII-C-1 thru VII-C-6 Col.(13): Exh. X-A

File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-07-L.xlsx]p 11 Run Date: September 18, 2020 - 11:14:55 AM

IBNR Award Ratio (2000 & Prior): 0.4180

IBNR Award Ratio (2001 & Subseq.): 0.3424

Col.(17): (13) / ((15) x (16) x 52) times 1000000 Col.(18): (12) / (17) x 100

Col.(15): Exhibit XII-D

Col.(16): Exhibit X-G

PAB Effective Date - April 01, 2021 110,559.827488

#### **TOTAL OTHER CLASSES**

		Co	ounts								
	(1)	(2)	(3)	(4)	(5) Pending	(6) Denied	(7) Denied	(8) Ultimate	(9) Ultimate	(10)	(11) IBNR
Year	Reported	Awarded	Pending	Denied	Awarded (3) * 30%	Reopened		Awarded (2)+(5)+(7)	Denied (1)-(8)	IBNR	Awarded (10)xAwd Ratio
2000	# 1	# 0	# 0	# 1	# 0.00	# 0.15	# 0.03	# 0.03	# 0.97	# 0.0000	# 0.0000
2001	-	-	-	-	-	_	-	-	_	-	-
2002	-	-	-	-	-	-	-	_	-	-	-
2003	1	-	-	1	-	0.05	0.05	0.05	0.95	-	-
2004	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	- 0.10	0.10	- 0.10	1.00	-	-
2007 2008	2	-	-	2	-	0.10	0.10	0.10	1.90	-	-
2009	_	_	_	_	_	_	_	- -	_	_	_
2010	1	1	_	_	_	_	_	1.00	_	_	_
2011	-	-	-	_	-	_	_	-	_	_	-
2012	-	-	-	-	-	-	-	-	-	-	-
2013	-	-	-	-	-	-	-	-	-	0.0033	0.0011
2014	1	-	-	1	-	0.05	0.05	0.05	0.95	0.0110	0.0038
2015	1	1	-	-	-	-	-	1.00	-	0.0290	0.0099
2016	-	-	-	-	-	-	-	-	-	0.0432	0.0148
2017	-	-	-	-	-	-	-	_	-	0.0710	0.0243
2018 <u>2019</u>	-	-	-	- 1	-	0.05	0.05	0.05	0.95	0.1274 0.1981	0.0436 0.0678
<u>2017</u> Total	8	2		6		0.40	0.03	2.28	5.72	0.4829	0.1653
		(12) Total Awarded	(13) Payroll (\$M)	(14) Frequency	(15) Statewide Average	(16) Adjustment	(17) Estimated Miner	(18) Frequency Per 100			
Voor		(8)+(11)	(ψινι)	(12)/(13)	Weekly Wage	•					-
Year 2000		# 0.0300	¢ 20 E270	0.0010	611	<u>Factor</u>	<u>Years</u> 790.0	Miner Years			
2000		# U.U3UU -	\$ 29.5370 30.9593	0.0010	644		770.0	0.0038			
2001			32.0980	_	662		785.5	_			
		- 0.0500		0.001.4				- 0.0057			
2003		0.0500	36.3016	0.0014	675		881.8	0.0057			
2004		-	44.7008	-	690		1,054.5	-			
2005		-	51.9860	-	716		1,174.5	-			
2006		- 0.1000	53.5772	- 0.0017	745		1,163.4	0.0001			
2007		0.1000	59.5194	0.0017	779		1,236.3	0.0081			
2008		-	55.2550	-	807		1,081.3	-			
2009		1 0000	47.6143	-	836		889.0	- 100/			
2010		1.0000	54.1439	0.0185	845		974.2	0.1026			
2011		-	66.1378	-	858		1,151.7	-			
2012		-	66.6865	-	888		1,130.1	- 0.0001			
2013		0.0011	64.5404	0.0000	917		1,055.9	0.0001			
2014		0.0538	63.7840	0.0008	932		1,035.4	0.0052			
2015		1.0099	56.8154	0.0178	951		928.6	0.1088			
2016		0.0148	49.7312	0.0003	978		797.4	0.0019			
2017		0.0243	59.2214	0.0004	995		904.9	0.0027			
2018		0.0436	66.2986	0.0007	1,025		983.8	0.0044			
<u>2019</u>		0.1178	72.0566	0.0016	1,049		1,030.2	0.0114			
Total		2.4453	1,060.9644	0.0023			19,823.6	0.0123			

Sources: Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.15)xCol.(4);2000 & Prior (0.05)xCol.(4);2001 & Subseq.

Col.(7): (0.20)xCol.(6);2000 & Prior (1.00)xCol.(6);2001 & Subseq.

Col.(10): 40% of Exh. VII-C-1 thru VII-C-6

Col.(13): Sum of Pages 6 to 11

File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-07-L.xlsx]p 12 Run Date: September 18, 2020 - 11:14:55 AM

IBNR Award Ratio (2000 & Prior): 0.4180

IBNR Award Ratio (2001 & Subseq.): 0.3424

Effective Date - April 01, 2021

Col.(15): Exhibit XII-D

Col.(17): Total of other classes

Col.(18): (12) / (17) x 100

Col.(16): N/A

PAB 138,637.749803

#### **GRAND TOTAL**

		С	ounts							·	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
					Pending	Denied	Denied	Ultimate	Ultimate		IBNR
	Reported	Awarded	Pending	Denied	Awarded	Reopened	Awarded	Awarded	Denied	IBNR	Awarded
Year					<u>(3) * 30%</u>	# 0 45	# 0.00	<u>(2)+(5)+(7)</u>	<u>(1)-(8)</u>	# 0 0000	(10)xAwd Ratio
2000 2001	# 5 3	# 2 2	# 0	# 3 1	# 0.00	# 0.45 0.05	# 0.09 0.05	# 2.09 2.05	# 2.91 0.95	# 0.0000	# 0.0000
2002	1	_	_	1	-	0.05	0.05	0.05	0.75	_	-
2003	3	1	_	2	_	0.10	0.10	1.10	1.90	_	_
2004	2	1	_	1	-	0.05	0.05	1.05	0.95	_	-
2005	1	1	-	-	-	-	-	1.00	-	-	-
2006	1	-	-	1	-	0.05	0.05	0.05	0.95	-	-
2007	4	-	1	3	0.30	0.15	0.15	0.45	3.55	-	-
2008	2	1	-	1	-	0.05	0.05	1.05	0.95	-	-
2009	-	-	-	-	-	-	-	_	-	-	-
2010	2	2	-	-	-	-	-	2.00	-	-	-
2011	3	3	-	-	-	- 0.05	- 0.05	3.00	475	-	-
2012 2013	6 7	1	3	5 3	0.90	0.25 0.15	0.25 0.15	1.25 2.05	4.75 4.95	0.0339	0.0116
2013	7	1	3	6	0.90	0.13	0.13	1.30	5.70	0.0337	0.0524
2014	8	1	4	3	1.20	0.30	0.30	2.35	5.65	0.1331	0.0959
2016	4	· -	i	3	0.30	0.15	0.15	0.45	3.55	0.3990	0.1366
2017	=	_	-	-	-	-	-	-	-	0.7587	0.2598
2018	3	-	2	1	0.60	0.05	0.05	0.65	2.35	1.2260	0.4198
2019	2		1	1	0.30	0.05	0.05	0.35	1.65	1.8225	0.6240
Total	64	17	12	35	3.60	2.05	1.69	22.29	41.71	4.6732	1.6001
		(12) Total	(13) Payroll	(14)	(15) Statewide	(16)	(17) Estimated	(18) Frequency			
		Awarded	(\$M)	Frequency	Average	Adjustment	Miner	Per 100			
Year		(8)+(11)	(ψ/ν/)	(12)/(13)	Weekly Wage	•		Miner Years			-
2000		# 2.0900	\$ 145.1712	0.0144	<u>weekly wage</u> 611	<u>racioi</u>	<u>Years</u> 3,750.0	0.0557			
2000		2.0500			644			0.0537			
			152.1934	0.0135			3,731.1				
2002		0.0500	138.8712	0.0004	662		3,334.7	0.0015			
2003		1.1000	133.9562	0.0082	675		3,175.9	0.0346			
2004		1.0500	160.6970	0.0065	690		3,697.1	0.0284			
2005		1.0000	196.6919	0.0051	716		4,280.4	0.0234			
2006		0.0500	201.3494	0.0002	745		4,190.0	0.0012			
2007		0.4500	220.7609	0.0020	779		4,372.2	0.0103			
2008		1.0500	249.5671	0.0042	807		4,692.8	0.0224			
2009		-	229.4985	-	836		4,107.3	-			
2010		2.0000	268.4115	0.0075	845		4,684.0	0.0427			
2011		3.0000	323.1193	0.0093	858		5,546.6	0.0541			
2012		1.2500	323.9599	0.0039	888		5,348.8	0.0234			
2013		2.0616	293.5067	0.0070	917		4,638.4	0.0444			
2014		1.3524	321.7547	0.0042	932		4,883.0	0.0277			
2015		2.4459	261.8745	0.0093	951		3,957.9	0.0618			
2016		0.5866	217.8288	0.0027	978		3,192.5	0.0184			
2017		0.2598	285.5262	0.0027	995		3,997.9	0.0065			
2017		1.0698	301.6904	0.0007	1,025		4,101.3	0.0063			
<u>2019</u>		0.9740	315.2275	0.0031	1,049		4,180.4	0.0233			
Total		23.8901	4,741.6563	0.0050			83,862.3	0.0285			

Sources: Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.15)xCol.(4);2000 & Prior (0.05)xCol.(4);2001 & Subseq. Col.(7): (0.20)xCol.(6);2000 & Prior

(1.00)xCol.(6);2001 & Subseq. Col.(10): 40% of Exh. VII-C-1 thru VII-C-6

Col.(10): 40% of Exh. VII-C-1 thru VII-C Col.(13): Sum of Pages 5 & 12

Col.(13): Su

IBNR Award Ratio (2000 & Prior): 0.4180

IBNR Award Ratio (2001 & Subseq.): 0.3424

PAB Effective Date - April 01, 2021 274,480.380241

Col.(15): Exhibit XII-D

Col.(17): Total of all classes

Col.(18): (12) / (17) x 100

Col.(16): N/A

## Coal Mine Compensation Rating Bureau Summary of Individual Claim Detail for Federal Basic Claims from Exposure Years 1990 to 2019

### Federal Basic Severities

Underground Anthracite Class 1	Indemnity <b>60</b>	Medical	Total
Total Number of Claims Average	7,871,931 21 374,854	21	9,283,135 21 442,054
Underground Bituminous Class	158		
Total Number of Claims Average	28,766,774 84 342,462	84	• •
Surface Anthracite Class 153			
Total Number of Claims Average	13,953,808 45 310,085		
Surface Bituminous Class 156			
Total Number of Claims Average	19,521,697 65 300,334	3,582,578 65 55,117	65
Four Standard Classes Combine	d		
Total Number of Claims Average	70,114,209 215 326,113	13,253,898 215 61,646	83,368,107 215 387,759
Other Classes			
Total Number of Claims Average	4,364,093 14 311,721	887,856 14 63,418	5,251,949 14 375,139
All Classes Combined			
Total Number of Claims Average	74,478,301 229 325,233	14,141,755 229 61,754	88,620,056 229 386,987

Source: Exhibit IX-B

#### COAL MINE COMPENSATION RATING BUREAU

#### FEDERAL BASIC OCCUPATIONAL DISEASE

ANTHRACITE UN	NDERGROUNI	0 (0160)					0.000		F t 1	Ct-ti-l-		Falian aska al	F	
						IBNR +	0.200 Award		Expected Ultimate	Statewide Average	Adjustment	Estimated Miner	Frequency Claims per 100	Weighted
<u>Year</u> 2010	Reported 0	Awarded 0	Pending 0	Denied 0	<u>IBNR</u> 0.1772	Pending 0.1772	<u>Ratio</u> 0.035434	Payroll 1,299,588	0.035434	Weekly Wage 845	<u>Factor</u> 1.067	<u>Years</u> 27.7	Miner Years 0.127921	Frequency
2011	2	0	0	2	0.2413	0.2413	0.048258	1,257,944	0.048258	858	1.067	26.4	0.182795	
2012 2013	0 2	0	0	0 2	0.2558 0.1166	0.2558 0.1166	0.051164 0.023322	1,029,260 381,876	0.051164 0.023322	888 91 <i>7</i>	1.067 1.067	20.9 7.5	0.244804 0.310960	
2014	0	0	0	0	0.0949	0.1166	0.023322	258,809	0.023322	932	1.067	5.0	0.379400	
2015	1	0	1	0	0.1164	1.1164	0.223284	254,336	0.223284	951	1.067	4.8	4.651750	
2016 2017	0	0	0	0	0.0984 0.1894	0.0984 0.1894	0.019682 0.037874	163,760 252,383	0.019682 0.037874	978 995	1.067 1.067	3.0 4.6	0.656067 0.823348	
2018	0	0	0	0	0.1745	0.1745	0.034902	183,346	0.034902	1,025	1.067	3.2	1.090688	
<u>2019</u>	0	0	0	0	0.2360	0.2360	0.047190	179,379	0.047190	1,049	1.067	3.1	1.522258	
TOTAL AVERAGE	5	0	1	4	1.7004	2.7004	0.540080	5,260,681	0.540080			106.2	9.989991 0.998999	
AVERAGE													0.770777	
BITUMINOUS UN	NDERGROUNE	(0158)					0.045		Expected	Statewide		Estimated	Frequency	
						IBNR +	Award		Ultimate	Average	Adjustment	Miner	Claims per 100	
<u>Year</u>	Reported F	Awarded 0	Pending	<u>Denied</u>	<u>IBNR</u>	Pending	Ratio	Payroll	Awarded	Weekly Wage	Factor 1 573	Years 19142	Miner Years	
2010 2011	5	1	0	4 5	7.5663 10.3227	8.5663 10.3227	0.385481 0.464523	125,393,576 148,485,709	0.385481 1.464523	845 858	1.573 1.573	1,814.2 2,115.8	0.021248 0.069218	
2012	6	0	0	6	12.1282	12.1282	0.545769	153,618,908	0.545769	888	1.573	2,114.9	0.025806	
2013 2014	4 15	1	0	3 15	13.7700 20.5664	13.7700 20.5664	0.619651 0.925488	145,146,253 183,431,952	1.619651 0.925488	917 932	1.573 1.573	1,935.1 2,406.2	0.083699 0.038463	
2015	16	0	1	15	18.4133	19.4133	0.873599	140,570,275	0.873599	951	1.573	1,807.1	0.048343	
2016	10	0	5	5	17.7830	22.7830	1.025235	118,545,477	1.025235	978	1.573	1,481.9	0.069184	
2017 2018	6 7	1	1 2	4 5	29.4797 35.5438	30.4797 37.5438	1.371585 1.689473	172,708,778 180,599,760	2.371585 1.689473	995 1,025	1.573 1.573	2,122.1 2,154.1	0.111757 0.078431	
2019	1	0	0	1	41.9495	41.9495	1.887728	185,962,937	1.887728	1,049	1.573	2,167.3	0.087100	
TOTAL	76	3	10	63	207.5229	217.5229	9.788532	1,554,463,625	12.788532			20,118.7	0.633249	
AVERAGE													0.063325	
ANTHRACITE SU	JRFACE (0153	)												
						IBNR +	0.100 Award		Expected Ultimate	Statewide Average	Adjustment	Estimated Miner	Frequency Claims per 100	
<u>Year</u>	Reported	<u>Awarded</u>	<u>Pending</u>	<u>Denied</u>	<u>IBNR</u>	<u>Pending</u>	<u>Ratio</u>	<u>Payroll</u>	<u>Awarded</u>	Weekly Wage	<u>Factor</u>	<u>Years</u>	Miner Years	
2010 2011	2	0	0	2	0.5221 0.9313	0.5221 0.9313	0.052211 0.093128	13,319,185 19,507,428	0.052211 0.093128	845 858	1.067 1.067	284.1 409.8	0.018378 0.022725	
2012	i	0	0	i	1.4267	1.4267	0.142670	24,734,711	0.142670	888	1.067	502.0	0.028420	
2013	3	1	2	0	1.4050	3.4050	0.340502	20,720,014	1.340502	917	1.067	407.2	0.329200	
2014 2015	2	0	1	1	1.5008 2.0607	2.5008 2.0607	0.250080 0.206068	18,911,339 22,234,350	0.250080 0.206068	932 951	1.067 1.067	365.7 421.4	0.068384 0.048901	
2016	3	0	1	2	2.0613	3.0613	0.306128	19,257,107	0.306128	978	1.067	354.9	0.086258	
2017	1	0	0	1	2.3664	2.3664	0.236640	19,094,634	0.236640	995	1.067	345.9	0.068413	
2018 2019	1	0	1	0	2.6267 3.4117	3.6267 3.4117	0.362674	18,303,511 20,632,989	0.362674	1,025 1,049	1.067 1.067	321.8 354.5	0.112702 0.096239	
TOTAL	15	1	5	9	18.3127	23.3127	2.331267	196,715,268	3.331267	1,047	1.007	3,767.3	0.879620	
AVERAGE													0.087962	
BITUMINOUS SUF	RFACE (0156	)												
			_			IBNR +	0.167 Award	_	Expected Ultimate	Statewide Average	Adjustment	Estimated Miner	Frequency Claims per 100	
<u>Year</u> 2010	Reported 2	Awarded 1	Pending 0	Denied 1	<u>IBNR</u> 2.4059	Pending 2.4059	<u>Ratio</u> 0.401780	<u>Payroll</u> 74,255,177	Awarded 1.401780	Weekly Wage 845	<u>Factor</u> 1.067	<u>Years</u> 1,583.8	Miner Years 0.088507	
2010	5	0	1	4	3.3399	4.3399	0.724763	87,730,506	0.724763	858	1.067	1,842.9	0.039327	
2012	9	2	1	6	3.4139	4.4139	0.737128	77,890,500	2.737128	888	1.067	1,580.9	0.173137	
2013 2014	4	0	0	4 2	3.1459 3.1444	3.1459 4.1444	0.525372 0.692111	62,718,061 55,368,615	0.525372 1.692111	917 932	1.067 1.067	1,232.7 1,070.7	0.042620 0.158038	
2015	9	1	1	7	2.6658	3.6658	0.612180	42,000,092	1.612180	951	1.067	796.0	0.202535	
2016 2017	0	0	0	0	2.1330	2.1330	0.356209 0.450245	30,131,218 34,248,962	0.356209	978	1.067	555.3	0.064147 0.072573	
2017		Λ.												
	1	0	0	1	2.6961 3.2664	2.6961 3.2664	0.545485		0.450245 0.545485	995 1,025	1.067 1.067	620.4 638.4		
2019				0	3.2664 3.7513	3.2664 3.7513		36,305,197 36,395,622	0.430243 0.545485 0.626467	1,025 1,049	1.067 1.067 1.067	638.4	0.085446 0.100187	
TOTAL	1	0	0	0	3.2664	3.2664	0.545485	36,305,197	0.545485	1,025	1.067	638.4	0.085446 0.100187 1.026517	
TOTAL AVERAGE	0 0 34	0	0	0	3.2664 3.7513	3.2664 3.7513	0.545485 0.626467	36,305,197 36,395,622	0.545485 0.626467	1,025	1.067	638.4 625.3	0.085446 0.100187	
TOTAL	0 0 34	0	0	0	3.2664 3.7513	3.2664 3.7513 33.9625	0.545485 0.626467 5.671743	36,305,197 36,395,622	0.545485 0.626467 10.671743 Expected	1,025 1,049 Statewide	1.067 1.067	638.4 625.3 10,546.4 Estimated	0.085446 0.100187 1.026517 0.102652 Frequency	
TOTAL AVERAGE FOUR STANDAR	1 0 0 34	0	0	0 0 25	3.2664 3.7513 29.9625	3.2664 3.7513 33.9625	0.545485 0.626467 5.671743 0.082 Award	36,305,197 36,395,622 537,043,950	0.545485 0.626467 10.671743 Expected Ultimate	1,025 1,049	1.067 1.067 Adjustment	638.4 625.3 10,546.4 Estimated Miner	0.085446 0.100187 1.026517 0.102652 Frequency Claims per 100	
TOTAL AVERAGE  FOUR STANDAR  YEAR 2010	1 0 0 34 RD CLASSES	0 0 5	0 0 4	0 0 25 Denied 7	3.2664 3.7513 29.9625 IBNR 10.6714	3.2664 3.7513 33.9625 IBNR + Pending 11.6714	0.545485 0.626467 5.671743 0.082 Award <u>Ratio</u> 0.957055	36,305,197 36,395,622 537,043,950 Payroll 214,267,526	0.545485 0.626467 10.671743 Expected Ultimate <u>Awarded</u> 1.874907	1,025 1,049 Statewide Average <u>Weekly Wage</u> 845	1.067 1.067	638.4 625.3 10,546.4 Estimated Miner Years 3,709.8	0.085446 0.100187 1.026517 0.102652 Frequency Claims per 100 Miner Years 0.050539	
TOTAL AVERAGE  FOUR STANDAR  YEAR 2010 2011	1 0 0 34 ED CLASSES  Reported 9 14	0 0 5	0 0 4	0 0 25 Denied 7 12	3.2664 3.7513 29.9625 IBNR 10.6714 14.8352	3.2664 3.7513 33.9625 IBNR + Pending 11.6714 15.8352	0.545485 0.626467 5.671743 0.082 Award Ratio 0.957055 1.298486	36,305,197 36,395,622 537,043,950 Payroll 214,267,526 256,981,587	0.545485 0.626467 10.671743 Expected Ultimate Awarded 1.874907 2.330672	1,025 1,049 Statewide Average Weekly Wage 845 858	1.067 1.067 Adjustment	638.4 625.3 10,546.4 Estimated Miner Years 3,709.8 4,394.9	0.085446 0.100187 1.026517 0.102652 Frequency Claims per 100 Miner Years 0.050539 0.053031	
TOTAL AVERAGE  FOUR STANDAR  YEAR 2010	1 0 0 34 RD CLASSES	0 0 5	0 0 4	0 0 25 Denied 7	3.2664 3.7513 29.9625 IBNR 10.6714	3.2664 3.7513 33.9625 IBNR + Pending 11.6714	0.545485 0.626467 5.671743 0.082 Award <u>Ratio</u> 0.957055	36,305,197 36,395,622 537,043,950 Payroll 214,267,526	0.545485 0.626467 10.671743 Expected Ultimate <u>Awarded</u> 1.874907	1,025 1,049 Statewide Average <u>Weekly Wage</u> 845	1.067 1.067 Adjustment	638.4 625.3 10,546.4 Estimated Miner Years 3,709.8	0.085446 0.100187 1.026517 0.102652 Frequency Claims per 100 Miner Years 0.050539	
TOTAL AVERAGE  FOUR STANDAR  YEAR 2010 2011 2012 2013 2014	1 0 0 34 PD CLASSES  Reported 9 14 16 13 21	0 0 5 5	0 0 4 Pending 1 1 1 2 2	0 0 25 Denied 7 12 13 9	3.2664 3.7513 29.9625 IBNR 10.6714 14.8352 17.2247 18.4376 25.3064	3.2664 3.7513 33.9625 IBNR + Pending 11.6714 15.8352 18.2247 20.4376 27.3064	0.545485 0.626467 5.671743 0.082 Award Ratio 0.957055 1.298486 1.494423 1.675882 2.239126	36,305,197 36,395,622 537,043,950 Payroll 214,267,526 256,981,587 257,273,379 228,966,204 257,970,715	0.545485 0.626467 10.671743 Expected Ultimate Awarded 1.874907 2.330672 3.476731 3.508847 2.886649	1,025 1,049 Statewide Average Weekly Wage 845 858 888 917 932	1.067 1.067 Adjustment	638.4 625.3 10,546.4 Estimated Miner Years 3,709.8 4,394.9 4,218.7 3,582.5 3,882.5 3,882.5	0.085446 0.100187 1.026517 0.102652 Frequency Claims per 100 Miner Years 0.050539 0.053031 0.082412 0.097944 0.075025	
TOTAL AVERAGE FOUR STANDAR 2010 2011 2012 2013 2014 2015	1 0 0 34 D CLASSES Reported 9 14 16 13 21 27	0 0 5 5 Awarded 1 1 2 2 2 1	Pending  1 1 2 2 3	0 0 25 Denied 7 12 13 9 18 23	3.2664 3.7513 29.9625 IBNR 10.6714 14.8352 17.2247 18.4376 25.3064 23.2562	3.2664 3.7513 33.9625 IBNR + Pending 11.6714 15.8352 18.2247 20.4376 27.3064 26.2562	0.545485 0.626467 5.671743 0.082 Award Rafio 0.957055 1.298486 1.494423 1.675882 2.239126 2.153004	36,305,197 36,395,622 537,043,950 Payroll 214,267,526 256,981,587 257,273,379 228,966,204 257,970,715 205,059,053	0.545485 0.626467 10.671743 Expected Ultimate <u>Awarded</u> 1.874907 2.330672 3.476731 3.508847 2.886649 2.915131	1,025 1,049 Statewide Average Weekly Wage 845 858 858 917 932 951	1.067 1.067 Adjustment	638.4 625.3 10,546.4 Estimated Miner Years 3,709.8 4,394.9 4,218.7 3,582.5 3,847.6 3,029.3	0.085446 0.100187 1.026517 0.102652 Frequency Claims per 100 Miner Years 0.050539 0.053031 0.082412 0.097944 0.075025 0.096231	
TOTAL AVERAGE FOUR STANDAR YEAR 2010 2011 2012 2013 2014 2015 2016 2017	1 0 0 34 8D CLASSES Reported 9 14 16 13 21 27 13 8	0 	Pending 1 1 1 2 2 3 6 1	0 0 25 Denied 7 12 13 9 18 23 7 6	3.2664 3.7513 29.9625 BNR 10.6714 14.8352 17.2247 18.4376 25.3064 23.2562 22.0757 34.7315	3.2664 3.7513 33.9625 IBNR + <u>Pencling</u> 11.6714 15.8352 18.2247 20.4376 27.3064 26.2562 28.0757 35.7315	0.545485 0.626467 5.671743 0.082 Award Ratio 0.957055 1.298486 1.494423 1.675882 2.239126 2.153004 2.302207 2.929984	36,305,197 36,395,622 537,043,950 Payroll 214,267,526 256,981,587 257,273,379 228,966,204 257,970,715 205,059,053 168,097,562 226,304,757	0.545485 0.626467 10.671743 Expected Ultimate <u>Awarded</u> 1.874907 2.330672 3.476731 3.508847 2.886649 2.915131 1.707255 3.096344	1,025 1,049 Statewide Average Weekly Wage 845 858 888 917 932 951 978	1.067 1.067 Adjustment	638.4 625.3 10,546.4 Estimated Miner Years 3,709.8 4,394.9 4,218.7 3,582.5 3,847.6 3,029.3 2,395.1 3,093.0	0.085446 0.100187 1.026517 0.102652 Frequency Claims per 100 Miner Years 0.050539 0.053031 0.082412 0.097944 0.075025 0.096231 0.071281 0.071281 0.100108	
TOTAL AVERAGE FOUR STANDAR YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018	1 0 0 34 ED CLASSES Reported 9 14 16 13 21 27 13	0 0 5 5 Awarded 1 1 2 2 2 1 1 0 1 0	Pending 1 1 1 2 2 3 3 6 6 1 3	0 0 25 Denied 7 12 13 9 18 23 7	3.2664 3.7513 29.9625 IBNR 10.6714 14.8352 17.2247 18.4376 25.3064 23.2562 22.0757 34.7315 41.6115	3.2664 3.7513 33.9625 IBNR + <u>Pending</u> 11.6714 15.8352 18.2247 20.4376 27.3064 26.2562 28.0757 35.7315 44.6115	0.545485 0.626467 5.671743 0.082 Award Ratio 0.957055 1.298486 1.494423 1.675882 2.239126 2.153004 2.302207 2.929984 3.658141	36,305,197 36,395,622 537,043,950 Payroll 214,267,526 256,981,587 257,273,379 228,966,204 257,970,715 205,059,053 168,097,562 226,304,757 235,391,814	0.545485 0.626467 10.671743 Expected Ultimate <u>Awarded</u> 1.874907 2.330672 3.476731 3.508847 2.886649 2.915131 1.707255 3.096344 2.632534	1,025 1,049 Statewide Average Weekly Wage 845 858 888 917 932 951 978 995 1,025	1.067 1.067 Adjustment	638.4 625.3 10.546.4 Estimated Miner Years 3,709.8 4,394.9 4,218.7 3,582.5 3,847.6 3,029.3 2,395.1 3,093.0 3,117.5	0.085446 0.100187 1.026517 0.102652 Frequency Claims per 100 Miner Years 0.050539 0.053031 0.082412 0.097944 0.075025 0.096231 0.071281 0.100108 0.084444	
TOTAL AVERAGE  FOUR STANDAR  YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	Reported 9 14 16 13 21 27 13 8 8	0 0 5 Awarded 1 1 2 2 2 2 1 1 0 0 1 0	0 0 4 Pending 1 1 1 2 2 2 3 6 6 1 1 3	0 0 25 Denied 7 12 13 9 18 23 7 6 5	3.2664 3.7513 29.9625 BNR 10.6714 14.8352 17.2247 18.4376 25.3064 23.2562 22.0757 34.7315 41.6115 49.3484	3.2664 3.7513 33.9625 IBNR + Pending 11.6714 15.8352 18.2247 20.4376 27.3064 26.2562 28.0757 35.7315 44.6115 49.3484	0.545485 0.626467 5.671743 0.082 Award Ratio 0.957055 1.298486 1.494423 1.675882 2.239126 2.153004 2.302207 2.929984 3.658141 4.046571	36,305,197 36,395,622 537,043,950 Payroll 214,267,526 256,981,587 257,273,379 228,966,204 257,970,715 205,059,053 168,097,562 226,304,757 235,391,814 243,170,927	0.545485 0.626467 10.671743 Expected Ultimate <u>Awarded</u> 1.874907 2.330672 3.476731 3.508847 2.915131 1.707255 3.096344 2.632534 2.902552	1,025 1,049 Statewide Average Weekly Wage 845 858 888 917 932 951 978	1.067 1.067 Adjustment	638.4 625.3 10,546.4 Estimated Miner Years 3,709.8 4,394.9 4,218.7 3,582.5 3,847.6 3,029.3 2,395.1 3,093.0 3,117.5 3,150.2	0.085446 0.100187 1.026517 0.102652 Frequency Claims per 100 Miner Years 0.050539 0.053031 0.082412 0.079744 0.075025 0.096231 0.071281 0.100108 0.084444 0.092139	
TOTAL AVERAGE FOUR STANDAR YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018	1 0 0 34 8D CLASSES Reported 9 14 16 13 21 27 13 8	0 0 5 5 Awarded 1 1 2 2 2 1 1 0 1 0	Pending 1 1 1 2 2 3 3 6 6 1 3	0 0 25 Denied 7 12 13 9 18 23 7 6	3.2664 3.7513 29.9625 IBNR 10.6714 14.8352 17.2247 18.4376 25.3064 23.2562 22.0757 34.7315 41.6115	3.2664 3.7513 33.9625 IBNR + <u>Pending</u> 11.6714 15.8352 18.2247 20.4376 27.3064 26.2562 28.0757 35.7315 44.6115	0.545485 0.626467 5.671743 0.082 Award Ratio 0.957055 1.298486 1.494423 1.675882 2.239126 2.153004 2.302207 2.929984 3.658141	36,305,197 36,395,622 537,043,950 Payroll 214,267,526 256,981,587 257,273,379 228,966,204 257,970,715 205,059,053 168,097,562 226,304,757 235,391,814	0.545485 0.626467 10.671743 Expected Ultimate <u>Awarded</u> 1.874907 2.330672 3.476731 3.508847 2.886649 2.915131 1.707255 3.096344 2.632534	1,025 1,049 Statewide Average Weekly Wage 845 858 888 917 932 951 978 995 1,025	1.067 1.067 Adjustment	638.4 625.3 10.546.4 Estimated Miner Years 3,709.8 4,394.9 4,218.7 3,582.5 3,847.6 3,029.3 2,395.1 3,093.0 3,117.5	0.085446 0.100187 1.026517 0.102652 Frequency Claims per 100 Miner Years 0.050539 0.053031 0.082412 0.097944 0.075025 0.096231 0.071281 0.100108 0.084444	0.080898

Source: Claim counts - CMCRB OD Database as of 4/30/2020 IBNR: Exhibit VIII-C

IBNR: Exhibit VIII-C
Payroll- Exhibit X-A
The Award Ratio is equal to Awarded + (Awarded plus Denied). Other Classes use the Total Award Ratio: 0.078=09 / [09 + 107]
The Wage Adjustment Factor was derived from CMCRB data. See Exhibit X-G
Estimated Miner Years = Payroll / (SAWW x Adj. Factor x 52)
Frequency per 100 Miner Years = (Expected Ulf. Awarded / Est. Miner Years) x 100
File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Filing\XL\[2020-08-B-2.xlsx]\VIII-B-1
Run Date: September 18, 2020 - 11:14:55 AM

#### COAL MINE COMPENSATION RATING BUREAU

#### FEDERAL BASIC OCCUPATIONAL DISEASE

COKE (0154)	P 1 1 1 1	0.0000					0.070			61 1 11		F 12	-	
IBNR Fact	or adjusted I	oy 0.2000				IBNR +	0.078 Award		Expected	Statewide	A -15 k k	Estimated	Frequency	\4/=:=: =.k===
Voor	Donortod	Augralad	Pending	Denied	IBNR	Pending	Ratio	Downall	Ultimate <u>Awarded</u>	Average Weekly Wage	Adjustment <u>Factor</u>	Miner	Claims per 100 Miner Years	Weighted
<u>Year</u> 2010	Reported 0	Awarded 0	0	0	0.0559	0.0559	0.004360	<u>Payroll</u> 5,435,658	0.004360	845	1.067	<u>Years</u> 115.9	0.003762	Frequency
2011	0	0	0	0	0.0426	0.0337	0.004300	3,599,086	0.003323	858	1.067	75.6	0.003762	
2012	0	0	0	0	0.0428	0.0428	0.006006	5,738,105	0.003323	888	1.067	116.5	0.005155	
2013	0	0	0	0	0.0770	0.0770	0.005686	4,791,910	0.005686	917	1.067	94.2	0.006036	
2014	0	0	0	0	0.0759	0.0759	0.005920	4,464,398	0.005000	932	1.067	86.3	0.006860	
2015	0	0	0	0	0.0821	0.0821	0.006404	4,340,376	0.003720	951	1.067	82.3	0.007781	
2016	0	0	0	0	0.0926	0.0926	0.007223	4,435,066	0.007223	978	1.067	81.7	0.008841	
2017	0	0	0	Ö	0.1050	0.1050	0.008190	4,566,113	0.007220	995	1.067	82.7	0.009903	
2018	0	0	0	0	0.1132	0.1132	0.008830	4,484,744	0.008830	1.025	1.067	78.9	0.011191	
2019	0	0	0	0	0.1278	0.1278	0.009968	4,626,532	0.009968	1,049	1.067	79.5	0.012539	
TOTAL	0	0		0		0.8450				1,047	1.067	893.6		
AVERAGE	U	U	U	U	0.8450	0.8450	0.065910	46,481,988	0.065910			873.6	0.076463 0.007646	
AVERAGE													0.007646	
AUGER (0157)														
	or adjusted l	ov 0.5000					0.078		Expected	Statewide		Estimated	Frequency	
	,	-,				IBNR +	Award		Ultimate	Average	Adjustment	Miner	Claims per 100	
YEAR	Reported	Awarded	Pending	Denied	<u>IBNR</u>	Pending	Ratio	<u>Payroll</u>	Awarded	Weekly Wage	Factor	<u>Years</u>	Miner Years	
2010	0	0	0	0	0.0213	0.0213	0.001661	827,496	0.001661	845	1.067	17.6	0.009440	
2011	Ō	0	0	0	0.0348	0.0348	0.002714	1,176,255	0.002714	858	1.067	24.7	0.010989	
2012	1	0	0	1	0.0271	0.0271	0.002114	808,208	0.002114	888	1.067	16.4	0.012889	
2013	0	0	0	0	0.0398	0.0398	0.003104	1,046,947	0.003104	917	1.067	20.6	0.015070	
2014	0	0	0	0	0.0366	0.0366	0.002855	861,590	0.002855	932	1.067	16.7	0.017095	
2015	0	0	0	0	0.0309	0.0309	0.002410	654,766	0.002410	951	1.067	12.4	0.019437	
2016	0	0	0	0	0.0205	0.0205	0.001599	392,776	0.001599	978	1.067	7.2	0.022208	
2017	0	0	0	0	0.0326	0.0326	0.002543	566,324	0.002543	995	1.067	10.3	0.024687	
2018	0	0	0	0	0.0379	0.0379	0.002956	600,138	0.002956	1,025	1.067	10.6	0.027889	
2019	0	0	0	0	0.0410	0.0410	0.003198	593,214	0.003198	1,049	1.067	10.2	0.031353	
TOTAL	1	0	0	1	0.3225	0.3225	0.025155	7,527,714	0.025155	.,		146.7	0.191057	
AVERAGE		Ü	O		0.0220	0.0220	0.020100	7,027,714	0.020100			140.7	0.019106	
ANTHRACITE CO													_	
	<b>D-GEN (0181</b> or adjusted I					10.10	0.078		Expected	Statewide		Estimated	Frequency	
IBNR Fact	or adjusted I	oy 0.5000	Danalian	Devied	פועפו	IBNR +	Award	December	Ultimate	Average	Adjustment	Miner	Claims per 100	
IBNR Fact	or adjusted I	oy 0.5000 <u>Awarded</u>	Pending	<u>Denied</u>	IBNR 0.2045	<u>Pending</u>	Award <u>Ratio</u>	Payroll	Ultimate <u>Awarded</u>	Average <u>Weekly Wage</u>	<u>Factor</u>	Miner <u>Years</u>	Claims per 100 Miner Years	
IBNR Fact <u>YEAR</u> 2010	or adjusted to Reported 0	Awarded 0	Ō	0	0.2045	Pending 0.2045	Award <u>Ratio</u> 0.015951	7,958,048	Ultimate Awarded 0.015951	Average <u>Weekly Wage</u> 845	Factor 1.067	Miner <u>Years</u> 169.7	Claims per 100 Miner Years 0.009400	
IBNR Fact <u>YEAR</u> 2010 2011	ror adjusted B Reported 0 0	Awarded 0 0	0	0	0.2045 0.3253	Pending 0.2045 0.3253	Award <u>Ratio</u> 0.015951 0.025373	7,958,048 10,981,642	Ultimate <u>Awarded</u> 0.015951 0.025373	Average <u>Weekly Wage</u> 845 858	<u>Factor</u> 1.067 1.067	Miner <u>Years</u> 169.7 230.7	Claims per 100 <u>Miner Years</u> 0.009400 0.010998	
IBNR Fact <u>YEAR</u> 2010 2011 2012	ror adjusted B Reported 0 0 1	Awarded 0 0 0	0 0	0 0 1	0.2045 0.3253 0.3125	Pending 0.2045 0.3253 0.3125	Award <u>Ratio</u> 0.015951 0.025373 0.024375	7,958,048 10,981,642 9,311,812	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375	Average <u>Weekly Wage</u> 845 858 888	Factor 1.067 1.067 1.067	Miner <u>Years</u> 169.7 230.7 189.0	Claims per 100 <u>Miner Years</u> 0.009400 0.010998 0.012897	
IBNR Fact  YEAR  2010 2011 2012 2013	Reported 0 0 0 1	Awarded 0 0 0	0 0 0 0	0 0 1 1	0.2045 0.3253 0.3125 0.2901	Pending 0.2045 0.3253 0.3125 0.2901	Award Ratio 0.015951 0.025373 0.024375 0.022628	7,958,048 10,981,642 9,311,812 7,630,762	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628	Average  Weekly Wage  845  858  888  917	Factor 1.067 1.067 1.067 1.067	Miner <u>Years</u> 169.7 230.7 189.0 150.0	Claims per 100 <u>Miner Years</u> 0.009400 0.010998 0.012897 0.015085	
YEAR 2010 2011 2012 2013 2014	ror adjusted by Reported 0 0 0 1 1 0 0	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0	0 0 1 1 0	0.2045 0.3253 0.3125 0.2901 0.3554	Pending 0.2045 0.3253 0.3125 0.2901 0.3554	Award Ratio 0.015951 0.025373 0.024375 0.022628 0.027721	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721	Average <u>Weekly Wage</u> 845 858 888 917 932	1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 169.7 230.7 189.0 150.0 161.7	Claims per 100 <u>Miner Years</u> 0.009400 0.010998 0.012897 0.015085 0.017144	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015	Reported 0 0 0 1 1 0 0	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0	0 0 1 1 0 0	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516	Pending 0.2045 0.3253 0.3125 0.2901 0.3554 0.4516	Award Ratio 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225	Average <u>Weekly Wage</u> 845 858 888 917 932 951	1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 169.7 230.7 189.0 150.0 161.7 181.1	Claims per 100 <u>Miner Years</u> 0.009400 0.010998 0.012897 0.015085 0.017144 0.019450	
IBNR Fact  YEAR  2010  2011  2012  2013  2014  2015  2016	Reported 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0	0 0 1 1 0 0	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152	Pending 0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152	Award Ratio 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978	1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 169.7 230.7 189.0 150.0 161.7 181.1 146.6	Claims per 100 <u>Miner Years</u> 0.009400 0.010998 0.012897 0.015085 0.017144 0.019450 0.022091	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017	Reported 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0	0 0 1 1 0 0	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481	Pending 0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481	Award Ratio 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 169.7 230.7 189.0 150.0 161.7 181.1 146.6 141.2	Claims per 100 Miner Years 0.009400 0.010998 0.012897 0.015085 0.017144 0.019450 0.022091 0.0224753	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018	Reported 0 0 1 1 0 0 0 1 1 0 0 1 1 1 0 0 1	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 1 1 0 0 0	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 0.6346	Pending 0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 1.6346	Award Ratio 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499	Average  Weekly Wage  845  858  888  917  932  951  978  995 1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 169.7 230.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8	Claims per 100 Miner Years 0.009 400 0.010998 0.012897 0.015085 0.017144 0.019 450 0.022091 0.022753 0.072115	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	Reported Reported 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 1 1 0 0 0 0	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 0.6346 0.4710	Pending 0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 1.6346 0.4710	Award Ratio 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 169.7 230.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8 117.2	Claims per 100  Miner Years 0.009 400 0.010998 0.012897 0.015085 0.017144 0.019450 0.022091 0.024753 0.072115 0.031346	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL	Reported 0 0 1 1 0 0 0 1 1 0 0 1 1 1 0 0 1	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 1 1 0 0 0	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 0.6346	Pending 0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 1.6346	Award Ratio 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499	Average  Weekly Wage  845  858  888  917  932  951  978  995 1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 169.7 230.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8	Claims per 100  Miner Years	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	Reported Reported 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 1 1 0 0 0 0	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 0.6346 0.4710	Pending 0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 1.6346 0.4710	Award Ratio 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738	Average  Weekly Wage  845  858  888  917  932  951  978  995 1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 169.7 230.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8 117.2	Claims per 100  Miner Years 0.009 400 0.010998 0.012897 0.015085 0.017144 0.019450 0.022091 0.024753 0.072115 0.031346	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL	Reported Reported 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 1 1 0 0 0 0	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 0.6346 0.4710	Pending 0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 1.6346 0.4710	Award Ratio 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738	Average  Weekly Wage  845  858  888  917  932  951  978  995 1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 169.7 230.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8 117.2	Claims per 100  Miner Years	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL	Reported 0 0 0 1 0 0 0 1 0 0 0 3	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 1 1 0 0 0 0	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 0.6346 0.4710	Pending 0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 1.6346 0.4710	Award Ratio 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738	Average  Weekly Wage  845  858  888  917  932  951  978  995 1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 169.7 230.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8 117.2	Claims per 100  Miner Years	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL AVERAGE	Reported 0 0 0 1 0 0 0 1 0 0 0 3	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 1 1 0 0 0 0	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 0.6346 0.4710	Pending 0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 1.6346 0.4710	Award Ratio 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738	Average  Weekly Wage  845  858  888  917  932  951  978  995 1,025	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner <u>Years</u> 169.7 230.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8 117.2	Claims per 100  Miner Years	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL AVERAGE	Reported	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 1 0 0 1	0 0 1 1 0 0 0 0	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 0.6346 0.4710	Pending 0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 1.6346 0.4710	Award Ratio 0.015951 0.025373 0.024375 0.022428 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847	Average <u>Weekly Wage</u> 845  858  888  917  932  951  978  995  1,025  1,049	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 169.7 230.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8 117.2 1.664.0	Claims per 100  Miner Years	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL AVERAGE  BITUMINOUS CO	Reported  Reported  0 0 1 1 0 0 1 3 0 C-GEN (0182 or adjusted I	Awarded  Awarded  Awarded  Awarded  Awarded  Awarded	0 0 0 0 0 0 0 0 0 1 0 1	0 0 1 1 0 0 0 0 0 0 0 2	0.2045 0.3253 0.3125 0.2901 0.3554 0.4515 0.44152 0.4481 0.6346 0.4710 3.9083	Pending 0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 1.6346 0.4710 4.9083	Award Ratio 0.015951 0.025373 0.024375 0.022428 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847  0.078 Award Ratio	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629 86,420,303	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847	Average Weekly Wage 845 858 888 917 932 951 978 995 1,025 1,049  Statewide	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 169.7 230.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8 117.2 1.664.0	Claims per 100 Miner Years	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL AVERAGE  BITUMINOUS CC IBNR Fact  YEAR 2010	Reported  Reported  0 0 1 1 0 0 1 0 3 0 CHARACTER (0182 FOR adjusted to Reported 0	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 1 0 0 1	0 0 1 1 0 0 0 0 0 0 0	0.2045 0.3253 0.3125 0.2901 0.3554 0.4152 0.4481 0.6346 0.4710 3.9083	Pending 0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 1.6346 0.4710 4.9083	Award Ratio 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629 86,420,303	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847	Average <u>Weekly Wage</u> 845  858  888  917  932  951  978  995  1,025  1,049   Statewide  Average <u>Weekly Wage</u> 845	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 169.7 230.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8 117.2 1.664.0  Estimated Miner	Claims per 100  Miner Years 0.009 400 0.010998 0.012897 0.015085 0.017144 0.019450 0.022091 0.024753 0.072115 0.031346 0.235279 0.023528  Frequency Claims per 100	
BNR Fact   YEAR   2010   2011   2012   2013   2014   2015   2016   2017   2018   2019   TOTAL   AVERAGE   BITUMINOUS CC   IBNR Fact   YEAR   2010   2011   2011	Reported  Reported  0 0 0 1 1 0 0 0 1 3 0 0 Reported 0 0 Reported 0 0 Reported 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 1 1 Pending 0	0 0 1 1 0 0 0 0 0 0 0 2	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 0.6346 0.4710 3.9083	Pending 0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 1.6346 0.4710 4.9083	Award Ratio 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.03386 0.034952 0.127499 0.036738 0.382847  0.078 Award Ratio 0.014001 0.016825	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,800 7,953,309 7,793,558 10,053,839 6,821,629 86,420,303	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847 Expected Ultimate <u>Awarded</u> 0.014001 0.016825	Average <u>Weekly Wage</u> 845  858  888  917  932  951  978  995  1,025  1,049   Statewide  Average <u>Weekly Wage</u> 845  858	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 169.7 230.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8 117.2 1.664.0  Estimated Miner Years 186.3 191.2	Claims per 100  Miner Years	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL AVERAGE  BITUMINOUS CC IBNR Fact  YEAR 2010 2011 2011 2012	Reported	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 1 1 0 1	0 0 1 1 0 0 0 0 0 0 2	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 0.6346 0.4710 3.9083	Pending 0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 1.6346 0.4710 4.9083 IBNR + Pending 0.1795 0.2157 0.2429	Award Ratio 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847  0.078 Award Ratio 0.014001 0.016825 0.018946	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629 86,420,303	Ultimate <u>Awarded</u> 0.015951 0.025373 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847 Expected Ultimate <u>Awarded</u> 0.014001 0.016825 0.018946	Average <u>Weekly Wage</u> 845  858  888  917  932  951  978  995  1,025  1,049   Statewide  Average <u>Weekly Wage</u> 845  858  858  888	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 169.7 230.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8 117.2 1.664.0 Estimated Miner Years 186.3 191.2 183.6	Claims per 100  Miner Years	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL AVERAGE  BITUMINOUS CC IBNR Fact  YEAR 2010 2011 2011 2012 2013	Reported   Reported   0	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 0 1	0 0 1 1 0 0 0 0 0 0 2	0.2045 0.3253 0.3125 0.2901 0.3554 0.4515 0.4415 0.4710 3.9083	Pending	Award Ratio 0.015951 0.025373 0.024375 0.022428 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629 86,420,303	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847  Expected Ultimate <u>Awarded</u> 0.014001 0.016825 0.018946 0.024562	Average  Weekly Wage  845 858 888 917 932 951 978 995 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 169.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8 117.2 1.664.0  Estimated Miner Years 186.3 191.2 183.6 203.5	Claims per 100  Miner Years 0.009400 0.010998 0.012897 0.015085 0.017144 0.019450 0.022091 0.024753 0.072115 0.031346 0.235279 0.023528  Frequency Claims per 100 Miner Years 0.008799 0.010319 0.012070	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL AVERAGE  BITUMINOUS CC IBNR Fact  YEAR 2010 2011 2012 2013 2014	Reported	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 0 1	0 0 0 1 1 0 0 0 0 0 0 2 2	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4512 0.4481 0.6346 0.4710 3.9083	Pending	Award Ratio 0.015951 0.025373 0.024375 0.022428 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847  0.078 Award Ratio 0.014001 0.016825 0.018946 0.024562 0.031091	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629 86,420,303	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847	Average  Weekly Wage  845 858 888 917 932 951 978 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917 932	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 169.7 230.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8 117.2 1.664.0 Estimated Miner Years 186.3 191.2 183.6 203.5 226.7	Claims per 100  Miner Years 0.009 400 0.010998 0.012897 0.015085 0.017144 0.019 450 0.022091 0.024753 0.072115 0.031346 0.235279 0.023528  Frequency Claims per 100 Miner Years 0.007515 0.008799 0.010319 0.012070 0.013715	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL AVERAGE  BITUMINOUS CC IBNR Fact YEAR 2010 2011 2012 2013 2014 2015	Reported     Reported	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 1 1 0 1	0 0 1 1 0 0 0 0 0 0 2 2	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 0.3746 0.4710 3.9083	Pending	Award Rafio 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847  0.078 Award Rafio 0.014001 0.016825 0.018946 0.024562 0.031091 0.034648	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629 86,420,303	Ultimate Awarded 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.034952 0.127499 0.036738 0.382847 Expected Ultimate Awarded 0.014001 0.016825 0.018946 0.024562 0.031091 0.034648	Average <u>Weekly Wage</u> 845  858  888  917  932  951  978  1,025  1,049   Statewide  Average <u>Weekly Wage</u> 845  858  888  917  932  951	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 169.7 230.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8 117.2 1.664.0  Estimated Miner Years 186.3 191.2 183.6 203.5 226.7 222.7	Claims per 100  Miner Years	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL AVERAGE  BITUMINOUS CC IBNR Fact  YEAR 2010 2011 2012 2013 2014 2015 2016	Reported   Reported   0	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 0 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.2045 0.3253 0.3125 0.2901 0.3554 0.4515 0.4481 0.6346 0.4710 3.9083	Pending	Award Raftio 0.015951 0.025373 0.024375 0.022428 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847  0.078 Award Raftio 0.014001 0.016825 0.018946 0.024562 0.031091 0.034648 0.034648 0.036902	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629 86,420,303	Ultimate Awarded 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847  Expected Ultimate Awarded 0.014001 0.016825 0.018946 0.024562 0.031091 0.034648 0.034648	Average Weekly Wage 845 858 888 917 932 951 978 995 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917 932 951 978	Factor 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 169.7 230.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8 117.2 1.664.0 Estimated Miner Years 186.3 191.2 183.6 203.5 226.7 222.7 208.8	Claims per 100  Miner Years 0.009400 0.010998 0.012897 0.015085 0.017144 0.019450 0.022091 0.024753 0.072115 0.031346 0.235279 0.023528  Frequency Claims per 100 Miner Years 0.007515 0.008799 0.010319 0.012070 0.013715 0.015558 0.017673	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL AVERAGE  BITUMINOUS CC IBNR Fact  YEAR 2010 2011 2012 2013 2014 2015 2014 2015 2014 2015 2016 2017	Reported  Reported  0 0 0 1 1 0 0 0 1 1 0 3 0 Companies to the properties of the pro	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 0 1	Denied  Denied  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 0.6346 0.4710 3.9083	Pending	Award Ratio 0.015951 0.025373 0.024375 0.022428 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847   0.078 Award Ratio 0.014001 0.016825 0.018946 0.024562 0.031091 0.034648 0.0346902 0.041028	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629 86,420,303	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847 Expected Ultimate <u>Awarded</u> 0.014001 0.016825 0.018946 0.024562 0.031091 0.0364648 0.036902 0.041028	Average  Weekly Wage  845 858 888 917 932 951 978 995 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917 932 951 978	Factor 1.067	Miner Years 169.7 230.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8 117.2 1.664.0 Estimated Miner Years 186.3 191.2 183.6 203.5 226.7 222.7 208.8 207.1	Claims per 100  Miner Years	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL AVERAGE  BITUMINOUS CC IBNR Fact  YEAR 2010 2011 2012 2013 2014 2015 2016	Reported	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0	Denied  Denied  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 0.6346 0.4710 3.9083	Pending   0.2045   0.3253   0.3125   0.2901   0.3554   0.4516   0.4152   0.4481   1.6346   0.4710   4.9083     IBNR + Pending   0.1795   0.2157   0.2429   0.3149   0.3986   0.4442   0.4731   0.5260   0.6082   0.6082	Award Ratio 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.03386 0.034952 0.127499 0.036738 0.382847  0.078 Award Ratio 0.014001 0.016825 0.018946 0.024562 0.031091 0.034648 0.036902 0.041028 0.047440	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629 86,420,303	Ultimate Awarded 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.034952 0.127499 0.036738 0.382847 Expected Ultimate Awarded 0.014001 0.016825 0.031091 0.034648 0.036902 0.047440 0.047440	Average  Weekly Wage  845 858 888 917 932 951 978 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917 932 951 978 978 1,025	Adjustment Factor  1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 169.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8 117.2 1.664.0  Estimated Miner Years 186.3 191.2 183.6 203.5 226.7 222.7 208.8 207.1 211.8	Claims per 100  Miner Years	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL AVERAGE  BITUMINOUS CC IBNR Fact  YEAR 2010 2011 2012 2013 2014 2015 2014 2015 2014 2015 2016 2017	Reported  Reported  0 0 0 1 1 0 0 0 1 1 0 3 0 Companies to the properties of the pro	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 0 1	Denied  Denied  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 0.6346 0.4710 3.9083	Pending	Award Ratio 0.015951 0.025373 0.024375 0.022428 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847   0.078 Award Ratio 0.014001 0.016825 0.018946 0.024562 0.031091 0.034648 0.0346902 0.041028	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629 86,420,303	Ultimate <u>Awarded</u> 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.032386 0.034952 0.127499 0.036738 0.382847 Expected Ultimate <u>Awarded</u> 0.014001 0.016825 0.018946 0.024562 0.031091 0.0364648 0.036902 0.041028	Average  Weekly Wage  845 858 888 917 932 951 978 995 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917 932 951 978	Factor 1.067	Miner Years 169.7 230.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8 117.2 1.664.0 Estimated Miner Years 186.3 191.2 183.6 203.5 226.7 222.7 208.8 207.1	Claims per 100  Miner Years	
IBNR Fact  YEAR  2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 TOTAL AVERAGE  BITUMINOUS CC IBNR Fact  YEAR 2010 2011 2012 2013 2014 2015 2016 2017 2018	Reported	Awarded 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0	Denied  Denied  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.2045 0.3253 0.3125 0.2901 0.3554 0.4516 0.4152 0.4481 0.6346 0.4710 3.9083	Pending   0.2045   0.3253   0.3125   0.2901   0.3554   0.4516   0.4152   0.4481   1.6346   0.4710   4.9083     IBNR + Pending   0.1795   0.2157   0.2429   0.3149   0.3986   0.4442   0.4731   0.5260   0.6082   0.6082	Award Ratio 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.03386 0.034952 0.127499 0.036738 0.382847  0.078 Award Ratio 0.014001 0.016825 0.018946 0.024562 0.031091 0.034648 0.036902 0.041028 0.047440	7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629 86,420,303	Ultimate Awarded 0.015951 0.025373 0.024375 0.022628 0.027721 0.035225 0.034952 0.127499 0.036738 0.382847 Expected Ultimate Awarded 0.014001 0.016825 0.031091 0.034648 0.036902 0.047440 0.047440	Average  Weekly Wage  845 858 888 917 932 951 978 1,025 1,049  Statewide Average Weekly Wage 845 858 888 917 932 951 978 978 1,025	Adjustment Factor  1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067 1.067	Miner Years 169.7 189.0 150.0 161.7 181.1 146.6 141.2 176.8 117.2 1.664.0  Estimated Miner Years 186.3 191.2 183.6 203.5 226.7 222.7 208.8 207.1 211.8	Claims per 100  Miner Years	

Source: Claim counts - CMCRB OD Database as of 4/30/2020

IBNR: Exhibit VIII-C

**AVERAGE** 

Payroll-Exhibit X-A
The Award Ratio is equal to Awarded ÷ (Awarded plus Denied). Other Classes use the Total Award Ratio: 0.078=09 / [09 + 107]
The Wage Adjustment Factor was derived from CMCRB data. See Exhibit X-G

Estimated Miner Years = Payroll / (\$AWW x Adj. Factor x 52)
Frequency per 100 Miner Years = (Expected Ult. Awarded / Est. Miner Years) x 100
File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-08-B-2.xlsx]\VIII-B-2

Run Date: September 18, 2020 - 11:14:55 AM

0.015293

#### COAL MINE COMPENSATION RATING BUREAU

#### FEDERAL BASIC OCCUPATIONAL DISEASE

	PREP PLANT (0													
IBNR F	actor adjusted	by 0.9000				IDLID :	0.078		Expected	Statewide	A P 1	Estimated	Frequency	M
<u>Year</u>	Reported	Awarded	Pending	Denied	IBNR	IBNR + Pending	Award <u>Ratio</u>	Payroll	Ultimate Awarded	Average Weekly Wage	Adjustment <u>Factor</u>	Miner <u>Years</u>	Claims per 100 Miner Years	Weighted <u>Frequency</u>
20		0	0	0	0.2256	0.2256	0.017597	4,876,927	0.017597	845	1.067	104.0	0.016920	riequericy
20		0	0	0	0.3265	0.3265	0.025467	6,123,259	0.025467	858	1.067	128.6	0.019803	
20	2 0	0	0	0	0.4572	0.4572	0.035662	7,569,023	0.035662	888	1.067	153.6	0.023217	
20		0	1	0	0.4841	1.4841	0.115760	7,074,886	0.115760	917	1.067	139.1	0.083221	
20		0	0	0	0.4990	0.4990	0.038922	6,521,541	0.038922	932	1.067	126.1	0.030866	
20		0	0	0	0.5272	0.5272	0.041122	6,196,596	0.041122	951	1.067	117.4	0.035027	
20		0	0	0	0.5209	0.5209	0.040630	5,542,968	0.040630	978	1.067	102.1	0.039795	
20		0	0	0	0.6268	0.6268	0.048890	6,056,810	0.048890	995	1.067	109.7	0.044567	
20		0	0	0	0.7859	0.7859	0.061300	6,916,759	0.061300	1,025	1.067	121.6	0.050411	
<u>20</u>		0	0	0	1.3156	1.3156	0.102617	10,584,841	0.102617	1,049	1.067	181.9	0.056414	
TOT		0	1	0	5.7688	6.7688	0.527966	67,463,610	0.527966			1,284.1	0.400241	
Averag	je												0.040024	
	PREP PLANT (0° actor adjusted					IDNID .	0.078		Expected	Statewide	A alticolors a set	Estimated	Frequency	
VEAD	Danadad	A	Daniella -	Daniad	IDNID	IBNR +	Award	Day wall	Ultimate	Average	Adjustment	Miner	Claims per 100	
<u>YEAR</u> 20	Reported 0 0	Awarded 0	Pending 0	Denied 0	<u>IBNR</u> 0.5410	Pending 0.5410	<u>Ratio</u> 0.042198	<u>Payroll</u> 26,313,130	<u>Awarded</u> 0.042198	Weekly Wage 845	<u>Factor</u> 1.573	<u>Years</u> 380.7	Miner Years 0.011084	
20		0	0	1	0.8330	0.8330	0.042198	35,155,068	0.042198	858	1.573	500.9	0.011084	
20		0	0	0	0.9184	0.9184	0.004774	34,211,729	0.004774	888	1.573	471.0	0.015209	
20		0	0	0	1.0231	1.0231	0.079802	33,639,969	0.079802	917	1.573	448.5	0.017793	
20	4 2	0	0	2	1.0832	1.0832	0.084490	31,854,431	0.084490	932	1.573	417.9	0.020218	
20		0	0	0	0.9196	0.9196	0.071729	24,320,608	0.071729	951	1.573	312.7	0.022939	
20		0	0	0	0.8387	0.8387	0.065419	20,079,401	0.065419	978	1.573	251.0	0.026063	
20		0	0	0	1.3248	1.3248	0.103334	28,803,457	0.103334	995	1.573	353.9	0.029199	
20		0	0	0	1.6261	1.6261	0.126836	32,199,872	0.126836	1,025	1.573	384.1	0.033022	
<u>20</u>		0	0	0	2.0783	2.0783	0.162107	37,623,330	0.162107	1,049	1.573	438.5	0.036969	
TOT		0	0	3	11.1862	11.1862	0.872524	304,200,995	0.872524			3,959.2	0.225467	
	ie .												0.022547	
Avera													****	
TOTAL OTHER						IRNIP +	0.078		Expected	Statewide Average	Adjustment	Estimated Miner	Frequency	
TOTAL OTHER	CLASSES	Awarded	Pendina	Denied	IBNR	IBNR + Pending	Award	Pavroll	Ultimate	Average	Adjustment Factor	Miner	Frequency Claims per 100	
	<b>CLASSES</b> Reported	<u>Awarded</u> 0	Pending 0	Denied 0	<u>IBNR</u> 1.2278	<u>Pending</u>	Award <u>Ratio</u>	<u>Payroll</u> 54.143.960	Ultimate <u>Awarded</u>		Adjustment <u>Factor</u>		Frequency Claims per 100 <u>Miner Years</u>	
TOTAL OTHER	CLASSES  Reported 0 0						Award	<u>Payroll</u> 54,143,960 66,137,721	Ultimate	Average <u>Weekly Wage</u>	,	Miner <u>Years</u>	Frequency Claims per 100	
TOTAL OTHER  YEAR 20	Reported           0         0           1         1	0	Ō	0	1.2278	Pending 1.2278	Award <u>Ratio</u> 0.095768	54,143,960	Ultimate Awarded 0.095768	Average <u>Weekly Wage</u> 845	,	Miner <u>Years</u> 974.2	Frequency Claims per 100 <u>Miner Years</u> 0.009830	
YEAR 20 20 20 20 20	Reported           0         0           1         1           2         2           3         2	0	0 0 0 1	0 1 2	1.2278 1.7779	Pending 1.2278 1.7779	Award <u>Ratio</u> 0.095768 0.138676 0.158738 0.251542	54,143,960 66,137,721	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542	Average Weekly Wage 845 858 888 917	,	Miner <u>Years</u> 974.2 1,151.7 1,130.1 1,055.9	Frequency Claims per 100 <u>Miner Years</u> 0.009830 0.012041	
YEAR 20 20 20 20 20 20 20 20	Reported           0         0           1         1           2         2           3         2           4         2	0 0 0 0	0 0 0 1 0	0 1 2 1 2	1.2278 1.7779 2.0351 2.2249 2.4487	Pending 1.2278 1.7779 2.0351 3.2249 2.4487	Award <u>Ratio</u> 0.095768 0.138676 0.158738 0.251542 0.190999	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999	Average <u>Weekly Wage</u> 845 858 888 917 932	,	Miner <u>Years</u> 974.2 1,151.7 1,130.1 1,055.9 1,035.4	Frequency Claims per 100 <u>Miner Years</u> 0.009830 0.012041 0.014046 0.023823 0.018447	
YEAR 20 20 20 20 20 20 20 20 20 20 20 20	Reported 0 0 1 1 1 2 2 3 3 2 4 2 2 5 0	0 0 0 0 0	0 0 0 1 0	0 1 2 1 2 0	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556	Award <u>Ratio</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537	Average <u>Weekly Wage</u> 845  858  888  917  932  951	,	Miner <u>Years</u> 974.2 1,151.7 1,130.1 1,055.9 1,035.4 928.6	Frequency Claims per 100 <u>Miner Years</u> 0.009830 0.012041 0.014046 0.023823 0.018447 0.020626	
YEAR 20 20 20 20 20 20 20 20 20 20 20 20 20	CLASSES  Reported 0 0 0 11 1 12 2 2 3 2 4 2 5 0 6 0	0 0 0 0 0 0	0 0 0 1 0 0	0 1 2 1 2 0 0	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610	Award Ratio 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978	,	Miner <u>Years</u> 974.2 1,151.7 1,130.1 1,055.9 1,035.4 928.6 797.4	Frequency Claims per 100 <u>Miner Years</u> 0.009830 0.012041 0.014046 0.023823 0.018447 0.020626 0.023095	
YEAR 20 20 20 20 20 20 20 20 20 20 20 20 20	CLASSES  Reported 0 0 0 1 1 1 2 2 2 3 2 2 4 2 5 0 6 0 7 0	0 0 0 0 0 0	0 0 0 1 0 0 0	0 1 2 1 2 0 0	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610 3.0633	Award <u>Ratio</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937	Average Weekly Wage 845 858 888 917 932 951 978 995	,	Miner <u>Years</u> 974.2 1,151.7 1,130.1 1,055.9 1,035.4 928.6 797.4 904.9	Frequency Claims per 100 <u>Miner Years</u> 0.009830 0.012041 0.014046 0.023823 0.018447 0.020626 0.023095 0.026405	
YEAR 20 20 20 20 20 20 20 20 20 20 20 20 20	CLASSES  Reported 0 0 0 1 1 1 2 2 2 3 2 2 4 2 2 5 0 0 6 0 0 7 0 8 1	0 0 0 0 0 0 0 0	0 0 0 1 0 0 0	0 1 2 1 2 0 0 0	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633 3.8059	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610 3.0633 4.8059	Award <u>Ratio</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319 66,298,649	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995 1,025	,	Miner <u>Years</u> 974.2 1,151.7 1,130.1 1,055.9 1,035.4 928.6 797.4 904.9 983.8	Frequency Claims per 100 Miner Years 0.009830 0.012041 0.014046 0.023823 0.018447 0.020626 0.023095 0.026405 0.038103	
YEAR 20 20 20 20 20 20 20 20 20 20 20 20 20	Reported 0 0 0 1 1 2 2 2 3 3 2 4 2 2 5 0 6 0 0 7 0 0 8 1 1 9 0 0	0 0 0 0 0 0 0	0 0 0 1 0 0 0 0	0 1 2 1 2 0 0 0 0	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633 3.8059 4.6859	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610 3.0633 4.8059 4.6859	Award Ratio 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319 66,298,649 72,056,787	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500	Average Weekly Wage 845 858 888 917 932 951 978 995	,	Miner <u>Years</u> 974.2 1,151.7 1,130.1 1,055.9 1,035.4 928.6 797.4 904.9 983.8 1,030.2	Frequency Claims per 100 Miner Years 0.009830 0.012041 0.014046 0.023823 0.018447 0.020626 0.023095 0.026405 0.038103 0.035479	
YEAR 20 20 20 20 20 20 20 20 20 20 20 20 20	CLASSES  Reported 0 0 0 1 1 1 2 2 3 3 2 4 2 2 5 0 6 6 0 0 7 0 0 18 1 9 0 0 LL 8	0 0 0 0 0 0 0 0	0 0 0 1 0 0 0	0 1 2 1 2 0 0 0	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633 3.8059	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610 3.0633 4.8059	Award <u>Ratio</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319 66,298,649	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995 1,025	,	Miner <u>Years</u> 974.2 1,151.7 1,130.1 1,055.9 1,035.4 928.6 797.4 904.9 983.8	Frequency Claims per 100 Miner Years 0.009830 0.012041 0.014046 0.023823 0.018447 0.020626 0.023095 0.024005 0.038103 0.035479 0.221895	0.022080
YEAR 20 20 20 20 20 20 20 20 20 20 20 20 20	CLASSES  Reported 0 0 0 1 1 1 2 2 3 3 2 4 2 2 5 0 6 6 0 0 7 0 0 18 1 9 0 0 LL 8	0 0 0 0 0 0 0	0 0 0 1 0 0 0 0	0 1 2 1 2 0 0 0 0	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633 3.8059 4.6859	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610 3.0633 4.8059 4.6859	Award Ratio 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319 66,298,649 72,056,787	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995 1,025	,	Miner <u>Years</u> 974.2 1,151.7 1,130.1 1,055.9 1,035.4 928.6 797.4 904.9 983.8 1,030.2	Frequency Claims per 100 Miner Years 0.009830 0.012041 0.014046 0.023823 0.018447 0.020626 0.023095 0.026405 0.038103 0.035479	0.022089
YEAR 20 20 20 20 20 20 20 20 20 20 20 20 20	CLASSES  Reported 0 0 0 11 1 2 2 2 3 2 2 4 2 5 0 6 6 0 0 7 0 0 8 1 19 0 AL 8 ie	0 0 0 0 0 0 0	0 0 0 1 0 0 0 0	0 1 2 1 2 0 0 0 0	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633 3.8059 4.6859	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610 3.0633 4.8059 4.6859	Award Ratio 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319 66,298,649 72,056,787	Ultimate <u>Awarded</u> 0.095768 0.138676 0.138738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 <u>0.365500</u> 2.190716	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995 1,025 1,049	,	Miner Years 974.2 1,151.7 1,130.1 1,055.9 1,035.4 928.6 797.4 904.9 983.8 1,030.2 9,992.2	Frequency Claims per 100 Miner Years 0.009830 0.012041 0.014046 0.023823 0.018447 0.020626 0.023095 0.026405 0.038103 0.035479 0.221895 0.022190	0.022089
YEAR 20 20 20 20 20 20 20 20 20 20 20 20 20	CLASSES  Reported 0 0 0 11 1 2 2 2 3 2 2 4 2 5 0 6 6 0 0 7 0 0 8 1 19 0 AL 8 ie	0 0 0 0 0 0 0	0 0 0 1 0 0 0 0	0 1 2 1 2 0 0 0 0	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633 3.8059 4.6859	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610 3.0633 4.8059 4.6859 28.0861	Award Ratio 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319 66,298,649 72,056,787	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716	Average <u>Weekly Wage</u> 845  858  888  917  932  951  978  995  1,025  1,049  Statewide	Factor	Miner Years 974.2 1,151.7 1,130.1 1 1,055.9 1,035.4 928.6 797.4 904.9 983.8 1,030.2 9,992.2	Frequency Claims per 100 Miner Years 0.009830 0.012041 0.014046 0.023823 0.018447 0.020626 0.023095 0.02405 0.038103 0.035479 0.221895 0.022190	0.022089
YEAR 20 20 20 20 20 20 20 20 20 20 40 TOT AVERGE GRAND TOT.	CLASSES  Reported 0 0 1 1 2 2 2 3 3 2 4 2 5 0 0 7 0 1 8 1 9 0 1 8 1 9 0 1 8 1 9 1 8	0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 0 0 0 0 1 1 —————————————————	0 1 2 1 2 0 0 0 0 0 0	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633 3.8059 4.6859 26.0861	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610 3.0633 4.8059 4.6859 28.0861	Award Ratio 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319 66,298,649 72,056,787 619,415,887	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716	Average <u>Weekly Wage</u> 845  858  888  917  932  951  978  995  1,025  1,049   Statewide  Average	<u>Factor</u>	Miner Years 974.2 1,151.7 1,130.1 1,055.9 1,035.4 928.6 797.4 904.9 983.8 1,030.2 9,992.2	Frequency Claims per 100 Miner Years 0.009830 0.012041 0.014046 0.023823 0.018447 0.020626 0.023095 0.026405 0.038103 0.035479 0.221895 0.022190 Frequency Claims per 100	0.022089
YEAR 20 20 20 20 20 20 20 TOT Average GRAND TOT.	CLASSES    Reported   0	0 0 0 0 0 0 0	0 0 0 1 0 0 0 0	0 1 2 1 2 0 0 0 0 0 0	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633 3.8059 4.6859 26.0861	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610 3.0633 4.8059 4.6859 28.0861	Award Ratio 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319 66,298,649 72,056,787 619,415,887	Ultimate Awarded 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716  Expected Ultimate Awarded	Average <u>Weekly Wage</u> 845  845  888  917  932  951  978  995  1,025  1,049   Statewide  Average <u>Weekly Wage</u>	Factor	Miner Years 974.2 1,151.7 1,130.1 1,055.9 1,035.4 928.6 797.4 904.9 983.8 1,030.2 9,992.2	Frequency Claims per 100 Miner Years	0.022089
YEAR 20 20 20 20 20 20 20 20 40 10 11 Averag	CLASSES    Reported   0	0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 0 0 0 0 1 0 2	0 1 2 1 2 0 0 0 0 0 0	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633 3.8059 4.6859 26.0861	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610 3.0633 4.8059 4.6859 28.0861	Award Ratio 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716  0.078 Award Ratio 1.006138	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319 66,298,649 72,056,787 619,415,887	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716	Average <u>Weekly Wage</u> 845  858  888  917  932  951  978  995  1,025  1,049   Statewide  Average <u>Weekly Wage</u> 845	<u>Factor</u>	Miner Years 974.2 1,151.7 1,130.1 1,055.9 1,035.4 928.6 797.4 904.9 983.8 1,030.2 9,992.2 Estimated Miner Years 4,684.0	Frequency Claims per 100 Miner Years 0.009830 0.012041 0.014046 0.023823 0.018447 0.020626 0.023095 0.026405 0.038103 0.035479 0.221895 0.022190  Frequency Claims per 100 Miner Years 0.042072	0.022089
YEAR 20 20 20 20 20 20 20 20 20 20 20 20 20	CLASSES  Reported 0 0 0 11 1 12 2 2 3 3 2 2 4 2 2 5 0 0 6 0 0 7 0 8 1 9 0 0 AL 8 Reported 0 9 11 15	0 0 0 0 0 0 0 0 0	0 0 0 1 0 0 0 0 1 0 2	0 1 2 1 2 0 0 0 0 0 0 0	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633 3.8059 4.6859 26.0861	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610 3.0633 4.8059 4.6859 28.0861	Award Ratio 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319 66,298,649 72,056,787 619,415,887	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716 Expected Ultimate <u>Awarded</u> 1.970675 2.469348	Average <u>Weekly Wage</u> 845  858  888  917  932  951  978  1,025  1,049   Statewide  Average <u>Weekly Wage</u> 845  858	<u>Factor</u>	Miner Years 974.2 1,151.7 1,130.1 1,055.9 1,035.4 928.6 797.4 904.9 983.8 1,030.2 9,992.2 Estimated Miner Years 4,684.0 5,546.6	Frequency Claims per 100 Miner Years 0.009830 0.012041 0.014046 0.023823 0.018447 0.020626 0.023095 0.026405 0.038103 0.035479 0.221895 0.022190  Frequency Claims per 100 Miner Years 0.042072 0.044520	0.022089
YEAR 20 20 20 20 20 20 20 20 40 TOTAL AVERAGE GRAND TOT.  YEAR 20 20 20 20 20 20 20 20 20 20 20 20 20	CLASSES    Reported   0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 0 0 0 0 1 2 2	0 1 2 1 2 0 0 0 0 0 0 6	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633 3.8059 4.6859 26.0861	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610 3.0633 4.8059 4.6859 28.0861  IBNR + Pending 12.8992 17.6131 20.2598	Award Ratio 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319 66,298,649 72,056,787 619,415,887	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716 Expected Ultimate <u>Awarded</u> 1.970675 2.449348 3.635469	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995 1,025 1,049   Statewide Average <u>Weekly Wage</u> 845 858 888	<u>Factor</u>	Miner Years 974.2 1,151.7 1,130.1 1,055.9 1,035.4 928.6 797.4 904.9 983.8 1,030.2 9,992.2 Estimated Miner Years 4,684.0 5,546.6 5,348.8	Frequency Claims per 100 Miner Years	0.022089
YEAR 20 20 20 20 20 20 20 20 20 20 20 20 20	CLASSES  Reported 0 0 0 1 1 1 2 2 3 3 2 2 4 4 2 2 5 0 0 6 0 0 7 0 8 1 1 9 0 0 AL  Reported 0 9 9 1 1 15 2 18 3 15	0 0 0 0 0 0 0 0 0	0 0 0 1 0 0 0 0 0 2 Pending 1 1 1 1	0 1 2 1 2 0 0 0 0 0 0 6	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633 3.8059 4.6859 26.0861	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610 3.0633 4.8059 4.6859 28.0861  IBNR + Pending 12.8992 17.6131 20.2598 23.6625	Award Ratio 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716  0.078 Award Ratio 1.006138 1.373822 1.580262 1.845674	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319 66,298,649 72,056,787 619,415,887	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716 Expected Ultimate <u>Awarded</u> 1.970675 2.469348 3.635469 3.760389	Average <u>Weekly Wage</u> 845  858  888  917  932  951  978  995  1,025  1,049   Statewide  Average <u>Weekly Wage</u> 845  858  888  8917	<u>Factor</u>	Miner Years 974.2 1,151.7 1,130.1 1,055.9 1,035.4 928.6 797.4 904.9 983.8 1,030.2 9,992.2 Estimated Miner Years 4,684.0 5,546.6 5,348.8 4,638.4	Frequency Claims per 100 Miner Years 0.009830 0.012041 0.014046 0.023823 0.018447 0.020626 0.023095 0.026405 0.038103 0.035479 0.221895 0.022190  Frequency Claims per 100 Miner Years 0.042072 0.044520 0.0467968 0.081071	0.022089
YEAR 20 20 20 20 20 20 20 20 40 TOTAL AVERAGE GRAND TOT.  YEAR 20 20 20 20 20 20 20 20 20 20 20 20 20	CLASSES  Reported 0 0 0 11 1 12 2 2 3 3 2 2 4 4 2 2 5 0 0 66 0 0 7 0 8 8 1 9 0 0 AL 8 8 10 9 0 1 1 1 5 15 12 18 13 15 4 2 3 15 4 2 3	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 0 0 0 0 1 2 2	0 1 2 1 2 0 0 0 0 0 0 6	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633 3.8059 4.6859 26.0861	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610 3.0633 4.8059 4.6859 28.0861  IBNR + Pending 12.8992 17.6131 20.2598	Award Ratio 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319 66,298,649 72,056,787 619,415,887	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716 Expected Ultimate <u>Awarded</u> 1.970675 2.449348 3.635469	Average <u>Weekly Wage</u> 845 858 888 917 932 951 978 995 1,025 1,049   Statewide Average <u>Weekly Wage</u> 845 858 888	<u>Factor</u>	Miner Years 974.2 1,151.7 1,130.1 1 1,055.9 1,035.4 928.6 797.4 904.9 983.8 1,030.2 9,992.2 Estimated Miner Years 4,684.0 5,546.6 5,348.8 4,638.4 4,883.0	Frequency Claims per 100 Miner Years	0.022089
YEAR 20 20 20 20 20 20 20 20 20 20 20 20 20	CLASSES    Reported   0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 2 2	0 1 2 1 2 0 0 0 0 0 0 0 6	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633 3.8059 4.6859 26.0861	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610 3.0633 4.8059 4.6859 28.0861  IBNR + Pending 12.8992 17.6131 20.2598 23.6625 29.7551 28.7118 30.4367	Award Ratio 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716  0.078 Award Ratio 1.006138 1.373822 1.580262 1.845674 2.320899	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319 66,298,649 72,056,787 619,415,887 Payroll 268,411,486 323,119,308 323,960,001 293,506,562 321,754,757	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716 Expected Ultimate <u>Awarded</u> 1.970675 2.469348 3.635469 3.760389 3.077648	Average <u>Weekly Wage</u> 845  858  888  917  932  951  1,025  1,049   Statewide  Average <u>Weekly Wage</u> 845  858  888  917  932  951	<u>Factor</u>	Miner Years 974.2 1,151.7 1,130.1 1,055.9 1,035.4 928.6 797.4 904.9 983.8 1,030.2 9,992.2 Estimated Miner Years 4,684.0 5,546.6 5,348.8 4,638.4	Frequency Claims per 100 Miner Years 0.009830 0.012041 0.014046 0.023823 0.018447 0.020626 0.023095 0.024405 0.038103 0.035479 0.221895 0.022190  Frequency Claims per 100 Miner Years 0.042072 0.044520 0.067968 0.081071 0.063028	0.022089
YEAR 20 20 20 20 20 20 20 YEAR 20 20 20 20 20 20 20 20 20 20 20 20 20	CLASSES    Reported   0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 0 0 0 0 1 2 2 Pending 1 1 1 1 3 3 2 3	0 1 2 1 2 0 0 0 0 0 0 6	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633 3.8059 4.6859 26.0861	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610 3.0633 4.8059 4.6859 28.0861  IBNR + Pending 12.8992 17.6131 20.2598 23.6625 29.7551 28.7118	Award Ratio 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716  0.078 Award Ratio 1.006138 1.373822 1.580262 1.845674 2.320899 2.239517	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319 66,298,649 72,056,787 619,415,887  Payroll 268,411,486 323,119,308 323,960,001 293,506,562 321,754,757 261,874,410	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716 Expected Ultimate <u>Awarded</u> 1.970675 2.469348 3.635469 3.760389 3.077648 3.106668	Average <u>Weekly Wage</u> 845  858  888  917  932  951  978  995  1,025  1,049   Statewide  Average <u>Weekly Wage</u> 845  888  917  932  951	<u>Factor</u>	Miner Years 974.2 1,151.7 1,130.1 1,055.9 1,035.4 928.6 797.4 904.9 983.8 1,030.2 9,992.2 Estimated Miner Years 4,684.0 5,546.6 5,348.8 4,638.4 4,883.0 3,957.9	Frequency Claims per 100 Miner Years	0.022089
YEAR 20 20 20 20 20 20 20 YEAR 20 20 20 20 20 20 20 20 20 20 20 20 20	CLASSES    Reported   0	Awarded  Awarded  1 1 2 2 1 1 0	0 0 0 1 0 0 0 0 1 0 2 2	Denied 7 13 15 10 20 23 7	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633 3.8059 4.6859 26.0861	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610 3.0633 4.8059 4.6859 28.0861  IBNR + Pending 12.8992 17.6131 20.2598 23.6625 29.7551 28.7118 30.4367	Award Ratio 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716  0.078 Award Ratio 1.006138 1.373822 1.580262 1.845674 2.320899 2.239517 2.374062	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319 66,298,649 72,056,787 619,415,887	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716 Expected Ultimate <u>Awarded</u> 1.970675 2.469348 3.635469 3.760389 3.077648 3.106668 1.891413	Average <u>Weekly Wage</u> 845  858  888  917  932  951  1,025  1,049   Statewide  Average <u>Weekly Wage</u> 845  858  888  917  932  951	<u>Factor</u>	Miner Years 974.2 1,151.7 1,130.1 1,055.9 1,035.4 928.6 797.4 904.9 983.8 1,030.2 9,992.2 Estimated Miner Years 4,684.0 5,546.6 5,348.8 4,638.4 4,883.0 3,957.9 3,192.5	Frequency Claims per 100 Miner Years 0.009830 0.012041 0.014046 0.023823 0.018447 0.020626 0.023095 0.026405 0.038103 0.035479 0.221895 0.022190  Frequency Claims per 100 Miner Years 0.044520 0.044520 0.063028 0.081071 0.063028 0.078493 0.059246	0.022089
YEAR 20 20 20 20 20 20 20 20 20 20 20 20 20	CLASSES    Reported   0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Pending 1 1 1 3 2 3 6 1 4	0 1 2 1 2 0 0 0 0 0 6 6 Denied 7 13 15 10 20 23 7 6 5	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633 3.8059 4.6859 26.0861	Pending 1.2278 1.7779 2.0351 3.2249 2.4487 2.4556 2.3610 3.0633 4.8059 4.6859 28.0861  IBNR + Pending 12.8992 17.6131 20.2598 23.6625 29.7551 28.7118 30.4367 38.7948	Award Ratio 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716  0.078 Award Ratio 1.006138 1.373822 1.580262 1.845674 2.320899 2.239517 2.374062 3.025995	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319 66,298,649 72,056,787 619,415,887	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716 Expected Ultimate <u>Awarded</u> 1.970675 2.469348 3.635469 3.760389 3.077648 3.106668 1.891413 3.335281	Average <u>Weekly Wage</u> 845  858  888  917  932  951  978  995  1,025  1,049    Statewide  Average <u>Weekly Wage</u> 845  858  888  917  932  951  978  995	<u>Factor</u>	Miner Years 974.2 1,151.7 1,130.1 1 1,055.9 1,035.4 928.6 797.4 904.9 983.8 1,030.2 9,992.2 Estimated Miner Years 4,684.0 5,546.6 5,348.8 4,638.4 4,883.0 3,957.9 3,192.5 3,997.9	Frequency Claims per 100 Miner Years 0.009830 0.012041 0.014046 0.023823 0.018447 0.020626 0.023095 0.026405 0.038103 0.035479 0.221895 0.022190  Frequency Claims per 100 Miner Years 0.042072 0.044520 0.067968 0.081071 0.063028 0.078493 0.078493 0.078493	0.022089
YEAR 20 20 20 20 20 20 20 20 20 20 20 20 20	CLASSES    Reported   0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 0 0 0 0 1 0 2 2 Pending 1 1 1 3 2 3 6 6 1	Denied  Denied  7  13  15  10  20  23  7  6  5	1.2278 1.7779 2.0351 2.2249 2.4487 2.4556 2.3610 3.0633 3.8059 4.6859 26.0861	Pending   1.2278   1.7779   2.0351   3.2249   2.4487   2.4556   2.3610   3.0633   4.8059   4.6859   28.0861     IBNR + Pending   12.8992   17.6131   20.2598   23.6625   29.7551   28.7118   30.4367   38.7948   49.4174	Award Ratio 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716  0.078 Award Ratio 1.006138 1.373822 1.580262 1.845674 2.320899 2.239517 2.374062 3.025995 3.854555	54,143,960 66,137,721 66,686,622 64,540,358 63,784,042 56,815,357 49,731,072 59,221,319 66,298,649 72,056,787 619,415,887  Payroll 268,411,486 323,119,308 323,960,001 293,506,562 321,754,757 261,874,410 217,828,634 285,526,076 301,690,463	Ultimate <u>Awarded</u> 0.095768 0.138676 0.158738 0.251542 0.190999 0.191537 0.184158 0.238937 0.374860 0.365500 2.190716 Expected Ultimate <u>Awarded</u> 1.970675 2.469348 3.635469 3.760389 3.077648 3.106668 1.891413 3.335281 3.007394	Average <u>Weekly Wage</u> 845  858  888  917  932  951  978  1,025  1,049    Statewide  Average <u>Weekly Wage</u> 845  858  888  917  932  951  978  978  975  1,025	<u>Factor</u>	Miner Years 974.2 1,151.7 1,130.1 1,055.9 1,035.4 928.6 797.4 904.9 983.8 1,030.2 9,992.2 Estimated Miner Years 4,684.0 5,546.6 5,348.8 4,638.4 4,883.0 3,957.9 3,192.5 3,997.9 4,101.3	Frequency Claims per 100 Miner Years 0.009830 0.012041 0.014046 0.023823 0.018447 0.020626 0.023095 0.024405 0.038103 0.035479 0.221895 0.022190  Frequency Claims per 100 Miner Years 0.042072 0.044520 0.067968 0.081071 0.063028 0.078493 0.059246 0.0833426 0.073328	0.022089

Source: Claim counts - CMCRB OD Database as of 4/30/2020

IBNR: Exhibit VIII-C

Payroll-Exhibit X-A
The Award Ratio is equal to Awarded ÷ (Awarded plus Denied). Other Classes use the Total Award Ratio: 0.078=09 / [09 + 107]
The Wage Adjustment Factor was derived from CMCRB data. See Exhibit X-G

Estimated Miner Years = Payroll / (SAWW x Adj. Factor x 52)
Frequency per 100 Miner Years = (Expected Ult. Awarded / Est. Miner Years) x 100
File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-08-B-2.xlsx]\VIII-B-3

Run Date: September 18, 2020 - 11:14:55 AM

COAL MINE COMPENSATION RATING BUREAU FEDERAL OCCUPATIONAL DISEASE ANTHRACITE UNDERGROUND (0160)

Claims with File Dates on or before 12-31-2019, Valued as of 4-30-2020

													Incre	emental Fre	quency and	I IBNR								Claims with	File Dates	on or before	12-31-2019	, Valued as	of 4-30-2020
Reported Clai Months  12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240	1993 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1994	1995 0 0 0 0 0 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2	1996 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1997 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1998 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1999 0 0 0 0 1 1 1 1 1 1 2 2 2 3 3 3 3 3 3	2000 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2001 0 0 2 2 2 2 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4	2002 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2003	2004 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2005 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Yes 2006 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		2008 0 0 0 0 1 1 1 1 1 1	2009	2010 0 0 0 0 0 0 0 0 0 0	2011 0 0 1 2 2 2 2 2 2 2 2	2012 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2013 1 1 1 2 2 2 2	2014 0 0 0 0 0 0 0 0 0 0 0	2015 0 0 0 1 1	2016 0 0 0	2017 0 0 0	2018 0 0	2019		
Incremental C 12-24 24-36 36-48 48-60 60-72 72-84 84-96 96-108 108-120 120-132 132-144 144-156 156-168 168-180 180-192 192-204 204-216 216-228 228-240	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 1 1 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 1 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 1 1 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 0	0 0 0 0 0 0	0 0 1 1 0	0 0 0	0 0	0			
12-24 24-36 36-48 48-60 60-72 72-84 84-96 96-108 108-120 120-132 132-144 144-156 156-168 168-180 180-192 192-204 204-216 216-228	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	1995 1.49352 0.66956 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.56744 0.00000 0.56744 0.00000 0.56744 0.00000	0.00000 0.00000 0.00000 0.00000 0.55122 0.00000 0.55122 0.00000 0.00000 0.00000 0.00000 0.00000	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	2001 1.63652 0.61105 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2002 1.38655 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.72121 0.72121 0.00000 0.00000 0.00000	2003 1.35427 0.00000 0.00000 0.73841 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2004 1.34532 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.74332 0.00000	2005 1.41757 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2006 1.44252 0.69323 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2007 1.66254 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2008 2.13671 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2009 1.33587 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2010 1.29959 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2011 1.25794 0.00000 0.79495 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2012 1.02926 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2013 0.38188 0.00000 0.00000 0.00000 2.61862 0.00000 0.00000	2014 0.25881 0.00000 0.00000 0.00000 0.00000 0.00000	2015 0.25434 0.00000 0.00000 3.93174 0.00000	2014 0.16376 0.00000 0.00000 0.00000	2017 0.25238 0.00000 0.00000	2018 0.18335 0.00000	2019 0.17938 Total=	Average 0.05333 0.06115 0.34359 0.20143 0.03400 0.05680 0.00000 0.00000 0.00000 0.14938 0.05548 0.14323 0.00000 0.05648 0.05648 0.05648 0.05648 0.05648 0.05648 0.05648 0.05648 0.05648 0.05648 0.05648 0.05648 0.05648 0.05648 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.0000	Smoothed 0.36359 0.20143 0.14938 0.14923 0.09115 0.05680 0.05674 0.05548 0.05333 0.04700 0.03600 0.00000
IBNR Claims Cumulative For times Payroll	actor								0.00000	0.00000	0.00000	0.00000	0.00000	0.00000			0.08300 0.11088	0.13633 0.17717	0.19181 0.24129	0.24855 0.25582	0.30535 0.11661	0.36650 0.09485		0.60096 0.09841	0.75034 0.18937	0.95177 0.17451	1.31536 0.23595		

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2020 Payrolls: Exhibit X-A-3

COAL MINE COMPENSATION RATING BUREAU FEDERAL OCCUPATIONAL DISEASE BITUMINOUS UNDERGROUND (0158)

Claims with File Dates on or before 12-31-2019, Valued as of 4-30-2020

													Incre	emental Fre	auency an	d IBNR								Claims with	n File Dates	on or before	12-31-2019	9, Valued as	of 4-30-2020
Reported Clai Months  12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240	1993 1993 1 1 2 3 3 4 4 4 5 5 5 5 6 6 6 6 7 7 7 8 8 9 9	1994 4 4 7 7 8 9 9 9 9 9 11 11 11 11 11 12 13 13 14 15	1995 3 3 5 6 7 8 8 8 8 8 8 8 9 9 9 9	1996 0 2 2 2 3 4 4 5 5 5 5 5 5 5 5 6 8 8 8	1997 0 1 4 4 5 6 6 7 7 7 7 7 7 7 8 9 9 9 9 9 9	1998 1 2 5 5 5 5 5 5 5 5 5 5 5 5 6 6 6 7 7 7 10 10 10 10	1999 2 4 6 7 7 7 7 8 8 9 10 10 11 15 16 16 17 18 19 19 19 20 22	2000 2 4 4 4 4 5 5 5 5 7 10 10 13 20 33 35 38 6 50	2001 1 1 2 2 2 3 3 4 4 4 6 6 6 7 7 7 7 7 7 7 8 8	2002 1 2 4 5 6 6 6 7 7 7 11 11 13 3 15 16 17 7 20 20	2003 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 2 2	2004 0 0 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2005 0 0 0 0 0 0 1 1 1 1 1 1	Yei 2006	2007 0 0 2 2 2 3 3 3 3 4 4 4 4 5 5	2008 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2009 0 1 1 4 4 4 5 5 5 5 5 5 5 5 5	2010 0 2 2 2 2 2 3 3 4 4 5 5	2011 2 2 2 2 2 4 4 6 6 6	2012 1 3 4 4 4 5 6	2013 2 3 3 3 4 4	2014 3 6 10 10 12 14 15	2015 6 8 12 16 16	2016 4 5 7 10	2017 3 4 6	2018 3 7	2019		
Incremental C 12-24 24-36 36-48 48-60 60-72 72-84 84-96 96-108 108-120 120-132 132-144 144-156 156-168 168-180 192-192-204 204-216 216-228 228-240	0 1 0 1 0	0 0 1 1 0 1 1 2	0 0 0 1 0 0 0 0 0 0 0	0 0 0 0 0 0 0 1 1 2 2 0	0 1 1 0 0 0 0 0	0 0 0 0 0 1 1 0 0 3 3	1 1 1 1 4 4 1 0 1 1 1 1 0 0 1 2	1 0 0 0 2 3 3 7 7 13 2 3 8 4	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 2 0 1 0 0 0 0 0 0 0	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 3 0 1 0 0 0 0	2 0 0 0 1 1 0 0	0 0 0 2 0 2 0 0	2 1 0 0 0 1 1	1 0 0 0 1 0	3 4 2 2 1	2 4 4 0	1 2 3 3	1 2	4			
12-24 24-36 36-48 48-60 60-72 72-84 84-96 96-108 108-120 120-132 132-144 144-156 156-168 168-180 180-192 192-204 204-216 216-228	0.01895 0.00000 0.01895 0.00000 0.01895 0.00000 0.01895 0.00000	0.00000 0.01650 0.01650 0.01650 0.01650 0.01650 0.03301	0.00000 0.1532 0.00000 0.01532 0.00000 0.001532 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.01421 0.00000 0.00000 0.00000 0.00000 0.00000 0.01421 0.01421	0.00000 0.00000 0.00000 0.00000 0.00000 0.01637 0.00000 0.01437 0.00000 0.04911 0.00000 0.00000	0.01704 0.01704 0.01704 0.01704 0.01704 0.00000 0.01704 0.01704 0.01704 0.01704 0.01704 0.01704 0.01704 0.01704 0.01704	0.00000 0.00000 0.00000 0.00000 0.04209 0.06313 0.00000 0.14730 0.27357 0.04209 0.06313 0.16835 0.08417	2001 48.52263 0.00000 0.00000 0.01122 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2002 40.83800 0.00000 0.00000 0.02449 0.00000 0.09795 0.00000 0.04897 0.02449 0.00249 0.02449 0.00000 0.07346	2003 36.49841 0.00000 0.00000 0.00000 0.02740 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2004 46.07390 0.02170 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.02170 0.00000 0.02170	2005 66.27576 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2006 70.46594 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2007 79,90427 0.00000 0.02503 0.00000 0.01251 0.00000 0.01251 0.00000 0.00000 0.00000 0.01251 0.00000	2008 101.35398 0.00987 0.0000 0.0000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2009 101.34814 0.00987 0.00000 0.02960 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2010 125.39358 0.01595 0.00000 0.00000 0.00000 0.00797 0.00090 0.00797 0.00000	2011 148.48571 0.00000 0.00000 0.00000 0.01347 0.00000 0.01347 0.00000 0.00000	2012 153.61891 0.01302 0.00651 0.00000 0.00000 0.00651 0.00651	2013 145.14625 0.00689 0.00000 0.00000 0.00000 0.00689 0.00000	2014 183.43195 0.01635 0.02181 0.01090 0.01090 0.00545	2015 140.57028 0.01423 0.02846 0.02846 0.00000		2017 172.70878 0.00579 0.01158	2018 180.5976 0.02215	2019 85.96294 Total=	Average 0.00943 0.00848 0.00892 0.00284 0.00232 0.00331 0.00335 0.00723 0.00885 0.00723 0.00885 0.00723 0.00887 0.01897 0.01887 0.01902 0.02612 0.02612 0.02612 0.02612	Smoothed 0.02877 0.02612 0.02068 0.01902 0.01887 0.01725 0.00943 0.00994 0.00892 0.00885 0.00784 0.00723 0.00720 0.00331 0.00284 0.00232 0.00232
IBNR Claims Cumulative For times Payroll	actor								0.00232 0.11257	0.00516 0.21072	0.00847 0.30914		0.01902 1.26056	0.02625 1.84973	0.03409 2.72394					0.07895 12.12821						0.19681 35.54384	0.22558 41.94952		

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2020

Payrolls: Exhibit X-A-3

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Claims with File Dates on or before 12-31-2019, Valued as of 4-30-2020

COAL MINE COMPENSATION RATING BUREAU
FEDERAL OCCUPATIONAL DISEASE

ANTHRACITE SURFACE (0153)

Incremental Frequency and IBNR Reported Claims 1994 1997 1998 1999 2000 2001 2002 2003 2004 2006 2011 2017 Months 12 11 24 36 17 48 21 19 60 21 13 21 72 21 22 13 84 21 23 15 0 96 24 21 16 108 24 21 19 120 22 24 21 132 24 23 21 144 24 23 21 156 24 23 21 168 25 24 23 180 25 24 24 10 192 25 24 24 10 204 25 24 10 216 24 10 228 24 240 25 10 Incremental Changes 12-24 24-36 0 0 0 36-48 Λ 0 0 0 2 48-60 0 0 60-72 0 72-84 0 0 84-96 96-108 108-120 120-132 132-144 144-156 156-168 Ω 168-180 180-192 0 0 192-204 0 0 204-216 0 0 0 Ω Ω 214-228 Ω Ω Ω Ω Ω 0 228-240 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 (\$Millions)  $30.21045 \quad 20.28889 \quad 16.19217 \quad 17.78314 \quad 17.37629 \quad 18.44114 \quad 16.80781 \quad 12.92375 \quad 11.04657 \quad 11.92821 \quad 12.35973 \quad 12.14091 \quad 12.92375 \quad 11.04657 \quad 11.92821 \quad 12.35973 \quad 12.14091 \quad 12.92375 \quad 11.92821 \quad 12.92819 \quad 12.92819$ 12.06532 14.86656 16.22023 15.89353 13.31919 19.50743 24.73471 20.72001 18.91134 22.23435 19.25711 19.09463 18.30351 Smoothed Average 12-24 0.00000 0.00000 0.12330 0.00000 0.00000 0.05126 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.01689 0.02184 24-36 0.00000 0.00000 0.00000 0.06292 0.00000 0.00000 0.04043 0.00000 0.00000 0.00000 0.00000 0.00795 0.01958 0.00000 0.00000 0.00000 0.00000 0.00000 36-48 0.00000 0.08288 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.10386 0.01436 0.01689 48-60 0.00000 0.08091 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.04826 0.00000 0.00994 0.01436 0.00000 0.00000 60-72 0.09053 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.06292 0.00000 0.00000 0.00000 0.04826 0.05288 0.01958 0.01332 72-84 0.00000 0.00000 0.08383 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00645 0.01155 84-96 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.15016 0.00000 0.00000 0.01155 0.01013 96-108 0.00000 0.00000 0.07738 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00595 0.00994 108-120 0.00000 0.05423 0.11899 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.01332 0.00854 120-132 0.00000 0.00000 0.00000 0.00000 0.07738 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00595 0.00795 132-144 0.00000 0.00000 0.05755 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00443 0.00645 144-156 0.00000 0.00000 0.05623 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00433 0.00595 156-168 0.03310 0.09858 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.01013 0.00595 168-180 0.00000 0.00000 0.04929 0.06176 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00854 0.00443 0.00000 180-192 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00433 0.00000 0.00000 192-204 0.00000 0.00000 0.00000 0.06176 0.00000 0.00000 0.00000 0.17849 0.00000 0.00000 0.02184 0.00414 204-216 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 216-228 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.03310 0.00000 0.00000 0.00000 0.00000 0.00000 228-240 0.00000 0.00000 0.00414 0.00000 Total= 0.16535 0.16535 IBNR Claims Cumulative Factor 0.00000 0.00000 0.00000 0.00414 0.00847 0.01290 0.01885 0.02480 0.03125 0.03920 0.04774 0.05748 0.06781 0.07934 0.09268 0.10704 0.12393 0.14351 0.16535 times Payroll 0.00000 0.00000 0.00000 0.05117 0.10283 0.15564 0.28023 0.40226 0.49667 0.52211 0.93128 1.42670 1.40502 1.50080 2.06068 2.06128 2.36640 2.62674 3.41166

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2020

Payrolls: Exhibit X-A-3

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COAL MINE COMPENSATION RATING BUREAU FEDERAL OCCUPATIONAL DISEASE BITUMINOUS SURFACE (0156)

													BI	ruminous s	SURFACE (01	56)													
													Incre		quency and	d IBNR								Claims with	1 File Dates	on or betore	12-31-2019	, Valued as a	of 4-30-2020
Reported C Months 12 24 366 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240	loims  1993 1 3 5 6 8 8 9 9 10 10 10 10 10 11 11 13 13 13 13	1994 1 5 6 7 7 8 8 9 10 111 112 13 13 13 13 14 14 15 15	1995 5 7 8 8 10 11 13 14 15 18 21 21 21 21 22 22 22 22 24 24 24	1996 4 5 5 6 7 7 8 9 10 10 10 11 11 11 12 13 13 13 14 14	1997 2 3 3 5 5 5 7 7 7 7 7 8 8 8 8 8 8 8 9 10 10 10 10 10 10 10 10 10 10 10 10 10	1998 0 2 2 2 2 3 3 4 5 5 6 6 6 6 6 6 7 8 9 9	1999 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2000 3 3 3 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7 8 8 10	2001 0 1 1 1 1 1 1 2 2 2 2 2 2 3 3 3 3 4 5 7 7 7 7	2002 1 2 2 2 2 2 2 2 2 2 2 3 4 4 4 4 4 4 4 4	2003 0 0 1 1 1 1 1 2 3 3 4 5 5 5 5	2004 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2	2005 0 0 1 1 1 1 1 1 1 1 1 1 2 2	Yei 2006 0 0 1 1 1 1 2 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4	2007 2 2 2 2 3 3 3 4 4 4 4 5 5 5 5	2008 0 1 1 1 1 4 4 5 5 5 5 6 7	2009 0 0 0 0 0 0 0 0 1 1	2010 1 1 1 1 1 2 2 2 2 2 2	2011 0 1 1 2 3 3 4 4 5	2012 3 8 8 8 8 8 9 9	2013 2 2 2 3 3 4 4	2014 0 1 1 1 3 3 4	2015 1 3 6 7 9	2016 0 0 0 0	2017	2018 0 0	2019		
Increments 12-24 24-36 36-48 48-60 60-72 72-84 84-96 108-120 120-132 132-144 144-156 156-168 180-192 192-204 204-216 216-228 228-240	0 1 0 2 0 0	0 1 0 0 1 0 0	0 0 1 0 0 0 2 0	1 0 0 1 1 0 0	1 0 0 0 0 1 1 1 0	1 0 0 0 1 1 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 0 0 0 1 1 0 0 1 1 1 2 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 1 1 1 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 1 1 0 0 0 2 2 0 0 0 0 0 0 0 0 0 0 0	0 0 1 1 0 0 0 0 0	1 0 0 0 3 1 1 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 1 0 0 0	1 0 1 1 0 1 0 1	5 0 0 0 0 0 1 1	0 0 1 1 0	1 0 0 2 1	2 3 1 1 2 2	0 0 0	0 0	0			
192-204 204-216 216-228	0.01058 0.00000 0.02115	0.01081 0.00000 0.00000	0.00000 0.01270 0.00000 0.01270 0.00000 0.00000 0.00000 0.02540 0.00000 0.00000	0.00000 0.00000 0.01285 0.01285 0.00000 0.00000 0.01285 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000	0.01571 0.01571 0.01571	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	0.01720 0.00000 0.00000 0.00000 0.01720 0.00000 0.01720 0.01720 0.03439	0.00000 0.00000 0.00000 0.00000 0.01869 0.01869 0.00000 0.00000 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.02089 0.02089 0.02089 0.02089 0.00000 0.00000 0.00000	0.00000 0.00000 0.00000 0.00000 0.00000 0.01779 0.00000 0.00000 0.00000 0.00000	2005 64.87156 0.01542 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2004 63.79850 0.01567 0.00000 0.01567 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	2007 64.80809 0.00000 0.00000 0.01543 0.00000 0.00000 0.00000 0.00000 0.01543 0.00000 0.01543 0.00000 0.01543 0.00000	2008 74.60123 0.01340 0.00000 0.00000 0.00000 0.01340 0.00000 0.00000 0.00000 0.01340 0.01340	2009 63.30670 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.01580 0.00000 0.00000	2010 74.25518 0.00000 0.00000 0.00000 0.01347 0.00000 0.00000 0.00000 0.00000	0.01140	2012 77.89050 0.06419 0.00000 0.00000 0.00000 0.00000 0.01284 0.01284	2013 62.71806 0.00000 0.00000 0.01594 0.00000 0.01594 0.00000	0.01806 0.00000 0.00000 0.03612	2015 42.00009 0.04762 0.07143 0.02381 0.04762	2016 30.13122 0.00000 0.00000 0.00000	2017 34.24896 0.00000 0.00000	2018 36.30520 0.00000		Average 0.01310 0.00648 0.00633 0.00732 0.00793 0.00663 0.00060 0.00370 0.00560 0.00370 0.00380 0.00576 0.00576 0.00576 0.00576 0.00576 0.00576	Smoothed 0.01310 0.01125 0.00793 0.00793 0.00683 0.00643 0.00633 0.00567 0.00567 0.00561 0.00381 0.00380 0.00379 0.00379 0.00313 0.00161 0.00161 0.00161 0.00000 0.10307
IBNR Claim Cumulative times Payro	Factor																							0.07079 2.13299		0.08997 3.26638	0.10307 3.75130		

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2020 Payrolls: Exhibit X-A-3

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COAL MINE COMPENSATION RATING BUREAU FEDERAL OCCUPATIONAL DISEASE OTHER CLASSIFICATIONS - FEDERAL

COAL MINE COMPENSATION RATING BUREAU Exhibit VIII-C-5

Claims with File Dates on or before 12-31-2019, Valued as of 4-30-2020

													Increr	nental Freq	vency and	IBNK											
Reported Clai	ms													Year													
Months	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
12	1	0	0	0	1	1	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	1	0	0	0	2	2	1	0	0	1	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	1	
36	1	0	0	0	4	2	3	1	0	1	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0		
48	1	0	0	0	4	2	3	1	0	1	0	1	1	0	0	0	0	0	1	1	2	0	0	0			
60	1	0	0	0	5	2	4	1	0	1	0	1	1	0	0	0	0	0	1	1	2	2	0				
72	1	0	0	0	6	2	4	1	0	2	0	1	1	0	0	0	1	0	1	2	2	2					
84	1	0	0	0	6	3	4	1	0	2	1	1	1	0	0	0	1	0	1	2	2						
96	1	0	0	0	6	3	4	1	0	2	1	1	2	0	0	0	1	0	1	2							
108	1	0	0	0	6	3	4	1	0	2	1	1	2	0	1	1	1	0	1								
120	1	0	0	0	6	3	4	1	0	2	1	1	3	1	1	1	1	0									
132	1	0	0	0	6	3	4	1	0	2	1	1	3	1	1	1	1										
144	1	0	0	0	6	3	5	1	0	2	1	1	3	2	1	1											
156	1	0	0	0	6	3	5	1	0	2	1	1	3	2	1												
168	1	0	0	0	6	3	5	1	0	2	1	1	3	2													
180	1	0	0	0	7	3	5	1	0	2	1	1	3														
192	1	0	0	0	7	3	5	1	0	2	1	2															
204	1	0	0	0	7	3	5	2	0	2	1																
216	1	0	0	0	7	3	5	3	0	2																	
228	1	0	0	0	7	3	5	3	0																		
240	1	0	0	0	0	2	5	2																			

 COAL MINE COMPENSATION RATING BUREAU FEDERAL OCCUPATIONAL DISEASE ALL CLASSIFICATIONS

Claims with File Dates on or before 12-31-2019, Valued as of 4-30-2020

													Incre	emental Fre		d IBNR													
Reported Clair Months  12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240	1993 13 21 26 33 36 38 39 41 42 42 43 43 44 46 46 49 49 50 50	1994 17 24 31 35 39 40 41 42 45 47 48 48 48 50 51 51 52 53 54	1995 10 16 23 28 31 31 35 38 40 46 51 51 51 52 56 57 57 58 60 60	1996 9 13 13 14 16 20 21 24 24 24 25 25 25 26 28 30 33 33 34	1997 7 13 18 22 24 26 28 28 28 29 30 31 32 32 32 32 32 33 34 35 36 37 39	1998 6 12 15 16 16 18 19 20 21 21 21 23 23 24 25 26 27 32 33 33	1999 2 6 10 11 13 13 13 14 15 15 17 18 23 25 25 27 28 29 30 30 32 34	2000 6 122 13 16 17 7 18 19 19 21 123 26 26 29 36 50 56 62 27 0 75	2001 3 4 7 9 111 13 15 18 18 21 21 21 22 23 25 26 26	2002 6 8 11 13 14 16 16 17 7 17 22 23 25 28 30 31 1 34 34 34	2003 0 1 4 4 4 4 6 7 9 10 0 10 11 11 12 12 12 13	2004 4 5 6 7 8 8 8 8 9 9 9 10 10 11 13	2005 2 3 4 4 4 4 5 6 6 7 7 7 7 8 8	Yev 2006 1 3 3 5 5 5 7 7 7 8 8 8 9 10 10	2007 4 4 4 6 7 7 8 9 9 10 111 12 12 12 13 13	2008 0 4 4 4 4 8 9 9 10 10 11 11 12	2009 1 2 3 6 6 6 9 9 9 10 10 10	2010 1 3 3 3 3 5 6 6 8 9 9	2011 2 4 6 8 11 11 14 14 15	2012 4 11 13 14 14 15 17 18	2013 6 8 8 10 12 15 15	2014 4 8 12 14 20 23	2015 7 12 19 25 27	2016 5 6 8 13	2017 5 6 8	2018 4 9	2019		
Incremental C 12-24 24-36 36-48 48-60 60-72 72-84 84-96 108-120 120-132 132-144 144-156 156-168 180-192 192-204 204-216 216-228 228-240	1 2 0 3 3 0 1 0	0 2 1 1 1 1 1 3	0 1 4 1 1 0 1 2 2 0 0 0	1 0 0 1 2 2 3 3 0	1 1 1 1 0 1 1 1 1 1 1 2	1 0 0 2 2 0 1 1 1 1 1 5	1 1 2 2 1 1 5 5 2 0 0 2 2 1 1 1 1 2 2 2	1 0 0 2 2 2 3 3 0 3 7 7 14 6 6 8 5	2 2 2 0 3 3 0 0 1 1 1 1 2 0 0	1 2 0 0 1 0 5 1 1 2 2 3 2 2 1 1 0 0 3 0 0	0 0 0 2 1 2 1 1 0 0 1 1 0 0	1 1 1 0 0 0 0 0 1 1 0 0 0 1 1 2 2	1 1 0 0 0 0 1 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 0 0 1 0 0 0 0 0	2 0 2 0 0 0 2 2 0 0 1 1 0 0	0 2 1 1 1 0 0 1 1 1 0 0	4 0 0 0 4 1 1 0 1 1 1	1 1 3 0 3 0 0 0 1 0 0	2 0 0 0 2 1 2 1 0	2	7 2 1 0 1 1 2 1	2 0 2 2 2 3 0	4 4 2 6 3	5 7 6 2	1 2 5	1 2	5			
180-192 ( 192-204 ( 204-216 ( 216-228 (	1993 7.34642 2.00000 0.00843 0.00000 0.01264 0.00000 0.00421 0.00000	0.00817 0.00408 0.00408 0.00408 0.00408 0.00408 0.00408 0.00408	0.00442 0.01769 0.00442 0.00000 0.00442 0.00884 0.00000	0.00000 0.00000 0.00000 0.00428 0.00056 0.00000 0.01284 0.00000 0.00428	1997 231.27906 0.00432 0.00432 0.00432 0.00432 0.00432 0.00432 0.00432 0.00432 0.00432	0.00000 0.00000 0.00000 0.01141 0.00007 0.00571 0.00571 0.00571 0.02853 0.00571 0.02853	0.00611 0.01223 0.00611 0.01223 0.00611 0.03057 0.01223 0.00611 0.00611 0.00611 0.00611	0.00000 0.00000 0.00000 0.01378 0.01378 0.02067 0.00000 0.02067 0.04822 0.09644 0.04133 0.04133 0.05511 0.03444	2001 152.19366 0.01314 0.00000 0.01971 0.00000 0.01971 0.00005 0.00657 0.00657 0.00657 0.00657 0.00657	2002 138.87132 0.01440 0.00000 0.00720 0.00000 0.03600 0.00720 0.01440 0.02160 0.01440 0.00720 0.00000	2003 133.95628 0.00000 0.00000 0.00009 0.00747 0.01493 0.00747 0.00000 0.00747 0.00000 0.00000 0.00000 0.00000	2004 1160.69703 0.00622 0.00000 0.00000 0.00000 0.00000 0.00002 0.00000 0.00002 0.00000 0.00002 0.00000 0.0002 0.0002 0.0002	2005 196.69173 0.00508 0.00000 0.00000 0.00508 0.00508 0.00508 0.00000 0.00508 0.00000 0.00000 0.00000 0.00000	2006 201.34946 0.00993 0.00000 0.00993 0.00000 0.000993 0.00000 0.000997 0.00000 0.00497 0.000497 0.00000		2008 249.56714 0.01603 0.00000 0.00000 0.00000 0.01603 0.00401 0.00000 0.00401 0.00000		2010 268.41150 0.00745 0.00000 0.00000 0.00000 0.00745 0.00373 0.00745 0.00373	0.00619 0.00619 0.00619 0.00619 0.00928 0.00000 0.00928 0.00000		2013 293.50656 0.00681 0.00000 0.00681 0.01022 0.00000	0.01243 0.01243			2017 285.52607 0.00350 0.00700	2018 3001.69047 3 0.01657		Average 0.00989 0.00663 0.00784 0.00409 0.00601 0.00510 0.00268 0.00465 0.00694 0.00424 0.00787 0.00471 0.00635 0.01126 0.01126 0.00157 0.01126 0.00952 0.00898 0.13810	Smoothed 0.01185 0.01126 0.01057 0.00989 0.00952 0.00898 0.00892 0.00784 0.00694 0.00643 0.00635 0.00601 0.00471 0.00445 0.00449 0.00424 0.00499 0.00428 0.13810
IBNR Claims Cumulative Fa times Payroll	actor								0.00268 0.40788	0.00677 0.94016	0.01101 1.47486	0.01566 2.51652	0.02037 4.00661	0.02547 5.12837	0.03148 6.94955					0.06711 21.74096		0.08501 27.35237		0.10442 22.74567			0.13810 43.53295		

Source: Counts and Payrolls: Sum of Exhibits VIII-C-1 thru VIII-C-5

# COAL MINE COMPENSATION RATING BUREAU FEDERAL OCCUPATIONAL DISEASE ALL CLASSIFICATIONS

#### **IBNR By Class**

$\sim$	LASS		$\sim$	TΙ	$\cap$	N
$\overline{}$	LHSS	IГ	$I \subset A$	ш	וטו	IN

				Bituminous		Bituminous
A. IBNR Factor	Coke	Auger	Co-Gen	Co-Gen	Prep Plant	Prep Plant
Year	0154	0157	0181	0182	0183	0184
2010	0.0514	0.0514	0.0514	0.0514	0.0514	0.0514
2011	0.0592	0.0592	0.0592	0.0592	0.0592	0.0592
2012	0.0671	0.0671	0.0671	0.0671	0.0671	0.0671
2013	0.0760	0.0760	0.0760	0.0760	0.0760	0.0760
2014	0.0850	0.0850	0.0850	0.0850	0.0850	0.0850
2015	0.0945	0.0945	0.0945	0.0945	0.0945	0.0945
2016	0.1044	0.1044	0.1044	0.1044	0.1044	0.1044
2017	0.1150	0.1150	0.1150	0.1150	0.1150	0.1150
2018	0.1263	0.1263	0.1263	0.1263	0.1263	0.1263
2019	0.1381	0.1381	0.1381	0.1381	0.1381	0.1381
B. Adjustment Factor	0.2000	0.5000	0.5000	0.4000	0.9000	0.4000
C. Payroll Per \$1M						
2010	5.43566	0.82750	7.95805	8.73270	4.87693	26.31313
2011	3.59909	1.17626	10.98164	9.10241	6.12326	35.15507
2012	5.73811	0.80821	9.31181	9.04775	7.56902	34.21173
2013	4.79191	1.04695	7.63076	10.35588	7.07489	33.63997
2014	4.46440	0.86159	8.36090	11.72118	6.52154	31.85443
2015	4.34038	0.65477	9.55481	11.74821	6.19660	24.32061
2016	4.43507	0.39278	7.95331	11.32755	5.54297	20.07940
2017	4.56611	0.56632	7.79356	11.43506	6.05681	28.80346
2018	4.48474	0.60014	10.05384	12.04330	6.91676	32.19987
2019	4.62653	0.59321	6.82163	11.80724	10.58484	37.62333
D. IBNR						
2010	0.0559	0.0213	0.2045	0.1795	0.2256	0.5410
2011	0.0426	0.0348	0.3253	0.2157	0.3265	0.8330
2012	0.0770	0.0271	0.3125	0.2429	0.4572	0.9184
2013	0.0729	0.0398	0.2901	0.3149	0.4841	1.0231
2014	0.0759	0.0366	0.3554	0.3986	0.4990	1.0832
2015	0.0821	0.0309	0.4516	0.4442	0.5272	0.9196
2016	0.0926	0.0205	0.4152	0.4731	0.5209	0.8387
2017	0.1050	0.0326	0.4481	0.5260	0.6268	1.3248
2018	0.1132	0.0379	0.6346	0.6082	0.7859	1.6261
2019	0.1278	0.0410	0.4710	0.6522	1.3156	2.0783

Source: IBNR Factor - Exhibit VIII-C-6 Adjustment Factor - Judgement

Payrolls: Exhibit X-A-3
IBNR = A times B times C

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# COAL MINE COMPENSATION RATING BUREAU FEDERAL OCCUPATIONAL DISEASE ALL CLASSIFICATIONS

#### **IBNR By Class**

$\sim$	LASS		$\sim$	TΙ	$\cap$	N
$\overline{}$	LHSS	IГ	$I \subset A$	ш	וטו	IN

Anthracite Bituminous Anthracite Bituminous Anthracite Bituminous A. IBNR Factor  Coke Auger Co-Gen Co-Gen Prep Plant Prep Plant  Year 0154 0157 0181 0182 0183 0184 2000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 2001 0.0027 0.0027 0.0027 0.0027 0.0027
Year         0154         0157         0181         0182         0183         0184           2000         0.0000         0.0000         0.0000         0.0000         0.0000         0.0000
2000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
2001 0.0027 0.0027 0.0027 0.0027 0.0027 0.0027
2002 0.0068 0.0068 0.0068 0.0068 0.0068 0.0068
2003 0.0110 0.0110 0.0110 0.0110 0.0110 0.0110
2004 0.0157 0.0157 0.0157 0.0157 0.0157 0.0157
2005 0.0204 0.0204 0.0204 0.0204 0.0204 0.0204
2006 0.0255 0.0255 0.0255 0.0255 0.0255
2007 0.0315 0.0315 0.0315 0.0315 0.0315 0.0315
2008 0.0378 0.0378 0.0378 0.0378 0.0378 0.0378
2009 0.0445 0.0445 0.0445 0.0445 0.0445 0.0445
B. Adjustment Factor 0.2000 0.5000 0.5000 0.4000 0.9000 0.4000
C. Payroll Per \$1M
2000 12.09257 1.20588 4.47346 1.87072 1.31947 8.57476
2001 10.37583 1.42913 4.66181 2.12133 2.21630 10.15503
2002 10.48501 1.15084 5.65877 2.38612 2.32282 10.09455
2003 11.53408 1.10222 7.00962 3.05252 3.40800 10.19521
2004 12.04913 1.05880 7.35151 6.37448 4.40665 13.46020
2005 12.86098 1.02654 7.85529 8.52475 5.17007 16.54831
2006 12.73739 1.06683 8.41253 9.42358 4.88588 17.05097
2007 13.66993 1.12116 9.18671 10.82914 5.81729 18.89519
2008 9.76115 2.50676 7.52140 8.48189 5.73354 21.25026
2009 5.17355 0.94696 7.53474 7.86641 6.26461 19.82801
D. IBNR
2000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
2001 0.0056 0.0019 0.0062 0.0023 0.0053 0.0109
2002 0.0142 0.0039 0.0192 0.0065 0.0142 0.0273
2003 0.0254 0.0061 0.0386 0.0134 0.0338 0.0449
2004 0.0377 0.0083 0.0576 0.0399 0.0621 0.0843
2005 0.0524 0.0105 0.0800 0.0695 0.0948 0.1348
2006 0.0649 0.0136 0.1071 0.0960 0.1120 0.1737
2007 0.0861 0.0176 0.1446 0.1364 0.1648 0.2379
2008 0.0739 0.0474 0.1423 0.1283 0.1952 0.3216
2009 0.0460 0.0211 0.1675 0.1399 0.2507 0.3526

Source: IBNR Factor - Exhibit VIII-C-6 Adjustment Factor - Judgement

Payrolls: Exhibit X-A-3
IBNR = A times B times C

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# Occupational Disease Federal Benefits

#### TABLE OF MONTHLY BLACK LUNG BENEFIT RATES

		IAD	LL OI MONIII	LIBLACI	CLOING BLINLIII I	NAILS	Yearly
	Time Pe	eriod			Claimant <u>Benefit</u>	Dependent <u>Benefit</u>	Percentage <u>Increase</u>
10/1/1981	to	9/30/198	32		293.20	146.60	<u> </u>
10/1/1982	to	12/31/198			304.90	152.50	4.0%
1/1/1984	to	12/31/198			317.10	158.60	4.0%
1/1/1985	to	12/31/198			328.20	164.10	3.5%
1/1/1986	to	12/31/198			328.20	164.10	0.0%
1/1/1987	to	12/31/198			338.00	169.00	3.0%
1/1/1988	to	12/31/198			344.80	172.40	2.0%
1/1/1989	to	12/31/198			358.90	179.50	4.1%
1/1/1990	to	12/31/199			371.80	185.90	3.6%
1/1/1991	to	12/31/199			387.10	193.60	4.1%
1/1/1992	to	12/31/199	22		403.30	201.70	4.2%
1/1/1993	to	12/31/199	23		418.20	209.10	3.7%
1/1/1994	to	12/31/199	24		427.40	213.70	2.2%
1/1/1995	to	12/31/199	25		427.40	213.70	0.0%
1/1/1996	to	12/31/199	26		435.10	217.60	1.8%
1/1/1997	to	12/31/199	7		445.10	222.60	2.3%
1/1/1998	to	12/31/199	8		455.10	227.60	2.2%
1/1/1999	to	12/31/199	9		469.50	234.80	3.2%
1/1/2000	to	12/31/200	00		487.40	243.60	3.8%
1/1/2001	to	12/31/200	)]		500.50	250.30	2.7%
1/1/2002	to	12/31/200	)2		518.50	259.30	3.6%
1/1/2003	to	12/31/200	)3		534.60	267.30	3.1%
1/1/2004	to	12/31/200	)4		549.00	274.50	2.7%
1/1/2005	to	12/31/200	)5		562.80	281.30	2.5%
1/1/2006	to	12/31/200	)6		574.60	287.20	2.1%
1/1/2007	to	12/31/200	)7		584.40	292.20	1.7%
1/1/2008	to	12/31/200	8		599.00	299.00	2.5%
1/1/2009	to	12/31/200	9		616.30	308.20	2.9%
1/1/2010	to	12/31/201	0		625.60	312.80	1.5%
1/1/2011	to	12/31/201	1		625.60	312.80	0.0%
1/1/2012	to	12/31/201	2		625.60	312.80	0.0%
1/1/2013	to	12/31/201	3		625.60	312.80	0.0%
1/1/2014	to	12/31/201	4		631.80	315.90	1.0%
1/1/2015	to	12/31/201			638.10	319.10	1.0%
1/1/2016	to	12/31/201			644.50	322.30	1.0%
1/1/2017	to	12/31/201			651.00	325.40	1.0%
1/1/2018	to	12/31/201			660.10	330.00	1.4%
1/1/2019	to	12/31/201			669.30	334.70	1.4%
1/1/2020	to	12/31/202	20		686.70	343.40	2.6%
		All Years	Average				2.3%
		Last 10 Yrs	Average				0.9%
		Last 5 Yrs	Average				1.5%
		Last 3 Yrs	Average				1.8%
Selected Ber	nefit Ch	nange from	2020	to	2021		1.00%
Selected Ber		-	2021	to	2022		1.50%
Selected Ber		_	2022	to	2023		2.50%

Selected Average Annual Benefit Change (Last Year's Selection: 2.5%)

			Projected Benefit-		
			<u>Claimant</u>	<u>Dependant</u>	<u>Weight</u>
1/1/2021	to	12/31/2021	693.60 a	346.80	28.125%
1/1/2022	to	12/31/2022	704.00 a	352.00	68.750%
1/1/2023	to	12/31/2023	721.60 a	360.80	3.125%
Average Moi Period Beginr	•	nefit During the Policy 01/2021	701.60 b	350.80	
Average We	ekly Ber	nefit During the Policy			
Period Beginr	ning 04/	01/2021	161.90 c	81.00	
Annual (Wee	kly X 52		8,418.80	4,209.40	
Annual Miner	r and Sp	oouse		12,628.20	

- a Previous year's benefit times selected benefit change
- b Weighted average of projected benefit levels from 01-01-21 to 12-31-23
- c Monthly Benefit times 12 months divided by 52 weeks

Sources: US Department of Labor

Employment Standards Administration
Office of Workers' Compensation Programs
Division of Coal Mine Workers' Compensation

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2.50%

#### Anthracite Underground (0160)

		Co	ounts					
	(1)	(2)	(3)	(4)		(5)	(6)	(7)
						Pending	Denied	Denied
	Reported	Awarded	Pending	Denied		Awarded	Reopened	Awarded
Year						(3) * 30%		
2010	# O	# O	# O	# 0		# 0.00	# 0.00	# 0.00
2011	2	-	-	2		-	0.10	0.10
2012	-	-	-	-		-	-	-
2013	2	-	-	2		-	0.10	0.10
2014	-	-	-	-		-	-	-
2015	1	-	1	-		0.30	-	-
2016	-	-	-	-		-	-	-
2017	-	-	-	-		-	-	-
2018	-	-	-	-		-	-	-
<u>2019</u>		<del>_</del>			<u>-</u>			
Total	5	-	1	4		0.30	0.20	0.20
	(8)	(9)	(10)	(11)		(12)	(13)	(14)
	Ultimate	Ultimate		IBNR		Total		
	Awarded	Denied	IBNR	Awarded		Awarded		Frequency
Year	(2)+(5)+(7)	<u>(1)-(8)</u>		(10)xAward Ratio		<u>(8)+(11)</u>	<u>Payroll</u>	(12)/(13) x 1000000
2010	# 0.00	# 0.00	# 0.1772	# 0.0269		# 0.0269	\$ 1,299,588	0.0207
2011	0.10	1.90	0.2413	0.0366		0.1366	1,257,944	0.1086
2012	-	-	0.2558	0.0388		0.0388	1,029,260	0.0377
2013	0.10	1.90	0.1166	0.0177		0.1177	381,876	0.3082
2014	-	-	0.0949	0.0144		0.0144	258,809	0.0556
2015	0.30	0.70	0.1164	0.0177		0.3177	254,336	1.2490
2016	-	-	0.0984	0.0149		0.0149	163,760	0.0912
2017	-	-	0.1894	0.0287		0.0287	252,383	0.1139
2018	-	-	0.1745	0.0265		0.0265	183,346	0.1445
<u>2019</u>			0.2360	0.0358	-	0.0358	179,379	0.1997
Total	0.50	4.50	1.7004	0.2581		0.7581	\$ 5,260,681	0.1441
	(15)	(16)	(17)	(18)				
	Statewide	( - 0)	Estimated	Frequency				
	Average	Adjustment	Miner	Claims per 100				
Year	Weekly Wage	<u>Factor</u>	<u>Years</u>	Miner Years				
2010	845	1.0670	27.7	0.0971				
2011	858	1.0670	26.4	0.5175				
2012	888	1.0670	20.9	0.1858				
2013	917	1.0670	7.5	1.5694				
2014	932	1.0670	5.0	0.2880				
2015	951	1.0670	4.8	6.6182				
2016	978	1.0670	3.0	0.4980				
2017	995	1.0670	4.6	0.6249				
2018	1,025	1.0670	3.2	0.8278				
<u>2019</u>	1,049	1.0670	3.1	1.1554				
Total	1,047	1.0070	106.2	0.7139				
IOIGI			100.2	0.7137				

Sources:

Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.05)xCol.(4) Col.(7): (1.00)xCol.(6)

Col.(10): Exh. VIII-C Col.(13): Exhibit X Col.(15): Exhibit XII-D Col.(16): Exhibit X-G

Col.(17): (13) /( (15) x (16) x 52 ) Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.1518

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Run Date: September 18, 2020 - 11:14:55 AM

PAB Effective Date - April 01, 2021 10,591,339.624273

#### Bituminous Underground (0158)

		Co	ounts				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
					Pending	Denied	Denied
Year	Reported	Awarded	Pending	Denied	Awarded <u>(3) * 30%</u>	Reopened	Awarded
2010	# 5	# 0	# 1	# 4	# 0.30	# 0.20	# 0.20
2011	6	0		5	0.00	0.25	0.25
2012	6	-	_	6	_	0.30	0.30
2013	4	1	_	3	_	0.15	0.15
2014	15	_	_	15	-	0.75	0.75
2015	16	_	1	15	0.30	0.75	0.75
2016	10	_	5	5	1.50	0.25	0.25
2017	6	1	1	4	0.30	0.20	0.20
2018	7	-	2	5	0.60	0.25	0.25
2019	1			1	<del>_</del> _	0.05	0.05
Total	76	3	10	63	3.00	3.15	3.15
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Ultimate	Ultimate		IBNR	Total		_
.,	Awarded	Denied	IBNR	Awarded	Awarded	- "	Frequency
Year	<u>(2)+(5)+(7)</u>	<u>(1)-(8)</u>		(10)xAward Ratio	<u>(8)+(11)</u>	Payroll	(12)/(13) x 1000000
2010	# 0.50	# 4.50	# 7.5663	# 1.1486	# 1.6486	\$ 125,393,576	0.0131
2011	1.25	4.75	10.3227	1.5670	2.8170	148,485,709	0.0190
2012	0.30	5.70	12.1282	1.8411	2.1411	153,618,908	0.0139
2013	1.15	2.85	13.7700 20.5664	2.0903	3.2403	145,146,253	0.0223
2014 2015	0.75 1.05	14.25 14.95	18.4133	3.1220 2. <i>7</i> 951	3.8720 3.8451	183,431,952 140,570,275	0.0211 0.0274
2013	1.75	8.25	17.7830	2.6995	4.4495	118,545,477	0.0375
2017	1.50	4.50	29.4797	4.4750	5.9750	172,708,778	0.0375
2018	0.85	6.15	35.5438	5.3956	6.2456	180,599,760	0.0346
<u>2019</u>	0.05	0.95	41.9495	6.3679	6.4179	185,962,937	0.0345
Total	9.15	66.85	207.5229	31.5020	40.6520	\$ 1,554,463,625	0.0262
	(15)	(16)	(17)	(18)			
	Statewide		Estimated	Frequency			
	Average	Adjustment	Miner	Claims per 100			
Year	Weekly Wage	<u>Factor</u>	<u>Years</u>	Miner Years			
2010	845	1.5730	1,814.2	0.0909			
2011	858	1.5730	2,115.8	0.1331			
2012	888	1.5730	2,114.9	0.1012			
2013	917	1.5730	1,935.1	0.1674			
2014	932	1.5730	2,406.2	0.1609			
2015	951	1.5730	1,807.1	0.2128			
2016	978	1.5730	1,481.9	0.3003			
2017	995	1.5730	2,122.1	0.2816			
2018	1,025	1.5730	2,154.1	0.2899			
<u>2019</u>	1,049	1.5730	2,167.3	0.2961			
Total			20,118.7	0.2021			

Sources:

Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.05)xCol.(4) Col.(7): (1.00)xCol.(6)

Col.(10): Exh. VIII-C Col.(13): Exhibit X Col.(15): Exhibit XII-D Col.(16): Exhibit X-G

Col.(17): (13) /( (15) x (16) x 52 )

Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.1518

File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-08-F.xlsx]p 2 Run Date: September 18, 2020 - 11:14:55 AM

#### Anthracite Surface (0153)

		Co	ounts				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
					Pending	Denied	Denied
	Reported	Awarded	Pending	Denied	Awarded	Reopened	Awarded
Year					<u>(3) * 30%</u>		
2010	# 2	# O	# O	# 2	# 0.00	# 0.10	# 0.10
2011	1	-	-	1	-	0.05	0.05
2012	1	_	_	1	-	0.05	0.05
2013	3	1	2	-	0.60	-	_
2014	2	_	1	1	0.30	0.05	0.05
2015	1	_	_	1	-	0.05	0.05
2016	3	_	1	2	0.30	0.10	0.10
2017	1	_	_	1	-	0.05	0.05
2018	1	_	1	· <u>-</u>	0.30	-	-
2019	· _	_		_	-	_	_
Total	15	1	5	9	1.50	0.45	0.45
TOTAL	10	•	9	,	1.50	0.40	0.40
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Ultimate	Ultimate		IBNR	Total		
	Awarded	Denied	IBNR	Awarded	Awarded		Frequency
Year	(2)+(5)+(7)	<u>(1)-(8)</u>		(10)xAward Ratio	<u>(8)+(11)</u>	<u>Payroll</u>	(12)/(13) x 1000000
2010	# 0.10	# 1.90	# 0.5221	# 0.0793	# 0.1793	\$ 13,319,185	0.0135
2011	0.05	0.95	0.9313	0.1414	0.1914	19,507,428	0.0098
2012	0.05	0.95	1.4267	0.2166	0.2666	24,734,711	0.0108
2013	1.60	1.40	1.4050	0.2133	1.8133	20,720,014	0.0875
2014	0.35	1.65	1.5008	0.2278	0.5778	18,911,339	0.0306
2015	0.05	0.95	2.0607	0.3128	0.3628	22,234,350	0.0163
2016	0.40	2.60	2.0613	0.3129	0.7129	19,257,107	0.0370
2017	0.05	0.95	2.3664	0.3592	0.4092	19,094,634	0.0214
2018	0.30	0.70	2.6267	0.3987	0.6987	18,303,511	0.0382
<u>2019</u>	- 0.00	0.70	3.4117	0.5179	0.5179	20,632,989	0.0251
Total	2.95	12.05	18.3127	2.7799	5.7299	\$ 196,715,268	0.0291
					2	¥,,====	
	(15)	(16)	(17)	(18)			
	Statewide		Estimated	Frequency			
	Average	Adjustment	Miner	Claims per 100			
Year	Weekly Wage	<u>Factor</u>	<u>Years</u>	Miner Years			
2010	845	1.0670	284.1	0.0631			
2011	858	1.0670	409.8	0.0467			
2012	888	1.0670	502.0	0.0531			
2013	917	1.0670	407.2	0.4453			
2014	932	1.0670	365.7	0.1580			
2015	951	1.0670	421.4	0.0861			
2016	978	1.0670	354.9	0.2009			
2017	995	1.0670	345.9	0.1183			
2017	1,025	1.0670	321.8	0.2171			
	1,049	1.0670					
<u>2019</u> Total	1,049	1.06/0	354.5	<u>0.1461</u> 0.1521			
			27472				

Sources:

Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.05)xCol.(4) Col.(7): (1.00)xCol.(6)

Col.(10): Exh. VIII-C Col.(13): Exhibit X Col.(15): Exhibit XII-D Col.(16): Exhibit X-G

Col.(17): (13) /( (15) x (16) x 52 ) Col.(18): (12) / (17) x 100

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IBNR Award Ratio: 0.1518

File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-08-F.xlsx]p 3

Run Date: September 18, 2020 - 11:14:55 AM

Effective Date - April 01, 2021 393,507,933.872680

#### Bituminous Surface (0156)

		Co	ounts				
-	(1)	(2)	(3)	(4)	(5)	(6)	(7)
					Pending	Denied	Denied
	Reported	Awarded	Pending	Denied	Awarded	Reopened	Awarded
Year					(3) * 30%		
2010	# 2	# 1	# O	# 1	# 0.00	# 0.05	# 0.05
2011	5	_	1	4	0.30	0.20	0.20
2012	9	2	1	6	0.30	0.30	0.30
2013	4	-	_	4	-	0.20	0.20
2014	4	1	1	2	0.30	0.10	0.10
2015	9	1	1	7	0.30	0.35	0.35
2016	_	_	_	-	-	-	-
2017	1	_	_	1	-	0.05	0.05
2018	_	_	_	_	_	_	_
2019	_	_	_	_	_	_	_
Total	34	5	4	25	1.20	1.25	1.25
	0.	· ·					.,
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Ultimate	Ultimate	,	IBNR	Total	,	,
	Awarded	Denied	IBNR	Awarded	Awarded		Frequency
Year	(2)+(5)+(7)	<u>(1)-(8)</u>		(10)xAward Ratio	<u>(8)+(11)</u>	Payroll	(12)/(13) x 1000000
2010	# 1.05	# 0.95	# 2.4059	# 0.3652	# 1.4152	\$ 74,255,177	0.0191
2011	0.50	4.50	3.3399	0.5070	1.0070	87,730,506	0.0115
2012	2.60	6.40	3.4139	0.5182	3.1182	77,890,500	0.0400
2013	0.20	3.80	3.1459	0.4776	0.6776	62,718,061	0.0108
2014	1.40	2.60	3.1444	0.4773	1.8773	55,368,615	0.0339
2015	1.65	7.35	2.6658	0.4047	2.0547	42,000,092	0.0489
2016	-	-	2.1330	0.3238	0.3238	30,131,218	0.0107
2017	0.05	0.95	2.6961	0.4093	0.4593	34,248,962	0.0134
2018	-	-	3.2664	0.4958	0.4958	36,305,197	0.0137
2019	_	_	3.7513	0.5694	0.5694	36,395,622	0.0156
Total	7.45	26.55	29.9625	4.5483	11.9983	\$ 537,043,950	0.0223
						¥ 55. /5 .5/. 55	
	(15)	(16)	(17)	(18)			
	Statewide	,	Estimated	Frequency			
	Average	Adjustment	Miner	Claims per 100			
Year	Weekly Wage	<u>Factor</u>	<u>Years</u>	Miner Years			
2010	845	1.0670	1,583.8	0.0894			
2011	858	1.0670	1,842.9	0.0546			
2012	888	1.0670	1,580.9	0.1972			
2013	917	1.0670	1,232.7	0.0550			
2014	932	1.0670	1,070.7	0.1753			
2015	951	1.0670	796.0	0.2581			
2016	978	1.0670	555.3	0.0583			
2017	995	1.0670	620.4	0.0740			
2018	1,025	1.0670	638.4	0.0777			
<u>2019</u>	1,049	1.0670	625.3	0.0911			
Total	1,047	1.0070	10,546.4	0.1138			
IOIUI			10,040.4	0.1136			

Sources:

Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.05)xCol.(4) Col.(7): (1.00)xCol.(6)

Col.(10): Exh. VIII-C Col.(13): Exhibit X Col.(15): Exhibit XII-D Col.(16): Exhibit X-G

Col.(17): (13) /( (15) x (16) x 52 ) Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.1518

File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-08-F.xlsx]p 4

Run Date: September 18, 2020 - 11:14:55 AM

Effective Date - April 01, 2021 1,074,179,011.524610

#### Four Standard Classes

		С	ounts				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
					Pending	Denied	Denied
Year	Reported	Awarded	Pending	Denied	Awarded ( <u>3) * 30%</u>	Reopened	Awarded
2010	# 9	# 1	# 1	# 7	# 0.30	# 0.35	# 0.35
2011	14	1	1	12	0.30	0.60	0.60
2012	16	2	1	13	0.30	0.65	0.65
2013	13	2	2	9	0.60	0.45	0.45
2014	21	1	2	18	0.60	0.90	0.90
2015	27	1	3	23	0.90	1.15	1.15
2016	13	-	6	7	1.80	0.35	0.35
2017	8	1	1	6	0.30	0.30	0.30
2018	8	-	3	5	0.90	0.25	0.25
2019	1			1		0.05	0.05
Total	130	9	20	101	6.00	5.05	5.05
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Ultimate	Ultimate		IBNR	Total		_
	Awarded	Denied	IBNR	Awarded	Awarded	5 "	Frequency
Year	<u>(2)+(5)+(7)</u>	<u>(1)-(8)</u>	<u></u>	(10)xAward Ratio	<u>(8)+(11)</u>	Payroll Co. Co.	(12)/(13) x 1000000
2010	# 1.65	# 7.35	# 10.6714	# 1.6199	# 3.2699	\$ 214,267,526	0.0153
2011	1.90	12.10	14.8352	2.2520	4.1520	256,981,587	0.0162
2012	2.95	13.05	17.2247	2.6147	5.5647	257,273,379	0.0216
2013	3.05	9.95	18.4376	2.7988	5.8488	228,966,204	0.0255
2014	2.50	18.50	25.3064	3.8415	6.3415	257,970,715	0.0246
2015	3.05 2.15	23.95	23.2562 22.0757	3.5303	6.5803 5.5011	205,059,053 168,097,562	0.0321 0.0327
2016 2017	1.60	10.85 6.40	34.7315	3.3511 5.2722	6.8722	226,304,757	0.0327
2017	1.15	6.85	41.6115	6.3166	7.4666	235,391,814	0.0304
2019	0.05	0.05	49.3484	7.4911	7.541 <u>1</u>	243,170,927	0.0317
Total	20.05	109.95	257.4985	39.0883	59.1383	\$ 2,293,483,524	0.0258
	(15)	(16)	(17)	(18)			
	Statewide	( - /	Estimated	Frequency			
	Average	Adjustment	Miner	Claims per 100			
Year	Weekly Wage	<u>Factor</u>	Years	Miner Years			
2010	845	· <u></u>	3,709.8	0.0881			
2011	858		4,394.9	0.0945			
2012	888		4,218.7	0.1319			
2013	917		3,582.5	0.1633			
2014	932		3,847.6	0.1648			
2015	951		3,029.3	0.2172			
2016	978		2,395.1	0.2297			
2017	995		3,093.0	0.2222			
2018	1,025		3,117.5	0.2395			
2019	1,049		3,150.2	0.2394			
Total			34,538.6	0.1712			

Sources:

Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.05)xCol.(4) Col.(7): (1.00)xCol.(6)

Col.(10): Exh. VIII-C Col.(13): Sum of Pages 1 to 4 Col.(15): Exhibit XII-D Col.(16): Exhibit X-G

Col.(17): (13) /( (15) x (16) x 52 )

Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.1518

 $File: C:\Users\Forum\OneDrive\Clients\Coal\Mine\2020\Rate\Filing\XL\[2020-08-F.xlsx]p\ 5$ 

Effective Date - April 01, 2021 4,587,107,353.250650

Run Date: September 18, 2020 - 11:14:55 AM

Coke (0154)

1   (2) (3) (4)   Pending   Pendin			C	ounts				
2010	Year		(2)	(3)		Pending Awarded	Denied I Reopened	Denied
2012		<del></del>	# O	# 0	# O			# 0.00
2013		-	-	-	-			-
2014		-	-	-	-			-
2015		-	-	-	-			-
2016		-	-	-	-		-	-
2017   2018   2		-	-	-	-		-	-
2018		-	-	-	-		-	-
Company		-	-	-	-		-	-
Total		_	_	_	-			_
Real								
Vect	TOTAL							
Year (2)+(5)+(7) (1)+(8) (2)+(5)+(7) (1)+(8)         Awarded (2)+(5)+(7) (1)+(8) (1)+(8)         Awarded (8)+(1)+(8)+(7) (1)+(8) (1)+(1)+(1)+(1)+(1)+(1)+(1)+(1)+(1)+(1)+		(8)	(9)	(10)	(11)	(12)	(13)	(14)
Year         (2)+(5)+(7)         (1)-(8)         (10)xAward Ratio         (8)+(11)         Payroll         (12)/(13) x 1000000           2010         # 0.00         # 0.005         # 0.0085         # 0.0085         \$5,435,658         0.0016           2011         -         -         0.0426         0.0065         0.0065         3,599,086         0.0018           2012         -         -         0.0779         0.0117         0.0117         5,738,105         0.0020           2013         -         -         0.0729         0.0111         0.0111         4,791,910         0.0023           2015         -         -         0.0759         0.0115         0.015         4,444,398         0.0026           2015         -         -         0.0821         0.0125         0.0125         4,340,376         0.0029           2016         -         -         0.0926         0.0141         0.0141         4,435,066         0.0032           2017         -         -         0.1132         0.0172         0.0172         4,484,744         0.0032           2018         -         -         0.1278         0.0194         0.0194         4,626,532         0.0042           <			Ultimate					
2010				IBNR				
2011								
2012		# 0.00	# 0.00				·	
2013		-	-					
2014 0.0759		-	-					
2015 0.0821 0.0125 0.0125 4,340,376 0.0029 2016 0.0926 0.0141 0.0141 4,435,066 0.0032 2017 0.1050 0.0159 0.0159 4,566,113 0.0035 2018 0.1132 0.0172 0.0172 4,484,744 0.0038 2019 0.1278 0.0194 0.0194 4,626,532 0.0042 Total - 0.8450 0.1283 0.1283 \$46,481,988 0.0028    (15)		-	-					
2016 0.0926		-	-					
2017 0.1050 0.0159 0.0159 4,566,113 0.0035 2018 0.1132 0.0172 0.0172 4,484,744 0.0038 2019 0.1278 0.0194 0.0194 4,626,532 0.0042 Total 0.8450 0.1283 0.1283 \$ 46,481,988 0.0028    (15)		_	_					
2018		_	_					
Company		-	-					
Total 0.8450 0.1283 0.1283 \$ 46,481,988 0.0028  (15) (16) (17) (18)  Statewide Average Adjustment Miner Claims per 100  Year Weekly Wage Factor Years Miner Years 2010 845 1.0670 115.9 0.0073 2011 858 1.0670 75.6 0.0086 2012 888 1.0670 116.5 0.0100 2013 917 1.0670 94.2 0.0117 2014 932 1.0670 86.3 0.0134 2015 951 1.0670 88.3 0.0151 2016 978 1.0670 82.7 0.0193 2018 1.025 1.0670 78.9 0.0218 2019 1.049 1.0670 79.5 0.0244		<u>=</u>						
Statewide Average Adjustment Miner Average Adjustment Miner Claims per 100           Year Weekly Wage 2010         Factor Factor Season Miner Years         Miner Years Miner Years           2011         845         1.0670         115.9         0.0073           2012         888         1.0670         75.6         0.0086           2013         917         1.0670         94.2         0.0117           2014         932         1.0670         86.3         0.0134           2015         951         1.0670         82.3         0.0151           2016         978         1.0670         81.7         0.0172           2017         995         1.0670         82.7         0.0193           2018         1,025         1.0670         78.9         0.0218           2019         1,049         1.0670         79.5         0.0244		-	-					
Average         Adjustment         Miner         Claims per 100           Year         Weekly Wage         Factor         Years         Miner Years           2010         845         1.0670         115.9         0.0073           2011         858         1.0670         75.6         0.0086           2012         888         1.0670         116.5         0.0100           2013         917         1.0670         94.2         0.0117           2014         932         1.0670         86.3         0.0134           2015         951         1.0670         82.3         0.0151           2016         978         1.0670         81.7         0.0172           2017         995         1.0670         82.7         0.0193           2018         1,025         1.0670         78.9         0.0218           2019         1,049         1.0670         79.5         0.0244			(16)					
Year         Weekly Wage         Factor         Years         Miner Years           2010         845         1.0670         115.9         0.0073           2011         858         1.0670         75.6         0.0086           2012         888         1.0670         116.5         0.0100           2013         917         1.0670         94.2         0.0117           2014         932         1.0670         86.3         0.0134           2015         951         1.0670         82.3         0.0151           2016         978         1.0670         81.7         0.0172           2017         995         1.0670         82.7         0.0193           2018         1,025         1.0670         78.9         0.0218           2019         1,049         1.0670         79.5         0.0244			Adjustment					
2010       845       1.0670       115.9       0.0073         2011       858       1.0670       75.6       0.0086         2012       888       1.0670       116.5       0.0100         2013       917       1.0670       94.2       0.0117         2014       932       1.0670       86.3       0.0134         2015       951       1.0670       82.3       0.0151         2016       978       1.0670       81.7       0.0172         2017       995       1.0670       82.7       0.0193         2018       1,025       1.0670       78.9       0.0218         2019       1,049       1.0670       79.5       0.0244	Year		-		•			
2012       888       1.0670       116.5       0.0100         2013       917       1.0670       94.2       0.0117         2014       932       1.0670       86.3       0.0134         2015       951       1.0670       82.3       0.0151         2016       978       1.0670       81.7       0.0172         2017       995       1.0670       82.7       0.0193         2018       1,025       1.0670       78.9       0.0218         2019       1,049       1.0670       79.5       0.0244								
2013     917     1.0670     94.2     0.0117       2014     932     1.0670     86.3     0.0134       2015     951     1.0670     82.3     0.0151       2016     978     1.0670     81.7     0.0172       2017     995     1.0670     82.7     0.0193       2018     1,025     1.0670     78.9     0.0218       2019     1,049     1.0670     79.5     0.0244	2011	858	1.0670	75.6	0.0086			
2014     932     1.0670     86.3     0.0134       2015     951     1.0670     82.3     0.0151       2016     978     1.0670     81.7     0.0172       2017     995     1.0670     82.7     0.0193       2018     1,025     1.0670     78.9     0.0218       2019     1,049     1.0670     79.5     0.0244	2012	888	1.0670	116.5	0.0100			
2015     951     1.0670     82.3     0.0151       2016     978     1.0670     81.7     0.0172       2017     995     1.0670     82.7     0.0193       2018     1,025     1.0670     78.9     0.0218       2019     1,049     1.0670     79.5     0.0244	2013	917	1.0670	94.2	0.0117			
2016     978     1.0670     81.7     0.0172       2017     995     1.0670     82.7     0.0193       2018     1,025     1.0670     78.9     0.0218       2019     1,049     1.0670     79.5     0.0244								
2017       995       1.0670       82.7       0.0193         2018       1,025       1.0670       78.9       0.0218         2019       1,049       1.0670       79.5       0.0244								
2018       1,025       1.0670       78.9       0.0218         2019       1,049       1.0670       79.5       0.0244								
<u>2019</u> 1,049 1.0670 <u>79.5</u> <u>0.0244</u>								
Total 893.6 0.0144		1,049	1.06/0					
	Iotal			893.6	0.0144			

Sources:

Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.05)xCol.(4) Col.(7): (1.00)xCol.(6)

Col.(10): Exh. VIII-C Col.(13): Exhibit X

Col.(15): Exhibit XII-D Col.(16): Exhibit X-G

Col.(17): (13) /( (15) x (16) x 52 ) Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.1518

File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-08-F.xlsx]p 6 Run Date: September 18, 2020 - 11:14:55 AM

Auger (0157)

			ounts				
Year	(1) Reported	(2) Awarded	(3) Pending	(4) Denied	(5) Pending Awarded (3) * 30%	(6) Denied Reopened	(7) Denied Awarded
2010	# O	# 0	# 0	# 0	# 0.00	# 0.00	# 0.00
2011	- 1	-	-	-	-	-	-
2012 2013	I -	-	_	  -	-	0.05	0.05
2013	_	_	_	_	-	_	-
2015	-	_	-	-	-	-	-
2016	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-
2018	-	-	-	-	-	-	-
<u>2019</u>				<del></del>		-	
Total	I	-	-	I	-	0.05	0.05
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Ultimate	Ultimate		IBNR	Total		
	Awarded	Denied	IBNR	Awarded	Awarded		Frequency
Year	<u>(2)+(5)+(7)</u>	<u>(1)-(8)</u>		(10)xAward Ratio	<u>(8)+(11)</u>	<u>Payroll</u>	(12)/(13) x 1000000
2010	# 0.00	# 0.00	# 0.0213	# 0.0032	# 0.0032	\$ 827,496	0.0039
2011	-	-	0.0348	0.0053	0.0053	1,176,255	0.0045
2012	0.05	0.95	0.0271	0.0041	0.0541	808,208	0.0670
2013	-	-	0.0398	0.0060	0.0060	1,046,947	0.0058
2014	-	-	0.0366	0.0056	0.0056	861,590	0.0064
2015	-	-	0.0309	0.0047	0.0047	654,766	0.0072
2016	-	-	0.0205	0.0031	0.0031	392,776	0.0079
2017	-	-	0.0326	0.0049	0.0049	566,324	0.0087
2018	-	-	0.0379	0.0058	0.0058	600,138	0.0096
<u>2019</u>			0.0410	0.0062	0.0062	593,214	0.0105
Total	0.05	0.95	0.3225	0.0490	0.0990	\$ 7,527,714	0.0131
	(15)	(16)	(17)	(18)			
	Statewide		Estimated	Frequency			
	Average	Adjustment	Miner	Claims per 100			
Year	Weekly Wage	<u>Factor</u>	<u>Years</u>	Miner Years			
2010	845	1.0670	17.6	0.0184			
2011	858	1.0670	24.7	0.0214			
2012	888	1.0670	16.4	0.3300			
2013	917	1.0670	20.6	0.0293			
2014	932	1.0670	16.7	0.0333			
2015	951	1.0670	12.4	0.0378			
2016	978	1.0670	7.2	0.0432			
2017	995	1.0670	10.3	0.0480			
2018	1,025	1.0670	10.6	0.0543			
2019	1,049	1.0670	10.2	0.0610			
<u> = 0 . ,  </u>							

Sources:

Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.05)xCol.(4) Col.(7): (1.00)xCol.(6)

Col.(10): Exh. VIII-C Col.(13): Exhibit X Col.(15): Exhibit XII-D Col.(16): Exhibit X-G

Col.(17): (13) /( (15) x (16) x 52 )

Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.1518

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#### Anthracite Co-Gen (0181)

		Co	ounts					
	(1)	(2)	(3)	(4)		(5)	(6)	(7)
					F	Pending	Denied	Denied
	Reported	Awarded	Pending	Denied		warded	Reopened	Awarded
Year					7	(3) * 30%		
2010	# O	# 0	# 0	# O		# 0.00	# 0.00	# 0.00
2011	-	-	-	-		-	-	-
2012	1	-	-	1		-	0.05	0.05
2013	1	-	-	1		-	0.05	0.05
2014	-	-	-	-		-	-	-
2015	-	-	-	-		-	-	-
2016	-	-	-	-		-	-	-
2017	-	_	-	-		-	-	-
2018	I	-	I	-		0.30	-	-
<u>2019</u>	3				_			- 0.10
Total	3	-	I	2		0.30	0.10	0.10
	(8)	(9)	(10)	(11)		(12)	(13)	(14)
	Ultimate	Ultimate		IBNR		Total		
	Awarded	Denied	IBNR	Awarded		warded		Frequency
Year	(2)+(5)+(7)	<u>(1)-(8)</u>		(10)xAward Ratio	_	(8)+(11)	<u>Payroll</u>	(12)/(13) x 1000000
2010	# 0.00	# 0.00	# 0.2045	# 0.0310		# 0.0310	\$ 7,958,048	0.0039
2011	-	-	0.3253	0.0494		0.0494	10,981,642	0.0045
2012	0.05	0.95	0.3125	0.0474		0.0974	9,311,812	0.0105
2013	0.05	0.95	0.2901	0.0440		0.0940	7,630,762	0.0123
2014 2015	-	-	0.3554 0.4516	0.0539		0.0539 0.0686	8,360,898	0.0065 0.0072
2015	-	-	0.4516	0.0686 0.0630		0.0630	9,554,806 7,953,309	0.0072
2017	-	-	0.4132	0.0680		0.0680	7,793,558	0.0077
2017	0.30	0.70	0.6346	0.0963		0.3963	10,053,839	0.0394
2019	0.50	0.70	0.4710	0.0715		0.0715	6,821,629	0.0105
Total	0.40	2.60	3.9083	0.5933		0.9933	\$ 86,420,303	0.0115
							,,	
	(15)	(16)	(17)	(18)				
	Statewide		Estimated	Frequency				
	Average	Adjustment	Miner	Claims per 100				
Year	Weekly Wage	<u>Factor</u>	<u>Years</u>	Miner Years				
2010	845	1.0670	169.7	0.0183				
2011	858	1.0670	230.7	0.0214				
2012	888	1.0670	189.0	0.0516				
2013	917	1.0670	150.0	0.0627				
2014	932	1.0670	161.7	0.0334				
2015	951 978	1.0670	181.1	0.0379				
2016 2017	978 995	1.0670 1.0670	146.6 141.2	0.0430 0.0482				
2017	1,025	1.0670	176.8	0.2242				
2018 2019	1,049	1.0670	176.8	0.0610				
	1,047	1.00/0						
Total			1,664.0	0.0597				

Sources:

Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.05)xCol.(4) Col.(7): (1.00)xCol.(6)

Col.(10): Exh. VIII-C Col.(13): Exhibit X Col.(15): Exhibit XII-D Col.(16): Exhibit X-G

Col.(17): (13) /( (15) x (16) x 52 )

Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.1518

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Effective Date - April 01, 2021 172,913,677.595575

### Bituminous Co-Gen (0182)

Reported   Awarded   Pending   Denied   Awarded   Pending   Denied   Awarded   Reported   Reported   Awarded   Reported   Awarded   Reported   Reported   Reported   Awarded   Reported   Reported			С	ounts					
2010			(2)	(3)		Av	ending varded	Denied	Denied
2011						<u>(3</u>			
2012		# 0	# 0	# 0	# 0		# 0.00	# 0.00	# 0.00
2013		-	-	-	-		-	-	-
2014   -		-	-	_	_		_	-	-
2015			_				_		
2016		_	_	_	_		_	_	_
2017		_	_	_	_		_	_	_
2018		_	_	_	_		_	_	_
Total		_	_	_	-		_	-	_
Total		-	-	-	-		_	-	_
Red							_		
Vect									
Year (2)+(5)+(7) (1)+(8) (1)+(8)+(7)+(7)+(1)+(8)+(7)+(8)+(7)+(8)+(8)+(8)+(8)+(8)+(8)+(8)+(8)+(8)+(8				(10)				(13)	(14)
Year         (2)+(5)+(7)         (1)-(8)         (10)xAward Ratio         (8)+(11)         Payroll         (12)/(13) x 1000000           2010         # 0.00         # 0.00         # 0.1795         # 0.0272         # 0.0272         \$8,732,701         0.0031           2011         -         -         0.2157         0.0327         0.0327         9,102,411         0.0031           2012         -         -         0.2429         0.03369         0.0369         9,047,745         0.0041           2013         -         -         0.3149         0.0478         0.0478         10,355,884         0.0046           2014         -         -         0.3986         0.0605         0.0605         11,721,184         0.0052           2015         -         0.4431         0.0718         0.0743         11,748,205         0.0057           2016         -         0.4431         0.0718         0.0718         11,327,552         0.0063           2017         -         0.5260         0.0798         0.0798         11,435,057         0.0070           2018         -         -         0.6522         0.0923         0.0923         12,043,297         0.0074           Year <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>									
2010				IBNR					
2011									
2012		# 0.00	# 0.00						
2013 0.3149 0.0478 0.0478 10,355,884 0.0046 2014 0.3986 0.0605 0.0605 11,721,184 0.0052 2015 0.4442 0.0674 0.0674 11,748,205 0.0057 2016 0.4731 0.0718 0.0718 11,327,552 0.0063 2017 0.5260 0.0798 0.0798 11,435,057 0.0070 2018 0.6082 0.0923 0.0923 12,043,297 0.0077 2019 0.6522 0.0990 0.0990 11,807,241 0.0084 Total 4.0553 0.6156 0.6156 \$107,321,277 0.0057  Year Weekly Wage Adjustment Miner Claims per 100 Year Weekly Wage Factor Years Miner Years 2010 845 1.0670 183.6 0.0210 2011 858 1.0670 183.6 0.0201 2013 917 1.0670 203.5 0.0235 2014 932 1.0670 226.7 0.0267 2015 951 1.0670 222.7 0.0303 2016 978 1.0670 222.7 0.0303 2016 978 1.0670 208.8 0.0344 2017 995 1.0670 207.1 0.0386 2018 1.025 1.0670 211.8 0.0436 2019 1.049 1.0670 202.9 0.0488		-	-						
2014 0.3986		-	-						
2015 0.4442 0.0674 0.0674 11,748,205 0.0057 2016 0.4731 0.0718 0.0718 11,327,552 0.0063 2017 0.5260 0.0798 0.0798 11,435,057 0.0070 2018 0.6082 0.0923 0.0923 12,043,297 0.0077 2019 0.6522 0.0990 0.0990 11,807,241 0.0084 Total 4.0553 0.6156 0.6156 \$107,321,277 0.0057		-	-						
2016 0.4731 0.0718 0.0718 11,327,552 0.0063 2017 0.5260 0.0798 0.0798 11,435,057 0.0070 2018 0.6082 0.0923 0.0923 12,043,297 0.0077 2019 0.6522 0.0990 0.0990 11,807,241 0.0084 Total 4.0553 0.6156 0.6156 \$107,321,277 0.0057   (15) (16) (17) (18) Statewide Average Adjustment Miner Claims per 100 Year Weekly Wage Factor Years Miner Years 2010 845 1.0670 186.3 0.0146 2011 858 1.0670 181.6 0.0201 2012 888 1.0670 183.6 0.0201 2013 917 1.0670 203.5 0.0235 2014 932 1.0670 226.7 0.0267 2015 951 1.0670 222.7 0.0303 2016 978 1.0670 208.8 0.0344 2017 995 1.0670 207.1 0.0386 2018 1.025 1.0670 211.8 0.0436 2019 1.049 1.0470 202.9 0.0488		-	-						
2017 0.5260 0.0798 0.0798 11,435,057 0.0070 2018 0.6082 0.0923 0.0923 12,043,297 0.0077 2019 0.6552 0.0990 0.0990 11,807,241 0.0084  Total 0.6552 0.0990 0.0990 11,807,241 0.0084  Total 0.6156 107,321,277 0.0057   (15)		-	-						
2018		_	_						
Total		_	_						
Total 4.0553 0.6156 0.6156 \$107,321,277 0.0057  (15) (16) (17) (18)  Statewide Average Adjustment Miner Claims per 100  Year Weekly Wage Factor Years Miner Years 2010 845 1.0670 186.3 0.0146 2011 858 1.0670 191.2 0.0171 2012 888 1.0670 183.6 0.0201 2013 917 1.0670 203.5 0.0235 2014 932 1.0670 226.7 0.0267 2015 951 1.0670 222.7 0.0303 2016 978 1.0670 208.8 0.0344 2017 995 1.0670 201.8 0.0386 2018 1.025 1.0670 211.8 0.0436 2019 1.049 1.0670 202.9 0.0488		_	_						
(15)         (16)         (17)         (18)           Statewide Average Adjustment Average Adjustment Winer Pears         Estimated Frequency Claims per 100           Year         Weekly Wage Factor Pears         Years Miner Years           2010         845         1.0670         186.3         0.0146           2011         858         1.0670         191.2         0.0171           2012         888         1.0670         183.6         0.0201           2013         917         1.0670         203.5         0.0235           2014         932         1.0670         226.7         0.0267           2015         951         1.0670         222.7         0.0303           2016         978         1.0670         208.8         0.0344           2017         995         1.0670         207.1         0.0386           2018         1,025         1.0670         211.8         0.0436           2019         1,049         1.0670         202.9         0.0488									·
Statewide Average         Estimated Adjustment         Frequency Claims per 100           Year         Weekly Wage Factor Factor         Years Miner Years           2010         845         1.0670         186.3         0.0146           2011         858         1.0670         191.2         0.0171           2012         888         1.0670         183.6         0.0201           2013         917         1.0670         203.5         0.0235           2014         932         1.0670         226.7         0.0267           2015         951         1.0670         222.7         0.0303           2016         978         1.0670         208.8         0.0344           2017         995         1.0670         207.1         0.0386           2018         1,025         1.0670         211.8         0.0436           2019         1,049         1.0670         202.9         0.0488								,	
Average         Adjustment         Miner         Claims per 100           Year         Weekly Wage         Factor         Years         Miner Years           2010         845         1.0670         186.3         0.0146           2011         858         1.0670         191.2         0.0171           2012         888         1.0670         183.6         0.0201           2013         917         1.0670         203.5         0.0235           2014         932         1.0670         226.7         0.0267           2015         951         1.0670         222.7         0.0303           2016         978         1.0670         208.8         0.0344           2017         995         1.0670         207.1         0.0386           2018         1,025         1.0670         211.8         0.0436           2019         1,049         1.0670         202.9         0.0488			(16)	(17)	(18)				
Year         Weekly Wage         Factor         Years         Miner Years           2010         845         1.0670         186.3         0.0146           2011         858         1.0670         191.2         0.0171           2012         888         1.0670         183.6         0.0201           2013         917         1.0670         203.5         0.0235           2014         932         1.0670         226.7         0.0267           2015         951         1.0670         222.7         0.0303           2016         978         1.0670         208.8         0.0344           2017         995         1.0670         207.1         0.0386           2018         1,025         1.0670         211.8         0.0436           2019         1,049         1.0670         202.9         0.0488									
2010       845       1.0670       186.3       0.0146         2011       858       1.0670       191.2       0.0171         2012       888       1.0670       183.6       0.0201         2013       917       1.0670       203.5       0.0235         2014       932       1.0670       226.7       0.0267         2015       951       1.0670       222.7       0.0303         2016       978       1.0670       208.8       0.0344         2017       995       1.0670       207.1       0.0386         2018       1,025       1.0670       211.8       0.0436         2019       1,049       1.0670       202.9       0.0488		-		Miner					
2011       858       1.0670       191.2       0.0171         2012       888       1.0670       183.6       0.0201         2013       917       1.0670       203.5       0.0235         2014       932       1.0670       226.7       0.0267         2015       951       1.0670       222.7       0.0303         2016       978       1.0670       208.8       0.0344         2017       995       1.0670       207.1       0.0386         2018       1,025       1.0670       211.8       0.0436         2019       1,049       1.0670       202.9       0.0488									
2012       888       1.0670       183.6       0.0201         2013       917       1.0670       203.5       0.0235         2014       932       1.0670       226.7       0.0267         2015       951       1.0670       222.7       0.0303         2016       978       1.0670       208.8       0.0344         2017       995       1.0670       207.1       0.0386         2018       1,025       1.0670       211.8       0.0436         2019       1,049       1.0670       202.9       0.0488									
2013       917       1.0670       203.5       0.0235         2014       932       1.0670       226.7       0.0267         2015       951       1.0670       222.7       0.0303         2016       978       1.0670       208.8       0.0344         2017       995       1.0670       207.1       0.0386         2018       1,025       1.0670       211.8       0.0436         2019       1,049       1.0670       202.9       0.0488									
2014     932     1.0670     226.7     0.0267       2015     951     1.0670     222.7     0.0303       2016     978     1.0670     208.8     0.0344       2017     995     1.0670     207.1     0.0386       2018     1,025     1.0670     211.8     0.0436       2019     1,049     1.0670     202.9     0.0488									
2015     951     1.0670     222.7     0.0303       2016     978     1.0670     208.8     0.0344       2017     995     1.0670     207.1     0.0386       2018     1,025     1.0670     211.8     0.0436       2019     1,049     1.0670     202.9     0.0488									
2016       978       1.0670       208.8       0.0344         2017       995       1.0670       207.1       0.0386         2018       1,025       1.0670       211.8       0.0436         2019       1,049       1.0670       202.9       0.0488									
2017       995       1.0670       207.1       0.0386         2018       1,025       1.0670       211.8       0.0436         2019       1,049       1.0670       202.9       0.0488									
2018       1,025       1.0670       211.8       0.0436         2019       1,049       1.0670       202.9       0.0488									
<u>2019</u> 1,049 1.0670 <u>202.9</u> <u>0.0488</u>									
10Tal 2,044.6 0.0301		1,049	1.06/0						
	Iotal			2,044.6	0.0301				

Sources:

Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.05)xCol.(4) Col.(7): (1.00)xCol.(6)

Col.(10): Exh. VIII-C Col.(13): Exhibit X Col.(15): Exhibit XII-D Col.(16): Exhibit X-G

Col.(17): (13) /( (15) x (16) x 52 ) Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.1518

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Run Date: September 18, 2020 - 11:14:55 AM

Effective Date - April 01, 2021 214,716,366.983934

### Anthracite Prep-Plant (0183)

		Co	ounts				
	(1)	(2)	(3)	(4)	(5) Pendin	(6) g Denied	(7) Denied
Year	Reported	Awarded	Pending	Denied	Awarde (3) * 30'	ed Reopened	
2010	# O	# 0	# 0	# O		0.00 # 0	.00 # 0.00
2011	-	-	-	-		-	
2012	-	-	-	-		-	-
2013	1	-	1	-	C	0.30	
2014	-	-	-	-		-	-
2015	-	-	-	-		-	-
2016	-	-	-	-		-	-
2017	-	-	-	-		-	-
2018 <u>2019</u>	-	-	-	-		-	-
<u>2019</u> Total			<u>-</u>			0.30	<del>-</del>
Total	ı	-	'	-	C	7.50	-
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Ultimate	Ultimate	IDAID	IBNR	Total	. al	F
Voor	Awarded	Denied	IBNR	Awarded	Awarde		Frequency
Year 2010	<u>(2)+(5)+(7)</u> # 0.00	<u>(1)-(8)</u> # 0.00	# 0.2256	(10)xAward Ratio # 0.0342	<u>(8)+(11</u> # 0.03		(12)/(13) x 1000000 227 0.0070
2010	# 0.00	# 0.00	0.3265	0.0496	0.0	·	
2011	_	-	0.3203	0.0694	0.0		
2013	0.30	0.70	0.4841	0.0735	0.3		
2014	-	-	0.4990	0.0757	0.0		
2015	_	_	0.5272	0.0800	0.0		
2016	-	_	0.5209	0.0791	0.0		
2017	-	-	0.6268	0.0951	0.0		
2018	-	-	0.7859	0.1193	0.1	193 6,916,7	759 0.0172
<u>2019</u>			1.3156	0.1997	0.19		
Total	0.30	0.70	5.7688	0.8757	1.11	757 \$ 67,463,6	0.0174
	(15)	(16)	(17)	(18)			
	Statewide		Estimated	Frequency			
	Average	Adjustment	Miner	Claims per 100			
Year	Weekly Wage	<u>Factor</u>	<u>Years</u>	Miner Years			
2010	845	1.0670	104.0	0.0329			
2011	858	1.0670	128.6	0.0385			
2012	888	1.0670	153.6	0.0452			
2013	917	1.0670	139.1	0.2685 0.0601			
2014 2015	932 951	1.0670 1.0670	126.1 117.4	0.0682			
2013	978	1.0670	102.1	0.0662			
2017	995	1.0670	102.1	0.0867			
2018	1,025	1.0670	121.6	0.0981			
<u>2019</u>	1,049	1.0670	181.9	0.1098			
Total	1,547	1.00,0	1,284.1	0.0916			
TOTAL			1,204.1	0.0710			

Sources:

Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.05)xCol.(4) Col.(7): (1.00)xCol.(6)

Col.(10): Exh. VIII-C Col.(13): Exhibit X Col.(15): Exhibit XII-D Col.(16): Exhibit X-G

Col.(17): (13) /( (15) x (16) x 52 )

Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.1518

File: C:\Users\Forum\OneDrive\Clients\Coal Mine\2020 Rate Flling\XL\[2020-08-F.xlsx]p 10 Run Date: September 18, 2020 - 11:14:55 AM

### Bituminous Prep-Plant (0184)

		Co	ounts					
	(1) Reported	(2) Awarded	(3) Pending	(4) Denied		(5) Pending Awarded	(6) Denied Reopened	(7) Denied Awarded
Year						(3) * 30%		
2010	# O	# O	# 0	# O		# 0.00	# 0.00	# 0.00
2011	1	-	-	1		-	0.05	0.05
2012	-	-	-	-		-	-	-
2013	-	-	-	-		-	-	-
2014	2	-	-	2		-	0.10	0.10
2015	-	-	-	-		-	-	-
2016	-	-	-	-		-	-	-
2017	-	-	-	-		-	-	-
2018	-	-	-	-		-	-	-
<u>2019</u>					_			
Total	3	-	-	3		-	0.15	0.15
	(8)	(9)	(10)	(11)		(12)	(13)	(14)
	Ultimate	Ultimate		IBNR		Total		
	Awarded	Denied	IBNR	Awarded		Awarded		Frequency
Year	<u>(2)+(5)+(7)</u>	<u>(1)-(8)</u>		(10)xAward Ratio		<u>(8)+(11)</u>	<u>Payroll</u>	(12)/(13) x 1000000
2010	# 0.00	# 0.00	# 0.5410	# 0.0821		# 0.0821	\$ 26,313,130	0.0031
2011	0.05	0.95	0.8330	0.1264		0.1764	35,155,068	0.0050
2012	-	-	0.9184	0.1394		0.1394	34,211,729	0.0041
2013	-	-	1.0231	0.1553		0.1553	33,639,969	0.0046
2014	0.10	1.90	1.0832	0.1644		0.2644	31,854,431	0.0083
2015	-	-	0.9196	0.1396		0.1396	24,320,608	0.0057
2016	-	-	0.8387	0.1273		0.1273	20,079,401	0.0063
2017	-	-	1.3248	0.2011		0.2011	28,803,457	0.0070
2018	-	-	1.6261 2.0783	0.2468		0.2468	32,199,872	0.0077
2019	0.15	2.85		0.3155	=	0.3155	\$37,623,330	0.0084
Total	0.15	2.83	11.1862	1.6981		1.8481	\$ 304,200,995	0.0061
	(15)	(16)	(17)	(18)				
	Statewide		Estimated	Frequency				
	Average	Adjustment	Miner	Claims per 100				
Year	Weekly Wage		<u>Years</u>	Miner Years				
2010	845	1.5730	380.7	0.0216				
2011	858	1.5730	500.9	0.0352				
2012	888	1.5730	471.0	0.0296				
2013	917	1.5730	448.5	0.0346				
2014	932	1.5730	417.9	0.0633				
2015	951	1.5730	312.7	0.0446				
2016	978	1.5730	251.0	0.0507				
2017	995	1.5730	353.9	0.0568				
2018	1,025	1.5730	384.1	0.0643				
<u>2019</u>	1,049	1.5730	438.5	0.0719				
Total			3,959.2	0.0467				

Sources:

Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.05)xCol.(4) Col.(7): (1.00)xCol.(6)

Col.(10): Exh. VIII-C Col.(13): Exhibit X Col.(15): Exhibit XII-D Col.(16): Exhibit X-G

Col.(17): (13) /( (15) x (16) x 52 ) Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.1518

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#### **Total Other Classes**

		С	ounts				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
					Pending	Denied	Denied
	Reported	Awarded	Pending	Denied	Awarded	Reopened	Awarded
Year	<del></del>	<del></del> -			(3) * 30%	<del></del>	<del></del>
2010	# 0	# 0	# 0	# 0	# 0.00	# 0.00	# 0.00
2011	1	-	-	1	-	0.05	0.05
2012	2	-	-	2	-	0.10	0.10
2013	2	-	I	1	0.30	0.05	0.05
2014	2	-	-	2	-	0.10	0.10
2015	-	-	-	-	-	-	-
2016	-	-	-	-	-	-	-
2017	- 1	-	- 1	-	- 0.20	-	-
2018	ı	-	ı	-	0.30	-	-
2019	<del></del> 8			<del>-</del> 6		0.20	0.20
Total	٥	-	2	6	0.60	0.30	0.30
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Ultimate	Ultimate		IBNR	Total		
	Awarded	Denied	IBNR	Awarded	Awarded		Frequency
Year	(2)+(5)+(7)	<u>(1)-(8)</u>		(10)xAward Ratio	<u>(8)+(11)</u>	<u>Payroll</u>	(12)/(13) x 1000000
2010	# 0.00	# 0.00	# 1.2278	# 0.1864	# 0.1864	\$ 54,143,960	0.0034
2011	0.05	0.95	1.7779	0.2699	0.3199	66,137,721	0.0048
2012	0.10	1.90	2.0351	0.3089	0.4089	66,686,622	0.0061
2013	0.35	1.65	2.2249	0.3377	0.6877	64,540,358	0.0107
2014	0.10	1.90	2.4487	0.3717	0.4717	63,784,042	0.0074
2015	-	-	2.4556	0.3728	0.3728	56,815,357	0.0066
2016	-	-	2.3610	0.3584	0.3584	49,731,072	0.0072
2017	-	-	3.0633	0.4650	0.4650	59,221,319	0.0079
2018	0.30	0.70	3.8059	0.5777	0.8777	66,298,649	0.0132
2019		<del></del>	4.6859	0.7113	0.7113	72,056,787	0.0099
Total	0.90	7.10	26.0861	3.9599	4.8599	\$ 619,415,887	0.0078
	(15)	(16)	(17)	(18)			
	Statewide	,	Estimated	Frequency			
	Average	Adjustment	Miner	Claims per 100			
Year	Weekly Wage	<u>Factor</u>	<u>Years</u>	Miner Years			
2010	845		974.2	0.0191			
2011	858		1,151.7	0.0278			
2012	888		1,130.1	0.0362			
2013	917		1,055.9	0.0651			
2014	932		1,035.4	0.0456			
2015	951		928.6	0.0401			
2016	978		797.4	0.0449			
2017	995		904.9	0.0514			
2018	1,025		983.8	0.0892			
<u>2019</u>	1,049		1,030.2	0.0690			
Total			9,992.2	0.0486			

Sources:

Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.05)xCol.(4) Col.(7): (1.00)xCol.(6)

Col.(10): Exh. VIII-C

Col.(13): Sum of Pages 6 to 11

Col.(15): Exhibit XII-D Col.(16): Exhibit X-G

Col.(17): (13) /( (15) x (16) x 52 )

Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.1518

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Run Date: September 18, 2020 - 11:14:55 AM

Effective Date - April 01, 2021 1,238,921,581.385680

#### **Grand Total**

		С	ounts				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
					Pending	Denied	Denied
Year	Reported	Awarded	Pending	Denied	Awarded <u>(3) * 30%</u>	Reopened	Awarded
2010	# 9	# 1	# 1	# 7	# 0.3	0 # 0.35	# 0.35
2010	15	1	π I	13	0.3		
2011	18	2	1	15	0.3		0.75
2012	15	2	3	10	0.9		0.50
2013	23	1	2	20	0.6		1.00
2014	27	1	3	23	0.9		
2016	13		6	7	1.8		
2017	8	1	1	6	0.3		0.30
2018	9		4	5	1.2		0.25
2019	1	_	-	1	1.2	- 0.05	0.05
Total	138	9	22	107	6.6		5.35
TOTAL	130	,	22	107	0.0	5.55	5.55
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Ultimate	Ultimate		IBNR	Total		
	Awarded	Denied	IBNR	Awarded	Awarded		Frequency
Year	(2)+(5)+(7)	<u>(1)-(8)</u>		(10)xAward Ratio	<u>(8)+(11)</u>	<u>Payroll</u>	(12)/(13) x 1000000
2010	# 1.65	# 7.35	# 11.8992	# 1.8063	# 3.456		0.0129
2011	1.95	13.05	16.6131	2.5219	4.471		0.0138
2012	3.05	14.95	19.2598	2.9236	5.973		0.0184
2013	3.40	11.60	20.6625	3.1366	6.536		0.0223
2014	2.60	20.40	27.7551	4.2132	6.813		0.0212
2015	3.05	23.95	25.7118	3.9030	6.953		0.0266
2016	2.15	10.85	24.4367	3.7095	5.859		0.0269
2017	1.60	6.40	37.7948	5.7373	7.337		0.0257
2018	1.45	7.55	45.4174	6.8944	8.344		0.0277
<u>2019</u>	0.05	0.95	54.0343	8.2024	8.252		0.0262
Total	20.95	117.05	283.5846	43.0481	63.998	1 \$ 2,912,899,411	0.0220
	(15)	(16)	(17)	(18)			
	Statewide		Estimated	Frequency			
	Average	Adjustment	Miner	Claims per 100			
Year	Weekly Wage	<u>Factor</u>	<u>Years</u>	Miner Years			
2010	845		4,684.0	0.0738			
2011	858		5,546.6	0.0806			
2012	888		5,348.8	0.1117			
2013	917		4,638.4	0.1409			
2014	932		4,883.0	0.1395			
2015	951		3,957.9	0.1757			
2016	978		3,192.5	0.1835			
2017	995		3,997.9	0.1835			
2018	1,025		4,101.3	0.2035			
<u>2019</u>	1,049		4,180.4	0.1974			
Total			44,530.8	0.1437			

Sources:

Cols.(1) to (4): CMCRB Claims Database

Col.(6): (0.05)xCol.(4) Col.(7): (1.00)xCol.(6)

Col.(10): Exh. VIII-C Col.(13): Sum of Pages 5 & 12 Col.(15): Exhibit XII-D Col.(16): Exhibit X-G

Col.(17): (13) /( (15) x (16) x 52 )

Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.1518

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															"All Perma	nent Partial"	Scenario (se	ee note)	
				Age of							F	ederal Excess	:				Fe	ederal Excess	:
	Awd (2)		Exp.	Miner at	State	Medical	Act 44	Act	Offsets	s for:		After Of	fsets:	State	Offsets	for:		After Of	fsets:
Class	Pend (1)	Type*	Yr.	Comp Date	Benefit	Bef. Act 44	Factor	44 Med.	Soc. Sec.	Pension	Base	SS	SS, PP	Benefit	Soc. Sec.	Pension	Base	SS	SS, PP
1011	2		1993	61.3	634,086	34,047	1.00	34,047	-	155,563	22	22	4,608	334,300	-	84,962	179,299	179,299	180,110
1011	2		1990	66.8	859,561	25,638	1.00	25,638	-	190,699	-	-	0	518,075	-	152,532	117,974	117,974	118,762
1011	2		1992	47.4	1,773,305	57,230	1.00	57,230	310,754	204,241	0	22,916	168,932	640,498	-	-	432,021	432,021	432,021
1011	2		1993	61.2	481,986	34,047	1.00	34,047	-	154,237	-	-	214	295,322	-	84,238	84,547	84,547	85,351
1011	2		1993	64.8	598,517	28,297	1.00	28,297	-	167,647	7	7	2,159	334,033	-	111,036	151,836	151,836	152,592
1011	2		1992	50.0	1,451,271	52,089	1.00	52,089	279,921	177,168	11	39,752	186,393	528,159	-	-	434,064	434,064	434,064
1011	2	LS	1999	62.2	151,105	32,554	1.00	32,554	-	74,966	219,531	219,531	283,812	151,105	-	74,966	219,531	219,531	283,812
1011	2	LS	2011	49.9	568,142	52,089	1.00	52,089	-	-	461,664	461,664	461,664	568,142	-	-	461,664	461,664	461,664
1011	2	LS	2013	53.7	431,595	45,294	1.00	45,294	-	-	405,016	405,016	405,016	431,595	-	-	405,016	405,016	405,016
	1011 1011 1011 1011 1011 1011	Class Pend (1)  1011 2 1011 2 1011 2 1011 2 1011 2 1011 2 1011 2	Class Pend (1) Type*  1011 2 1011 2 1011 2 1011 2 1011 2 1011 2 1011 2 1011 2 LS 1011 2 LS	Class Pend (1) Type* Yr.  1011 2 1993 1011 2 1992 1011 2 1993 1011 2 1993 1011 2 1993 1011 2 1992 1011 2 LS 1999 1011 2 LS 2011	Awd (2) Type* Exp. Miner at Yr. Comp Date  1011 2 1993 61.3 1011 2 1990 66.8 1011 2 1992 47.4 1011 2 1993 61.2 1011 2 1993 64.8 1011 2 1993 64.8 1011 2 1992 50.0 1011 2 LS 1999 62.2 1011 2 LS 2011 49.9	Class         Pend (1)         Type*         Exp.         Miner at Comp Date         State Benefit           1011         2         1993         61.3         634,086           1011         2         1990         66.8         859,561           1011         2         1992         47.4         1,773,305           1011         2         1993         61.2         481,986           1011         2         1993         64.8         598,517           1011         2         1992         50.0         1,451,271           1011         2         LS         1999         62.2         151,105           1011         2         LS         2011         49.9         568,142	Class         Pend (1)         Type*         Exp.         Miner at Comp Date         State Benefit         Medical Bef. Act 44           1011         2         1993         61.3         634,086         34,047           1011         2         1990         66.8         859,561         25,638           1011         2         1992         47.4         1,773,305         57,230           1011         2         1993         61.2         481,986         34,047           1011         2         1993         64.8         598,517         28,297           1011         2         1992         50.0         1,451,271         52,089           1011         2         LS         1999         62.2         151,105         32,554           1011         2         LS         2011         49.9         568,142         52,089	Awd (2)         Exp.         Miner at Yr.         State Benefit         Medical Bef. Act 44         Act 44           Class         Pend (1)         Type*         Yr.         Comp Date         Benefit         Bef. Act 44         Factor           1011         2         1993         61.3         634,086         34,047         1.00           1011         2         1990         66.8         859,561         25,638         1.00           1011         2         1992         47.4         1,773,305         57,230         1.00           1011         2         1993         61.2         481,986         34,047         1.00           1011         2         1993         64.8         598,517         28,297         1.00           1011         2         1992         50.0         1,451,271         52,089         1.00           1011         2         LS         1999         62.2         151,105         32,554         1.00           1011         2         LS         2011         49.9         568,142         52,089         1.00	Awd (2)         Exp.         Miner at Yr.         State Benefit         Medical Bef. Act 44         Act 44 Factor         Ad Medical Act 44 Factor         Act 44 Med.           1011 2 1993 61.3 634,086 101 2 1990 66.8 859,561 1990 66.8 859,561 1990 1011 2 1992 47.4 1,773,305 57,230 1.00 57,230 1011 2 1993 61.2 481,986 34,047 1.00 34,047 1011 2 1993 64.8 598,517 28,297 1.00 28,297 1011 2 1993 64.8 598,517 28,297 1.00 28,297 1011 2 1992 50.0 1,451,271 52,089 1.00 52,089 1011 2 LS 1999 62.2 151,105 32,554 1.00 32,554 1.01 22,089 1.01 22,08	Awd (2) Exp. Miner at State Medical Act 44 Act Offset: Class Pend (1) Type* Yr. Comp Date Benefit Bef. Act 44 Factor 44 Med.  1011 2 1993 61.3 634,086 34,047 1.00 34,047 - 1011 2 1990 66.8 859,561 25,638 1.00 25,638 - 1011 2 1992 47.4 1,773,305 57,230 1.00 57,230 310,754 1011 2 1993 61.2 481,986 34,047 1.00 34,047 - 1011 2 1993 64.8 598,517 28,297 1.00 28,297 - 1011 2 1992 50.0 1,451,271 52,089 1.00 52,089 279,921 1011 2 LS 1999 62.2 151,105 32,554 1.00 32,554 - 1011 2 LS 2011 49.9 568,142 52,089 1.00 52,089 -	Awd (2) Exp. Miner at State Medical Act 44 Act Offsets for:  Class Pend (1) Type* Yr. Comp Date Benefit Bef. Act 44 Factor 44 Med. Soc. Sec. Pension  1011 2 1993 61.3 634,086 34,047 1.00 34,047 - 155,563  1011 2 1990 66.8 859,561 25,638 1.00 25,638 - 190,699  1011 2 1992 47.4 1,773,305 57,230 1.00 57,230 310,754 204,241  1011 2 1993 61.2 481,986 34,047 1.00 34,047 - 154,237  1011 2 1993 64.8 598,517 28,297 1.00 28,297 - 167,647  1011 2 1992 50.0 1,451,271 52,089 1.00 52,089 279,921 177,168  1011 2 LS 1999 62.2 151,105 32,554 1.00 32,554 - 74,966  1011 2 LS 2011 49.9 568,142 52,089 1.00 52,089	Awd (2)	Awd (2)         Exp.         Miner at Miner at Class         State Medical Pend (1)         Act 44 Factor         Act 44 Act Act Add Med.         Offsets for: Soc. Sec.         Pension         Base         SS           1011 2         1993 61.3 634,086         34,047 1.00 34,047 - 155,563         22 22         22           1011 2 1990 66.8 859,561 25,638 1.00 25,638 - 190,699 1011 2 1992 47.4 1,773,305 57,230 1.00 57,230 310,754 204,241 0 22,916         22,916           1011 2 1993 61.2 481,986 34,047 1.00 34,047 - 154,237 154,237 1011 2 1993 64.8 598,517 28,297 1.00 28,297 - 167,647 7 7 7           1011 2 1992 50.0 1,451,271 52,089 1.00 52,089 279,921 177,168 11 39,752           1011 2 LS 1999 62.2 151,105 32,554 1.00 32,554 - 74,966 219,531 219,531           1011 2 LS 2011 49.9 568,142 52,089 1.00 52,089 461,664 461,664	Awd (2)         Exp.         Miner at Miner at Class         State Pend (1)         Medical Pend (1)         Act 44 Factor         Act 44 Med.         Offsets for: Soc. Sec.         Pension         Base         SS         SS, PP           1011 2         1993 61.3         634,086         34,047         1.00         34,047         -         155,563         22         22         4,608           1011 2         1990 66.8         859,561         25,638         1.00         25,638         -         190,699         -         -         0           1011 2         1992 47.4         1,773,305         57,230         1.00         57,230         310,754         204,241         0         22,916         168,932           1011 2         1993 61.2         481,986         34,047         1.00         34,047         -         154,237         -         -         214           1011 2         1993 64.8         598,517         28,297         1.00         28,297         -         167,647         7         7         2,159           1011 2         1992 50.0         1,451,271         52,089         1.00         52,089         279,921         177,168         11         39,752         186,393           1011 2	Awd (2)         Exp.         Miner at Class         State Medical Pend (1)         Act 44         Act 44         Act Offsets for: 44 Med.         Offsets for: Soc. Sec.         Pension         Base         SS         SS, PP         Benefit         Benefit           1011 2         1993         61.3         634,086         34,047         1.00         34,047         -         155,563         22         22         4,608         334,300           1011 2         1990         66.8         859,561         25,638         1.00         25,638         -         190,699         -         -         0         518,075           1011 2         1992         47.4         1,773,305         57,230         1.00         57,230         310,754         204,241         0         22,916         168,932         640,498           1011 2         1993         61.2         481,986         34,047         1.00         34,047         -         154,237         -         -         214         295,322           1011 2         1993         64.8         598,517         28,297         1.00         28,297         -         167,647         7         7         7         2,159         334,033           1011 2 <td< td=""><td>Age of Awd (2) Exp. Miner at State Medical Act 44 Act Offsets for: After Offsets SS, PP Benefit Soc. Sec.  Class Pend (1) Type* Yr. Comp Date Benefit Bef. Act 44 Factor 44 Med. Soc. Sec. Pension Base SS SS, PP Benefit Soc. Sec.  1011 2 1993 61.3 634,086 34,047 1.00 34,047 - 155,563 22 22 4,608 334,300 - 1011 2 1990 66.8 859,561 25,638 1.00 25,638 - 190,699 0 518,075 - 1011 2 1992 47.4 1,773,305 57,230 1.00 57,230 310,754 204,241 0 22,916 168,932 640,498 - 1011 2 1993 61.2 481,986 34,047 1.00 34,047 - 154,237 214 295,322 - 1011 2 1993 64.8 598,517 28,297 1.00 28,297 - 167,647 7 7 7 2,159 334,033 - 1011 2 1992 50.0 1,451,271 52,089 1.00 52,089 279,921 177,168 11 39,752 186,393 528,159 - 1011 2 1S 1999 62.2 151,105 32,554 1.00 32,554 - 74,966 219,531 219,531 283,812 151,105 - 1011 2 1S 1999 62.2 151,105 32,554 1.00 32,554 - 74,966 219,531 219,531 283,812 151,105 - 1011 2 1S 1999 568,142 52,089 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 32,554 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 52,089 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 32,554 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 52,089 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 52,089 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 52,089 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 52,089 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 52,089 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 52,089 1.00 52,089 461,664 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 62,089 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 62,089 1.00 52,089 461,664 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 62,089 1.00 62,089 62.2 151,105 62,089 62.2 151,105 62,089 62.2 151,105 62,089</td><td>Awd (2)         Exp.         Miner at Mine</td><td>Awd (2)</td><td>Awd (2) Exp. Miner at State Medical Act 44 Act Offsets for: After Offsets for: After Offsets for: SS SS, PP Benefit Soc. Sec. Pension Base SS Soc. Pension Bas</td></td<>	Age of Awd (2) Exp. Miner at State Medical Act 44 Act Offsets for: After Offsets SS, PP Benefit Soc. Sec.  Class Pend (1) Type* Yr. Comp Date Benefit Bef. Act 44 Factor 44 Med. Soc. Sec. Pension Base SS SS, PP Benefit Soc. Sec.  1011 2 1993 61.3 634,086 34,047 1.00 34,047 - 155,563 22 22 4,608 334,300 - 1011 2 1990 66.8 859,561 25,638 1.00 25,638 - 190,699 0 518,075 - 1011 2 1992 47.4 1,773,305 57,230 1.00 57,230 310,754 204,241 0 22,916 168,932 640,498 - 1011 2 1993 61.2 481,986 34,047 1.00 34,047 - 154,237 214 295,322 - 1011 2 1993 64.8 598,517 28,297 1.00 28,297 - 167,647 7 7 7 2,159 334,033 - 1011 2 1992 50.0 1,451,271 52,089 1.00 52,089 279,921 177,168 11 39,752 186,393 528,159 - 1011 2 1S 1999 62.2 151,105 32,554 1.00 32,554 - 74,966 219,531 219,531 283,812 151,105 - 1011 2 1S 1999 62.2 151,105 32,554 1.00 32,554 - 74,966 219,531 219,531 283,812 151,105 - 1011 2 1S 1999 568,142 52,089 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 32,554 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 52,089 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 32,554 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 52,089 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 52,089 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 52,089 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 52,089 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 52,089 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 52,089 1.00 52,089 461,664 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 62,089 1.00 52,089 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 62,089 1.00 52,089 461,664 461,664 461,664 461,664 568,142 1011 2 1S 1999 62.2 151,105 62,089 1.00 62,089 62.2 151,105 62,089 62.2 151,105 62,089 62.2 151,105 62,089	Awd (2)         Exp.         Miner at Mine	Awd (2)	Awd (2) Exp. Miner at State Medical Act 44 Act Offsets for: After Offsets for: After Offsets for: SS SS, PP Benefit Soc. Sec. Pension Base SS Soc. Pension Bas

Total Underground Anthracite Average of 9 claims	9	6,949,569 772,174	361,285 40,143	361,285 40,143	590,674 65,630	1,124,521 124,947	1,086,250 120,694	1,148,908 127,656	1,512,798 168,089	3,801,230 422,359	0 0	507,735 56,415	2,485,951 276,217	2,485,951 276,217	2,553,392 283,710
		7,310,854													
Medical plus Indemnity		812,317			65,630	124,947	120,694	127,656	168,089	462,502	0	56,415	276,217	276,217	283,710
Adjusted										462,502	0	56,415	276,217	276,217	283,710

<sup>\*</sup> Type code is as follows: 500 is 500 Weeks, WO is Widow Only, LS is Lump Sum, otherwise claim is Lifetime.

Source: Individual claim data from CMCRB.

For the "All Permanent Partial" Scenario, Permanent claims for a Miner or Miner and Spouse were re-run with 630 weeks of State Indemnity benefits. Widow Only, Commuted/Compromised and Lump Sums were the same as in the Base Scenario.

																"All Perma	nent Partial	" Scenario (s	ee note)	
					Age of						_	F	ederal Excess	s:			_	F	ederal Exces	ss:
		Awd (2)	<b>.</b>	Exp.	Miner at	State	Medical	Act 44	Act	Offsets	<del>.</del>		After Of		State		<u> </u>		After O	
ID No.	Class	Pend (1)	Type*	Yr.	Comp Date	Benefit	Bef. Act 44	Factor	44 Med.	Soc. Sec.	Pension	Base	SS	SS, PP	Benefit	Soc. Sec.	Pension	Base	SS	SS, PP
511	1002	2		1992	63.5	898,983	29,680	1.00	29,680	_	391,277	_	_	_	580,160	_	247,894	68,650	68,650	70,470
517	1002	2	LS	1993	64.9	122,605	28,297	1.00	28,297	- -	104,073	211,562	211,562	314,213	122,605	<u>-</u>	104,073	211,562	211,562	314,213
518	1002	2	LS	1992	63.6	191,872	29,680	1.00	29,680	_	154,557	214,501	214,501	319,654	191,872	_	154,557	214,501	214,501	319,654
1330	1002	2	500	1993	63.3	443,372	31,098	1.00	31,098	-	136,909	265,519	265,519	265,519	443,372	_	136,909	265,519	265,519	265,519
1892	1002	2	LS	1990	67.4	68,025	25,638	1.00	25,638	-	52,654	228,484	228,484	281,139	68,025	_	52,654	228,484	228,484	281,139
3222	1002	2	500	1992	62.8	164,515	31,098	1.00	31,098	-	50,800	229,086	229,086	242,595	164,515	-	50,800	229,086	229,086	242,595
3532	1002	2	LS	1995	58.1	332,312	38,723	1.00	38,723	63,060	24,722	277,544	293,382	313,585	332,312	63,060	24,722	277,544	293,382	313,585
3706	1002	2	LS	1992	65.1	128,509	28,297	1.00	28,297	-	102,695	207,893	207,893	309,383	128,509	-	102,695	207,893	207,893	309,383
5479	1002	2		1992	63.7	930,572	29,680	1.00	29,680	-	252,829	-	-	3	504,093	-	160,180	164,004	164,004	165,179
5918	1002	2		1990	66.7	1,184,962	25,638	1.00	25,638	-	386,415	-	-	47	662,655	-	303,271	130,845	130,845	132,474
5966	1002	2		1994	58.8	1,665,372	37,134	1.00	37,134	337,160	347,041	-	2,425	143,289	680,350	113,145	139,783	302,994	304,865	331,690
6415	1002	2	500	1992	62.4	491,464	32,554	1.00	32,554	-	160,345	241,825	241,825	241,825	491,464	-	160,345	241,825	241,825	241,825
6771	1002	2	500	1992	62.5	110,512	32,554	1.00	32,554	-	29,476	103,383	103,383	112,556	110,512	-	29,476	103,383	103,383	112,556
7004	1002	2		1992	60.7	1,253,474	34,047	1.00	34,047	-	317,109	-	-	0	645,103	-	187,435	189,851	189,851	191,416
7051	1002	2	LS	1997	56.5	163,206	41,972	1.00	41,972	15,239	8	296,159	309,736	309,744	163,206	15,239	8	296,159	309,736	309,744
7941	1002	2	LS	1994	66.3	19,955	26,950	1.00	26,950	-	15,162	244,717	244,717	259,879	19,955	-	15,162	244,717	244,717	259,879
8028	1002	2		1992	55.5	1,583,460	41,972	1.00	41,972	313,919	275,893	-	2,301	94,706	672,857	58,550	63,187	301,440	303,269	307,168
9826	1002	2	LS	1999	52.9	53,719	46,979	1.00	46,979	-	-	454,298	454,298	454,298	53,719	-	-	454,298	454,298	454,298
9829	1002	2	LS	2001	61.4	146,691	34,047	1.00	34,047	-	86,634	270,874	270,874	351,832	146,691	-	86,634	270,874	270,874	351,832
9835	1002	2	LS	1999	55.0	3,643	43,625	1.00	43,625	93	-	483,612	483,705	483,705	3,643	93	-	483,612	483,705	483,705
9841	1002	2	LS	2001	59.3	139,358	37,134	1.00	37,134	48,733	197	286,242	333,864	334,061	139,358	48,733	197	286,242	333,864	334,061
9886	1002	2	LS	2000	59.9	650,417	35,574	1.00	35,574	84,553	102,804	273,511	273,511	275,002	650,417	84,553	102,804	273,511	273,511	275,002
9901	1002	2	LS	2002	45.3	202,801	60,629	1.00	60,629	-	-	544,857	544,857	544,857	202,801	-	-	544,857	544,857	544,857
9996	1002	2	LS	2004	52.3	93,710	48,675	1.00	48,675	-	-	426,235	426,235	426,235	93,710	-	-	426,235	426,235	426,235
10016	1002	2	LS	2002	58.7	168,350	37,134	1.00	37,134	59,030	79	264,694	313,511	313,591	168,350	59,030	79	264,694	313,511	313,591
10021	1002	2	LS	2000	66.1	98,146	26,950	1.00	26,950	-	75,223	186,378	186,378	261,601	98,146	-	75,223	186,378	186,378	261,601
10022	1002	2	LS	2000	59.0	97,642	37,134	1.00	37,134	34,283	-	287,784	322,000	322,000	97,642	34,283	-	287,784	322,000	322,000
10025	1002	2	LS	2000	57.7	97,678	38,723	1.00	38,723	25,802	-	313,500	339,272	339,272	97,678	25,802	-	313,500	339,272	339,272
10026	1002	2	LS	2000	61.4	97,980	34,047	1.00	34,047	-	59,211	246,284	246,284	305,324	97,980	-	59,211	246,284	246,284	305,324
10038	1002	2	LS	2000	44.4	80,022	62,304	1.00	62,304	-	-	708,215	708,215	708,215	80,022	-	-	708,215	708,215	708,215
10048	1002	2	LS	2005	54.6	95,647	43,625	1.00	43,625	2,453	-	367,982	370,435	370,435	95,647	2,453	-	367,982	370,435	370,435
10088	1002	2	LS	2005	60.5	130,605	35,574	1.00	35,574	-	77,103	103,676	103,676	160,311	130,605	-	77,103	103,676	103,676	160,311
10164	1002	2	LS	2001	53.4	92,905	46,979	1.00	46,979	-	-	550,179	550,179	550,179	92,905	-	-	550,179	550,179	550,179
10208	1002	2	LS	2005	61.6	242,610	32,554	1.00	32,554	-	145,128	213,477	213,477	284,433	242,610	-	145,128	213,477	213,477	284,433
10286	1002	2	LS	2008	58.0	119,478	38,723	1.00	38,723	31,561	-	369,762	401,081	401,081	119,478	31,561	-	369,762	401,081	401,081
10330	1002	2	LS	2012	63.3	203,452	31,098	1.00	31,098	-	141,050	267,331	267,331	358,264	203,452	-	141,050	267,331	267,331	358,264
10345	1002	2	LS	2008	49.6	541,344	52,089	1.00	52,089	-	-	488,285	488,285	488,285	541,344	-	-	488,285	488,285	488,285
10347	1002	2	LS	2011	65.3	246,929	28,297	1.00	28,297	-	164,069	174,783	174,783	253,504	246,929	-	164,069	174,783	174,783	253,504
10357	1002	2	LS	2012	62.4	100,508	32,554	1.00	32,554	-	62,236	255,993	255,993	317,946	100,508	-	62,236	255,993	255,993	317,946
10360	1002	2	LS	2013	59.7	110,733	35,574	1.00	35,574	48,634	-	120,003	161,233	161,233	110,733	48,634	-	120,003	161,233	161,233
10433	1002	2	LS	2012	68.0	91,034	24,363	1.00	24,363	-	70,355	221,243	221,243	291,598	91,034	-	70,355	221,243	221,243	291,598
10434	1002	2	LS	2013	62.7	77,029	31,098	1.00	31,098	-	54,804	269,661	269,661	324,465	77,029	-	54,804	269,661	269,661	324,465
10435	1002	2	LS	2013	58.5	220,608	38,723	1.00	38,723	52,082	6,193	298,212	329,684	335,807	220,608	52,082	6,193	298,212	329,684	335,807
10465	1002	2	LS	2011	65.8	17,077	26,950	1.00	26,950	-	-	136,910	136,910	136,910	17,077	-	-	136,910	136,910	136,910
10516	1002	2	LS	2014	75.8	76,947	15,645	1.00	15,645	-	45,562	109,060	109,060	154,623	76,947	-	45,562	109,060	109,060	154,623
10561	1002	2	LS	2014	60.6	134,894	34,047	1.00	34,047	-	91,305	95,742	95,742	159,745	134,894	-	91,305	95,742	95,742	159,745
10599	1002	1		2012	62.0	1,181,546	32,554	1.00	32,554	-	319,222	-	-	0	655,136	-	174,346	145,960	145,960	147,625
10601	1002	2	LS	2015	61.6	287,853	32,554	1.00	32,554	-	117,370	250,045	250,045	267,957	287,853	-	117,370	250,045	250,045	267,957
10652	1002	2	LS	2016	57.5	156,106	38,723	1.00	38,723	41,236	-	134,532	160,271	160,271	156,106	41,236	-	134,532	160,271	160,271
10671	1002	2	LS	2013	57.4	214,480	40,337	1.00	40,337	31,958	6,277	295,780	315,357	321,519	214,480	31,958	6,277	295,780	315,357	321,519
10698	1002	2		2014	65.1	1,146,086	28,297	1.00	28,297	-	256,372	-	-	0	608,157	-	188,416	174,504	174,504	175,636
10699	1002	2	LS	2014	55.3	94,704	43,625	1.00	43,625	2,429	-	368,816	371,245	371,245	94,704	2,429	-	368,816	371,245	371,245
10700	1002	2	LS	2014	73.8	71,028	17,592	1.00	17,592	-	-	46,115	46,115	46,115	71,028	-	-	46,115	46,115	46,115
10701	1002	2	LS	2014	65.0	65,109	28,297	1.00	28,297	-	-	103,550	103,550	103,550	65,109	-	-	103,550	103,550	103,550
10703	1002	2	LS	2016	62.4	6,075	32,554	1.00	32,554	-	3,762	337,889	337,889	341,651	6,075	-	3,762	337,889	337,889	341,651
10731	1002	2	LS	2018	62.8	61,830	31,098	1.00	31,098	-	43,991	301,121	301,121	345,112	61,830	-	43,991	301,121	301,121	345,112
10740	1002	2	LS	2016	64.0	60,748	29,680	1.00	29,680	-	48,933	277,437	277,437	326,371	60,748	-	48,933	277,437	277,437	326,371
10743	1002	2	LS	2016	61.4	49,703	34,047	1.00	34,047	-	30,036	323,264	323,264	353,300	49,703	-	30,036	323,264	323,264	353,300
10744	1002	2	LS	2014	59.7	59,190	35,574	1.00	35,574	25,996	-	342,916	368,912	368,912	59,190	25,996	-	342,916	368,912	368,912
10745	1002	2	LS	2013	60.6	61,280	34,047	1.00	34,047	-	41,478	266,280	266,280	307,758	61,280	-	41,478	266,280	266,280	307,758
10749	1002	2	LS	2015	64.3	62,893	29,680	1.00	29,680	-	50,661	266,887	266,887	317,548	62,893	-	50,661	266,887	266,887	317,548
10772	1002	2	LS	2013	64.5	18,415	29,680	1.00	29,680	-	14,833	288,552	288,552	303,386	18,415	-	14,833	288,552	288,552	303,386
10778	1002	2	LS	2015	59.9	200,474	35,574	1.00	35,574	82,364	5,684	275,536	330,521	336,166	200,474	82,364	5,684	275,536	330,521	336,166
10812	1002	2	LS	2015	65.6	12,093	26,950	1.00	26,950	-	9,656	315,676	315,676	325,332	12,093	-	9,656	315,676	315,676	325,332
10860	1002	2	LS	2014	58.8	59,190	37,134	1.00	37,134	20,782	-	155,918	176,700	176,700	59,190	20,782	-	155,918	176,700	176,700
10861	1002	2	LS	2015	60.6	194,395	34,047	1.00	34,047	-	131,579	202,287	202,287	295,120	194,395	-	131,579	202,287	202,287	295,120
l Underç	ground I	Bituminous	S	66		18,248,322	2,287,898		2,287,898	1,321,368	5,063,776	15,862,057	16,308,700	18,144,960	13,412,378	841,984	3,982,130	17,340,305	17,785,923	19,428,571
rage of	66 clain	ns				276,490	34,665		34,665	20,021	76,724	240,334	247,102	274,924	203,218	12,757	60,335	262,732	269,484	294,372
						20,536,221														
dical plu	s Indem	nnity				311,155				20,021	76,724	240,334	247,102	274,924	237,883 237,883	12,757 12,757	60,335 60,335	262,732 262,732	269,484 269,484	294,372 294,372

<sup>\*</sup> Type code is as follows: 500 is 500 Weeks, WO is Widow Only, LS is Lump Sum, otherwise claim is Lifetime.

Source: Individual claim data from CMCRB.

For the "All Permanent Partial" Scenario, Permanent claims for a Miner or Miner and Spouse were re-run with 630 weeks of State Indemnity benefits. Widow Only, Commuted/Compromised and Lump Sums were the same as in the Base Scenario.

March   Color   Pend (		e note)	Scenario (se	nent Partial"	"All Permai																
Part   Dec   Closs   Part   Part   Part   Part   Dec	ess:	ederal Excess	F€	•			<del></del>	ederal Excess:	Fe							Age of					
408   1016   2	Offsets:	After Off		for:	Offsets	State _	sets:	After Off		for:	Offsets	Act	Act 44	Medical	State	Miner at	Exp.		Awd (2)		
1	S SS, PP	SS	Base	Pension	Soc. Sec.	Benefit	SS, PP	SS	Base	Pension	Soc. Sec.	44 Med.	Factor	Bef. Act 44	Benefit	Comp Date	Yr.	Type*	end (1)	Class	ID No.
1.6																					
		89,217		159,082	-			-	-	188,261	-										
1648   1648   1648   1649		81,380			-						-							LS			
Property		438,084			-						-										
1924   1016	3 170,670	169,873	169,8/3				4,923	19	19	152,935	-	32,554									
1719		-			-						-										
2248   1016   2   15   1979   6.6.   58.347   25.438   1.00   25.438   1.00   24.463   1.38.47   145.635   145.635   145.635   55.2099   1.38.47   145.635		309,656			-		331,527	309,656	309,656		-							LS			
Page		76,264		146,732	-		-	-	-	248,246	-										
Part		51,545					-	-	-	-	-										
2794   1016   2		145,635			-			145,635	145,635		-							LS			
10.6   2		141,769			-		8	-	-		-										
3350   1016   2   WO   1993   #N/A   693.420   -   1.00   -   -   -   -   -   -   -   -   -		103,677		•	-			-	-		-										
3814   1016   2   1993   71.8   64.943   19.680   1.00   19.680   -   -   45.510   45.510   45.510   51.225   -   -   59.229   59.23   39.70   1016   2   1599   43.1   339.015   63.958   1.00   63.958   -   -   274.280   274.280   274.280   274.280   339.015   -   -   274.280   274.280   274.280   274.280   39.015   -   -   274.280   274.280   274.280   274.280   39.015   -   -   274.280   274.280   274.280   39.015   -   -   274.280   274.280   274.280   39.015   -   -   274.280   274.280   274.280   39.015   -   -   274.280   274.280   274.280   274.280   39.015   -   -   274.280   274.2	111,343	110,609	110,609	145,033	-		0	-	-	179,614	-	26,950		26,950							
3970   1016   2   LS   1991   43.1   339.015   63.958   1.00   63.958   -   -     274.280   274.280   274.280   274.280   339.015   -   -     274.280   274.280   274.280   339.015   -   -     274.280   274.280   274.280   339.015   -   -     274.280   274.280   274.280   339.015   -   -     274.280   274.280   274.280   339.015   -   -     274.280   274.280   274.280   339.015   -   -     274.280   274.280   339.015   -     -     274.280   274.280   339.015   -     -     274.280   274.280   339.015   -     -     274.280   274.280   339.015   -     -     274.280   274.280   339.015   -     -     274.280   274.280   339.015   -     -     274.280   274.280   339.015   -     -     274.280   274.280   339.015   -     -     274.280   274.280   339.015   -     -     274.280   274.280   339.015   -     -     274.280   274.280   339.015   -     -     274.280	-	-		-	-				-	-	-							WO			
5605         1016         2         1992         69.3         767.664         23.127         1.00         23.127         -         165.967         -         -         -         429.423         -         141.651         84.075         84.075           6805         1016         2         1992         67.2         615.748         25.638         1.00         25.638         -         -         -         429.423         -         -         51.242         51.2           6071         1016         2         1994         60.3         935.804         35.574         1.00         35.574         -         223.203         -         -         36         486.533         -         112.904         188.517         188.51<		59,229		-	-					-	-										
5805         1016         2         1992         67.2         615,745         25,838         1.00         25,638         -         -         -         -         -         429,423         -         -         51,242         51,24         6071         1016         2         1994         60.3         958,804         35,574         1.00         35,774         -         223,203         -         -         36         486,533         -         121,904         188,517         188,517         188,632         1016         2         1991         55,55,684         37,134         1.00         37,134         7.00         37,134         7.00         37,134         7.00         37,134         7.00         37,134         7.00         37,134         7.00         37,134         7.00         37,134         7.00         37,20         35,653         125,653         125,653         152,653         75,684         57,083         56,532         125,643         152,653         152,653         75,684         57,083         56,732         125,644         60.0         328         383,083         -         154,048         154,448         152,643         352,645         -         -         -         -         -         -         <		274,280			-		274,280	274,280	274,280		-							LS			
6071 1016 2 1994 60.3 935,804 35,574 1.00 35,574 - 223,203 36 486,533 - 121,904 188,517 188,5 632 1016 2 LS 1991 59.5 575,684 37,134 1.00 37,134 57,083 56,532 125,653 125,653 125,653 125,653 575,684 57,083 56,532 125,653 125,654 1016 2 1990 65,7 689,368 26,950 1.00 26,950 - 153,623 0 0 328 383,308 - 116,679 154,048 154,046 1016 2 1995 69.8 474,905 21,934 1.00 21,934 - 102,573 2 2 1,1197 303,266 - 86,178 99,155 99,170 1016 2 1995 67.0 1,394,235 25,638 1.00 32,554 - 204,224 542,488 542,488 542,488 1016 2 1995 67.0 1,394,235 25,638 1.00 32,554 1.00		84,075	84,075	141,651	-		0	-	-	165,967	-		1.00			69.3	1992		2		
6322 1016 2 LS 1991 59.5 575.684 37.134 1.00 37.134 57.083 56.532 125.653 125.653 125.653 575.684 57.083 56.532 125.653 125.664 1016 2 1995 69.8 474.905 21.934 1.00 21.934 - 102.573 2 2 11.97 303.266 - 86.178 99.155 99.1 6765 1016 2 WO 1990 #N/A 542.488 - 1.00 542.488 111.539 83.823 83.827 1016 2 1995 67.0 1.394.235 25.638 1.00 32.554 - 204.224 1 391.036 - 111.539 83.823 83.827 1016 2 1995 67.0 1.394.235 25.638 1.00 25.638 - 35.544 5 10.0 25.638 - 35.2465 1 66.557 - 263.236 191.969 191.5 1016 2 153.000 74.6 20.217 16.601 1.00 35.574 262.925 215.985 - 2.675 65.699 444.185 100.848 97.581 98.456 99.8 1016 2 LS 2000 74.6 20.217 16.601 1.00 35.574 262.925 215.985 - 2.675 65.699 444.185 100.848 97.581 98.456 99.8 1016 2 LS 2000 74.6 20.217 16.601 1.00 35.574 262.925 215.985 - 2.675 65.699 444.185 100.848 97.581 98.456 99.8 1016 2 LS 2000 74.6 20.217 16.601 1.00 34.047 - 86.772 277.916 277.91	2 51,242	51,242	51,242	-	-		-	-	-	-	-		1.00		615,745	67.2			2		
6481 1016 2 1990 65.7 689,368 26,950 1.00 26,950 - 153,623 0 0 0 328 383,308 - 116,679 154,048 154,0 6603 1016 2 1995 69.8 474,905 21,934 1.00 21,934 - 102,573 2 2 1,197 303,266 - 86,178 99,155 99,1 6765 1016 2 1997 62.3 638,197 32,554 1.00 32,554 - 204,224 1 39,1036 - 111,539 83,823 83,8 7473 1016 2 1995 67.0 1,394,235 25,638 1.00 25,638 - 352,465 - 109,085 0 0 1,114 314,095 - 263,236 191,969 191,5 7825 1016 2 1995 67.0 497,334 24,363 1.00 24,363 - 109,085 0 0 1,114 314,095 - 90,184 101,716 101,7 7857 1016 2 1993 597, 763,288 35,574 1.00 35,574 262,925 215,985 - 2,675 65,699 444,185 100,848 97,581 98,456 99,8 9805 1016 2 LS 2000 74.6 20,217 16,601 1.00 16,601 - 13,784 237,357 237,357 251,140 20,217 - 13,784 237,357 237,3 9811 1016 2 LS 2003 61.4 215,338 34,047 1.00 35,574 262,925 110,003 1,207 105,178 210,533 37,606 426,026 426,0 9939 1016 2 LS 2003 61.4 215,338 34,047 1.00 34,047 - 86,772 277,916 277,916 319,096 215,338 - 86,772 277,916 277,9 981 1016 2 LS 2003 61.5 103,362 34,047 1.00 35,047 - 62,463 104,644 104,644 161,243 136,22 - 62,463 104,644 104,64 10140 1016 2 LS 2007 68.8 109,127 23,127 1.00 23,127 - 81,837 177,777 177,777 259,614 109,127 - 81,837 177,777 177,7 10190 1016 2 LS 2007 68.8 109,127 23,127 1.00 34,047 - 62,463 104,644 104,644 161,243 103,362 - 62,463 104,644 104,64 10140 1016 2 LS 2007 68.8 109,127 23,127 1.00 23,127 - 81,837 177,777 177,777 259,614 109,127 - 81,837 177,777 177,777 10190 1016 2 LS 2007 68.8 109,127 23,127 1.00 23,127 - 81,837 177,777 177,777 259,614 109,127 - 81,837 177,777 177,777 10190 1016 2 LS 2007 68.8 109,127 23,127 1.00 23,127 - 81,837 177,777 177,777 259,614 109,127 - 81,837 177,777 177,777 10190 1016 2 LS 2007 68.8 109,127 23,127 1.00 23,127 - 81,837 177,777 177,777 259,614 109,127 - 81,837 177,777 177,777	7 189,681	188,517	188 <i>,</i> 51 <i>7</i>	121,904	-	486,533	36	-	-	223,203	-	35,574	1.00	35,574	935,804	60.3			2		
6603 1016 2 1995 69.8 474,905 21,934 1.00 21,934 - 102,573 2 2 1,197 303,266 - 86,178 99,155 99,1 6765 1016 2 WO 1990 #N/A 542,488 - 1.00 - 1.	125,653	125,653	125,653	56,532	57,083	575,684	125,653	125,653	125,653	56,532	57,083	37,134	1.00	37,134	575,684	59.5	1991	LS	2	1016	6322
6765 1016 2 WO 1990 #N/A 542,488 - 1.00 542,484 1 391,036 - 111,539 83,823 83,8 7473 1016 2 1995 67.0 1,394,235 25,638 1.00 25,638 - 352,465 1 669,557 - 263,236 191,699 191,6 7825 1016 2 1995 67.6 497,334 24,363 1.00 24,363 - 109,085 0 0 1,114 314,095 - 90,184 101,716 101,7 7857 1016 2 1993 59.7 763,288 35,574 1.00 35,574 262,925 215,985 - 2,675 65,699 444,185 100,848 97,581 98,456 99,8 9805 1016 2 LS 2000 74.6 20,217 16,601 1.00 16,601 - 13,784 237,357 237,357 251,140 20,217 - 13,784 237,357 237,3 9811 1016 2 LS 2003 48.1 1,034,247 55,517 1.00 55,517 220,322 110,003 1,207 105,178 210,533 377,606 426,026 426,0 933 1016 2 LS 2003 61.4 215,338 34,047 1.00 34,047 - 86,772 277,916 279,916 319,096 215,338 - 86,772 277,916 981 1016 2 LS 2004 79.6 598,632 12,191 1.00 12,191 - 165,539 0 0 517,873 - 162,318 15,589 15,5 1003 1016 2 LS 2003 61.5 103,362 34,047 1.00 35,574 - 163,228 24 24 24 3,581 356,216 - 89,148 198,585 198,5 1004 1016 2 LS 2003 68,8 109,127 23,127 1.00 23,127 - 81,837 177,777 177,777 259,614 109,127 - 81,837 177,777 177,77 10190 1016 2 LS 2007 68,8 109,127 23,127 1.00 34,047 - 57,122 105,086 105,086 162,208 84,392 - 57,122 105,086 105,086	3 154,714	154,048	154,048	116,679	-	383,308	328	0	0	153,623	-	26,950	1.00	26,950	689,368	65.7	1990		2	1016	6481
7028         1016         2         1997         62.3         638,197         32,554         1.00         32,554         -         204,224         -         -         1         391,036         -         111,539         83,823	99,544	99,155	99,155	86,178	-	303,266	1,197	2	2	102,573	-	21,934	1.00	21,934	474,905	69.8	1995		2	1016	6603
7473         1016         2         1995         67.0         1,394,235         25,638         1.00         25,638         -         352,465         -         -         1         669,557         -         263,236         191,969 <td< td=""><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>542,488</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>1.00</td><td>-</td><td>542,488</td><td>#N/A</td><td>1990</td><td>WO</td><td>2</td><td>1016</td><td>6765</td></td<>	-	-	-	-	-	542,488	-	-	-	-	-	-	1.00	-	542,488	#N/A	1990	WO	2	1016	6765
7825         1016         2         1995         67.6         497,334         24,363         1.00         24,363         -         109,085         0         0         1,114         314,095         -         90,184         101,716 <t< td=""><td>84,888</td><td>83,823</td><td>83,823</td><td>111,539</td><td>-</td><td>391,036</td><td>1</td><td>-</td><td>-</td><td>204,224</td><td>-</td><td>32,554</td><td>1.00</td><td>32,554</td><td>638,197</td><td>62.3</td><td>1997</td><td></td><td>2</td><td>1016</td><td>7028</td></t<>	84,888	83,823	83,823	111,539	-	391,036	1	-	-	204,224	-	32,554	1.00	32,554	638,197	62.3	1997		2	1016	7028
7857         1016         2         1993         59.7         763,288         35,574         1.00         35,574         262,925         215,985         -         2,675         65,699         444,185         100,848         97,581         98,456         99,85           9805         1016         2         LS         2000         74.6         20,217         16,601         1.00         16,601         -         13,784         237,357         237,357         251,140         20,217         -         13,784         237,357         237,357         251,140         20,217         -         13,784         237,357         251,140         20,217         -         13,784         237,357         251,140         20,217         -         13,784         237,357         251,140         20,217         -         13,784         237,357         251,140         20,217         -         13,784         237,357         251,140         20,217         -         13,784         237,357         251,140         20,217         -         13,784         237,357         251,140         20,217         -         13,784         237,357         251,140         20,217         -         1426,026         426,026         426,026         426,026         427,	193,509	191,969	191,969	263,236	-	669,557	1	-	-	352,465	-	25,638	1.00	25,638	1,394,235	67.0	1995		2	1016	7473
9805 1016 2 LS 2000 74.6 20.217 16.601 1.00 16.601 - 13.784 237.357 237.357 251,140 20.217 - 13.784 237.357 237.3 9811 1016 2 2001 48.1 1,034,247 55,517 1.00 55,517 220,322 110,003 1,207 105,178 210,533 377,606 426,026	102,144	101,716	101,716	90,184	-	314,095	1,114	0	0	109,085	-	24,363	1.00	24,363	497,334	67.6	1995		2	1016	7825
9811         1016         2         2001         48.1         1,034,247         55,517         1.00         55,517         220,322         110,003         1,207         105,178         210,533         377,606         -         -         -         426,026	3 104,321	99,883	98,456	97,581	100,848	444,185	65,699	2,675	-	215,985	262,925	35,574	1.00	35,574	763,288	59.7	1993		2	1016	7857
9939 1016 2 LS 2003 61.4 215,338 34,047 1.00 34,047 - 86,772 277,916 277,916 319,096 215,338 - 86,772 277,916 277,916 9981 1016 2 2004 79.6 598,632 12,191 1.00 12,191 - 165,539 0 517,873 - 162,318 15,589 15,581 10030 1016 2 2005 60.2 695,969 35,574 1.00 35,574 - 163,228 24 24 3,581 356,216 - 89,148 198,585 198,581 10074 1016 2 LS 2003 61.5 103,362 34,047 1.00 34,047 - 62,463 104,644 104,644 161,243 103,362 - 62,463 104,644 104,64 101,04 1016 2 LS 2007 68.8 109,127 23,127 1.00 23,127 - 81,837 177,777 177,777 259,614 109,127 - 81,837 177,777 177,777 10190 1016 2 LS 2007 60.6 84,392 34,047 1.00 34,047 - 57,122 105,086 105,086 162,208 84,392 - 57,122 105,086 105,086	251,140	237,357	237,357	13,784	-	20,217	251,140	237,357	237,357	13,784	-	16,601	1.00	16,601	20,217	74.6	2000	LS	2	1016	9805
9981 1016 2 2004 79.6 598.632 12,191 1.00 12,191 - 165,539 0 517,873 - 162,318 15,589 15,500 10030 1016 2 2005 60.2 695,969 35,574 1.00 35,574 - 163,228 24 24 3,581 356,216 - 89,148 198,585 198,500 10074 1016 2 LS 2003 61.5 103,362 34,047 1.00 34,047 - 62,463 104,644 104,644 161,243 103,362 - 62,463 104,644 104,64 1014,644 1014,644 109,127 - 81,837 177,777 10190 1016 2 LS 2007 60.6 84,392 34,047 1.00 34,047 - 57,122 105,086 105,086 162,208 84,392 - 57,122 105,086 105,086	426,026	426,026	426,026	-	-	377,606	210,533	105,178	1,207	110,003	220,322	55,517	1.00	55,517	1,034,247	48.1	2001		2	1016	9811
10030       1016       2       2005       60.2       695,969       35,574       1.00       35,574       -       163,228       24       24       24       3,581       356,216       -       89,148       198,585       198,585         10074       1016       2       LS       2003       61.5       103,362       34,047       1.00       34,047       -       62,463       104,644       104,644       161,243       103,362       -       62,463       104,644       104,644       161,243       103,362       -       62,463       104,644       104,644       161,243       103,362       -       62,463       104,644       104,644       161,243       103,362       -       62,463       104,644       104,644       161,243       103,362       -       62,463       104,644       104,644       161,243       103,362       -       62,463       104,644       104,644       107,777       177,777<	319,096	277,916	277,916	86,772	-	215,338	319,096	277,916	277,916	86,772	-	34,047	1.00	34,047	215,338	61.4	2003	LS	2	1016	9939
10074     1016     2     LS     2003     61.5     103,362     34,047     1.00     34,047     -     62,463     104,644     104,644     161,243     103,362     -     62,463     104,644     104,644       10140     1016     2     LS     2007     68.8     109,127     23,127     1.00     23,127     -     81,837     177,777     177,777     259,614     109,127     -     81,837     177,777     177,777       10190     1016     2     LS     2007     60.6     84,392     34,047     1.00     34,047     -     57,122     105,086     105,086     162,208     84,392     -     57,122     105,086     105,086	15,742	15,589	15,589	162,318	-	517,873	0	-	-	165,539	-	12,191	1.00	12,191	598,632	79.6	2004		2	1016	9981
10140 1016 2 LS 2007 68.8 109,127 23,127 1.00 23,127 - 81,837 177,777 177,777 259,614 109,127 - 81,837 177,777 171,777 10190 1016 2 LS 2007 60.6 84,392 34,047 1.00 34,047 - 57,122 105,086 105,086 162,208 84,392 - 57,122 105,086 105,086	199,436	198,585	198,585	89,148	-	356,216	3,581	24	24	163,228	-	35,574	1.00	35,574	695,969	60.2	2005		2	1016	10030
10190 1016 2 LS 2007 60.6 84,392 34,047 1.00 34,047 - 57,122 105,086 105,086 162,208 84,392 - 57,122 105,086 105,0	161,243	104,644	104,644	62,463	-	103,362	161,243	104,644	104,644	62,463	-	34,047	1.00	34,047	103,362	61.5	2003	LS	2	1016	10074
	259,614	177,777	177,777	81,837	-	109,127	259,614	177,777	177,777	81,837	-	23,127	1.00	23,127	109,127	68.8	2007	LS	2	1016	10140
10259 1016 2 15 2007 72.9 46.185 18.617 1.00 18.617 - 30.450 160.002 160.002 190.452 46.185 - 30.450 160.002 160.0	162,208	105,086	105,086	57,122	-	84,392	162,208	105,086	105,086	57,122	-	34,047	1.00	34,047	84,392	60.6	2007	LS	2	1016	10190
10207 1010 2 20 207 72.7 40,100 10,017 1.00 10,017 00,400 100,002 100,002 100,002 40,100 - 00,400 100,002 100,00	190,452	160,002	160,002	30,450	-	46,185	190,452	160,002	160,002	30,450	-	18,617	1.00	18,617	46,185	72.9	2007	LS	2	1016	10259
10278 1016 2 LS 2011 76.7 104,350 14,726 1.00 14,726 - 48,117 105,665 105,665 153,782 104,350 - 48,117 105,665 105,6	153,782	105,665	105,665	48,117	-	104,350	153,782	105,665	105,665	48,117	-	14,726	1.00	14,726	104,350	76.7	2011	LS	2	1016	10278
10602 1016 2 LS 2016 63.7 160,025 29,680 1.00 29,680 - 128,904 233,925 233,925 339,714 160,025 - 128,904 233,925 233,9	339,714	233,925	233,925	128,904	-	160,025	339,714	233,925	233,925	128,904	-	29,680	1.00	29,680	160,025	63.7	2016	LS	2	1016	10602
10810 1016 2 LS 2016 51.6 207,119 48,675 1.00 48,675 345,266 345,266 345,266 207,119 345,266 345,2	345,266	345,266	345,266	-	-	207,119	345,266	345,266	345,266	-	-	48,675	1.00	48,675	207,119	51.6	2016	LS	2	1016	10810

Total Surface Anthracite Average of 38 claims	38	19,633,509 516,671	1,027,703 27,045	1,027,703 27,045	540,330 14,219	4,100,236 107,901	2,743,405 72,195	2,850,052 75,001	3,492,532 91,909	13,022,866 342,707	157,931 4,156	2,989,154 78,662	5,617,711 147,835	5,619,138 147,872	6,093,470 160,354
		20,661,212													
Medical plus Indemnity		543,716			14,219	107,901	72,195	75,001	91,909	369,752	4,156	78,662	147,835	147,872	160,354
Adjusted										369,752	4,156	78,662	147,835	147,872	160,354

<sup>\*</sup> Type code is as follows: 500 is 500 Weeks, WO is Widow Only, LS is Lump Sum, otherwise claim is Lifetime.

Source: Individual claim data from CMCRB.

For the "All Permanent Partial" Scenario, Permanent claims for a Miner or Miner and Spouse were re-run with 630 weeks of State Indemnity benefits. Widow Only, Commuted/Compromised and Lump Sums were the same as in the Base Scenario.

																"All Perma	nent Partial"	Scenario (se	ee note)	
					Age of							Fe	ederal Excess	: <u> </u>				Fe	ederal Excess	:
		Awd (2)		Exp.	Miner at	State	Medical	Act 44	Act	Offsets	s for:		After Of	fsets:	State	Offsets	for:		After Of	fsets:
ID No.	Class	Pend (1)	Type*	Yr.	Comp Date	Benefit	Bef. Act 44	Factor	44 Med.	Soc. Sec.	Pension	Base	SS	SS, PP	Benefit	Soc. Sec.	Pension	Base	SS	SS, PP
513	1013	2		1993	64.4	1,388,353	29,680	1.00	29,680	-	409,901	-	-	1	671,593	-	259,694	197,629	197,629	199,534
656	1013	2		1999	53.5	1,106,379	45,294	1.00	45,294	248,687	169,470	9	33,851	172,699	454,600	20,895	18,427	329,630	331,109	338,712
1135	1013	2	LS	1990	45.5	608,190	60,629	1.00	60,629	-	-	529,104	529,104	529,104	608,190	-	-	529,104	529,104	529,104
2486	1013	2	LS	1996	64.2	81,327	29,680	1.00	29,680	-	65,511	96,936	96,936	162,408	81,327	-	65,511	96,936	96,936	162,408
3386	1013	2	LS	1993	57.8	355,732	38,723	1.00	38,723	41,206	39,612	307,316	309,703	332,889	355,732	41,206	39,612	307,316	309,703	332,889
3867	1013	2		1994	45.8	1,709,208	58,935	1.00	58,935	300,609	175,274	3	46,562	195,666	584,233	-	-	493,011	493,011	493,011
3968	1013	2	500	1991	43.7	455,485	62,304	1.00	62,304	-	-	264,885	264,885	264,885	455,485	-	-	264,885	264,885	264,885
5814	1013	2	LS	1997	61.0	11,491	34,047	1.00	34,047	-	6,944	311,342	311,342	318,286	11,491	-	6,944	311,342	311,342	318,286
5816	1013	2	LS	1996	61.0	193,954	34,047	1.00	34,047	-	117,209	230,136	230,136	312,759	193,954	-	117,209	230,136	230,136	312,759
5963	1013	2	LS	1994	59.1	68,532	37,134	1.00	37,134	24,062	-	351,867	375,930	375,930	68,532	24,062	-	351,867	375,930	375,930
5968	1013	2	LS	1995	56.9	331,947	40,337	1.00	40,337	24,056	21,489	347,244	349,722	361,512	331,947	24,056	21,489	347,244	349,722	361,512
7788	1013	2	LS	1991	69.2	202,191	23,127	1.00	23,127	-	135,185	96,754	96,754	186,704	202,191	-	135,185	96,754	96,754	186,704
9770	1013	2	LS	1999	59.2	45,861	37,134	1.00	37,134	16,102	-	324,765	340,868	340,868	45,861	16,102	-	324,765	340,868	340,868
9771	1013	2	LS	1998	62.5	119,817	31,098	1.00	31,098	-	85,247	96,184	96,184	160,251	119,817	-	85,247	96,184	96,184	160,251
9999	1013	2	LS	2005	46.2	37,117	58,935	1.00	58,935	-	-	297,087	297,087	297,087	37,117	-	-	297,087	297,087	297,087
10439	1013	2		2011	61.5	793,461	32,554	1.00	32,554	-	270,088	-	-	-	498,937	-	159,642	75,912	75,912	77,245
10537	1013	2	LS	2012	64.5	115,848	29,680	1.00	29,680	-	93,318	191,264	191,264	283,175	115,848	-	93,318	191,264	191,264	283,175
10582	1013	2	LS	2015	72.1	99,433	19,680	1.00	19,680	-	-	41,786	41,786	41,786	99,433	-	-	41,786	41,786	41,786
10598	1013	2	LS	2012	61.7	25,744	32,554	1.00	32,554	-	17,855	317,895	317,895	335,750	25,744	-	17,855	317,895	317,895	335,750
10659	1013	2	LS	2015	56.9	87,735	40,337	1.00	40,337	15,640	-	149,363	165,003	165,003	87,735	15,640	-	149,363	165,003	165,003
10665	1013	2	LS	2014	55.8	290,452	41,972	1.00	41,972	14,388	12,745	343,146	348,544	355,622	290,452	14,388	12,745	343,146	348,544	355,622

Total Surface Bituminous Average of 21 claims	21	8,128,258 387,060	817,878 38,947	817,878 38,947	684,750 32,607	1,619,850 77,136	4,297,087 204,623	4,443,556 211,598	5,192,384 247,256	5,340,219 254,296	156,350 7,445	1,032,879 49,185	5,393,257 256,822	5,460,805 260,038	5,932,520 282,501
		8,946,136													
Medical plus Indemnity		426,006			32,607	77,136	204,623	211,598	247,256	293,243	7,445	49,185	256,822	260,038	282,501
Adjusted										293,243	7,445	49,185	256,822	260,038	282,501

<sup>\*</sup> Type code is as follows: 500 is 500 Weeks, WO is Widow Only, LS is Lump Sum, otherwise claim is Lifetime.

Source: Individual claim data from CMCRB.

For the "All Permanent Partial" Scenario, Permanent claims for a Miner or Miner and Spouse were re-run with 630 weeks of State Indemnity benefits. Widow Only, Commuted/Compromised and Lump Sums were the same as in the Base Scenario.

																"All Perma	nent Partial"	Scenario (se	ee note)	
					Age of							F	ederal Excess	:				Fe	ederal Excess	•
		Awd (2)		Exp.	Miner at	State	Medical	Act 44	Act	Offsets	for:		After Of	fsets:	State	Offsets	for:		After Of	fsets:
ID No.	Class	Pend (1)	Type*	Yr.	Comp Date	Benefit	Bef. Act 44	Factor	44 Med.	Soc. Sec.	Pension	Base	SS	SS, PP	Benefit	Soc. Sec.	Pension	Base	SS	SS, PP
3221	1017	2		1993	60.8	1,528,085	34,047	1.00	34,047	-	437,225	-	-	163	670,785	-	258,432	251,495	251,495	253,652
3224	1017	2	LS	1992	56.9	244,348	40,337	1.00	40,337	38,427	5,133	325,080	346,104	351,160	244,348	38,427	5,133	325,080	346,104	351,160
9944	1022	2	LS	2003	53.1	88,857	46,979	1.00	46,979	-	-	379,982	379,982	379,982	88,857	-	-	379,982	379,982	379,982
10817	1022	2	LS	2019	60.6	203,635	34,047	1.00	34,047	-	99,273	210,218	210,218	264,754	203,635	-	99,273	210,218	210,218	264,754
10124	1024	2	LS	2006	60.0	120,792	35,574	1.00	35,574	53,052	-	331,965	384,560	384,560	120,792	53,052	-	331,965	384,560	384,560
1126	1026	2		1997	55.4	514,422	43,625	1.00	43,625	181,168	102,470	26	50,311	145,233	264,256	24,558	18,896	141,794	142,862	155,215
9877	1026	2	LS	1997	54.7	40,986	43,625	1.00	43,625	1,051	-	207,921	208,972	208,972	40,986	1,051	-	207,921	208,972	208,972
9993	1026	2	LS	2004	78.1	77,359	-	1.00	-	-	-	127,158	127,158	173,057	77,359	-	-	127,158	127,158	173,057
10161	1026	2	LS	2007	43.2	30,688	63,958	1.00	63,958	-	-	745,100	745,100	745,100	30,688	-	-	745,100	745,100	745,100
10245	1026	2		2010	74.5	454,185	17,592	1.00	17,592	-	93,951	-	-	3	343,326	-	86,917	47,382	47,382	47,616
10600	1026	2	LS	2015	72.2	185,363	19,680	1.00	19,680	-	58,835	57,307	57,307	88,610	185,363	-	58,835	57,307	57,307	88,610
10650	1026	2	LS	2017	52.5	94,605	48,675	1.00	48,675	-	-	277,377	277,377	277,377	94,605	-	-	277,377	277,377	277,377
10718	1026	2	LS	2014	58.6	116,060	37,134	1.00	37,134	38,041	2,709	320,780	358,450	361,159	116,060	38,041	2,709	320,780	358,450	361,159
9784	1028	2	LS	2000	78.3	71,376	-	1.00	-	-	-	175,415	175,415	217,091	71,376	-	-	175,415	175,415	217,091
10741	1028	2	LS	2016	64.2	41,395	29,680	1.00	29,680	-	33,344	131,111	131,111	164,455	41,395	-	33,344	131,111	131,111	164,455

Total Surface Bituminous	15	3,812,155	494,951	494,951	311,738	832,939	3,289,438	3,452,064	3,761,675	2,593,829	155,129	563,538	3,730,083	3,843,491	4,072,759
Average of 15 claims		254,144	32,997	32,997	20,783	55,529	219,296	230,138	250,778	172,922	10,342	37,569	248,672	256,233	271,517
		4,307,106													
Medical plus Indemnity		287,140			20,783	55,529	219,296	230,138	250,778	205,919	10,342	37,569	248,672	256,233	271,517
Adjusted										205,919	10,342	37,569	248,672	256,233	271,517

<sup>\*</sup> Type code is as follows: 500 is 500 Weeks, WO is Widow Only, LS is Lump Sum, otherwise claim is Lifetime.

Source: Individual claim data from CMCRB.

For the "All Permanent Partial" Scenario, Permanent claims for a Miner or Miner and Spouse were re-run with 630 weeks of State Indemnity benefits. Widow Only, Commuted/Compromised and Lump Sums were the same as in the Base Scenario.

### Exhibit IX-B Page 1 <u>Underground Anthracite</u> Class 160

					Age of		
		Awd (2)	Exp.		Miner at	Federal	
ID No.	Class	Pend (1)	Date	Type*	Comp. Date	Benefit	Medical
1005	1.0	0	4/4/1004	0	(1.02	101.000	70 /22
1335	160	2	4/4/1994	0	61.23	191,089	72,633
2051	160	2	12/6/1990	0	64.94	307,545	60,367
3089	160	2	12/6/1990	0	52.39	609,901	103,840
3156	160	2	6/22/1990	0	67.11	442,565	54,694
3720	160	2	10/1/1990	WO	N/A	248,570	-
4555	160	2	6/22/1990	0	67.34	304,750	54,694
4735	160	2	5/5/1992	WO	N/A	283,865	-
7258	160	2	12/2/1993	0	59.78	444,622	75,892
7489	160	2	6/22/1990	0	54.50	558,879	93,066
7863	160	2	12/6/1990	0	56.42	661,438	89,540
9876	160	2	6/13/2001	0	64.89	298,922	60,367
9929	160	2	5/7/2001	0	51.00	458,909	107,477
9960	160	2	4/1/1999	WO	N/A	140,509	-
10091	160	1	3/1/2001	0	48.03	625,565	118,437
10199	160	2	1/1/1990	0	60.50	420,869	75,892
10200	160	2	10/24/2006	0	53.47	587,769	100,221
10237	160	2	7/21/2003	0	65.28	290,639	60,367
10395	160	2	6/30/1999	0	59.24	208,415	79,219
10482	160	2	6/1/1991	0	61.87	431,813	69,449
10805	160	1	5/15/2000	0	72.35	110,454	41,984
10814	160	1	1/1/2015	0	54.84	244,844	93,066

 Total Underground Anthracite
 7,871,931
 1,411,204

 Average of 21 claims
 59.73
 374,854
 67,200

 Medical plus Indemnity
 442,054

Exhibit IX-B Page 2 <u>Underground Bituminous</u> Class 158

		A(O)	F		Age of	For should	
ID No	. Class	Awd (2) Pend (1)	Exp. Date	Type*	Miner at Comp. Date	Federal Benefit	Medical
275	158	2	9/25/1992	0	71.39	283,976	44,340
508 917	158 158	2 2	8/15/1991 4/1/1993	0	75.55 62.00	87,810 385,332	33,377 69,449
931	158	2	3/3/1995	0	68.32	299,205	51,974
3481	158	2	5/20/1990	0	57.28	453,495	86,052
5821	158	2	5/1/1992	0	69.52	253,578	46,792
6950 7484	158 158	2 2	9/30/1990 1/1/1990	0 WO	57.91 N/A	412,920 333,998	82,608
7689	158	2	9/19/1991	0	54.11	499,694	96,628
8381	158	2	12/31/1997	0	77.23	177,379	31,416
9758	158	1	6/28/2000	0	52.23	527,471	103,840
9839 9857	158 158	1 2	11/1/2000 7/14/1992	0	49.96 79.44	595,915 163,277	111,124 27,733
9863	158	2	5/1/1990	0	73.06	103,277	39,716
9870	158	2	6/1/1994	WO	N/A	308,570	-
10032	158	2	1/3/1999	0	74.23	252,122	37,529
10042 10065	158 158	2 2	11/15/2001	0 WO	55.61	484,809	89,540
10086	158	2	10/9/1992 2/9/2006	0	N/A 56.41	109,962 484,809	89,540
10090	158	2	5/1/2004	0	61.18	361,315	72,633
10123	158	2	3/1/1999	0	52.44	503,380	103,840
10129	158	2	7/1/1993	0	61.63	512,795	69,449
10182 10189	158 158	2 2	9/1/2001 7/11/2002	0	61.75 55.34	354,520 244,844	69,449 93,066
10187	158	2	10/10/2001	0	66.61	314,230	54,694
10215	158	1	6/6/2007	0	55.18	530,959	93,066
10218	158	2	1/1/1999	0	66.66	286,857	54,694
10254	158	2	5/1/1999	0	67.52	264,491	51,974
10255 10263	158 158	2 1	12/1/1992 5/26/2000	WO 0	N/A 70.16	175,820 245,594	- 46,792
10265	158	2	5/15/1999	0	63.36	451,337	66,343
10287	158	1	2/19/2007	0	55.23	492,169	93,066
10291	158	2	6/30/2002	0	67.37	143,893	54,694
10293 10299	158 158	2 2	12/1/2003 2/4/2001	0	65.01 65.28	356,161 275,084	60,367 60,367
10277	158	2	4/1/1993	0	66.37	292,773	57,493
10327	158	2	12/1/1991	0	68.11	264,491	51,974
10328	158	2	4/6/1994	0	72.51	208,403	39,716
10366	158	2	10/12/1991	0	71.12	232,739	44,340
10367 10368	158 158	2 2	6/10/1997 2/24/1996	0	64.04 70.14	395,633 340,704	63,317 46,792
10387	158	2	10/12/1991	0	61.09	342,889	72,633
10397	158	1	12/15/1996	0	75.22	173,426	35,416
10402	158	2	1/15/2013	0	65.42	307,545	60,367
10443	158	1	6/30/1998	0	51.31	679,991	107,477
10446 10455	158 158	2 2	12/1/1992 3/1/2002	0	69.46 67.39	129,802 278,421	49,338 54,694
10486	158	1	5/26/2000	0	61.38	191,089	72,633
10488	158	1	5/26/2000	0	60.52	391,891	72,633
10498	158	2	5/15/1992	0	75.59	87,810	33,377
10499 10523	158 158	2 1	9/30/1996 4/11/1995	0	43.02 66.87	358,969 314,230	136,445 54,694
10529	158	1	5/26/2000	0	66.26	284,412	57,493
10531	158	2	5/26/2000	0	72.88	188,837	39,716
10558	158	2	9/30/1994	0	66.17	276,387	57,493
10584 10593	158 158	2 2	7/15/1996 5/29/2000	0	79.41 62.50	157,027 347,968	27,733 66,343
10575	158	1	2/11/2010	0	73.01	215,573	39,716
10597	158	1	4/19/1991	0	37.90	890,280	153,153
10605	158	1	7/1/2016	0	59.77	317,913	75,892
10610	158	2	7/31/1999	0	66.67	416,071	54,694
10639 10655	158 158	1 2	11/24/1996 5/31/2017	0	41.32 61.49	770,016 342,889	143,339 72,633
10656	158	1	1/4/2016	0	58.09	402,582	82,608
10664	158	1	12/21/2015	0	57.15	477,612	86,052
10673	158	2	11/18/2011	0	65.02	282,694	60,367
10687 10695	158 158	1 1	8/1/1997 3/30/2000	0	35.99 42.38	418,937 731,303	159,239 139,920
10073	158	1	12/1/1992	0	52.39	566,782	103,840
10721	158	1	7/1/1992	0	52.99	263,669	100,221
10725	158	2	4/1/1993	0	76.03	147,653	33,377
10757	158	1	5/1/1992	0	55.38	244,844	93,066
10765 10770	158 158	1	6/30/2002 9/1/2004	0	49.75 65.97	292,353 350,430	111,124 57,493
10795	158	1	12/31/1996	0	59.11	366,383	79,219
10796	158	1	10/21/1996	0	43.64	349,684	132,915
10802	158	1	7/1/2000	0	64.72	345,676	60,367
10821 10823	158 158	1	1/17/2017 3/28/2016	0	66.19 62.00	319,933 419,621	57,493 69,449
10823	158	1	3/28/2016 1/15/2016	0	62.00 58.98	208,415	69,449 79,219
10839	158	1	1/1/2003	0	51.00	574,397	107,477
10846	158	1	7/20/2016	0	56.95	490,284	86,052
10852	158	1	2/17/2018	0	59.35	208,415	79,219
10855	158	1	1/30/2018	0	62.34	374,669	69,449
Total Undergro	ound Bitur	minous				28,766,774	5,775,862
Average of 84	claims				62.02	342,462	68,760
Medical plus I	ndemnity					411,222	

\*Type is "WO" for Widow Only claims; 0 for all other claims. Source: Individual claim detail from CMCRB.

### Exhibit IX-B Page 3 <u>Surface Anthracite</u> Class 153

					Age of		
		Awd (2)	Exp.		Miner at	Federal	
ID No.	Class	Pend (1)	Date	Type*	Comp. Date	Benefit	Medical
				. /			
926	153	2	2/29/1996	0	58.31	402,582	82,608
2157	153	1	10/10/1990	0	54.96	588,399	93,066
2299	153	2	1/15/1990	0	60.12	420,869	75,892
3725	153	2	9/30/1995	0	65.56	261,351	57,493
3947	153	1	10/28/1994	0	62.26	444,390	69,449
3955	153	2	10/29/1995	0	66.54	334,306	54,694
4749	153	2	1/3/1992	0	65.72	247,673	57,493
5044	153	2	2/4/1990	0	71.50	213,240	41,984
5131	153	2	5/22/1992	0	68.11	328,941	51,974
5372	153	2	3/10/1997	0	60.04	409,578	75,892
5952	153	2	1/31/1995	WO	N/A	124,658	-
6287	153	2	10/28/1990	0	73.92	190,304	37,529
6303	153	2	8/5/1990	WO	N/A	195,252	-
6581	153	2	6/5/1997	WO	N/A	205,373	-
7032	153	2	2/10/1993	0	62.41	374,669	69,449
7250	153	2	9/30/1993	WO	N/A	308,570	-
7263	153	2	3/1/1991	WO	N/A	205,373	-
7451	153	2	11/5/1990	0	72.80	195,041	39,716
9726	153	2	8/10/1995	0	68.28	281,175	51,974
9739	153	2	12/22/2000	0	73.86	218,589	37,529
9760	153	2	2/7/2000	0	75.44	192,426	35,416
9793	153	1	1/26/2001	0	53.76	487,678	96,628
9885	153	2	6/1/1998	0	66.88	270,319	54,694
9940	153	2	12/1/1990	0	63.20	492,457	66,343
10049	153	2	11/19/2005	0	72.28	213,240	41,984
10073	153	2	3/1/2005	0	60.49	398,679	75,892
10107	153	2	1/6/2004	0	56.26	438,530	89,540
10109	153	2	4/4/2003	0	65.00	158,818	60,367
10145	153	2	5/24/2007	0	59.55	432,550	75,892
10156	153	2	10/21/2002	0	75.14	214,304	35,416
10222	153	2	2/2/2006	0	74.97	199,392	35,416
10231	153	2	4/2/2003	0	65.03	298,922	60,367
10232	153	2	7/31/2004	0	56.70	431,000	86,052
10261	153	2	5/30/1996	0	67.25	304,750	54,694
10275	153	2	3/31/2003	0	68.92	303,494	49,338
10384	153	2	10/23/2007	0	76.31	87,810	33,377
10429	153	2	5/22/2013	0	54.36	512,129	96,628
10459	153	2	8/3/2009	0	57.34	420,352	86,052
10621	153	1	2/28/2013	0	63.34	368,271	66,343
10672	153	1	5/12/2013	0	65.49	307,545	60,367
10717	153	2	1/30/2008	0	70.84	232,739	44,340
10785	153	1	8/1/2016	0	65.02	316,520	60,367
10791	153	1	8/18/1996	0	57.47	226,393	86,052
10801	153	1	8/22/2014	0	64.28	313,851	63,317
10856	153	1	8/9/2018	0	61.42	381,304	72,633

 Total Surface Anthracite
 13,953,808
 2,484,255

 Average of 45 claims
 65.03
 310,085
 55,206

 Medical plus Indemnity
 365,290

Exhibit IX-B Page 4 Surface Bituminous Class 156

		A (O)	F		Age of	Fa danal	
ID No.	Class	Awd (2) Pend (1)	Exp. Date	Type*	Miner at Comp. Date	Federal Benefit	Medical
178	156	2	9/23/1994	0	70.19	253,578	46,792
600	156	2	9/10/1992	0	62.67	338,400	66,343
601	156	2	6/19/1992	0	66.18	310,521	57,493
1356	156	2	5/1/1995	0	55.30	544,715	93,066
2494	156	2	4/19/1996	0	64.66	345,676	60,367
3047	156	2	12/31/1996	0	77.58	154,899	29,536
3058	156	2	1/17/1991	0	65.64	319,933	57,493
5221	156	2	6/4/1995	0	66.01	284,412	57,493
5374	156	2	10/21/1991	WO	N/A	508,976	- -
5483	156	2	8/6/1990	0	61.43	191,089	72,633
6244	156	2	10/10/1990	0	81.72	103,262	22,829
6949	156	2	12/7/1994	0	54.92	558,879	93,066
7245	156	2	9/1/1991	0	77.57	154,899	29,536
7243 7248	156	2	8/31/1995	0	64.94		
	156	2			61.43	307,545	60,367
7893			2/19/1992	0	70.45	361,315	72,633
8012	156	2	1/1/1990	0		237,948	46,792
8022	156	2	11/1/1995	0	61.86	354,520	69,449
9761	156	2	9/30/1991	0	74.06	190,304	37,529
9767	156	2	6/1/2000	0	62.11	364,397	69,449
9795	156	2	12/1/1992	0	69.69	253,578	46,792
9866	156	2	9/20/1994	0	78.84	72,963	27,733
9945	156	2	8/31/1995	0	73.69	203,793	37,529
9953	156	2	3/1/1994	0	55.28	558,879	93,066
9961	156	2	5/31/2000	0	52.09	595,116	103,840
9967	156	2	1/15/1990	0	71.04	225,363	44,340
10003	156	2	5/30/1995	0	72.79	223,078	39,716
10104	156	2	6/1/1990	0	71.51	110,454	41,984
10112	156	2	12/1/2007	0	63.94	238,180	63,317
10114	156	2	10/26/1991	WO	N/A	175,820	-
10128	156	2	8/1/1994	0	74.82	192,426	35,416
10204	156	2	2/28/1992	0	69.75	261,892	46,792
10206	156	2	2/8/2010	0	70.82	274,613	44,340
10217	156	2	11/25/2008	0	63.72	313,851	63,317
10221	156	2	1/1/1993	0	81.01	122,868	24,364
10256	156	1	6/1/1990	0	40.83	853,404	143,339
10281	156	1	5/1/2011	0	68.47	136,737	51,974
10305	156	2	3/1/1995	0	61.87	374,669	69,449
10333	156	2	6/15/1992	0	80.08	68,423	26,008
10335	156	2	6/1/1995	WO	N/A	226,417	-
10351	156	2	12/27/2012	0	58.61	416,510	79,219
10385	156	2	3/1/2012	WO	N/A	248,570	-
10400	156	1	2/28/1993	0	80.02	153,458	26,008
10414	156	2	4/27/2001	0	75.85	210,218	33,377
10418	156	2	1/1/2003	0	73.15	223,078	39,716
10447	156	2	12/1/2008	0	76.83	170,931	31,416
10458	156	2	11/1/2008	0	73.78	203,793	37,529
10517	156	2	4/1/2014	0	67.97	272,666	51,974
10521	156	2	5/1/1996	0	67.14	304,750	54,694
10554	156	2	4/13/2015	0	76.53	177,379	31,416
10566	156	2	8/31/2001	0	76.17	157,716	33,377
10604	156	1	5/1/2001	0	60.37	388,172	75,892
10609	156	2	7/1/1996	0	68.92	267,155	49,338
10679	156	1	10/1/2008	0	51.30	547,940	107,477
10690	156	2	8/1/1995	0	67.23	295,629	54,694
10692	156	1	11/1/1994	0	51.61	723,372	103,840
10694	156	2	8/1/1992	0	76.16	152,526	33,377
10756	156	2	10/1/1991	0	60.98	317,990	72,633
10774	156	1	6/1/2012	0	63.74	332,012	63,317
10779	156	1	11/1/2014	0	70.49	261,892	46,792
10788	156	1	1/15/1990	0	36.75	814,441	156,247
10832	156	1	2/15/2015	0	63.97	166,578	63,317
10836	156	1	3/1/2008	0	61.84	396,379	69,449
10840	156	1	1/1/1999	0	61.79	364,397	69,449
10844	156	1	10/10/1997	0	60.99	191,089	72,633
10057	154	1	11/17/1002	^	50.02	205 247	70 210

 Total Surface Bituminous
 19,521,697
 3,582,578

 Average of 65 claims
 66.56
 300,334
 55,117

 Medical plus Indemnity
 355,450

10857

156

1 11/17/1993

59.02

395,267

79,219

Exhibit IX-B Page 5 <u>Six Minor Classes</u> Class - Other

ID No.	Class	Awd (2) Pend (1)	Exp. Date	Type*	Age of Miner at Comp. Date	Federal Benefit	Medical
15 110.	Ciass	1 0110 (1)	Baio	1,00	comp. Baio	50110111	Modrodi
10808	157	2	2/3/2008	0	73.71	218,589	37,529
3158	181	2	3/14/1997	0	62.00	374,669	69,449
10819	181	1	7/5/2018	0	63.17	357,923	66,343
10451	182	2	5/1/2005	0	65.93	151,256	57,493
4592	183	1	7/19/1997	0	53.33	462,171	100,221
9887	183	1	2/2/2000	0	51.88	273,191	103,840
9904	183	2	12/31/1997	WO	N/A	148,880	-
9992	183	2	7/22/2004	0	71.54	227,787	41,984
10620	183	1	10/1/2013	0	53.08	532,494	100,221
10135	184	2	2/1/2002	0	75.55	244,128	33,377
10244	184	2	1/1/1999	0	81.69	135,090	22,829
10338	184	2	10/15/2005	0	68.77	129,802	49,338
10838	184	1	7/1/2004	0	45.32	663,490	129,341
10843	184	1	2/27/1998	0	60.01	444,622	75,892

### COAL MINE COMPENSATION RATING BUREAU Summary of Developed & Adjusted Payrolls Traumatic

<u>Traumatic</u>	Anthracite Underground	Bituminous Underground	Anthracite Surface	Bituminous Surface	Coke	Auger	Anthracite Co-gen	Bituminous Co-gen	Anthracite Prep Plant	Bituminous Prep Plant	Total
	<u>(1010)</u>	(1001)	(1012)	<u>(1014)</u>	<u>(1469)</u>	(1015)	(1021)	(1023)	(1025)	(1027)	
1979 1980 1981 1982 1983 1984											
1986											
1987				Payro	oll data for the	se years is not	readily availab	ole			
1988											
1989											
1990											
1991											
1992 1993											
1994											
1995											
1996											
1997	591,339	71,376,959	17,783,135	67,905,789	53,119,079	1,193,492	3,520,161	856,052	1,149,401	13,783,647	231,279,054
1998	507,288	62,342,332	17,376,290	63,651,561	13,353,903	1,237,897	3,458,775	1,161,196	1,032,902	11,112,104	175,234,248
1999	537,329	59,962,066	18,441,144	54,162,273	12,293,477	1,136,891	3,604,305	1,494,276	1,231,124	10,691,780	163,554,665
2000	336,885	48,553,836	16,807,810	49,935,622	12,092,574	1,205,877	4,473,458	1,870,720	1,319,466	8,574,760	145,171,008
2001	434,499	49,724,653	13,940,797	58,151,332	10,375,826	1,429,131	5,234,468	2,121,331	3,609,649	10,155,025	155,176,711
2002		50,439,544	12,251,258	53,502,085	10,485,005	1,150,843	6,358,543	2,386,124	3,781,693	12,649,826	153,202,272
2003		55,493,906	12,166,211	47,873,740	11,534,080	1,102,223	7,137,655	3,052,523	3,721,296	14,752,318	156,909,807
2004		66,842,986	12,359,731	56,217,298	12,049,126	1,058,799	7,351,514	6,374,483	4,406,653	18,067,286	184,727,876
2005		72,290,188	12,140,911	64,871,562	12,860,979	1,026,537	7,855,289	8,524,752	5,170,069	17,690,358	202,430,645
2006 2007		71,907,931 81,566,803	11,946,382 14,555,579	63,008,975	12,737,394 13,669,925	1,066,831 1,121,156	8,405,393	9,397,580 10,789,214	4,885,882 5,756,439	17,050,967 18,895,192	200,407,865
2007		103,490,690	14,333,377	63,295,774 73,054,482	9,761,146	2,488,558	9,160,450 7,958,335	8,468,561	6,390,767	21,250,256	218,810,532 249,817,108
2009		102,684,006	16,445,462	61,784,394	5,173,552	926,163	8,004,644	7,866,413	6,749,748	19,828,012	229,462,394
2010		126,687,464	14,295,288	72,711,558	5,435,658	806,696	8,481,228	8,732,701	5,762,086	26,313,130	269,231,509
2011		149,633,528	21,034,600	86,074,064	3,599,086	1,176,255	11,720,035	9,102,411	7,236,583	35,155,068	324,841,755
2012		154,428,761	26,295,907	76,452,811	5,738,105	808,208	10,273,004	9,047,745	8,671,140	34,211,729	326,146,817
2013	175,900	149,953,068	22,449,824	61,349,745	4,791,910	1,025,399	8,342,651	10,355,884	8,265,665	34,253,697	300,963,743
2014	258,809	271,230,707	20,466,075	54,050,731	4,464,398	806,976	9,060,883	11,721,184	8,234,771	43,520,040	423,814,574
2015	254,336	216,454,460	24,218,779	40,934,048	4,340,376	582,619	10,469,089	11,748,205	7,606,274	33,564,176	350,172,362
2016	163,760	148,556,407	20,873,611	29,127,089	4,435,066	372,496	8,994,602	11,327,552	7,018,927	23,689,882	254,559,392
2017		172,708,778	21,167,074	33,140,780	4,566,113	449,009	8,819,700	11,435,057	7,746,154	28,803,457	289,088,505
2018		180,553,142	19,576,675	35,242,187	4,484,744	600,138	11,600,891	12,043,297	9,651,288	32,199,872	306,135,580
2019	179,379	185,776,423	23,746,667	35,476,154	4,572,392	539,914	8,219,127	11,807,241	12,646,576	37,605,236	320,569,109

Source: Exhibits X-C and X-D
Prior filings for 2008 and prior.

### COAL MINE COMPENSATION RATING BUREAU Summary of Developed & Adjusted Payrolls State Occupational Disease

State OD	Anthracite Underground	Bituminous Underground	Anthracite Surface	Bituminous Surface	Coke	Auger	Anthracite Co-gen	Bituminous Co-gen	Anthracite Prep Plant	Bituminous Prep Plant	Total
	<u>(1011)</u>	(1002)	<u>(1016)</u>	(1013)	<u>(1017)</u>	<u>(1019)</u>	(1022)	(1024)	(1026)	(1028)	
1979	3,398,172	155,459,760	33,547,630	189,274,623	8,602,156	1,250,040	-	-	-	-	391,532,381
1980	3,933,740	146,370,736	39,976,938	180,192,249	4,240,988	1,445,092	-	-	-	-	376,159,743
1981	4,989,959	141,497,489	45,905,609	193,710,747	3,521,616	1,581,422	-	-	-	-	391,206,842
1982	5,295,887	170,306,624	42,724,737	194,074,092	1,831,640	1,682,037	-	-	-	-	415,915,017
1983	4,169,015	82,776,145	34,841,224	146,423,067	124,805	1,260,780	-	-	-	-	269,595,036
1984	4,137,720	77,024,693	34,531,000	174,212,221	2,078,069	1,778,957	-	-	-	-	293,762,660
1985	4,507,670	46,693,499	31,216,341	143,422,695	2,528,033	1,561,675	-	-	-	-	229,929,913
1986	4,896,054	43,203,448	32,077,958	136,641,573	19,044,481	1,669,241	-	-	-	-	237,532,755
1987	4,061,875	55,036,577	25,008,155	134,305,891	26,573,681	1,695,582	-	-	-	-	246,681,761
1988	2,745,685	64,843,301	23,099,360	126,493,210	18,498,632	1,626,194	-	-	-	-	237,306,382
1989	2,066,292	74,335,286	27,044,506	125,361,713	12,583,451	1,888,442	-	-	-	-	243,279,690
1990	1,547,051	77,524,448	32,392,891	124,189,071	61,308,712	2,295,585	676,180	-	-	-	299,933,938
1991	718,147	59,439,370	30,956,584	104,583,500	52,451,102	1,718,758	1,093,089	-	-	-	250,960,550
1992	932,801	63,646,939	29,476,120	100,999,381	42,761,324	1,181,625	3,505,476	47,640	-	-	242,551,306
1993	1,181,997	52,756,526	30,103,392	94,556,592	53,619,736	1,112,232	3,624,439	391,507	-	-	237,346,421
1994	1,310,675	60,590,938	30,210,452	92,464,635	54,721,324	1,485,044	3,704,499	377,617	-	-	244,865,184
1995	1,493,523	65,271,146	20,288,894	78,752,605	55,000,220	1,499,639	3,481,847	360,161	-	-	226,148,035
1996	1,612,698	75,223,041	16,192,165	77,828,405	54,571,209	846,623	3,758,973	370,201	221,068	3,066,567	233,690,950
1997	1,571,605	70,396,693	17,783,135	67,905,789	53,119,079	1,193,492	3,520,161	856,052	1,149,401	13,783,647	231,279,054
1998	1,762,286	61,087,334	17,376,290	63,651,561	13,353,903	1,237,897	3,458,775	1,161,196	1,032,902	11,112,104	175,234,248
1999	1,814,157	58,685,238	18,441,144	54,162,273	12,293,477	1,136,891	3,604,305	1,494,276	1,231,124	10,691,780	163,554,665
2000	1,370,159	47,520,562	16,807,810	49,935,622	12,092,574	1,205,877	4,473,458	1,870,720	1,319,466	8,574,760	145,171,008
2001	1,636,522	48,522,630	13,940,797	58,151,332	10,375,826	1,429,131	5,234,468	2,121,331	3,609,649	10,155,025	155,176,711
2002	1,386,545	49,250,350	12,251,258	53,502,085	10,485,005	1,150,843	6,358,543	2,386,124	3,781,693	12,649,826	153,202,272
2003	1,354,265	54,215,496	12,166,211	47,873,740	11,534,080	1,102,223	7,137,655	3,052,523	3,721,296	14,752,318	156,909,807
2004	1,345,321	65,497,665	12,359,731	56,217,298	12,049,126	1,058,799	7,351,514	6,374,483	4,406,653	18,067,286	184,727,876
2005	1,417,568	70,872,620	12,140,911	64,871,562	12,860,979	1,026,537	7,855,289	8,524,752	5,170,069	17,690,358	202,430,645
2006	1,442,524	70,465,937	11,946,382	63,008,975	12,737,394	1,066,831	8,405,393	9,397,580	4,885,882	17,050,967	200,407,865
2007	1,662,537	79,904,266	14,555,579	63,295,774	13,669,925	1,121,156	9,160,450	10,789,214	5,756,439	18,895,192	218,810,532
2008	2,136,713	101,353,977	16,954,313	73,054,482	9,761,146	2,488,558	7,958,335	8,468,561	6,390,767	21,250,256	249,817,108
2009	1,335,866	101,348,140	16,445,462	61,784,394	5,173,552	926,163	8,004,644	7,866,413	6,749,748	19,828,012	229,462,394
2010	1,299,588	125,393,576	14,295,288	72,711,558	5,435,658	806,696	8,481,228	8,732,701	5,762,086	26,313,130	269,231,509
2011	1,257,944	148,485,709	21,034,600	86,074,064	3,599,086	1,176,255	11,720,035	9,102,411	7,236,583	35,155,068	324,841,755
2012	1,029,260	153,618,908	26,295,907	76,452,811	5,738,105	808,208	10,273,004	9,047,745	8,671,140	34,211,729	326,146,817
2013	381,876	149,747,092	22,449,824	61,349,745	4,791,910	1,025,399	8,342,651	10,355,884	8,265,665	34,253,697	300,963,743
2014	258,809	271,230,707	20,466,075	54,050,731	4,464,398	806,976	9,060,883	11,721,184	8,234,771	43,520,040	423,814,574
2015	254,336	216,454,460	24,218,779	40,934,048	4,340,376	582,619	10,469,089	11,748,205	7,606,274	33,564,176	350,172,362
2016	163,760	148,556,407	20,873,611	29,127,089	4,435,066	372,496	8,994,602	11,327,552	7,018,927	23,689,882	254,559,392
2017	252,383	172,708,778	21,167,074	33,140,780	4,566,113	449,009	8,819,700	11,435,057	7,746,154	28,803,457	289,088,505
2018	183,346	180,553,142	19,576,675	35,242,187	4,484,744	600,138	11,600,891	12,043,297	9,651,288	32,199,872	306,135,580
2019	179,379	185,776,423	23,746,667	35,476,154	4,572,392	539,914	8,219,127	11,807,241	12,646,576	37,605,236	320,569,109

Source: Exhibits X-C and X-D
Prior filings for 2008 and prior.

### COAL MINE COMPENSATION RATING BUREAU Summary of Developed & Adjusted Payrolls Federal Occupational Disease

						•					
Federal OD	-	Bituminous Underground	Anthracite Surface	Bituminous Surface	Coke	Auger	Anthracite Co-gen	Bituminous Co-gen	Anthracite Prep Plant	Bituminous Prep Plant	Total
<u>rederar OD</u>	(0160)	(0158)	(0153)	(0156)	<u>(0154)</u>	(0157)	<u>(0181)</u>	(0182)	(0183)	<u>(0184)</u>	
1979	3,398,172	155,459,760	33,547,630	189,274,623	8,602,156	1,250,040	<u> </u>	<u>(0:02)</u> -	<u> (0.007</u>	<u> </u>	391,532,381
1980	3,933,740	146,370,736	39,976,938	180,192,249	4,240,988	1,445,092	-	_	-	-	376,159,743
1981	4,989,959	141,497,489	45,905,609	193,710,747	3,521,616	1,581,422	-	_	-	-	391,206,842
1982	5,295,887	170,306,624	42,724,737	194,074,092	1,831,640	1,682,037	-	-	-	-	415,915,017
1983	4,169,015	82,776,145	34,841,224	146,423,067	124,805	1,260,780	-	-	-	-	269,595,036
1984	4,137,720	77,024,693	34,531,000	174,212,221	2,078,069	1,778,957	-	-	-	-	293,762,660
1985	4,507,670	46,693,499	31,216,341	143,422,695	2,528,033	1,561,675	-	-	-	-	229,929,913
1986	4,896,054	43,203,448	32,077,958	136,641,573	19,044,481	1,669,241	-	-	-	-	237,532,755
1987	4,061,875	42,076,700	25,008,155	134,305,891	26,573,681	1,695,582	-	-	-	-	233,721,884
1988	2,745,685	51,133,431	23,099,360	126,493,210	18,498,632	1,626,194	-	-	-	-	223,596,512
1989	2,066,292	58,507,532	27,044,506	125,361,713	12,583,451	1,888,442	-	-	-	-	227,451,936
1990	1,547,051	63,271,520	32,392,891	124,189,071	61,308,712	2,295,585	676,180	-	-	-	285,681,010
1991	718,147	58,318,242	30,956,584	104,583,500	52,451,102	1,718,758	1,093,089	-	-	-	249,839,422
1992	932,801	63,401,297	29,476,120	100,999,381	42,761,324	1,181,625	3,505,476	47,640	-	-	242,305,664
1993	1,181,997	52,756,526	30,103,392	94,556,592	53,619,736	1,112,232	3,624,439	391,507	-	-	237,346,421
1994	1,310,675	60,590,938	30,210,452	92,464,635	54,721,324	1,485,044	3,704,499	377,617	-	-	244,865,184
1995	1,493,523	65,271,146	20,288,894	78,752,605	55,000,220	1,499,639	3,481,847	360,161	-	-	226,148,035
1996	1,612,698	75,223,041	16,192,165	77,828,405	54,571,209	846,623	3,758,973	370,201	221,068	3,066,567	233,690,950
1997	1,571,605	70,396,693	17,783,135	67,905,789	53,119,079	1,193,492	3,520,161	856,052	1,149,401	13,783,647	231,279,054
1998	1,762,286	61,087,334	17,376,290	63,651,561	13,353,903	1,237,897	3,458,775	1,161,196	1,032,902	11,112,104	175,234,248
1999	1,814,157	58,685,238	18,441,144	54,162,273	12,293,477	1,136,891	3,604,305	1,494,276	1,231,124	10,691,780	163,554,665
2000	1,370,159	47,520,562	16,807,810	49,935,622	12,092,574	1,205,877	4,473,458	1,870,720	1,319,466	8,574,760	145,171,008
2001	1,636,522	48,522,630	12,923,748	58,151,332	10,375,826	1,429,131	4,661,813	2,121,331	2,216,299	10,155,025	152,193,657
2002	1,386,545	40,837,995	11,046,570	53,502,085	10,485,005	1,150,843	5,658,774	2,386,124	2,322,815	10,094,549	138,871,305
2003	1,354,265	36,498,406	11,928,209	47,873,740	11,534,080	1,102,223	7,009,619	3,052,523	3,407,998	10,195,206	133,956,269
2004	1,345,321	46,073,900	12,359,731	56,217,298	12,049,126	1,058,799	7,351,514	6,374,483	4,406,653	13,460,201	160,697,026
2005	1,417,568	66,275,755	12,140,911	64,871,562	12,860,979	1,026,537	7,855,289	8,524,752	5,170,069	16,548,307	196,691,729
2006	1,442,524	70,465,937	12,065,323	63,798,502	12,737,394	1,066,831	8,412,527	9,423,575	4,885,882	17,050,967	201,349,462
2007	1,662,537	79,904,266	14,866,556	64,808,093	13,669,925	1,121,156	9,186,706	10,829,140	5,817,291	18,895,192	220,760,862
2008	2,136,713	101,353,977	16,220,231	74,601,231	9,761,146	2,506,758	7,521,400	8,481,888	5,733,543	21,250,256	249,567,143
2009	1,335,866	101,348,140	15,893,528	63,306,695	5,173,552	946,963	7,534,735	7,866,413	6,264,606	19,828,012	229,498,510
2010	1,299,588	125,393,576	13,319,185	74,255,177	5,435,658	827,496	7,958,048	8,732,701	4,876,927	26,313,130	268,411,486
2011	1,257,944	148,485,709	19,507,428	87,730,506	3,599,086	1,176,255	10,981,642	9,102,411	6,123,259	35,155,068	323,119,308
2012	1,029,260	153,618,908	24,734,711	77,890,500	5,738,105	808,208	9,311,812	9,047,745	7,569,023	34,211,729	323,960,001
2013	381,876	145,146,253	20,720,014	62,718,061	4,791,910	1,046,947	7,630,762	10,355,884	7,074,886	33,639,969	293,506,562
2014	258,809	183,431,952	18,911,339	55,368,615	4,464,398	861,590	8,360,898	11,721,184	6,521,541	31,854,431	321,754,757
2015	254,336	140,570,275	22,234,350	42,000,092	4,340,376	654,766	9,554,806	11,748,205	6,196,596	24,320,608	261,874,410
2016	163,760	118,545,477	19,257,107	30,131,218	4,435,066	392,776	7,953,309	11,327,552	5,542,968	20,079,401	217,828,634
2017	252,383	172,708,778	19,094,634	34,248,962	4,566,113	566,324	7,793,558	11,435,057	6,056,810	28,803,457	285,526,076
2018	183,346	180,599,760	18,303,511	36,305,197	4,484,744	600,138	10,053,839	12,043,297	6,916,759	32,199,872	301,690,463
2019	179,379	185,962,937	20,632,989	36,395,622	4,626,532	593,214	6,821,629	11,807,241	10,584,841	37,623,330	315,227,714

Source: Exhibits X-C and X-D
Prior filings for 2008 and prior.

### COAL MINE COMPENSATION RATING BUREAU TRAUMATIC LOSS COST PREMIUM

	ANTHRA	CITE UNDERGRO	OUND (1010)	BITUMI	NOUS UNDERGRO	DUND (1001)	ANTI	HRACITE SURFAC	CE (1012)	BIT	uminous surfac	E (1014)
_	LOSS	DEVELOPED	LOSS COST	LOSS	DEVELOPED	LOSS COST	LOSS	DEVELOPED	LOSS COST	LOSS	DEVELOPED	LOSS COST
<u>YEAR</u>	<u>COST</u>	PAYROLL	<u>PREMIUM</u>	<u>COST</u>	PAYROLL	<u>PREMIUM</u>	<u>COST</u>	<u>PAYROLL</u>	<u>PREMIUM</u>	<u>COST</u>	PAYROLL	<u>PREMIUM</u>
2009	20.67	0	0	6.96	102,684,006	7,146,807	8.01	16,445,462	1,317,282	1.85	61,784,394	1,143,011
2010	20.67	5,700	1,178	6.96	126,687,464	8,817,447	8.01	14,295,288	1,145,053	1.85	72,711,558	1,345,164
2011	20.67	110,125	22,763	6.96	149,633,528	10,414,494	8.01	21,034,600	1,684,871	1.85	86,074,064	1,592,370
2012	20.67	219,407	45,351	6.96	154,428,761	10,748,242	8.01	26,295,907	2,106,302	1.85	76,452,811	1,414,377
2013	20.67	175,900	36,359	6.96	149,953,068	10,436,734	8.01	22,449,824	1,798,231	1.85	61,349,745	1,134,970
2014	20.67	258,809	53,496	6.96	271,230,707	18,877,657	8.01	20,466,075	1,639,333	1.85	54,050,731	999,939
2015	20.67	254,336	52,571	6.96	216,454,460	15,065,230	8.01	24,218,779	1,939,924	1.85	40,934,048	757,280
2016	20.67	163,760	33,849	6.96	148,556,407	10,339,526	8.01	20,873,611	1,671,976	1.85	29,127,089	538,851
2017	20.67	252,383	52,168	6.96	172,708,778	12,020,531	8.01	21,167,074	1,695,483	1.85	33,140,780	613,104
2018	20.67	183,346	37,898	6.96	180,553,142	12,566,499	8.01	19,576,675	1,568,092	1.85	35,242,187	651,980
2019	20.67	179,379	37,078	6.96	185,776,423	12,930,039	8.01	23,746,667	1,902,108	1.85	35,476,154	656,309
		COKE (1469			AUGER (1015	1	ANITI	HRACITE CO-GE	EN (1001)	DIT	UMINOUS CO-GEI	N (1022)
-	LOSS	DEVELOPED	LOSS COST	LOSS	DEVELOPED	LOSS COST	LOSS	DEVELOPED	LOSS COST	LOSS	DEVELOPED	LOSS COST
<u>YEAR</u>	COST	PAYROLL	PREMIUM	<u>COST</u>	PAYROLL	PREMIUM	<u>COST</u>	PAYROLL	PREMIUM	<u>COST</u>	PAYROLL	PREMIUM
2009	3.83	5,173,552	198,147	9.00	926,163	83,355	6.09	8,004,644	487,483	1.37	7,866,413	107,770
2010	3.83	5,435,658	208,186	9.00	806,696	72,603	6.09	8,481,228	516,507	1.37	8,732,701	119,638
2010	3.83	3,599,086	137,845	9.00	1,176,255	105,863	6.09	11,720,035	713,750	1.37	9,102,411	124,703
2011	3.83	5,738,105	219,769	9.00	808,208	72,739	6.09	10,273,004	625,626	1.37	9,047,745	124,703
2012	3.83	4,791,910	183,530	9.00	1,025,399	72,73 <del>7</del> 92,286	6.09	8,342,651	508,067	1.37	10,355,884	141,876
											11,721,184	
2014	3.83	4,464,398	170,986	9.00	806,976	72,628	6.09	9,060,883	551,808	1.37		160,580
2015	3.83	4,340,376	166,236	9.00	582,619	52,436	6.09	10,469,089	637,568	1.37	11,748,205	160,950
2016	3.83	4,435,066	169,863	9.00	372,496	33,525	6.09	8,994,602	547,771	1.37	11,327,552	155,187
2017	3.83	4,566,113	174,882	9.00	449,009	40,411	6.09	8,819,700	537,120	1.37	11,435,057	156,660
2018	3.83	4,484,744	171,766	9.00	600,138	54,012	6.09	11,600,891	706,494	1.37	12,043,297	164,993
2019	3.83	4,572,392	175,123	9.00	539,914	48,592	6.09	8,219,127	500,545	1.37	11,807,241	161,759
	ANTH	RACITE PREP PLA	ANT (1025)	BITU	AINOUS PREP PLA	NT (1027)						TOTAL
_	LOSS	DEVELOPED	LOSS COST	LOSS	DEVELOPED	LOSS COST					DEVELOPED	LOSS COST
YEAR	COST	PAYROLL	PREMIUM	COST	PAYROLL	PREMIUM					PAYROLL	PREMIUM
2009	4.24	6,749,748	286,189	2.74	19,828,012	543,288					229,462,394	11,313,332
2010	4.24	5,762,086	244,312	2.74	26,313,130	720,980					269,231,509	13,191,068
2011	4.24	7,236,583	306,831	2.74	35,155,068	963,249					324,841,755	16,066,739
2012	4.24	8,671,140	367,656	2.74	34,211,729	937,401					326,146,817	16,661,417
2013	4.24	8,265,665	350,464	2.74	34,253,697	938,551					300,963,743	15,621,068
2014	4.24	8,234,771	349,154	2.74	43,520,040	1,192,449					423,814,574	24,068,030
2015	4.24	7,606,274	322,506	2.74	33,564,176	919,658					350,172,362	20,074,359
2016	4.24	7,018,927	297,603	2.74	23,689,882	649,103					254,559,392	14,437,254
2017	4.24	7,746,154	328,437	2.74	28,803,457	789,215					289,088,505	16,408,011
2018	4.24	9,651,288	409,215	2.74	32,199,872	882,276					306,135,580	17,213,225
2019	4.24	12,646,576	536,215	2.74	37,605,236	1,030,383					320,569,109	17,978,151
2017	7,27	12,040,070	000,210	2./4	57,000,200	1,000,000					020,007,107	17,770,101

Payroll - Exhibit X-D, pages 1, 2, 3, 4 and 5; Loss Costs - Exhibit X-B Page 2

File: C:\2020 Rate Filing\XL\[2020-10.xlsm]X-B-1

Run Date: August 18, 2020 - 03:17:03 PM

# Coal Mine Compensation Rating Bureau Traumatic & OD Loss costs Approved Effective April 1, 2020

CLASS <u>DESCRIPTION</u>	CLASS <u>CODE</u> TRA	CURRENT MANUAL LOSS COST UMATIC	CLASS <u>CODE</u> STA	CURRENT MANUAL LOSS COST ATE O D	CLASS <u>CODE</u> <b>FEDE</b>	CURRENT MANUAL LOSS COST ERAL O D
UNDERGROUND Anthracite Bituminous	1010 1001	\$20.67 \$6.96	1011 1002	\$12.88 \$0.58	0160 0158	\$9.06 \$0.59
SURFACE Anthracite Bituminous	1012 1014	\$8.01 \$1.85	1016 1013	\$1.06 \$0.25	0153 0156	\$1.72 \$0.82
COKE	1469	\$3.83	1017	\$0.09	0154	\$0.10
AUGER	1015	\$9.00	1019	\$0.18	0157	\$0.44
CO-GEN Anthracite Bituminous	1021 1023	\$6.09 \$1.37	1022 1024	\$0.24 \$0.24	0181 0182	\$0.37 \$0.29
PREP PLANT Anthracite Bituminous	1025 1027	\$4.24 \$2.74	1026 1028	\$2.57 \$0.16	0183 0184	\$0.88 \$0.31
CLASS <u>DESCRIPTION</u>	CLASS <u>CODE</u> <b>TRA</b>	UNLOADED APPROVED LOSS COST UMATIC	CLASS <u>CODE</u> <b>ST</b>	UNLOADED APPROVED LOSS COST ATE O D	CLASS <u>Code</u> Fede	UNLOADED APPROVED LOSS COST ERAL O D
UNDERGROUND Anthracite Bituminous	1010 1001	\$20.12 \$6.65	1011 1002	\$12.88 \$0.58	0160 0158	\$9.06 \$0.59
SURFACE Anthracite Bituminous	1012 1014	\$7.84 \$1.79	1016 1013	\$1.06 \$0.25	0153 0156	\$1.72 \$0.82
COKE	1469	\$3.73	1017	\$0.09	0154	\$0.10
AUGER	1015	\$8.76	1019	\$0.18	0157	\$0.44
CO-GEN Anthracite Bituminous	1021 1023	\$5.95 \$1.32	1022 1024	\$0.24 \$0.24	0181 0182	\$0.37 \$0.29
PREP PLANT Anthracite Bituminous	1025 1027	\$4.14 \$2.66	1026 1028	\$2.57 \$0.16	0183 0184	\$0.88 \$0.31

Source: Current Manual Loss Costs from Exhibit I-A-M approved filing effective April 1, 2020 Unloaded Approved Loss Costs from Exhibit I-A-UL approved filing effective April 1, 2020

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Run Date: August 18, 2020 - 03:17:03 PM

### Section 1 Catastrophic Loss Cost (2020)

Underground

Anthracite 0.19 **Bituminous** 0.19

0.08 (1/3 Underground, 2/3 Surface) Auger

Other Classes 0.03

### Section 2 Load Factors (2020)

Experience Rating	1.0000
Merit Rating (Exh XIV-A, page 1)	1.0002
Safety Committee (Exh. XIV-B)	1.0174
•	1.0176
Small Business Advocate (XI-A)	1.0001

File: C:\2020 Rate Filing\XL\[2020-10.xlsm]X-B-3 Run Date: August 18, 2020 - 03:17:03 PM Effective Date - April 01, 2021

PAB

ANIHRACIIE	UNDERGROUND	(1010)				
	State OD				Federal OD	Payroll
	Developed	Federal Exempt	Partnership	Development	Payroll	Per Million
	Payroll	Reported Payroll	Reported Payroll	Factor	(1) + [(3)-(2)]*(4)	(5)/1000000
<u>Year</u>	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	<u>(6)</u>
2009	1,335,866	0	0	1.0000	1,335,866	1.335866
2010	1,299,588	0	0	1.0000	1,299,588	1.299588
2011	1,257,944	0	0	1.0000	1,257,944	1.257944
2012	1,029,260	0	0	1.0000	1,029,260	1.029260
2013	381,876	0	0	1.0000	381,876	0.381876
2014	258,809	0	0	1.0000	258,809	0.258809
2015	254,336	0	0	1.0000	254,336	0.254336
2016	163,760	0	0	1.0000	163,760	0.163760
2017	252,383	0	0	1.0000	252,383	0.252383
2018	183,346	0	0	1.0000	183,346	0.183346
2019	179,379	0	0	1.0000	179,379	0.179379
BITUMINOUS	UNDERGROUND State OD	(1001)			Federal OD	Payroll
	Developed	Federal Exempt	Partnership	Development	Payroll	Per Million
	Payroll	Reported Payroll	Reported Payroll	Factor	(1) + [(3)-(2)]*(4)	(5)/1000000
<u>Year</u>	(1)	(2)	(3)	(4)	(1) 1 ((5) (2)) (1) (5)	(6)
2009	101,348,140	<u>1=1</u>	0 <del>121</del>	1.0000	101,348,140	101.348140
2010	125,393,576	0	0	1.0000	125,393,576	125.393576
2011	148,485,709	0	0	1.0000	148,485,709	148.485709
2012	153,618,908	0	0	1.0000	153,618,908	153.618908
2013	149,747,092	4,600,839	0	1.0000	145,146,253	
2014	271,230,707	87,798,755	0	1.0000	183,431,952	183.431952
2015	216,454,460	75,884,185	0	1.0000	140,570,275	140.570275
2016	148,556,407	30,010,930	0	1.0000	118,545,477	118.545477
2017	172,708,778	0	0	1.0000	172,708,778	172.708778
2017	180,553,142	0	46,618	1.0000	180,599,760	180.599760
2019	185,776,423	0	185,328	1.0064	185,962,937	185.962937
	SURFACE (1012) State OD		,		Federal OD	Payroll
	0.0.0					
	Developed	Federal Exempt	Partnership	Development		·
	Developed Pavroll	Federal Exempt Reported Payroll	Partnership Reported Payroll	Development Factor	Payroll	Per Million
Year	Payroll	Reported Payroll	Reported Payroll	Factor	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000
<u>Year</u> 2009	Payroll (1)	Reported Payroll (2)	Reported Payroll (3)	Factor (4)	Payroll (1) + [(3)-(2)]*(4) <u>(5)</u>	Per Million (5)/1000000 (6)
2009	Payroll ( <u>1)</u> 16,445,462	Reported Payroll (2) 903,752	Reported Payroll (3) 351,818	Factor <u>(4)</u> 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 15,893,528	Per Million (5)/1000000 (6) 15.893528
2009 2010	Payroll (1) 16,445,462 14,295,288	Reported Payroll (2) 903,752 1,205,978	Reported Payroll (3) 351,818 229,875	Factor (4) 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 15.893528 13.319185
2009 2010 2011	Payroll (1) 16,445,462 14,295,288 21,034,600	Reported Payroll (2) 903,752 1,205,978 1,929,891	Reported Payroll (3) 351,818 229,875 402,719	Factor (4) 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428
2009 2010 2011 2012	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449	Reported Payroll (3) 351,818 229,875 402,719 412,253	Factor (4) 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 15,893,528 13,319,185 19,507,428 24,734,711	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711
2009 2010 2011 2012 2013	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223	Reported Payroll (3) 351,818 229,875 402,719 412,253 577,413	Factor (4) 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014
2009 2010 2011 2012 2013 2014	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071	Factor (4) 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339
2009 2010 2011 2012 2013 2014 2015	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662	Factor (4) 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 15,893,528 13,319,185 19,507,428 24,734,711 20,720,014 18,911,339 22,234,350	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350
2009 2010 2011 2012 2013 2014 2015 2016	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107
2009 2010 2011 2012 2013 2014 2015 2016 2017	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611 21,167,074	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155 2,801,185	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651 728,745	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 15,893,528 13,319,185 19,507,428 24,734,711 20,720,014 18,911,339 22,234,350 19,257,107 19,094,634	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107 19.094634
2009 2010 2011 2012 2013 2014 2015 2016	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611 21,167,074 19,576,675	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155 2,801,185 1,971,490	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651 728,745 698,326	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107 19.094634 18.303511
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611 21,167,074 19,576,675 23,746,667	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155 2,801,185 1,971,490	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651 728,745 698,326	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107 19.094634 18.303511
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611 21,167,074 19,576,675 23,746,667  SURFACE (1014)	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155 2,801,185 1,971,490	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651 728,745 698,326	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107 19.094634 18.303511 20.632989
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611 21,167,074 19,576,675 23,746,667  SURFACE (1014) State OD	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155 2,801,185 1,971,490 3,889,152	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651 728,745 698,326 794,045	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107 19.094634 18.303511 20.632989
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611 21,167,074 19,576,675 23,746,667  SURFACE (1014) State OD Developed	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155 2,801,185 1,971,490 3,889,152  Federal Exempt	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651 728,745 698,326 794,045  Partnership	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107 19.094634 18.303511 20.632989 Payroll Per Million
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 BITUMINOUS	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611 21,167,074 19,576,675 23,746,667  SURFACE (1014) State OD Developed Payroll	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155 2,801,185 1,971,490 3,889,152  Federal Exempt Reported Payroll	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651 728,745 698,326 794,045  Partnership Reported Payroll	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 T.0000 T.0000 T.0000	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107 19.094634 18.303511 20.632989 Payroll Per Million (5)/1000000
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 BITUMINOUS	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611 21,167,074 19,576,675 23,746,667  SURFACE (1014) State OD Developed Payroll (1)	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155 2,801,185 1,971,490 3,889,152  Federal Exempt Reported Payroll (2)	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651 728,745 698,326 794,045  Partnership Reported Payroll (3)	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0060  Development Factor (4)	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107 19.094634 18.303511 20.632989  Payroll Per Million (5)/1000000 (6)
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 BITUMINOUS	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611 21,167,074 19,576,675 23,746,667  SURFACE (1014) State OD Developed Payroll (1) 61,784,394	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155 2,801,185 1,971,490 3,889,152  Federal Exempt Reported Payroll (2) 0	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651 728,745 698,326 794,045  Partnership Reported Payroll (3) 1,522,301	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0060  Development Factor (4) 1.0000	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107 19.094634 18.303511 20.632989  Payroll Per Million (5)/1000000 (6) 63.306695
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 BITUMINOUS Year 2009 2010	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611 21,167,074 19,576,675 23,746,667  SURFACE (1014) State OD Developed Payroll (1) 61,784,394 72,711,558	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155 2,801,185 1,971,490 3,889,152  Federal Exempt Reported Payroll (2) 0 0	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651 728,745 698,326 794,045  Partnership Reported Payroll (3) 1,522,301 1,543,619	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0060  Development Factor (4) 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107 19.094634 18.303511 20.632989  Payroll Per Million (5)/1000000 (6) 63.306695 74.255177
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019  BITUMINOUS   Year 2009 2010 2011	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611 21,167,074 19,576,675 23,746,667  SURFACE (1014) State OD Developed Payroll (1) 61,784,394 72,711,558 86,074,064	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155 2,801,185 1,971,490 3,889,152  Federal Exempt Reported Payroll (2) 0 0 0	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651 728,745 698,326 794,045  Partnership Reported Payroll (3) 1,522,301 1,543,619 1,656,442	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0060  Development Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107 19.094634 18.303511 20.632989  Payroll Per Million (5)/1000000 (6) 63.306695 74.255177 87.730506
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019  BITUMINOUS   Year 2009 2010 2011 2012	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611 21,167,074 19,576,675 23,746,667  SURFACE (1014) State OD Developed Payroll (1) 61,784,394 72,711,558 86,074,064 76,452,811	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155 2,801,185 1,971,490 3,889,152  Federal Exempt Reported Payroll (2) 0 0 0 0	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651 728,745 698,326 794,045  Partnership Reported Payroll (3) 1,522,301 1,543,619 1,656,442 1,437,689	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0060  Development Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 15,893,528 13,319,185 19,507,428 24,734,711 20,720,014 18,911,339 22,234,350 19,257,107 19,094,634 18,303,511 20,632,989  Federal OD Payroll (1) + [(3)-(2)]*(4) (5) 63,306,695 74,255,177 87,730,506 77,890,500	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107 19.094634 18.303511 20.632989  Payroll Per Million (5)/1000000 (6) 63.306695 74.255177 87.730506 77.890500
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019  BITUMINOUS   Year 2009 2010 2011 2012 2013	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611 21,167,074 19,576,675 23,746,667  SURFACE (1014) State OD Developed Payroll (1) 61,784,394 72,711,558 86,074,064 76,452,811 61,349,745	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155 2,801,185 1,971,490 3,889,152  Federal Exempt Reported Payroll (2)  0 0 0 0 0	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651 728,745 698,326 794,045  Partnership Reported Payroll (3) 1,522,301 1,543,619 1,656,442 1,437,689 1,368,316	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0060  Development Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 15,893,528 13,319,185 19,507,428 24,734,711 20,720,014 18,911,339 22,234,350 19,257,107 19,094,634 18,303,511 20,632,989  Federal OD Payroll (1) + [(3)-(2)]*(4) (5) 63,306,695 74,255,177 87,730,506 77,890,500 62,718,061	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107 19.094634 18.303511 20.632989  Payroll Per Million (5)/1000000 (6) 63.306695 74.255177 87.730506 77.890500 62.718061
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019  BITUMINOUS   Year 2009 2010 2011 2012 2013 2014	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611 21,167,074 19,576,675 23,746,667  SURFACE (1014) State OD Developed Payroll (1) 61,784,394 72,711,558 86,074,064 76,452,811 61,349,745 54,050,731	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155 2,801,185 1,971,490 3,889,152  Federal Exempt Reported Payroll (2)  0 0 0 0 0	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651 728,745 698,326 794,045  Partnership Reported Payroll (3) 1,522,301 1,543,619 1,656,442 1,437,689 1,368,316 1,317,884	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0060  Development Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 15,893,528 13,319,185 19,507,428 24,734,711 20,720,014 18,911,339 22,234,350 19,257,107 19,094,634 18,303,511 20,632,989  Federal OD Payroll (1) + [(3)-(2)]*(4) (5) 63,306,695 74,255,177 87,730,506 77,890,500 62,718,061 55,368,615	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107 19.094634 18.303511 20.632989  Payroll Per Million (5)/1000000 (6) 63.306695 74.255177 87.730506 77.890500 62.718061 55.368615
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019  BITUMINOUS   Year 2009 2010 2011 2012 2013 2014 2015	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611 21,167,074 19,576,675 23,746,667  SURFACE (1014) State OD Developed Payroll (1) 61,784,394 72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155 2,801,185 1,971,490 3,889,152  Federal Exempt Reported Payroll (2)  0 0 0 0 0 0 0 0	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651 728,745 698,326 794,045  Partnership Reported Payroll (3) 1,522,301 1,543,619 1,656,442 1,437,689 1,368,316 1,317,884 1,066,044	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0060  Development Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 15,893,528 13,319,185 19,507,428 24,734,711 20,720,014 18,911,339 22,234,350 19,257,107 19,094,634 18,303,511 20,632,989  Federal OD Payroll (1) + [(3)-(2)]*(4) (5) 63,306,695 74,255,177 87,730,506 77,890,500 62,718,061 55,368,615 42,000,092	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107 19.094634 18.303511 20.632989  Payroll Per Million (5)/1000000 (6) 63.306695 74.255177 87.730506 77.890500 62.718061 55.368615 42.000092
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019  BITUMINOUS   Year 2009 2010 2011 2012 2013 2014 2015 2016	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611 21,167,074 19,576,675 23,746,667  SURFACE (1014) State OD Developed Payroll (1) 61,784,394 72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048 29,127,089	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155 2,801,185 1,971,490 3,889,152  Federal Exempt Reported Payroll (2)  0 0 0 0 0 0 0 0	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651 728,745 698,326 794,045  Partnership Reported Payroll (3) 1,522,301 1,543,619 1,656,442 1,437,689 1,368,316 1,317,884 1,066,044 1,004,129	Factor (4)  1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 15,893,528 13,319,185 19,507,428 24,734,711 20,720,014 18,911,339 22,234,350 19,257,107 19,094,634 18,303,511 20,632,989  Federal OD Payroll (1) + [(3)-(2)]*(4) (5) 63,306,695 74,255,177 87,730,506 77,890,500 62,718,061 55,368,615 42,000,092 30,131,218	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107 19.094634 18.303511 20.632989  Payroll Per Million (5)/1000000 (6) 63.306695 74.255177 87.730506 77.890500 62.718061 55.368615 42.000092 30.131218
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019  BITUMINOUS   Year 2009 2010 2011 2012 2013 2014 2015 2016 2017	Payroll (1) 16,445,462 14,295,288 21,034,600 26,295,907 22,449,824 20,466,075 24,218,779 20,873,611 21,167,074 19,576,675 23,746,667  SURFACE (1014) State OD Developed Payroll (1) 61,784,394 72,711,558 86,074,064 76,452,811 61,349,745 54,050,731 40,934,048 29,127,089 33,140,780	Reported Payroll (2) 903,752 1,205,978 1,929,891 1,973,449 2,307,223 2,210,807 2,669,091 2,378,155 2,801,185 1,971,490 3,889,152  Federal Exempt Reported Payroll (2)  0 0 0 0 0 0 0 0 0	Reported Payroll (3)  351,818 229,875 402,719 412,253 577,413 656,071 684,662 761,651 728,745 698,326 794,045  Partnership Reported Payroll (3) 1,522,301 1,543,619 1,656,442 1,437,689 1,368,316 1,317,884 1,066,044 1,004,129 1,108,182	Factor (4)  1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 15,893,528 13,319,185 19,507,428 24,734,711 20,720,014 18,911,339 22,234,350 19,257,107 19,094,634 18,303,511 20,632,989  Federal OD Payroll (1) + [(3)-(2)]*(4) (5) 63,306,695 74,255,177 87,730,506 77,890,500 62,718,061 55,368,615 42,000,092 30,131,218 34,248,962	Per Million (5)/1000000 (6) 15.893528 13.319185 19.507428 24.734711 20.720014 18.911339 22.234350 19.257107 19.094634 18.303511 20.632989  Payroll Per Million (5)/1000000 (6) 63.306695 74.255177 87.730506 77.890500 62.718061 55.368615 42.000092 30.131218 34.248962

Source: Anthracite Underground (1010) - Exhibit X-C, page 4
Bituminous Underground (1001) - Exhibit X-C, page 4
Anthracite Surface (1012) - Exhibit X-D, page 2
Bituminous Surface (1014) - Exhibit X-D, page 2

COKE (1469)						
	State OD				Federal OD	Payroll
	Developed	Federal Exempt	Partnership	Development	Payroll	Per Million
	Payroll	Reported Payroll	Reported Payroll	Factor	(1) + [(3)-(2)]*(4)	(5)/1000000
<u>Year</u>	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	<u>(6)</u>
2009	5,173,552	0	0	1.0000	5,173,552	5.173552
2010	5,435,658	0	0	1.0000	5,435,658	5.435658
2011	3,599,086	0	0	1.0000	3,599,086	3.599086
2012	5,738,105	0	0	1.0000	5,738,105	5.738105
2013	4,791,910	0	0	1.0000	4,791,910	4.791910
2014	4,464,398	0	0	1.0000	4,464,398	4.464398
2015	4,340,376	0	0	1.0000	4,340,376	4.340376
2016	4,435,066	0	0	1.0000	4,435,066	4.435066
2017	4,566,113	0	0	1.0000	4,566,113	4.566113
2018	4,484,744	0	0	1.0000	4,484,744	4.484744
2019	4,572,392	0	52,892	1.0236	4,626,532	4.626532
AUGER (1015	5)					
`	State OD				Federal OD	Payroll
	Developed	Federal Exempt	Partnership	Development	Payroll	Per Million
	Payroll	Reported Payroll	Reported Payroll	Factor	(1) + [(3)-(2)]*(4)	(5)/1000000
<u>Year</u>	<u>(1)</u>	. <u>(2)</u>	<u>(3)</u>	<u>(4)</u>	(5)	<u>(6)</u>
2009	926,163	0	20,800	1.0000	946,963	0.946963
2010	806,696	0	20,800	1.0000	827,496	0.827496
2011	1,176,255	0	0	1.0000	1,176,255	1.176255
2012	808,208	0	0	1.0000	808,208	0.808208
2012	1,025,399	0	21,548	1.0000	1,046,947	1.046947
2013	806,976	0	54,614	1.0000	861,590	0.861590
2014		0		1.0000		
	582,619		72,147		654,766	0.654766
2016	372,496	0	20,280	1.0000	392,776	0.392776
2017	449,009	0	117,315	1.0000	566,324	0.566324
2018 2019	600,138 539,914	0	0 53,300	1.0000 1.0000	600,138 593,214	0.600138 0.593214
∧NITHP ∧ CITE	CO CEN (1021)					
ANTHRACITE	CO-GEN (1021) State OD Developed	Federal Exempt	Partnership	Development	Federal OD Payroll	Payroll Per Million
ANTHRACITE	State OD		Partnership Reported Payroll	Development Factor		-
ANTHRACITE	State OD Developed	Federal Exempt	·	·	Payroll	Per Million
	State OD Developed Payroll	Federal Exempt Reported Payroll	Reported Payroll	Factor	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000
<u>Year</u>	State OD Developed Payroll (1)	Federal Exempt Reported Payroll (2)	Reported Payroll (3)	Factor (4)	Payroll (1) + [(3)-(2)]*(4) <u>(5)</u>	Per Million (5)/1000000 (6)
<u>Year</u> 2009	State OD Developed Payroll (1) 8,004,644	Federal Exempt Reported Payroll (2) 505,653	Reported Payroll (3) 35,744	Factor (4) 1.0000	Payroll (1) + [(3)-(2)]*(4) <u>(5)</u> 7,534,735	Per Million (5)/1000000 (6) 7.534735
<u>Year</u> 2009 2010	State OD Developed Payroll (1) 8,004,644 8,481,228	Federal Exempt Reported Payroll (2) 505,653 594,188	Reported Payroll (3) 35,744 71,008	Factor (4) 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 7.534735 7.958048
<u>Year</u> 2009 2010 2011	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364	Reported Payroll (3) 35,744 71,008 88,971	Factor (4) 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642
<u>Year</u> 2009 2010 2011 2012	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112	Reported Payroll (3) 35,744 71,008 88,971 63,920	Factor (4) 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812
<u>Year</u> 2009 2010 2011 2012 2013	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630	Factor (4) 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762
Year 2009 2010 2011 2012 2013 2014	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839	Factor (4) 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898
Year 2009 2010 2011 2012 2013 2014 2015	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892	Factor (4) 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309
Year 2009 2010 2011 2012 2013 2014 2015 2016 2017	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185 1,121,002	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892 94,860	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309 7.793558
Year 2009 2010 2011 2012 2013 2014 2015 2016	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309
Year 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127 CO-GEN (1023)	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185 1,121,002 1,704,620	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892 94,860 157,568	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309 7.793558 10.053839 6.821629
Year 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185 1,121,002 1,704,620	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892 94,860 157,568	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309 7.793558 10.053839
Year 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127 CO-GEN (1023)	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185 1,121,002 1,704,620	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892 94,860 157,568	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309 7.793558 10.053839 6.821629
Year 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127 CO-GEN (1023)	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185 1,121,002 1,704,620 1,508,278	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892 94,860 157,568 110,780	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629  Federal OD	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309 7.793558 10.053839 6.821629
Year 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127  CO-GEN (1023) State OD	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185 1,121,002 1,704,620 1,508,278  Federal Exempt	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892 94,860 157,568 110,780  Partnership	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629  Federal OD Payroll	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309 7.793558 10.053839 6.821629 Payroll Per Million
Year 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 BITUMINOUS	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127  CO-GEN (1023) State OD Payroll	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185 1,121,002 1,704,620 1,508,278  Federal Exempt Reported Payroll	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892 94,860 157,568 110,780  Partnership Reported Payroll	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 T.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629  Federal OD Payroll (1) + [(3)-(2)]*(4)	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309 7.793558 10.053839 6.821629 Payroll Per Million (5)/1000000
Year 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 BITUMINOUS	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127  CO-GEN (1023) State OD  Payroll (1)	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185 1,121,002 1,704,620 1,508,278  Federal Exempt Reported Payroll (2)	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892 94,860 157,568 110,780  Partnership Reported Payroll (3)	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 The state of t	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629  Federal OD Payroll (1) + [(3)-(2)]*(4) (5)	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309 7.793558 10.053839 6.821629 Payroll Per Million (5)/1000000 (6)
Year 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 BITUMINOUS	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127  CO-GEN (1023) State OD  Payroll (1) 7,866,413	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185 1,121,002 1,704,620 1,508,278  Federal Exempt Reported Payroll (2) 0	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892 94,860 157,568 110,780  Partnership Reported Payroll (3) 0	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 T.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629  Federal OD Payroll (1) + [(3)-(2)]*(4) (5) 7,866,413	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309 7.793558 10.053839 6.821629 Payroll Per Million (5)/1000000 (6) 7.866413
Year 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019  BITUMINOUS  Year 2009 2010	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127  CO-GEN (1023) State OD  Payroll (1) 7,866,413 8,732,701	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185 1,121,002 1,704,620 1,508,278  Federal Exempt Reported Payroll (2) 0 0	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892 94,860 157,568 110,780  Partnership Reported Payroll (3)  0 0	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629  Federal OD Payroll (1) + [(3)-(2)]*(4) (5) 7,866,413 8,732,701	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309 7.793558 10.053839 6.821629  Payroll Per Million (5)/1000000 (6) 7.866413 8.732701
Year 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019  BITUMINOUS  Year 2009 2010 2011	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127  CO-GEN (1023) State OD  Payroll (1) 7,866,413 8,732,701 9,102,411	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185 1,121,002 1,704,620 1,508,278  Federal Exempt Reported Payroll (2) 0 0 0	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892 94,860 157,568 110,780  Partnership Reported Payroll (3)  0 0 0	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629  Federal OD Payroll (1) + [(3)-(2)]*(4) (5) 7,866,413 8,732,701 9,102,411	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309 7.793558 10.053839 6.821629  Payroll Per Million (5)/1000000 (6) 7.866413 8.732701 9.102411
Year 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019  BITUMINOUS  Year 2009 2010 2011 2012	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127  CO-GEN (1023) State OD  Payroll (1) 7,866,413 8,732,701 9,102,411 9,047,745	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185 1,121,002 1,704,620 1,508,278  Federal Exempt Reported Payroll (2) 0 0 0	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892 94,860 157,568 110,780  Partnership Reported Payroll (3)  0 0 0 0	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629  Federal OD Payroll (1) + [(3)-(2)]*(4) (5) 7,866,413 8,732,701 9,102,411 9,047,745	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309 7.793558 10.053839 6.821629  Payroll Per Million (5)/1000000 (6) 7.866413 8.732701 9.102411 9.047745
Year 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019  BITUMINOUS  Year 2009 2010 2011 2012 2013	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127  CO-GEN (1023) State OD  Payroll (1) 7,866,413 8,732,701 9,102,411 9,047,745 10,355,884 11,721,184	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185 1,121,002 1,704,620 1,508,278  Federal Exempt Reported Payroll (2) 0 0 0 0	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892 94,860 157,568 110,780  Partnership Reported Payroll (3)  0 0 0 0 0	Factor (4)  1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629  Federal OD Payroll (1) + [(3)-(2)]*(4) (5) 7,866,413 8,732,701 9,102,411 9,047,745 10,355,884 11,721,184	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309 7.793558 10.053839 6.821629  Payroll Per Million (5)/1000000 (6) 7.866413 8.732701 9.102411 9.047745 10.355884
Year 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019  BITUMINOUS  Year 2009 2010 2011 2012 2013 2014 2015	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127  CO-GEN (1023) State OD  Payroll (1) 7,866,413 8,732,701 9,102,411 9,047,745 10,355,884 11,721,184 11,748,205	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185 1,121,002 1,704,620 1,508,278  Federal Exempt Reported Payroll (2) 0 0 0 0	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892 94,860 157,568 110,780  Partnership Reported Payroll (3)  0 0 0 0 0 0	Factor (4)  1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629  Federal OD Payroll (1) + [(3)-(2)]*(4) (5) 7,866,413 8,732,701 9,102,411 9,047,745 10,355,884 11,721,184 11,748,205	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309 7.793558 10.053839 6.821629  Payroll Per Million (5)/1000000 (6) 7.866413 8.732701 9.102411 9.047745 10.355884 11.721184 11.748205
Year 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019  BITUMINOUS  Year 2009 2010 2011 2012 2013 2014 2015 2016	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127  CO-GEN (1023) State OD  Payroll (1) 7,866,413 8,732,701 9,102,411 9,047,745 10,355,884 11,721,184 11,748,205 11,327,552	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185 1,121,002 1,704,620 1,508,278  Federal Exempt Reported Payroll (2) 0 0 0 0 0 0	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892 94,860 157,568 110,780  Partnership Reported Payroll (3)  0 0 0 0 0 0 0	Factor (4)  1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629  Federal OD Payroll (1) + [(3)-(2)]*(4) (5) 7,866,413 8,732,701 9,102,411 9,047,745 10,355,884 11,721,184 11,748,205 11,327,552	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309 7.793558 10.053839 6.821629 Payroll Per Million (5)/1000000 (6) 7.866413 8.732701 9.102411 9.047745 10.355884 11.721184 11.748205 11.327552
Year 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019  BITUMINOUS  Year 2009 2010 2011 2012 2013 2014 2015 2016 2017	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127  CO-GEN (1023) State OD  Payroll (1) 7,866,413 8,732,701 9,102,411 9,047,745 10,355,884 11,721,184 11,748,205 11,327,552 11,435,057	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185 1,121,002 1,704,620 1,508,278  Federal Exempt Reported Payroll (2) 0 0 0 0 0 0	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892 94,860 157,568 110,780  Partnership Reported Payroll (3)  0 0 0 0 0 0 0 0	Factor (4)  1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629  Federal OD Payroll (1) + [(3)-(2)]*(4) (5) 7,866,413 8,732,701 9,102,411 9,047,745 10,355,884 11,721,184 11,748,205 11,327,552 11,435,057	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309 7.793558 10.053839 6.821629  Payroll Per Million (5)/1000000 (6) 7.866413 8.732701 9.102411 9.047745 10.355884 11.748205 11.327552 11.435057
Year 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019  BITUMINOUS  Year 2009 2010 2011 2012 2013 2014 2015 2016	State OD Developed Payroll (1) 8,004,644 8,481,228 11,720,035 10,273,004 8,342,651 9,060,883 10,469,089 8,994,602 8,819,700 11,600,891 8,219,127  CO-GEN (1023) State OD  Payroll (1) 7,866,413 8,732,701 9,102,411 9,047,745 10,355,884 11,721,184 11,748,205 11,327,552	Federal Exempt Reported Payroll (2) 505,653 594,188 827,364 1,025,112 792,519 838,824 1,048,903 1,137,185 1,121,002 1,704,620 1,508,278  Federal Exempt Reported Payroll (2) 0 0 0 0 0 0 0 0 0 0	Reported Payroll (3)  35,744 71,008 88,971 63,920 80,630 138,839 134,620 95,892 94,860 157,568 110,780  Partnership Reported Payroll (3)  0 0 0 0 0 0 0 0 0 0 0	Factor (4)  1.0000	Payroll (1) + [(3)-(2)]*(4) (5) 7,534,735 7,958,048 10,981,642 9,311,812 7,630,762 8,360,898 9,554,806 7,953,309 7,793,558 10,053,839 6,821,629  Federal OD Payroll (1) + [(3)-(2)]*(4) (5) 7,866,413 8,732,701 9,102,411 9,047,745 10,355,884 11,721,184 11,748,205 11,327,552	Per Million (5)/1000000 (6) 7.534735 7.958048 10.981642 9.311812 7.630762 8.360898 9.554806 7.953309 7.793558 10.053839 6.821629 Payroll Per Million (5)/1000000 (6) 7.866413 8.732701 9.102411 9.047745 10.355884 11.721184 11.748205 11.327552

Source: Auger (1015) - Exhibit X-D, page 3 Coke (1469) - Exhibit X-D, page 3

> Anthracite Co-Gen (1021) - Exhibit X-D, page 4 Bituminous Co-Gen (1023) - Exhibit X-D, page 4

### ANTHRACITE PREP PLANT (1025)

,						
	State OD				Federal OD	Payroll
	Developed	Federal Exempt	Partnership	Development	Payroll	Per Million
	Payroll	Reported Payroll	Reported Payroll	Factor	(1) + [(3)-(2)]*(4)	(5)/1000000
<u>Year</u>	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	<u>(6)</u>
2009	6,749,748	584,144	99,002	1.0000	6,264,606	6.264606
2010	5,762,086	1,016,835	131,676	1.0000	4,876,927	4.876927
2011	7,236,583	1,246,194	132,870	1.0000	6,123,259	6.123259
2012	8,671,140	1,248,180	146,063	1.0000	7,569,023	7.569023
2013	8,265,665	1,400,236	209,457	1.0000	7,074,886	7.074886
2014	8,234,771	1,877,979	164,749	1.0000	6,521,541	6.521541
2015	7,606,274	1,549,878	140,200	1.0000	6,196,596	6.196596
2016	7,018,927	1,728,560	252,601	1.0000	5,542,968	5.542968
2017	7,746,154	1,886,894	197,550	1.0000	6,056,810	6.056810
2018	9,651,288	2,865,985	131,456	1.0000	6,916,759	6.916759
2019	12,646,576	2,160,285	116,130	1.0086	10,584,841	10.584841

### BITUMINOUS PREP PLANT (1027)

	•	,				
	State OD				Federal OD	Payroll
	Developed	Federal Exempt	Partnership	Development	Payroll	Per Million
	Payroll	Reported Payroll	Reported Payroll	Factor	(1) + [(3)-(2)]*(4)	(5)/1000000
<u>Year</u>	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	<u>(6)</u>
2009	19,828,012	0	0	1.0000	19,828,012	19.828012
2010	26,313,130	0	0	1.0000	26,313,130	26.313130
2011	35,155,068	0	0	1.0000	35,155,068	35.155068
2012	34,211,729	0	0	1.0000	34,211,729	34.211729
2013	34,253,697	613,728	0	1.0000	33,639,969	33.639969
2014	43,520,040	11,665,609	0	1.0000	31,854,431	31.854431
2015	33,564,176	9,243,568	0	1.0000	24,320,608	24.320608
2016	23,689,882	3,610,481	0	1.0000	20,079,401	20.079401
2017	28,803,457	0	0	1.0000	28,803,457	28.803457
2018	32,199,872	0	0	1.0000	32,199,872	32.199872
2019	37,605,236	0	17,765	1.0185	37,623,330	37.623330

Source: Anthracite Prep Plant (1025) - Exhibit X-D, page 5 Bituminous Prep Plant (1027) - Exhibit X-D, page 5

### ANTHRACITE UNDERGROUND (1010)

	Developed	Files 258,330,4027 & 4049	OD	Payroll
	Payroll	Developed Payroll*	Payroll	Per Million
Year	(1)	(2)	(3) = (1) + (2)	(4) = (3)/1000000
2009	0	1,335,866	1,335,866	1.335866
2010	5,700	1,293,888	1,299,588	1.299588
2011	110,125	1,147,819	1,257,944	1.257944
2012	219,407	809,853	1,029,260	1.029260
2013	175,900	205,976	381,876	0.381876
2014	258,809	0	258,809	0.258809
2015	254,336	0	254,336	0.254336
2016	163,760	0	163,760	0.163760
2017	252,383	0	252,383	0.252383
2018	183,346	0	183,346	0.183346
2019	179,379	0	179,379	0.179379

### BITUMINOUS UNDERGROUND (1001)

	Developed Payroll	Files 258,330,4027 & 4049 Developed Payroll*	OD Payroll	Payroll Per Million
Year	(1)	(2)	(3) = (1) - (2)	(4) = (3)/1000000
2009	102,684,006	1,335,866	101,348,140	101.348140
2010	126,687,464	1,293,888	125,393,576	125.393576
2011	149,633,528	1,147,819	148,485,709	148.485709
2012	154,428,761	809,853	153,618,908	153.618908
2013	149,953,068	205,976	149,747,092	149.747092
2014	271,230,707	0	271,230,707	271.230707
2015	216,454,460	0	216,454,460	216.454460
2016	148,556,407	0	148,556,407	148.556407
2017	172,708,778	0	172,708,778	172.708778
2018	180,553,142	0	180,553,142	180.553142
2019	185,776,423	0	185,776,423	185.776423

<sup>\*</sup> The reclassification from Anthracite U/G to Bituminous U/G applies to Traumatic, but not to OD. For Traumatic Files 258, 330, 4027 & 4049 are coded 1001 (payroll and losses). The above reclassification is made to move State and Federal O.D. exposures from Class 1001 (Bituminous U/G) back to Class 1010 (Anthracite U/G)

Other classification payrolls for these four files are unaffected by the re-classification.

Source: Developed Payroll - Exhibit X-D, page 1

CMCRB database for files 258, 330, 4027 and 4049 Payrolls as of 4-30-2020

### ANTHRACITE UNDERGROUND (1010)

	REPORTED	DEVELOPMENT	DEVELOPED
	PAYROLL*	FACTORS**	PAYROLL
Year	(1)	(2)	(3) = (1) * (2)
2009	1,335,866	1.0000	1,335,866
2010	1,293,888	1.0000	1,293,888
2011	1,147,819	1.0000	1,147,819
2012	809,853	1.0000	809,853
2013	205,976	1.0000	205,976
2014	0	1.0000	0
2015	0	1.0000	0
2016	0	1.0000	0
2017	0	1.0000	0
2018	0	1.0000	0
2019	0	1.0032	0

Source: CMCRB database for files 258, 330, 4027 and 4049 Payrolls as of 4-30-2020

<sup>\*</sup> For Traumatic Files 258, 330, 4027 and 4049 only.

<sup>\*\*</sup> Development Factors are averages of U/G Ant. and U/G Bit. Development Factors from Exhibit X-E-1

### ANTHRACITE UNDERGROUND (1010)

		DEVELOPMENT	DEVELOPED	PAYROLL
YEAR	PAYROLL	FACTORS	PAYROLL	PER MILLION
	(1)	(2)	(3)	(4)
			$=(1) \times (2)$	=(1)X(2)/1000000
2009	-	1.0000	-	0.000000
2010	5,700	1.0000	5,700	0.005700
2011	110,125	1.0000	110,125	0.110125
2012	219,407	1.0000	219,407	0.219407
2013	175,900	1.0000	175,900	0.175900
2014	258,809	1.0000	258,809	0.258809
2015	254,336	1.0000	254,336	0.254336
2016	163,760	1.0000	163,760	0.163760
2017	252,383	1.0000	252,383	0.252383
2018	183,346	1.0000	183,346	0.183346
2019	179,379	1.0000	179,379	0.179379

### BITUMINOUS UNDERGROUND (1001)

 		1		
	REPORTED	DEVELOPMENT	DEVELOPED	PAYROLL
YEAR	PAYROLL	FACTORS	PAYROLL	PER MILLION
	(1)	(2)	(3)	(4)
			$=(1) \times (2)$	=(1)X(2)/1000000
2009	102,684,006	1.0000	102,684,006	102.684006
2010	126,687,464	1.0000	126,687,464	126.687464
2011	149,633,528	1.0000	149,633,528	149.633528
2012	154,428,761	1.0000	154,428,761	154.428761
2013	149,953,068	1.0000	149,953,068	149.953068
2014	271,230,707	1.0000	271,230,707	271.230707
2015	216,454,460	1.0000	216,454,460	216.454460
2016	148,556,407	1.0000	148,556,407	148.556407
2017	172,708,778	1.0000	172,708,778	172.708778
2018	180,553,142	1.0000	180,553,142	180.553142
2019	184,595,015	1.0064	185,776,423	185.776423

Source: (1) Payroll and (2) Development - Exhibit X-E, page 1

ANTHRACITE SU	RFACE (1012)			
	REPORTED	DEVELOP	DEVELOPMENT	PAYROLL
YEAR	PAYROLL	<b>FACTORS</b>	PAYROLL	PER MILLION
	(1)	(2)	(3)	(4)
			$=(1) \times (2) =$	(1)X(2)/1000000
2009	16,445,462	1.0000	16,445,462	16.445462
2010	14,295,288	1.0000	14,295,288	14.295288
2011	21,034,600	1.0000	21,034,600	21.034600
2012	26,295,907	1.0000	26,295,907	26.295907
2013	22,449,824	1.0000	22,449,824	22.449824
2014	20,466,075	1.0000	20,466,075	20.466075
2015	24,218,779	1.0000	24,218,779	24.218779
2016	20,873,611	1.0000	20,873,611	20.873611
2017	21,167,074	1.0000	21,167,074	21.167074
2018	19,576,675	1.0000	19,576,675	19.576675
2019	23,605,037	1.0060	23,746,667	23.746667
bituminous su	IRFACE (1014)			
	REPORTED	DEVELOP		PAYROLL
YEAR	PAYROLL	<b>FACTORS</b>	PAYROLL	PER MILLION
	(1)	(2)	(3)	(4)
			$=(1) \times (2) =$	(1)X(2)/1000000
2009	61,784,394	1.0000	61,784,394	61.784394
2010	72,711,558	1.0000	72,711,558	72.711558
2011	86,074,064	1.0000	86,074,064	86.074064
2012	76,452,811	1.0000	76,452,811	76.452811
2013	61,349,745	1.0000	61,349,745	61.349745
2014	54,050,731	1.0000	54,050,731	54.050731
2015	40,934,048	1.0000	40,934,048	40.934048
2016	29,127,089	1.0000	29,127,089	29.127089
2017	33,140,780	1.0000	33,140,780	33.140780
2018	35,242,187	1.0000	35,242,187	35.242187
0010	05 47/15/	1 0000	05 17 1 5 1	05 47 43 5 4

Source: (1) Payroll and (2) Development - Exhibit X-E, page 2

1.0000

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35,476,154

35,476,154 35.476154

COKE (1469)				
	REPORTED	DEVELOPMENT	DEVELOPED	PAYROLL
YEAR	PAYROLL	FACTORS	PAYROLL	PER MILLION
	(1)	(2)	(3)	(4)
			$=(1) \times (2)$	=(1)X(2)/1000000
2009	5,173,552	1.0000	5,173,552	5.173552
2010	5,435,658	1.0000	5,435,658	5.435658
2011	3,599,086	1.0000	3,599,086	3.599086
2012	5,738,105	1.0000	5,738,105	5.738105
2013	4,791,910	1.0000	4,791,910	4.791910
2014	4,464,398	1.0000	4,464,398	4.464398
2015	4,340,376	1.0000	4,340,376	4.340376
2016	4,435,066	1.0000	4,435,066	4.435066
2017	4,566,113	1.0000	4,566,113	4.566113
2018	4,484,744	1.0000	4,484,744	4.484744
2019	4,466,971	1.0236	4,572,392	4.572392
AUGER (1015)				
, ,	REPORTED	DEVELOPMENT	DEVELOPED	PAYROLL
YEAR	PAYROLL	FACTORS	PAYROLL	PER MILLION
	(1)	(2)	(3)	(4)
			$=(1) \times (2)$	=(1)X(2)/1000000
2009	926,163	1.0000	926,163	0.926163
2010	806,696	1.0000	806,696	0.806696
2011	1,176,255	1.0000	1,176,255	1.176255
2012	808,208	1.0000	808,208	0.808208
2013	1,025,399	1.0000	1,025,399	1.025399
2014	806,976	1.0000	806,976	0.806976
2015	582,619	1.0000	582,619	0.582619
2016	372,496	1.0000	372,496	0.372496
2017	449,009	1.0000	449,009	0.449009
2018	600,138	1.0000	600,138	0.600138

Source: (1) Payroll and (2) Development - Exhibit X-E, page 3

1.0000

539,914

2019

539,914

0.539914

ANTHRACITE CO-GEN (1021)					
	REPORTED	DEVELOPMENT	DEVELOPED	PAYROLL	
YEAR	PAYROLL	FACTORS	PAYROLL	PER MILLION	
	(1)	(2)	(3)	(4)	
			$=(1) \times (2)$	=(1)X(2)/1000000	
2009	8,004,644	1.0000	8,004,644	8.004644	
2010	8,481,228	1.0000	8,481,228	8.481228	
2011	11,720,035	1.0000	11,720,035	11.720035	
2012	10,273,004	1.0000	10,273,004	10.273004	
2013	8,342,651	1.0000	8,342,651	8.342651	
2014	9,060,883	1.0000	9,060,883	9.060883	
2015	10,469,089	1.0000	10,469,089	10.469089	
2016	8,994,602	1.0000	8,994,602	8.994602	
2017	8,819,700	1.0000	8,819,700	8.819700	
2018	11,600,891	1.0000	11,600,891	11.600891	
2019	8,219,127	1.0000	8,219,127	8.219127	

BITUMINOUS CO	D-GEN (1023)			
	REPORTED	DEVELOPMENT		PAYROLL
YEAR	PAYROLL	<b>FACTORS</b>	PAYROLL	PER MILLION
	(1)	(2)	(3)	(4)
			$=(1) \times (2)$	=(1)X(2)/1000000
2009	7,866,413	1.0000	7,866,413	7.866413
2010	8,732,701	1.0000	8,732,701	8.732701
2011	9,102,411	1.0000	9,102,411	9.102411
2012	9,047,745	1.0000	9,047,745	9.047745
2013	10,355,884	1.0000	10,355,884	10.355884
2014	11,721,184	1.0000	11,721,184	11.721184
2015	11,748,205	1.0000	11,748,205	11.748205
2016	11,327,552	1.0000	11,327,552	11.327552
2017	11,435,057	1.0000	11,435,057	11.435057
2018	12,043,297	1.0000	12,043,297	12.043297
2019	11,778,971	1.0024	11,807,241	11.807241

Source: (1) Payroll and (2) Development - Exhibit X-E, page 4

	REPORTED	DEVELOPMENT	DEVELOPED	PAYROLL
YEAR	PAYROLL	FACTORS	PAYROLL	PER MILLION
	(1)	(2)	(3)	(4)
			$=(1) \times (2)$	=(1)X(2)/1000000
2009	6,749,748	1.0000	6,749,748	6.749748
2010	5,762,086	1.0000	5,762,086	5.762086
2011	7,236,583	1.0000	7,236,583	7.236583
2012	8,671,140	1.0000	8,671,140	8.671140
2013	8,265,665	1.0000	8,265,665	8.265665
2014	8,234,771	1.0000	8,234,771	8.234771
2015	7,606,274	1.0000	7,606,274	7.606274
2016	7,018,927	1.0000	7,018,927	7.018927
2017	7,746,154	1.0000	7,746,154	7.746154
2018	9,651,288	1.0000	9,651,288	9.651288
2019	12,538,743	1.0086	12,646,576	12.646576

### **BITUMINOUS PREP PLANT (1027)**

	REPORTED	DEVELOPMENT		PAYROLL
YEAR	PAYROLL	FACTORS	PAYROLL	PER MILLION
	(1)	(2)	(3)	(4)
			$=(1) \times (2) = ($	1)X(2)/1000000
2009	19,828,012	1.0000	19,828,012	19.828012
2010	26,313,130	1.0000	26,313,130	26.313130
2011	35,155,068	1.0000	35,155,068	35.155068
2012	34,211,729	1.0000	34,211,729	34.211729
2013	34,253,697	1.0000	34,253,697	34.253697
2014	43,520,040	1.0000	43,520,040	43.520040
2015	33,564,176	1.0000	33,564,176	33.564176
2016	23,689,882	1.0000	23,689,882	23.689882
2017	28,803,457	1.0000	28,803,457	28.803457
2018	32,199,872	1.0000	32,199,872	32.199872
2019	36,922,176	1.0185	37,605,236	37.605236

Source: (1) Payroll and (2) Development - Exhibit X-E, page 5

# PAYROLLS ANTHRACITE UNDERGROUND (1010)

						ANTHRACITE U	INDERGROUN	D (1010)					
RPT	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
1ST	0	5,700	110,125	219,407	175,900	258,809	254,336	163,760	252,383	183,346	179,379		
2ND	0	5,700	110,125	219,407	175,900	258,809	254,336	163,760	252,383	183,346			
3RD	0	5,700	110,125	219,407	175,900	258,809	254,336	163,760	252,383				
4TH	0	5,700	110,125	219,407	175,900	258,809	254,336	163,760					
5TH	0	5,700	110,125	219,407	175,900	258,809	254,336						
											5 YEAR		
DEV.	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	<u>AVERAGE</u>	ACCUM.	<u>SELECTED</u>
1-2		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2-3		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
3-4		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000
						P BITUMINOUS U	'AYROLLS INDERGROUNI	D (1001)					
RPT	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
1ST	100,337,635	126,269,667	150,087,771	156,022,224	148,858,839	269,946,018	216,498,553	148,894,215	169,570,264	178,663,437	184,595,015		
2ND	102,684,006	126,687,464	149,633,528	154,428,761	149,953,068	271,230,707	216,454,460	148,556,407	172,800,836	180,553,142			
3RD	102,684,006	126,687,464	149,633,528	154,428,761	149,953,068	271,230,707	216,454,460	148,556,407	172,708,778				
4TH	102,684,006	126,687,464	149,633,528	154,428,761	149,953,068	271,230,707	216,454,460	148,556,407					
5TH	102,684,006	126,687,464	149,633,528	154,428,761	149,953,068	271,230,707	216,454,460						
											5 YEAR		
DEV.	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	<u>AVERAGE</u>	ACCUM.	<u>SELECTED</u>
1-2	1.0234	1.0033	0.9970	0.9898	1.0074	1.0048	0.9998	0.9977	1.0191	1.0106	1.0064	1.0063	1.0064
2-3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9995		0.9999	0.9999	1.0000
3-4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000

Source: CMCRB Database as of 4-30-2020 - Traumatic Payroll Reports

# COAL MINE COMPENSATION RATING BUREAU Payroll Development

# PAYROLLS ANTHRACITE SURFACE (1012)

							,	•					
RPT	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
1ST	16,464,925	14,316,712	21,041,889	26,061,126	22,127,846	20,422,650	24,275,156	20,717,621	20,760,851	19,515,547	23,605,037		
2ND	16,445,462	14,302,955	21,034,600	26,295,907	22,449,824	20,466,075	24,218,779	20,873,611	21,167,074	19,576,675			
3RD	16,445,462	14,295,288	21,034,600	26,295,907	22,449,824	20,466,075	24,218,779	20,873,611	21,167,074				
4TH	16,445,462	14,295,288	21,034,600	26,295,907	22,449,824	20,466,075	24,218,779	20,873,611					
5TH	16,445,462	14,295,288	21,034,600	26,295,907	22,449,824	20,466,075	24,218,779						
											5 YEAR		
DEV.	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	<u>AVERAGE</u>	ACCUM.	<u>SELECTED</u>
1ST	0.9988	0.9990	0.9997	1.0090	1.0146	1.0021	0.9977	1.0075	1.0196	1.0031	1.0060	1.0060	1.0060
2-3	1.0000	0.9995	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
3-4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000
						P.	AYROLLS						
						BITUMINOU	IS SURFACE (10	014)					
RPT	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
1ST	62,272,331	72,008,001	84,685,809	77,151,225	63,473,577	54,685,762	41,179,672	28,999,042	34,474,120	35,266,431	35,476,154		
2ND	61,784,394	72,711,558	86,074,064	76,452,811	61,349,745	54,050,731	40,934,048	29,127,089	33,140,780	35,242,187			
3RD	61,784,394	72,711,558	86,074,064	76,452,811	61,349,745	54,050,731	40,934,048	29,127,089	33,140,780				
4TH	61,784,394	72,711,558	86,074,064	76,452,811	61,349,745	54,050,731	40,934,048	29,127,089					
5TH	61,784,394	72,711,558	86,074,064	76,452,811	61,349,745	54,050,731	40,934,048						
											5 YEAR		
DEV.	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	· · · · · · · · · · · · · · · · · · ·	ACCUM.	
1-2	0.9922	1.0098	1.0164	0.9909	0.9665	0.9884	0.9940	1.0044	0.9613	0.9993	0.9895	0.9895	1.0000
2-3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
3-4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000

Source: CMCRB Database as of 4-30-2020 - Traumatic Payroll Reports

## PAYROLLS COKE (1469)

RPT	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
181	5,173,552	5,435,658	3,599,086	5,738,105	4,791,910	4,464,398	4,057,561	4,435,066	4,462,231	4,375,412	4,466,971		
2ND	5,173,552	5,435,658	3,599,086	5,738,105	4,791,910	4,464,398	4,340,376	4,435,066	4,566,113	4,484,744			
3RD	5,173,552	5,435,658	3,599,086	5,738,105	4,791,910	4,464,398	4,340,376	4,435,066	4,566,113				
4TH	5,173,552	5,435,658	3,599,086	5,738,105	4,791,910	4,464,398	4,340,376	4,435,066					
5TH	5,173,552	5,435,658	3,599,086	5,738,105	4,791,910	4,464,398	4,340,376				E VE A D		
רוע	2000	0010	0011	2010	2012	0014	2015	0017	0017	0010	5 YEAR	A C C L I A A	CELECTED
DEV.	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	<u>AVERAGE</u>	ACCUM.	·
1-2	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0697	1.0000	1.0233	1.0250	1.0236	1.0236	1.0236
2-3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
3-4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000
							AYROLLS GER (1015)						
RPT	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
1ST	935,743	793,313	1,151,902	789,136	1,082,639	876,196	592,775	372,496	452,051	560,126	539,914		
2ND	926,163	806,696	1,176,255	808,208	1,025,399	806,976	582,619	372,496	449,009	600,138			
3RD	926,163	806,696	1,176,255	808,208	1,025,399	806,976	582,619	372,496	449,009				
4TH	926,163	806,696	1,176,255	808,208	1,025,399	806,976	582,619	372,496					
5TH	926,163	806,696	1,176,255	808,208	1,025,399	806,976	582,619						
											5 YEAR		
DEV.	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	<u>AVERAGE</u>		·
1-2	0.9898	1.0169	1.0211	1.0242	0.9471	0.9210	0.9829	1.0000	0.9933	1.0714	0.9937	0.9937	1.0000
2-3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
3-4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000

Source: CMCRB Database as of 4-30-2020 - Traumatic Payroll Reports

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## PAYROLLS ANTHRACITE CO-GEN (1021)

						7							
RPT	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
1ST	8,083,804	8,455,858	11,710,908	10,377,312	8,678,376	9,279,611	10,646,550	10,847,424	9,038,435	11,591,488	8,219,127		
2ND	8,004,644	8,481,228	11,720,035	10,273,004	8,342,651	9,060,883	10,469,089	8,994,602	8,819,700	11,600,891			
3RD	8,004,644	8,481,228	11,720,035	10,273,004	8,342,651	9,060,883	10,469,089	8,994,602	8,819,700				
4TH	8,004,644	8,481,228	11,720,035	10,273,004	8,342,651	9,060,883	10,469,089	8,994,602					
5TH	8,004,644	8,481,228	11,720,035	10,273,004	8,342,651	9,060,883	10,469,089						
											5 YEAR		
DEV.	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	<u>AVERAGE</u>	ACCUM.	<u>SELECTED</u>
1-2	0.9902	1.0030	1.0008	0.9899	0.9613	0.9764	0.9833	0.8292	0.9758	1.0008	0.9531	0.9531	1.0000
2-3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
3-4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000
						D	ayrolls						
							IS CO-GEN (10	1231					
						BHOMINOC	13 CO-GEN (10	)23j					
RPT	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
1ST	7,861,068	9,236,721	9,015,644	9,057,266	13,079,796	11,451,621	11,723,112	11,386,837	11,576,297	11,996,610	11,778,971		
2ND	7,866,413	8,732,701	9,102,411	9,047,745	10,355,884	11,721,184	11,748,205	11,327,552	11,435,057	12,043,297			
3RD	7,866,413	8,732,701	9,102,411	9,047,745	10,355,884	11,721,184	11,748,205	11,327,552	11,435,057				
4TH	7,866,413	8,732,701	9,102,411	9,047,745	10,355,884	11,721,184	11,748,205	11,327,552					
5TH	7,866,413	8,732,701	9,102,411	9,047,745	10,355,884	11,721,184	11,748,205						
											5 YEAR		
DEV.	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	<u>AVERAGE</u>	ACCUM.	<u>SELECTED</u>
1-2	1.0007	0.9454	1.0096	0.9989	0.7917	1.0235	1.0021	0.9948	0.9878	1.0039	1.0024	1.0024	1.0024
2-3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
3-4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000

Source: CMCRB Database as of 4-30-2020 - Traumatic Payroll Reports

# PAYROLLS ANTHRACITE PREP PLANT (1025)

						,		. ===,					
RPT	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
1ST	6,785,937	5,723,658	7,300,075	8,617,327	8,249,896	8,098,851	7,770,095	6,971,270	7,502,719	9,572,250	12,538,743		
2ND	6,749,748	5,762,086	7,236,583	8,671,140	8,265,665	8,234,771	7,606,274	7,018,927	7,746,154	9,651,288			
3RD	6,749,748	5,762,086	7,236,583	8,671,140	8,265,665	8,234,771	7,606,274	7,018,927	7,746,154				
4TH	6,749,748	5,762,086	7,236,583	8,671,140	8,265,665	8,234,771	7,606,274	7,018,927					
5TH	6,749,748	5,762,086	7,236,583	8,671,140	8,265,665	8,234,771	7,606,274						
											5 YEAR		
DEV.	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	<u>AVERAGE</u>	ACCUM.	<u>SELECTED</u>
1-2	0.9947	1.0067	0.9913	1.0062	1.0019	1.0168	0.9789	1.0068	1.0324	1.0083	1.0086	1.0086	1.0086
2-3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
3-4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000
						P/	AYROLLS						
						BITUMINOUS	PREP PLANT (	1027)					
RPT	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
1ST	19,852,091	25,843,606	34,632,323	34,353,700	33,730,152	43,397,620	34,011,862	22,065,227	28,602,522	31,517,751	36,922,176		
2ND	19,828,012	26,313,130	35,155,068	34,211,729	34,207,489	43,520,040	33,564,176	23,689,882	28,816,678	32,199,872			
3RD	19,828,012	26,313,130	35,155,068	34,211,729	34,253,697	43,520,040	33,564,176	23,689,882	28,803,457				
4TH	19,828,012	26,313,130	35,155,068	34,211,729	34,253,697	43,520,040	33,564,176	23,689,882					
5TH	19,828,012	26,313,130	35,155,068	34,211,729	34,253,697	43,520,040	33,564,176						
											5 YEAR		
DEV.	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	<u>AVERAGE</u>	ACCUM.	<u>SELECTED</u>
1-2	0.9988	1.0182	1.0151	0.9959	1.0142	1.0028	0.9868	1.0736	1.0075	1.0216	1.0185	1.0187	1.0185
2-3	1.0000	1.0000	1.0000	1.0000	1.0014	1.0000	1.0000	1.0000	0.9995		1.0002	1.0002	1.0000
3-4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000

Source: CMCRB Database as of 4-30-2020 - Traumatic Payroll Reports

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# COAL MINE COMPENSATION RATING BUREAU OD Frequencies From Approved Filing

		State OD Class Code	State OD Indicated Frequency (Eff. 4/1/2020) (1)	Federal OD Class Code	Fedeal OD Basic Indicated Frequency (Eff. 4/1/2020) (2)	Fedeal OD Excess Indicated Frequency (Eff. 4/1/2020) (3)
Underground:	Anthracite	1011	0.221003	160	0.180561	0.084073
-	Bituminous	1002	0.021121	158	0.010163	0.007882
Surface:	Anthracite	1016	0.020980	153	0.044670	0.009622
	Bituminous	1013	0.008080	156	0.020709	0.002673
	Coke	1017	0.002394	154	0.002159	0.000951
	Auger	1019	0.004930	157	0.010951	0.002033
Co-Gen:	Anthracite	1022	0.004818	181	0.009657	0.001789
	Bituminous	1024	0.006505	182	0.006685	0.002237
Prep Plants:	Anthracite	1026	0.050856	183	0.019669	0.021225
	Bituminous	1028	0.004220	184	0.007594	0.001535

Source: (1): Exhibit III Column (3) of prior filing.

(2) & (3): Exhibit IV-A Column (3) of prior filing.

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Run Date: August 18, 2020 - 03:17:03 PM

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					Avera	ge Coal Cla	ss Weekly Wa	aes			
		Anthracite	Bituminous	Anthracite	Bituminous	J 2 2 2 3 1 0 1 0	11 11 30101 1100	Anthracite	Bituminous	Anthracite	Bituminous
		Underground		Surface	Surface	Coke	Auger	Co-gen	Co-gen	Prep Plant	Prep Plant
<u>Year</u>		<u>1010</u>	1001	<u>1012</u>	<u>1014</u>	1469	<u>1015</u>	<u>1021</u>	<u>1023</u>	<u>1025</u>	<u>1027</u>
2010		#	1,196.34	875.36	869.71	428.37	559.30	650.50	868.00	670.27	1,056.50
2011		#	1,268.15	956.16	965.20	509.19	583.00	638.00	902.00	709.93	1,168.50
2012		#	1,409.80	1,026.52	1,033.50		405.00	1,049.67	1,370.33	1,225.08	1,074.90
2013		#	1,450.44	961.94	1,056.17	584.76	556.80	933.53	1,188.00	836.20	1,268.33
2014		#	1,489.37	972.96	972.11	100.00	520.00	843.52	908.00	943.94	1,307.50
2015		#	1,634.39	1,071.78	968.80	564.33	722.00	1,075.00	836.67	1,005.00	1,295.56
2016		#	1,662.13	1,076.11	1,001.43	2,109.00		1,133.39	714.00	1,148.41	1,816.23
2017		#	1,572.78	1,163.04	1,381.20	588.83		1,206.39	1,376.75	1,277.00	1,419.95
2018 2019		# #	1,629.05 1,647.40	1,434.53 1,027.68	1,260.86 1,058.90	546.00 607.00		950.16 1,146.67	1,388.60 914.00	1,021.75 1,091.71	1,103.76 2,174.42
2017		,,	1,017.10	1,027.00	1,000.70	007.00 [		1,1 10.07	711.00	1,071.71	2,17 1.12
			<u> </u>	lumber of Wo	age Records Us	ed to Calcu	late Average	Coal Class V	Veekly Wage:	5	
<u>Year</u>		<u>1010</u>	1001	<u>1012</u>	1014	1469	<u>1015</u>	<u>1021</u>	1023	1025	<u>1027</u>
2010		#	113	24	21	1	2	4	2	5	6
2011		#	106	21	31	3	4	2	2	8	12
2011		#	124	20	30	$\overline{}$	1	6	3	7	10
			90	25	29	2	I E	7	1	7	9
2013		#				2	5		ı		
2014		#	216	21	18	I	2	3	5	6	16
2015		#	134	18	10	3	2	3	3	4	8
2016		#	98	22	7	1		7	1	4	9
2017		#	120	23	5	6		7	4	1	6
2018		#	121	11	7	1		11	5	4	5
<u>2019</u>		<u>#</u>	109	<u>16</u>	<u>10</u>	1 [		<u>3</u>	<u>1</u>	<u>7</u>	<u>6</u>
Total		<del></del>	1231	201	168	<u> </u>	16	53	<del>-</del> 27	53	<u>-</u> 87
			A	Average Coo	Il Class Weekly	Wage Index	ed to Statewi	de Average \	Weekly Wage	;	
<u>Year</u>	<u>SAWW</u>	<u>1010</u>	1001	<u>1012</u>	<u>1014</u>	1469	<u>1015</u>	<u>1021</u>	<u>1023</u>	<u>1025</u>	1027
2010	845	#	1.416	1.036	1.029	0.507	0.662	0.770	1.027	0.793	1.250
2011	858	#	1.478	1.114	1.125	0.593	0.679	0.744	1.051	0.827	1.362
2012	888	#	1.588	1.156	1.164		0.456	1.182	1.543	1.380	1.210
2013	917	#	1.582	1.049	1.152	0.638	0.607	1.018	1.296	0.912	1.383
2014	932	#	1.598	1.044	1.043	0.107	0.558	0.905	0.974	1.013	1.403
2015	951	#	1.719	1.127	1.019	0.593	0.759	1.130	0.880	1.057	1.362
2016 2017	978 995	# #	1.700	1.100	1.024	2.156		1.159 1.212	0.730	1.174	1.857
2017	995 1025	# #	1.581 1.589	1.169 1.400	1.388 1.230	0.592 0.533		0.927	1.384 1.355	1.283 0.997	1.427 1.077
2018 2019	1023 1049	# <u>#</u>	1.570	0.980	1.230 1.009	0.533 0.579		1.093	0.871	0.997 1.041	2.073
Average	1047	<u>11-</u>	1.582	1.118	1.118	0.700	0.620	1.014	1.111	1.048	1.440
V	CAVANA		Average C	oal Class We	ekly Wage Inde		ewide Averag	e Weekly Wo			
<u>Year</u>	SAWW				<u>Bit. Und. 8</u>	-			All Othe		
2010	845 858				1.40					273	
2011 2012	858 888				1.466 1.560				1.1	92	
2012	917				1.56				1.1		
2013	932				1.58				0.9		
2015	951				1.69				1.0		
2016	978				1.71				1.1		
2017	995				1.57					45	
2018	1025				1.56				1.1		
<u>2019</u>	1049				1.59				0.9		
Average					1.57				1.0		
	oal Class	Adjt. Factor to	SAWW		1.573			ſ		)67	
				'				•			

Notes: Average Coal Class Weekly Wages were derived from CMCRB database for Traumatic Claims.

Average Weekly Wages by class exclude years with zero claims.

# Data for Anthracite Underground was too thin for inclusion.

SAWW = Statewide Average Weekly Wage

The number of records with wage histories are very close to, but less than, lost time claim counts due to missing wage records for some lost time accidents.

For these Classes and Years, there isn't any data.

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#### <u>Section A. Office of Small Business Advocate Assessment Factor Calculation</u>

1. 2020-2021 Small Business Advocate Assessment \$ 280,000

2. 2019 Insurance Carrier Paid Losses

 CMCRB
 20,956,700

 PCRB
 2,212,053,126

 Total
 2,233,009,826

3. Insurer Assessment Ratio (item 1 divided by item 2) 0.0001

#### <u>Section B. Employer Assessment Factor Calculation</u>

1. 2020/2021 INSURANCE CARRIER ASSESSMENT AMOUNTS

A. Administrative Fund	53,599,112
B. Subsequent Injury Fund	137,366
C. Supersedeas Fund	28,842,757
D. Uninsured Employers Guaranty Fund	<u>5,582,573</u>
TOTAL	88,161,808

2.	2019 Employer Assessment Premium I	Base	3,553,479,446
3.	2019 Coal Mine Premium Base		21,583,313
4.	Coal Premium percent of Total	(3)/(2)	0.607%
5.	Assessments to be paid by coal emp	loyers	535,482
6.	Coal Employer Assessment Factor		0.0248

Source: Pa. Dept. of Labor & Industry

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Effective Date - April 01, 2021

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#### CATASTROPHE - Spread of Loss Cost to Classes

	(1) 2019	(2)	(3)	(4)	(5)	(6) Actual	(7) Approved	(8)	(9)
<u>Classification</u>	Developed <u>Payrolls</u>	Hazard <u>Weights</u>	Payroll <u>Weight</u> (1)x(2)/1000	Percentage of Exposure	Catastrophe Losses (4)xAverage	Loss Cost <u>Spread</u> [(5)/(1)]x100	Loss Cost 4/1/2020	<u>Selected</u>	<u>Change</u> (8)/(7) - 1
Underground Anthracite Underground Bituminous Underground Total	1010 \$179,379 1001 <u>185,776,423</u> 185,955,802	7	1,301,691	90.6%	328,003	0.18	0.19	0.18	-5.3%
Other than Underground Anthracite Surface Bituminous Surface Coke Auger Anthracite Co-Gen Bituminous Co-Gen Anthracite Prep Plant Bituminous Prep Plant Total	1012 23,746,667 1014 35,476,154 1469 4,572,392 1015 539,914 1021 8,219,127 1023 11,807,241 1025 12,646,576 1027 <u>37,605,236</u> 134,613,307	1	134,613	9.4%	33,920	0.03	0.03	0.03	0.0%
Grand Total	320,569,109	8	1,436,304	100.0%	361,923	0.11	a-0.12	0.12	0.0%

a - Current Total Loss Cost is based on 2019 Payroll weights

Source: Column (1) - Exhibit X-A

Column (2) - Judgement

Column (5) - Exhibit XII-B

b- Auger = one-third underground & two-thirds surface or \$0.08

# COAL MINE COMPENSATION RATING BUREAU CATASTROPHE CALCULATION TRAUMATIC ON-LEVEL LOSSES IN EXCESS OF \$1,250,000

	Number of	Excess
Accident	Excess	Over
<u>Year</u>	Claims	\$ 1,250,000
2000	-	-
2001	-	-
2002	1	471,071
2003	2	831,742
2004	2	1,592,912
2005	2	1,272,283
2006	-	- 0 (0 ( 00 (
2007	1 2	2,606,296
2008	Z	280,750
2009 2010		_
2010	2	142,846
2012	1	40,550
2013	-	-
2014	-	-
2015	-	-
2016	-	-
2017	-	-
2018	-	-
2019	<del></del>	
	13	7,238,450
	Average over 20 years	361,923
	2019 Developed Payroll from Exhibit XII-A	320,569,109
	Loss Cost	0.11
	2000 0001	0.11

Source: Exhibit XII-C

Run Date: August 24, 2020 - 10:54:57 AM

#### Exhibit XII-C

361,923

0.11

320,569,109

### COAL MINE COMPENSATION RATING BUREAU CATASTROPHE CALCULATION TRAUMATIC LOSSES OVER \$1,250,000

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
				Incurred						Medical	Loss at	
Key		Accident	Injury	Indemnity	Incurred	Paid	O/S	Act		w/Trend &	Current	Excess
<u>Number</u>	<u>Class</u>	<u>Year</u>	<u>Type</u>	<u>&amp; Funeral</u>	<u>Medical</u>	<u>Medical</u>	<u>Medical</u>	44 Factor	<u>Trend</u>	Act 44 Factor	<u>Level</u>	Over \$1,250,000
Que Creek	100100	2002	9	892,793	116,396	116,396	-	1.0000	1.7054	198,502	1,721,071	471,071
39840	100100	2003	2	419,207	485,877	277,464	208,413	1.0000	1.6726	812,678	1,513,843	263,843
39990	100100	2003	1	1,086,870	-	-	-	1.0000	1.6726	=	1,817,899	567,899
40926	100100	2004	9	747,946	603,807	485,539	118,268	1.0000	1.6362	987,949	2,211,738	961,738
41102	102700	2004	2	505,991	643,730	643,730	-	1.0000	1.6362	1,053,271	1,881,174	631,174
41534	101400	2005	1	942,482	25,566	25,566	-	1.0000	1.5768	40,312	1,526,418	276,418
41672	100100	2005	2	874,318	550,000	435,254	114,746	1.0000	1.5768	867,240	2,245,865	995,865
43059	101200	2007	2	660,799	2,000,000	1,715,490	284,510	1.0000	1.4493	2,898,600	3,856,296	2,606,296
43335	100100	2008	1	918,605	223	223	-	1.0000	1.3990	312	1,285,440	35,440
43835	100100	2008	1	1,057,410	11,432	11,432	-	1.0000	1.3990	15,993	1,495,310	245,310
45686	101400	2011	9	321,808	632,412	567,972	64,440	1.0000	1.3159	832,191	1,255,658	5,658
46013	100100	2011	9	255,666	798,508	433,315	365,193	1.0000	1.3159	1,050,757	1,387,188	137,188
46135	100100	2012	9	246,748	768,314	768,314	-	1.0000	1.2714	976,834	1,290,550	40,550

Totals 13 23,488,450 7,238,450

> Sources: Columns (1) through (8) from CMCRB Database.

Injury types are as follows: 1 (Death), 2 (Permanent Total), 9 (Permanent Partial).

Column (9): Exhibit VI-B page 1 Column (10): Exhibit XII-D.

Column (13) is equal to Column (12), minus \$1,250,000

Column (11) is equal to Columns [(7) X (9) + (8)] x (10) Column (12) is equal to Columns (5) X (10) + (11)

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20 Year Average

Loss Cost

2019 Developed Payroll

#### Exhibit XII-D

# Coal Mine Compensation Rating Bureau Catastrophe Calculation Trend Factors for Medical and Indemnity

	Statewide				Statewide		
	Average	Yearly			Average	Yearly	
	Weekly	Percentage	Trend		Weekly	Percentage	Trend
<u>Year</u>	<u>Wage</u>	<u>Change</u>	<u>Factor</u>	<u>Year</u>	<u>Wage</u>	<u>Change</u>	<u>Factor</u>
2000	\$611		1.8478				
2001	\$644	5.4%	1.7531	2011	\$858	1.5%	1.3159
2002	\$662	2.8%	1.7054	2012	\$888	3.5%	1.2714
2003	\$675	2.0%	1.6726	2013	\$917	3.3%	1.2312
2004	\$690	2.2%	1.6362	2014	\$932	1.6%	1.2114
2005	\$716	3.8%	1.5768	2015	\$951	2.0%	1.1872
2006	\$745	4.1%	1.5154	2016	\$978	2.8%	1.1544
2007	\$779	4.6%	1.4493	2017	\$995	1.7%	1.1347
2008	\$807	3.6%	1.3990	2018	\$1,025	3.0%	1.1015
2009	\$836	3.6%	1.3505	2019	\$1,049	2.3%	1.0763
2010	\$845	1.1%	1.3361	2020	\$1,081	3.1%	1.0444

Average of All Years= 2.90%

Average of last 10 years= 2.50%

Average of last 5 years= 2.60%

Average of last 3 years= 2.80%

Selected= 2.50% (Last Year's Selection was 2.50%)

	Projected	l	
	<u>Wage</u>		<u>Weight</u>
01-01-2021	\$1,108	а	28.125%
01-01-2022	\$1,136	а	68.750%
01-01-2023	\$1,164	а	3.125%

Average Weekly Wage For Policies effective between 04-01-2021 and 04-01-2023

\$1,129 b

a. Previous year's wage times annual increase of 2.50%

b. Weighted average of projected wage levels from 01-01-2021 to 01-01-2023

Source: Statewide Average Weekly Wage data is from the Pennsylvania Workers' Compensation Act booklet or the Department of Labor and Industry website.

# Coal Mine Compensation Rating Bureau Catastrophe Calculation Traumatic Losses by Class

Class		Number of	Excess Over
<u>Code</u>	<u>Description</u>	<u>Claims</u>	<u>\$1,250,000</u>
1010	Anthracite Underground	_	_
1001	Bituminous Underground	9	3,718,904
1012	Anthracite Surface	1	2,606,296
1014	Bituminous Surface	2	282,076
1469	Coke	-	<u>-</u>
1015	Auger	-	-
1021	Anthracite Co-Gen	-	-
1023	Bituminous Co-Gen	-	-
1025	Anthracite Prep Plant	-	-
1027	Bituminous Prep Plant	1	631,174
	Total	13	\$7,238,450

Sources: Exhibit XII-C

 $\mathsf{PAB}$ 

1.0002 1.0182 1.0184

50K-150K Page 1

# 2021 plan factors at 50k and 150 k splits:

### Table A: Ratemaking Factors

Year:	2019	2018	2017	Average
Loss Develop.	1.7236	1.2054	1.1017	split by
Layers:	Split o	of total losses by	Layer	Layer
0- 50	0.50731	0.42729	0.40732	0.44731
50-150	0.27729	0.28213	0.26621	0.27521
Over 150	0.21540	0.29058	0.32647	0.27748
Trend	1.0228	1.0371	1.0502	1.0000

### Table C: Unloaded Loss Costs - Traumatic

Clas	sification	Unloaded Loss Cost (1)
1001	Bit deep	6.56
1010	Anth deep	18.67
1012	Anth surf	6.83
1014	Bit surf	1.78
1015	Auger	7.12
1021	Anth Co-gen	6.24
1023	Bit Co-gen	1.23
1025	Anth Prep	3.95
1027	Bit Prep	2.97
1469	Coke	4.17

### Table B: Payroll Development

ſ		Payroll De-			
ı	Classi	velopment			
ſ	1001	1001 Bit deep			
ı	1010	Anth deep	1.0000		
ı	1012	Anth surf	1.0060		
ı	1014	Bit surf	1.0000		
ı	1015	Auger	1.0000		
ı	1021	Anth Co-gen	1.0000		
ı	1023	Bit Co-gen	1.0024		
ı	1025	Anth Prep	1.0086		
ı	1027	1.0185			
L	1469	Coke	1.0236		

## Table D: Manual Loss Costs - Traumatic

				Loadings				
		Unloaded	Catastrophe	Small Business	Off-	Manual		Off-*
		Loss Cost	Exh. XII-A	Assessment	Balances#	Loss Cost		Balances
Clas	ssification	(1)	(2)	(3)	(4)	(5)	Merit Rating Exh. XIV-A	1.0002
1001	Bit deep	6.56	0.18	1.0001	1.0184	6.86	Safety Rating Exh XIV-B	1.0182
1010	Anth deep	18.67	0.18	1.0001	1.0184	19.20	Combined	1.0184
1012	Anth surf	6.83	0.03	1.0001	1.0184	6.99		
1014	Bit surf	1.78	0.03	1.0001	1.0184	1.84		
1015	Auger	7.12	0.08	1.0001	1.0184	7.33		
1021	Anth Co-gen	6.24	0.03	1.0001	1.0184	6.39		
1023	Bit Co-gen	1.23	0.03	1.0001	1.0184	1.28		
1025	Anth Prep	3.95	0.03	1.0001	1.0184	4.05		
1027	Bit Prep	2.97	0.03	1.0001	1.0184	3.06		
1469	Coke	4.17	0.03	1.0001	1.0184	4.28		

le E: Expe	cted Traumatic				2019					2018					2017		
Loss	Costs		All Lo	ayers	Layer 0-50	Layer 50-150	XS over 150	All Lo	ayers	Layer 0-50	Layer 50-150	XS over 150	All Lo	ayers	Layer 0-50	Layer 50-150	XS over 15
		Unloaded	De-trended	Undevel-	Split o	of total losses by	Layer	De-trended	Undevel-	Split o	of total losses by	Layer	De-trended	Undevel-	Split o	of total losses by	Layer
Class	ification	Manual	Loss	oped	0.50731	0.27729	0.21540	Loss	oped	0.42729	0.28213	0.29058	Loss	oped	0.40732	0.26621	0.32647
		Loss Cost	Cost*	Losses**	Undevelop	ed Expected L	oss Cost***	Cost*	Losses**	Undevelop	ed Expected L	oss Cost***	Cost*	Losses**	Undevelop	oed Expected L	oss Cost***
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1001	Bit deep	6.56	6.41	3.72	1.89	1.03	0.80	6.33	5.25	2.24	1.48	1.53	6.25	5.67	2.31	1.51	1.8
1010	Anth deep	18.67	18.25	10.59	5.37	2.94	2.28	18.00	14.93	6.38	4.21	4.34	17.78	16.14	6.57	4.30	5.2
1012	Anth surf	6.83	6.68	3.88	1.97	1.08	0.84	6.59	5.47	2.34	1.54	1.59	6.50	5.90	2.40	1.57	1.93
1014	Bit surf	1.78	1.74	1.01	0.51	0.28	0.22	1.72	1.43	0.61	0.40	0.42	1.69	1.53	0.62	0.41	0.50
1015	Auger	7.12	6.96	4.04	2.05	1.12	0.87	6.87	5.70	2.44	1.61	1.66	6.78	6.15	2.51	1.64	2.0
1021	Anth Co-gen	6.24	6.10	3.54	1.80	0.98	0.76	6.02	4.99	2.13	1.41	1.45	5.94	5.39	2.20	1.43	1.70
1023	Bit Co-gen	1.23	1.20	0.70	0.36	0.19	0.15	1.19	0.99	0.42	0.28	0.29	1.17	1.06	0.43	0.28	0.3
1025	Anth Prep	3.95	3.86	2.24	1.14	0.62	0.48	3.81	3.16	1.35	0.89	0.92	3.76	3.41	1.39	0.91	1.1
1027	Bit Prep	2.97	2.90	1.68	0.85	0.47	0.36	2.86	2.37	1.01	0.67	0.69	2.83	2.57	1.05	0.68	0.84
1469	Coke	4.17	4.08	2.37	1.20	0.66	0.51	4.02	3.33	1.42	0.94	0.97	3.97	3.60	1.47	0.96	1.18
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

<sup>\*</sup> Detrended loss costs are calculated by dividing the unloaded manual lost costs (Table C) by the trend factors (table A row 7), and rounding.

<sup>\*\*</sup> The total undeveloped loss costs are calculated by dividing the De-trended loss cost by the Total Limits loss development factor (Table A row 2), and rounding; then the costs are allocated to layers.

<sup>\*\*\*</sup> Detrended, undeveloped loss costs are allocated to layers by the splitting factors (Table A rows 4-6) based on the average shares for the same report age for the latest 6 years, and rounded to 2 decimal places.

# Coal Mine Compensation Rating Bureau of Pennsylvania Experience Rating Plan

Loss Development and Trend Factors by Experience Year

Exhibit XIII-A 50K-150K Page 2

					Weight:			Combined
				Untrended	Percent	Medical	Indemnity	Loss Development
		Reported		Developed I	ndemnity vs	Loss	Loss	Weighted by % indemnity
		<u>Losses</u>	<u>LDF</u>	<u>Losses</u>	<u>Medical</u>	<u>Development</u>	<u>Development</u>	vs medical by year
<u>Indemnity</u>	2017	\$9,841,483	1.0945	\$10,771,503	61.70%	1.1133	1.0945	1.1017
	2018	\$7,734,859	1.2705	\$9,827,138	62.28%	1.0979	1.2705	1.2054
	2019	\$4,894,467	1.9988	<u>\$9,783,061</u>	<u>67.63%</u>	1.1487	1.9988	1.7236
				\$30,381,702	63.69%			
A A s all a sal	0017	<b>#</b> / 00 / 200	1 1100	<b>#</b> / / 0 / 0 1 0	20.208			
<u>Medical</u>	2017	\$6,006,389	1.1133	\$6,686,913	38.30%			
	2018	\$5,421,768	1.0979	\$5,952,559	37.72%			
	2019	\$4,076,893	1.1487	\$4,683,127	<u>32.37%</u>			
				\$17,322,599	36.31%			
	Total			\$47,704,301	1.0000			
						Medical /	Indemnity /	
						HB 1846	HB 1840	Combined Trend
				Years of		Trend at	Trend at	Weighted by % indemnity
				<u>Trend</u>		<u>2.1%</u>	<u>0.2%</u>	vs medical by year
	Average Exp o		7/1/2017	4.75		1.1038	1.0170	1.0502
	Average Exp c		7/1/2018	3.75		1.0811	1.0105	1.0371
	Average Exp c	date AY 2019	7/1/2019	2.75		1.0588	1.0055	1.0228
	Average Date	of Accident	4/1/2022					

Source: Loss Development - Exhibit V-C

Trend - Exhibit V-F

Reported Losses - Exhibit V-B page 1

PAB Effective Date - April 01, 2021

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# 2021 Credibility Tables

PCRB shape

PCRB shape					
_	Equivalent				
Expected	Modified				
Losses	Payroll at	Primary	Excess		
<u>Greater than</u>	<u>\$5.30 *</u>	Credibility	<u>Credibility</u>		
44.004	200 000	0.00	0.00		
14,394	300,000	0.30	0.06		
17,632	332,684	0.31	0.06		
21,218	400,340	0.32	0.06		
23,729	447,722	0.33	0.06		
25,895	488,585	0.34	0.06		
28,223	532,514	0.35	0.07		
31,724	598,566	0.36	0.07		
33,340	629,047	0.37	0.07		
36,148	682,038	0.38	0.07		
39,261	740,765	0.39	0.07		
42,723	806,099	0.40	0.07		
46,173	871,182	0.41	0.07		
50,260	948,297	0.42	0.07		
54,480	1,027,916	0.43	0.07		
58,930	1,111,882	0.44	0.07		
64,137	1,210,137	0.45	0.07		
69,460	1,310,564	0.46	0.07		
72,885	1,375,186	0.47	0.07		
75,602	1,426,445	0.48	0.07		
78,457	1,480,324	0.49	0.07		
81,395	1,535,749	0.50	0.07		
84,414	1,592,718	0.51	0.07		
87,590	1,652,649	0.51	0.07		
90,840	1,713,959	0.53	0.07		
94,219	1,777,721	0.54	0.07		
97,737	1,844,099	0.55	0.07		
101,336	1,911,998	0.56	0.07		
105,125	1,983,483	0.57	0.07		
109,027	2,057,104	0.58	0.07		
113,042	2,132,858	0.59	0.07		
117,273	2,212,689	0.60	0.07		
121,605	2,294,436	0.61	0.07		
126,119	2,379,601	0.62	0.08		
130,628	2,464,686	0.63	0.08		
135,136	2,549,736	0.64	0.08		
146,976	2,773,135	0.65	0.08		
159,790	3,014,914	0.66	0.08		
174,343	3,289,497	0.67	0.08		
190,774	3,599,515	0.68	0.08		
208,366	3,931,440	0.69	0.08		
228,292	4,307,394	0.70	0.09		
249,705	4,711,415	0.71	0.09		
274,047	5,170,704	0.72	0.09		
302,119	5,700,358	0.73	0.09		
333,210	6,286,981	0.74	0.09		
366,752	6,919,840	0.75	0.10		
407,662	7,691,736	0.76	0.10		
450,677	8,503,333	0.77	0.10		
498,112	9,398,340	0.78	0.10		
558,410	10,536,044	0.79	0.11		
624,012	11,773,809	0.80	0.11		
697,648	13,163,170	0.80	0.12		
788,985	14,886,509	0.81	0.12		
894,945 1 018 370	16,885,755 19,214,528	0.83	0.14 0.15		
1,018,370	19,214,528	0.84	0.15 0.15		
1,157,231	21,834,550	0.85	0.15 0.16		
1,321,831	24,940,204	0.86			
1,528,079	28,831,682	0.87	0.17		
1,528,079	30,964,397	0.87	0.18		
1,795,880	33,884,521	0.88	0.19		
2,120,319	40,006,019	0.89	0.20		
2,120,319	44,485,215	0.89	0.21		
2,505,663	47,276,660	0.90	0.22		
3,000,680	56,616,597	0.91	0.23		
3,000,680	62,598,008	0.91	0.24		
3,851,016	72,660,673	0.92	0.25		
3,851,016	78,526,990	0.92	0.26		
4,547,151	85,795,302	0.93	0.27		
4,547,151	99,118,112	0.93	0.28		
6,019,437	113,574,286	0.94	0.29		
6,019,437	126,769,048	0.94	0.30		
6,019,437	144,482,928	0.94	0.31		
6,019,437	165,861,750	0.94	0.32		
6,019,437	192,174,145	0.94	0.33		
6,019,437	225,350,644	0.94	0.34		
6,019,437	268,480,093	0.94	0.35		
6,019,437	326,831,699	0.94	0.36		
6,019,437	410,191,138	0.94	0.37		
	•				

Credibility Zp or Ze = (S\*Payroll+I\*G)/(J\*S\*Payroll+K\*G) [where S adjusts Payroll to Expected Losses]

Variable	Layer 1	Layer 2
Av Claim G	N/A	11,512
S	N/A	0.054
1	N/A	43.50
J	N/A	2.4000
K	N/A	700.00

the table was updated to reflect this change.

<sup>\*</sup> The average unloaded loss cost underlying the proposed filing is \$5.30.

			Proposed		
	Proposed	Proposed	Experience		Change
Filo	Manual	2021	Rated	2020 Mad	in Mod
<u>File</u> 37	<u>Premium</u> 194,613	<u>Mod</u> 1.194	Premium	<u>Mod</u> 1.292	<u>Factor</u> -0.098
52	8,225	0.787	232,368 6,473		0.076
				0.786	
55	649,280	0.836	542,798	0.838	-0.002
66	4,727	1.400	6,618	0.869	0.531
99	11,471	0.843	9,670	0.827	0.016 0.146
119	84,288	1.076	90,694	0.930	
121	166,394	0.802	133,448	0.667	0.135
124 214	19,007	0.695 0.891	13,210	0.688 0.891	0.007
	25,499		22,720		0.000
283	16,725	0.676	11,306	0.652	0.024
288	4,329	0.843 1.240	3,649	0.836	0.007
306	190,818		236,614	1.246	-0.006
316	2,326	0.844	1,963	0.834	0.010
325	17,121	0.787	13,474	0.773	0.014
342	1,976	0.852	1,684	0.834	0.018
352	7,655	0.792	6,063	1.789	-0.997
354	17,550	1.377	24,166	4.281	-2.904
360	2,354	0.848	1,996	0.838	0.010
370	3,214	0.843	2,709	0.833	0.010
421	12,942	1.450	18,766	0.774	0.676
426	0	1.026	0	1.484	-0.458
652	421,876	1.068	450,564	0.859	0.209
690	31,566	0.888	28,031	1.054	-0.166
722	716	0.845	605	0.805	0.040
954	10,113	0.780	7,888	0.756	0.024
1016	5,838	1.217	7,105	1.177	0.040
1037	34,441	0.823	28,345	0.819	0.004
1158	2,248	0.852	1,915	0.842	0.010
1361	2,197	0.852	1,872	0.837	0.015
1444	458,106	1.105	506,207	1.075	0.030
1700	31,843	0.666	21,207	0.755	-0.089
2353	9,216	0.814	7,502	0.797	0.017
2458	9,503	0.830	7,887	0.828	0.002
2687	42,402	0.780	33,074	0.728	0.052
2839	23,218	1.306	30,323	1.163	0.143
3157	21,610	0.800	17,288	0.792	0.008
3190	5,132	0.801	4,111	0.776	0.025
3194	1,558	1.200	1,870	1.161	0.039
3527	2,098	0.876	1,838	0.858	0.018
3552	7,221	0.800	5,777	1.477	-0.677
3614	46,631	1.341	62,532	1.511	-0.170
3619	22,594	0.842	19,024	0.820	0.022
3629	17,513	0.809	14,168	0.792	0.017
3691	45,261	1.138	51,507	1.470	-0.332
	2,627	0.848	2,228	0.835	0.013

			Proposed		
	Proposed	Proposed	Experience	0000	Change
<u>File</u>	Manual <u>Premium</u>	2021 <u>Mod</u>	Rated <u>Premium</u>	2020 Mod	in Mod <u>Factor</u>
3804	10,158	<u>Mod</u> 0.761	7,730	<u>Mod</u> 0.737	0.024
3932	8,344	0.781	6,600	0.737	0.024
3944		0.791		0.773	
	2,126		1,688		0.008
3977	48,545	1.131	54,904	1.055	0.076
3978	1 220	0.868	1.041	0.830	0.038
3981	1,220	0.853	1,041	0.833	0.020
3982	12,419	1.400	17,387	1.300	0.100
3988	6,615	1.300	8,600	0.817	0.483
3997	3,379	0.843	2,848	0.834	0.009
4011	435,076	0.712	309,774	0.683	0.029
4024	10,497	0.825	8,660	0.827	-0.002
4030	4,169	0.834	3,477	1.507	-0.673
4031	25,460	0.785	19,986	1.069	-0.284
4042	40,564	1.709	69,324	1.020	0.689
4044	133,132	0.753	100,248	0.783	-0.030
4052	48,062	0.655	31,481	0.641	0.014
4058	21,053	0.699	14,716	0.691	0.008
4062	4,881	1.155	5,638	1.181	-0.026
4072	379,996	0.885	336,296	0.833	0.052
4077	985,507	1.162	1,145,159	1.224	-0.062
4078	62,120	1.320	81,998	1.129	0.191
4081	1,862	0.844	1,572	0.820	0.024
4089	11,949	0.838	10,013	0.815	0.023
4094	47,285	1.546	73,103	1.029	0.517
4100	4,321,902	1.010	4,365,121	1.024	-0.014
4102	50,693	0.798	40,453	n/a	n/a
4103	15,776	0.814	12,842	0.803	0.011
4104	2,370,222	1.073	2,543,248	1.025	0.048
4110	18,127	0.728	13,196	0.718	0.010
4114	46,453	0.707	32,842	0.735	-0.028
4118	5,504	0.786	4,326	0.797	-0.011
4120	37,821	0.781	29,538	0.755	0.026
4121	44,073	0.810	35,699	n/a	n/a
4122	6,044	0.832	5,029	n/a	n/a
4123	13,154	0.841	11,063	n/a	n/a
4125	71,486	0.878	62,765	n/a	n/a
4126	10,675	0.835	8,914	n/a	n/a
4127	16,123	0.814	13,124	n/a	n/a
999019	473,969	0.988	468,281	0.932	0.056
999020	12,760	0.785	10,017	1.173	-0.388
999024	10,469	0.834	8,731	0.824	0.010
999031	74,523	1.022	76,163	n/a	n/a
999038	62,809	1.607	100,934	0.970	0.637
999039	47,478	1.217	57,781	1.393	-0.176
999051	1,168,236	0.953	1,113,329	1.433	-0.480
	/= - 3		/	7.55	

Exhibit XIII-B Page 3

			Proposed		
	Proposed	Proposed	Experience		Change
	Manual	2021	Rated	2020	in Mod
<u>File</u>	<u>Premium</u>	<u>Mod</u>	<u>Premium</u>	<u>Mod</u>	<u>Factor</u>
999052	43,901	0.884	38,808	1.400	-0.516
999061	0	0.805	0	1.141	-0.336
999063	3,715,539	0.949	3,526,047	0.812	0.137
999065	3,769	0.834	3,143	1.044	-0.210
999075	66,481	1.877	124,785	1.560	0.317

The following files have indicated increases or decreases in their Experience Mods of greater than 0.35 as displayed on Exhibit XIII-B, pages 1-3. This list includes all files with increases or decreases of this magnitude. It is proposed that the indicated increases or decreases be limited to a maximum of 0.35. Below are the affected files, their current mod and their proposed mod. If approved, the below stated limited mod would apply to the respective file number.

#### Experience Mod Caps (plus or minus 0.35)

		Proposed			
	2020	2021	Limited		
File	Mod	Mod	Mod		
66	0.869	1.400	1.219		
352	1.789	0.792	1.439		
354	4.281	1.377	3.931		
421	0.774	1.450	1.124		
426	1.484	1.026	1.134		
3552	1.477	0.800	1.127		
3988	0.817	1.300	1.167		
4030	1.507	0.834	1.157		
4042	1.020	1.709	1.370		
4094	1.029	1.546	1.379		
999020	1.173	0.785	0.823		
999038	0.970	1.607	1.320		
999051	1.433	0.953	1.083		
999052	1.400	0.884	1.050		

MERII RAIING FLAN OFF-BALANCE CA	(1)	(2) Traumatic	(3)	(4)	
	2019	Proposed			
	Developed	Unloaded	Credit/	Loss Cost	
<u>Class</u>	<u>Payroll</u>	Loss Cost	<u>Surcharge</u>	<u>Premium</u>	<u>Off-Balance</u>
Underground Anthracite (1010)	<b>*170.070</b>	10.47		<b>*</b> 00 400	
Total	\$179,379	18.67	F 000	\$33,490	
Credit	0	18.67	-5.00%	0	
Surcharge	0	18.67	5.00%	0	
Underground Bituminous (1001)					
Total	\$185,776,423	6.56		\$12,186,933	
Credit	0	6.56	-5.00%	0	
Surcharge	0	6.56	5.00%	0	
Surface Anthracite (1012)					
Total	\$23,746,667	6.83		\$1,621,897	
Credit	106,994	6.83	-5.00%	-365	
Surcharge	0	6.83	5.00%	0	
_					
Surface Bituminous (1014)  Total	¢25 47/ 154	1 70		¢/21 /7/	
Credit	\$35,476,154	1.78 1.78	-5.00%	\$631,476 -1,985	
Surcharge	2,230,255 0	1.78	-3.00% 5.00%		
_	O	1.70	3.00%	0	
Coke (1469)					
Total	\$4,572,392	4.17		\$190,669	
Credit	0	4.17	-5.00%	0	
Surcharge	0	4.17	5.00%	0	
Auger (1015)					
Total	\$539,914	7.12		\$38,442	
Credit	62,518	7.12	-5.00%	-223	
Surcharge	0	7.12	5.00%	0	
Anthracite Co-Gen (1021)					
Total	\$8,219,127	6.24		\$512,874	
Credit	1,820	6.24	-5.00%	ф312,074 -6	
Surcharge	0	6.24	5.00%	0	
	0	0.24	0.0070	O	
Bituminous Co-Gen (1023)					
Total	\$11,807,241	1.23		\$145,229	
Credit	0	1.23	-5.00%	0	
Surcharge	0	1.23	5.00%	0	
Anthracite Prep Plant (1025)					
Total	\$12,646,576	3.95		\$499,540	
Credit	183,705	3.95	-5.00%	-363	
Surcharge	0	3.95	5.00%	0	
Bituminous Prep Plant (1027)					
Total	\$37,605,236	2.97		\$1,116,876	
Credit	\$37,803,238 0	2.97	-5.00%	φ1,110,076 0	
Surcharge	0	2.97	5.00%	0	
301CHaige	U	۷.//	J.00/6	U	
All Classes Combined					
Total	\$320,569,109			\$16,977,426	
Credit	2,585,292		-5.00%	-2,942	
Surcharge	0		5.00%	0	
Ç				\$16,974,484	1.0002

Source: (1) Exhibit XIV-A Page2

(2) Exhibit II

(4) = [(1) / 100] \* (2) \* (3)

## 2019 PAYROLL BY CLASS

2017 17(1)(012 21 017(00				
	2019	2019	2019	
	Total	Experience	Merit	2019
	Developed	Rated	Rated	Manual
Class	<u>Payroll</u>	<u>Payroll</u>	<u>Payroll</u>	<u>Payroll</u>
Underground Anthracite (1010)	\$179,379	\$179,379	\$0	\$0
Underground Bituminous(1001)	185,776,423	183,994,822	0	1,781,601
Surface Anthracite (1012)	23,746,667	23,583,758	106,994	55,915
Surface Bituminous (1014)	35,476,154	32,922,065	2,230,255	323,834
Coke (1469)	4,572,392	4,572,392	0	0
Auger (1015)	539,914	308,234	62,518	169,162
Anthracite Co-Gen (1021)	8,219,127	7,518,673	1,820	698,634
Bituminous Co-Gen (1023)	11,807,241	11,377,263	0	429,978
Anthracite Prep Plant(1025)	12,646,576	11,891,304	183,705	571,567
Bituminous Prep Plant (1027)	37,605,236	36,648,460	0	956,776
TOTAL	\$320,569,109	\$312,996,350	\$2,585,292	\$4,987,467

### MERIT PAYROLL - CREDIT/SURCHARGE

MERITATROLL CREDIT/SORCHAROL				
	2019	2019	2019	2019
	Merit	Merit	Merit	Merit
	Rated	Credit	No Adjustment	Surcharge
Class	<u>Payroll</u>	<u>Payroll</u>	<u>Payroll</u>	<u>Payroll</u>
Underground Anthracite (1010)	\$0	\$0	\$0	\$0
Underground Bituminous(1001)	0	0	0	0
Surface Anthracite (1012)	106,994	106,994	0	0
Surface Bituminous (1014)	2,230,255	2,230,255	0	0
Coke (1469)	0	0	0	0
Auger (1015)	62,518	62,518	0	0
Anthracite Co-Gen (1021)	1,820	1,820	0	0
Bituminous Co-Gen (1023)	0	0	0	0
Anthracite Prep Plant(1025)	183,705	183,705	0	0
Bituminous Prep Plant(1027)	0	0	0	0
TOTAL	\$2,585,292	\$2,585,292	\$0	\$0

Source: Exhibit X-A and CMCRB database as of 4/30/2020

	(1)	(2)	(3)	(4)	
	2019	Traumatic Proposed			
<u>CLASS</u>	Developed <u>Payroll</u>	Unloaded <u>Loss Cost</u>	<u>Credit</u>	Loss Cost <u>Premium</u>	Off-Balance
Underground Anthracite(1010) Total	\$179,379	\$18.67		\$33,490	
Safety Committee	0	18.67	-5.00%	0	
Underground Bituminous(1001) Total	185,776,423	6.56		\$12,186,933	
Safety Committee	70,050,257	6.56	-5.00%	(229,765)	
Surface Anthracite(1012)	00.747.777	4.00		¢1 /01 007	
Total Safety Committee	23,746,667 7,006,361	6.83 6.83	-5.00%	\$1,621,897 (23,927)	
Surface Bituminous(1014)					
Total Safety Committee	35,476,154 6,700,263	1.78 1.78	-5.00%	\$631,476 (5,963)	
Coke(1469)					
Total Safety Committee	4,572,392 0	4.17 4.17	-5.00%	\$190,669 0	
Auger(1015)					
Total Safety Committee	\$539,914 0	7.12 7.12	-5.00%	\$38,442 0	
Anthracite Co-gen(1021)					
Total Safety Committee	8,219,127 2,662,738	6.24 6.24	-5.00%	\$512,874 (8,308)	
Bituminous Co-gen(1023)				, ,	
Total Safety Committee	11,807,241 0	1.23 1.23	-5.00%	\$145,229 0	
Anthracite Prep Plant(1025)	· ·	1.20	0.0070	· ·	
Total	12,646,576	3.95		\$499,540	
Safety Committee	2,848,450	3.95	-5.00%	(5,626)	
Bituminous Prep Plant(1027) Total	37,605,236	2.97		\$1,116,876	
Safety Committee	20,024,517	2.97	-5.00%	(29,736)	
All Classes Combined	200 570 100			1 / 077 40 /	
Total Safety Committee	320,569,109 109,292,586			16,977,426 (303,325)	1 0192

Source: (1) Exhibit X-A and CMCRB Database as of 4-30-2020

(2) Exhibit II

(4) = [(1) / 100] \* (2) \* (3)

1.0182

16,674,101