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TWENTY-SIXTH
ANNUAL REPORT

OF THE

State Inspector of
Coal Mines

1938



1939



THE BRADFORD-ROBINSON PTG. CO., DENVER



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State Inspector of
Coal Mines

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CONTENTS OF ANNUAL REPORT

	Page
LETTER OF TRANSMITTAL	3
PERSONNEL OF THE STATE COAL MINE INSPECTION DEPARTMENT	4
FIELD FORCE AND DISTRICTS.....	4
SUMMARY OF THE COAL PRODUCTION IN 1938.....	5
FINANCIAL STATEMENT—RECEIPTS AND DISBURSE- MENTS	6
INTRODUCTION	7-10
IMPORTANT RECOMMENDATIONS.....	10
RULES AND REGULATIONS FOR MECHANICAL LOAD- ING DEVICES.....	11-12
RULES AND REGULATIONS FOR SINKING SHAFTS.....	12-16
WORK OF THE FIELD FORCE.....	16
DIRECTORY: Companies, Mines and Officials.....	16-17
TABLE 1—BY COMPANIES: Production, Men Employed, Fatal and Non-Fatal Accidents, 1938.....	18-23
TABLE 2—MINE FATALITIES BY CAUSES: 1934-1938....	24
NON-FATAL ACCIDENTS BY CAUSES: 1938.....	25
TABLE 3—BY COUNTIES: Mine, Company, Mine P. O., Char. of Coal, Days Worked, Average Men Employed, Production and Capacity of Mine.....	26-40
PRODUCTION, COMPARATIVE BY COUNTIES: 1937-1938	41
PRODUCTION IN PREPARED SIZES BY COUNTIES.....	42
COKE PRODUCTION BY COMPANIES AND COUNTIES....	43
COAL PRODUCTION OF COLORADO FROM 1873-1938, INCLUSIVE	43
COAL SHIPMENTS (Rail, Truck and Out of State).....	44
MECHANICAL LOADING IN COLORADO IN 1938.....	45-47
REPORTS OF FATAL ACCIDENTS.....	48
EXAMINATIONS: (successful candidates)	
Coal Mine Inspector.....	49
Mine Foreman.....	50
Assistant Mine Foreman.....	50
Fireboss	50-51

LETTER OF TRANSMITTAL

Denver, Colorado, April 22, 1939.

To His Excellency,
RALPH L. CARR,
Governor of Colorado.

Sir: Herewith I have the honor to submit to you, in accordance with Section 3475 of the Compiled Laws of Colorado of an Act entitled "Coal Mining Laws," Annual Report of this department. The period covered being the calendar year 1938.

Respectfully,
THOMAS ALLEN,
State Inspector of Coal Mines.

PERSONNEL OF THE COAL MINE INSPECTION DEPARTMENT

THOMAS ALLEN, Chief Inspector.....	Denver, Colorado
ADA R. TIBBITS, Chief Clerk.....	Denver, Colorado
MAX M. GREENWALD, Assistant Clerk.....	Denver, Colorado
MARJORIE ROBSON, Assistant Clerk.....	Denver, Colorado
VEDA BURFORD, Safety Director.....	Denver, Colorado

FIELD FORCE AND DISTRICTS

HUGO H. MACHIN, Boulder.....	District No. 1
Boulder, Weld, Jefferson, Larimer counties—all counties north of Littleton outcrops to Wyoming line and east of the range. East of Denver to mines east of Limon.	
GEORGE C. DALRYMPLE, Trinidad.....	District No. 2
All mines in Las Animas county.	
FINLAY MCCALLUM, Steamboat Springs.....	District No. 3
Routt, Moffat, Garfield excepting Stove Canon mines, Rio Blanco, Pitkin, Jackson (in summer and fall) counties.	
J. J. RODDY, Montrose.....	District No. 4
Mesa, Delta, Gunnison, Montrose, Ouray, San Miguel, Dolores, Montezuma, Archuleta, La Plata, and the Stove Canon mines in Garfield county.	
GEORGE H. SMITH, Canon City.....	District No. 5
Fremont, El Paso counties, and all mines east of Colorado Springs, to junction of District No. 1, which extends to a point east of Limon, on Kansas road at the last mine before Limon.	
MYRON WILLIAMS, Walsenburg.....	District No. 6
All mines in Huerfano county.	

SUMMARY OF THE COAL PRODUCTION OF COLORADO
FOR 1938

Number of mines licensed.....	385
Tons of sub-bituminous coal produced.....	2,301,163
Tons of semi-bituminous coal produced.....	84,703
Tons of bituminous coal produced.....	3,331,854
Tons of anthracite coal produced.....	5,179
Total number of tons of coal produced.....	5,722,899
Decrease, 1938.....	1,472,496
Tons of run of mine coal produced.....	1,367,682
Tons of lump coal produced.....	1,120,927
Tons of egg coal produced.....	295,826
Tons of nut coal produced.....	385,361
Tons of pea coal produced.....	163,408
Tons of slack coal produced.....	2,389,695
Percentage of slack coal produced.....	54.87%
Tons of coal mined by hand.....	1,629,340
Tons of coal mined by machine.....	4,093,559
Number and kind of machines used: Compressed air 19; electric 415; total.....	434
Number of mechanical loaders.....	180
Number of tons of coal mined by mechanical loaders.....	1,313,753
Tons of coal mined for shipment: By railroad, 3,926,273; By truck and wagon, 1,678,033; Total.....	5,604,306
Tons of coal used at mine for power and heat.....	118,593
Tons of coal shipped out of the state.....	792,275
Tons of coal made into coke.....	398,081
Tons of coke made.....	241,526
Number of days coke ovens operated.....	286.5
Number of coke ovens used.....	284
Number of men employed at coke ovens.....	64
Number of miners employed, average: Pick miners, 1,755; Machine Miners, 3,820; Total.....	5,575
Number of men employed in and about mines (average): Under- ground, 7,173; Surface, 1,490; Total.....	8,663
Number of days worked.....	159.8
Daily production per miner.....	6.5
Annual production per miner.....	1,035.5
Number of approved flame safety lamps used.....	582
Approved electric lamps used.....	8,969
Number of carbide lamps used.....	1,763
Number of pounds of carbide used (approximate).....	80,725
Number of pounds of black powder used.....	412,904
Number of pounds of permissible powder used.....	485,995
Number of pounds of dynamite used.....	35,952
Number of men killed: Underground, 28; Surface, 3; Total.....	31
Number of men injured.....	722
Number of men killed per thousand employed—actual number of days worked.....	3.57
Number of men injured per thousand employed.....	83.3
Number of tons of coal produced for each life lost.....	184,610
Number of tons of coal produced for each non-fatal accident.....	7,926
Number of men employed per fatal accident.....	279.4
Number of men employed per non-fatal accident.....	11.99
Number of widows left.....	24
Number of children left fatherless.....	34

FINANCIAL STATEMENT FOR THE COAL MINE INSPECTION DEPARTMENT

1938

RECEIPTS:

	1938	1937
COAL TAX COLLECTED	\$ 22,327.71	\$ 23,833.45
LICENSE TO OPERATE COAL MINES	13,025.00	10,195.00
SALE OF COAL MINING LAWS	81.05	103.00
SALE OF DUPLICATE CERTIFICATES	2.00	2.00
SALE OF FIRST AID MANUALS	7.50	
REFUNDS & CREDITS ADJUSTED	125.03	21.77
BALANCE BROUGHT FORWARD JANUARY 1st	5,467.08	9,768.33
TOTAL RECEIPTS	\$ 41,027.87	\$ 43,923.55

DISBURSEMENTS:

SALARIES (Field & Office)	27,680.02	23,021.10
SALARIES (Board of Examiners)	2,072.81	210.04
FATAL ACCIDENT INVESTIGATORS		3,000.49
AUTO MILEAGE, EXPENSES, SUPPLIES, REPAIRS, ETC.	3,152.64	82.88
RAILROAD TRANSPORTATION (Field Force)	219.38	
RAILROAD TRANSPORTATION (Board of Examiners)	115.36	
HOTEL EXPENSE (Field Force)	428.56	834.81
HOTEL EXPENSE (Board of Examiners)	223.20	
MEALS (Field Force)	510.95	577.76
MEALS (Board of Examiners)	239.15	
RENT (Office, 11 months) 1938	1,175.68	855.04
RENT (Board of Examiners)	10.00	68.65
PRINTING	823.89	1,299.97
POSTAGE	466.24	619.39
STATIONERY, OFFICE SUPPLIES	525.94	654.77
TELEPHONE	498.90	486.79
TELEGRAPH	77.99	73.12
OFFICE INSTRUMENTS & EQUIPMENT	144.40	378.55
FIELD EQUIPMENT, (Express charges, training, Miscellaneous)	891.55	1,893.11
TRUCK		4,400.00
TOTAL DISBURSEMENTS	\$ 39,256.66	\$ 38,456.47
BALANCE ON HAND JANUARY 1, 1939		\$ 1,778.71

INTRODUCTION

TWENTY-SIXTH ANNUAL REPORT

OF THE

STATE INSPECTOR OF COAL MINES

1938

In 1938, 385 licensed mines produced 5,722,899 tons of coal, a decrease of 1,472,496 tons over 1937. An average of 8,663 men were employed, working 159.8 man-days. Tables and statistics relative to the industry, will be found within this report.

A considerable increase in safety activities has been shown throughout the State, during the past year.

In 1938, the United States Bureau of Mines awarded the following 100% First Aid certificates: Crested Butte, Kebler No. 2, Morley, Rockvale No. 3, Frederick, and the Robinson No. 4. These are the first awards of the kind that have been made since 1932, when four of these mines received the same honor—the Kebler No. 2, Rockvale No. 3, Frederick and the Robinson No. 4. The same year certificates were also granted to the Calumet No. 1 and the Calumet No. 2 mines.

The Government only issues these certificates to mines employing an average of 25 men, and there are several smaller mines whose men are 100% trained in First Aid, and are ineligible for certificates. Among these mines, the United States Vanadium, employing an average of 20 men, is trained 100%. There are at least one-half of the remaining number of mines, where the men are 50% trained.

During 1938, the Bureau granted 1,106 First Aid certificates to Colorado coal miners, each class examined by one of their instructors. Similarly, 96 Mine Rescue certificates were issued. The State Department of Coal Mining also issued certificates to those passing the Government examination; in addition to that number, 174 First Aid certificates were issued by the Department, to isolated groups that were unable to contact a Bureau examination.

Thirty-one coal mine First Aid instructors were qualified by the Bureau.

With the steady increase in the number of men and women trained in safety, there are now 2,850 holding certificates in First Aid, and 429 in Mine Rescue, all of whom received their training within the last two years.

There are 835 miners and coal mining officials who have completed the Accident Prevention classes conducted by the Bureau of Mines, during the past year.

Several thousand Colorado coal miners and their families, attended safety meetings at which the Bureau made use of silent and sound pictures.

Five additional Holmes Safety Chapters were granted charters during the year, making a total of 17 chapters, with approximately 4,000 members, in coal mining communities of the State.

Out of the 385 licensed coal mines, 236 had no accidents during the year; this is an increase of 117 mines without an accident, over the previous year.

It has been possible to arrange educational classes throughout the coal mining districts, through the cooperation of the State Board of Vocational Training. In addition to classes in First Aid and Mine Rescue Work, instructors have been furnished for classes of students preparing to take the examination for Coal Mining Officials.

This is the first year that it has been possible to give the coal miners a course in Practical Coal Mine Surveying. The Vocational Board granted seven certificates to men completing this course.

Through the sale of a "Shot Firer's Guide" and "Examination Questions and Answers", compiled and edited by this Department, we have been able to contribute \$88.50 to the educational fund of the Vocational Board, who exclusively handles all sales of these publications. This money is used for instruction work among the coal miners.

A vocational school for coal mining is being constructed in Lafayette, Colorado, with the cooperation of the NYA and the State Board of Vocational Training, and under the direction of the local School Board.

A Monthly Accident Circular recently issued by this Department, contains the number of men and days worked, and the number of accidents at each mine. The contest for the cleanest accident record for each six months' period, based upon working shifts exposure from the data mentioned, was won by the following mines in 1939:

1st 6 Months	2nd 6 Months
1. Somerset	1. Morrison
2. Canon Monarch No. 2	2. Pryor
3. City No. 1	3. Somerset
4. Calumet No. 2	4. Black Diamond No. 2
5. Pinnacle	5. Cedar Canon
6. Kebler No. 2	6. Kenneth

The safety plaque will become the personal property of any mine winning it four consecutive times.

The State-wide First Aid contest at the Denver Municipal Auditorium on August 26th, 1938, open to all industries, was jointly sponsored by the State Board of Vocational Training, this

Department, and the entire industry. With 15 teams entered, the following teams won in the stated classes:

Class A—1. Hayden No. 3, Haybro, Routt County. 2. Public Service, Denver.

Class B—1. Clayton-Morrison, Erie, Weld County. 2. Louisville Safety Chapter, Louisville, Boulder County.

Ladies Class—1. Public Service, Denver. 2. Moffat Local Union, Oak Creek, Routt County.

Routt County held its second Annual Safety Day at Oak Creek, on July 30th, with nine teams competing. The Hayden men and the Moffat ladies won first place in their respective classes.

The following awards for heroism were made by the Joseph A. Holmes Safety Association, during the year 1938: medals presented to Albert Daniels, Carl Marino, Verdun Graham, William Peterson and Joe Zuniga, of the Hayden Mine No. 3, Routt County, for saving the life of a man pinned beneath a rock fall; medals awarded to Marvin Eisenhour, John Vendetti, and John Eisenhour, of the Griffith Mine, Fremont County, for recovering a body in a gas filled mine after an explosion.

Certificates of honor were presented by the Holmes Association, to James Mickle and Nicholas Richards of the Sterling Mine, Weld County, for long time service in promoting health and safety, and for long time employment without an accident.

Certificates of honor were given to Theo Coet and Arthur Cilinski of the Russell Mine, Weld County, for saving the life of a victim of electric shock.

The Association also presented certificates of honor for extraordinary safety achievement to the following mines: Boncarbo, Las Animas County; Somerset, Gunnison County; Morley, Las Animas County; Rockvale No. 3, Fremont County; Dix, Huerfano County; Pryor, Huerfano County; Kebler No. 2, Huerfano County. These mines received seven out of a total of 66 awards made in the 25 coal producing States in the Union, in 1938.

There were 288 men who took the examination for Coal Mining Officials; from this number the following certificates have been issued: Mine Foreman—60, Assistant Mine Foreman—15, Fireboss—158. There were only 26 failures, the remaining certificates to be granted upon the completion of a course in First Aid to the Injured, which is a requirement of all Coal Mining Officials of the State.

This examination was conducted by the Board of Examiners for the State Coal Mine Inspection Department, namely: Fred W. Whiteside, engineer, Denver; Robert Donaldson, Florence; William Roberts, Durango; Fred Gulliford, Crested Butte. The list of successful candidates will be found in this report.

The examination for Chief and Deputy Coal Mine Inspector, given by the State Civil Service Commission, was conducted by a State Board of Mining Examiners, consisting of F. W. White-

side, R. R. Vaile, and Jack Matheson of Denver, Gerald Arnold of Boncarbo, and W. S. Getchel of Colorado Springs. The examiners were appointed by the State Civil Service Commission. The list, according to rating, appears in this edition.

During the past year, 350 Shot Firer's examinations have been given by the Deputy Inspectors, and certificates issued by the State Department.

The Colorado Safety Council, Motor Vehicle Division of the Secretary of State, has issued cards of recognition to all men and women connected with the coal mining industry, who hold First Aid certificates, authorizing them to render such assistance at highway accidents throughout the State.

A WPA project sponsored by the State Coal Mine Inspection Department, and the Colorado State School of Mines at Golden, and conducted under the supervision of the State Planning Commission, is making an extensive study of the coal mining industry in the State. From this research, maps are being made to show the location, workings, geological and topographical features of each mine of record, from the earliest history of the industry in the State, up to and including the present operations. All of the essential data pertaining to the coal mining industry, is being assembled for publication.

A collection of rare, old safety lamps used in the early history of coal mining, together with several prints including the "Origin of the Safety Lamp," were presented to the State Historical Society, by this Department. In addition to the lamps and pictures, other relics of the industry are being collected, to make a more complete display of the development of coal mining and coal mining equipment, in the State Museum.

IMPORTANT RECOMMENDATIONS MADE BY THE STATE DEPARTMENT IN 1939.

1. Weatherproof wiring for carrying electricity of more than 110 volts pressure, must not be used in any new installation underground.

All weatherproof wire which has been installed for working machinery in previous years, and which carries more than 110 volts pressure, must be so guarded that no person can come in contact with it.

2. "Plaster," "dobe shots" or "mud caps," will not be fired in any mine for any purpose. This recommendation includes all practices of placing explosives to be fired on, under, alongside of, or close to the material to be broken, and covering the explosive with loose dirt, dobe, wet dirt sand or rocks, or simply placing the explosives with no covering at all.

No blasting can be done, excepting by approved methods of ignition, with the charge fully tamped with non-combustible material, in a proper drill hole made for the purpose of placing the explosive.

REGULATIONS FOR THE USE OF MECHANICAL LOADING DEVICES WHERE SHOOTING IS NECESSARY AT IRREGULAR INTERVALS

1. Shooting on shift will not be permitted in any mine where any important recommendations pertaining to general safety in the mine are made by the Chief Inspector of Coal Mines, and said recommendations are not enforced by the management.

2. Where group arrangement of places is used, shooting shall be at sufficient intervals of time between places to permit the smoke to be disseminated by the air current and pass the adjacent place before the shots are fired.

3. Places in which mechanical loaders are operated and shooting on shift is permitted, the same must be under the supervision of a certified Mine Foreman or Assistant Mine Foreman, so that visits of inspection may be made by such officials at not less intervals than twice per shift.

4. All shooting must be done by a certified person who is qualified as Shot Firer, Fireboss, Assistant Mine Foreman or Mine Foreman.

5. That all places, where mechanical devices are used, must be protected from dust hazard in a manner approved by Chief Inspector of Coal Mines.

6. That all places shot must be examined as soon as possible after a shooting and before loading operations are resumed.

7. That the use of dynamite, black or pellet powder be prohibited at the coal face.

8. That only electric shooting by battery of permissible powder, Cardox or other approved chemical or mechanical device be permitted, and rubber covered or properly insulated lead wires be used.

9. That burster shots be fired alone and that no dependent shots be allowed, and that delay caps be used when more than one shot is fired at a time.

10. That a sufficient supply of non-combustible tamping dirt or clay cartridges be kept on hand at all times.

11. That ventilation arrangements in mechanical districts and throughout the mine, meet with the approval of the Chief Inspector.

12. That the ventilating fan must be placed on the intake side of the working place, and so set as to prevent the return air from the place so ventilated, from reaching it.

13. That all workmen wear goggles, hard or safety hats, and hard toed shoes. Men at the face operating cutting machines, electric drills and other such electrical devices, must wear only hard toed high press rubber shoes, or hard toed electrician type of shoes, equally resistant to the flow of electricity.

14. That no light other than the approved flame safety lamps and the approved electric lamps be used in all the workings of the mine by all employees, excepting with the approval of the Chief Inspector, given in writing; but in no case shall open lights be used by men operating mechanical devices.

15. That First Aid kits properly stocked be kept close to operating units, and that a sufficient number of men be trained in "First Aid to the Injured."

16. That telephones be kept within a reasonable distance of the loading area.

17. That systematic timbering, meeting with the approval of the department, be strictly enforced. Cap pieces shall be used on all posts set.

18. That no conveyor or parts of machinery be suspended from the roof by hooks or bolts inserted in holes drilled for that purpose, excepting with the permission of the State Coal Mine Inspection Department.

19. A definite signal arrangement from face to the loader head shall be installed on all conveyor units.

RULES AND REGULATIONS FOR SINKING SHAFTS IN COLORADO COAL MINES

HOISTING AND SURFACE ARRANGEMENT.

Hoisting engineers shall be steady, reliable, and not less than 23 years of age. Hoists shall be of sufficient strength and set on a secure foundation. Hoists shall have brakes on the drum, capable of holding the loaded bucket in suspension at any point in the shaft. Flanges on the drum shall project not less than four inches above the rope when it is all wound on the drum.

No belt shall be used as a drive from the engine to the drum. Transmission of driving power shall only be by means of gearing or standard clutch.

No person, other than the hoistman, shall be in the hoistroom during working hours.

The hoist room must be a separate arrangement; no other work shall be done in the hoist room other than actual hoisting. No subdivision of a hoistroom shall be used for any noisy machinery work, or any arrangement permitted whereby the hoistman's attention may be attracted from his duty, or the noise shall interfere with the hoistman hearing sound signals of any kind.

The headframe shall be of substantial construction and arranged so that hoistman has a clear view of the bucket from ground level to dumping point.

The sheave wheels used for shaft sinking shall be not less than 72 times the diameter of the hoisting rope. Only new ropes

of sufficient strength with a factor of safety of ten, and of the non-twisting type shall be used.

Hoisting ropes must have a socket, or not less than three clamps on a bend over connection made over a thimble for attachment to the bucket chain. A swivel joint must be part of the chain.

The chain must be heavy enough so that the weight of the slack rope between the sheave and the hoist drum will not pull the end of the rope up and over the sheave when there is no load (bucket or material) on the rope.

The hook for attaching the bucket must have a safety snap on it. No open hook shall be used.

The hoisting rope shall be supported between the sheave wheel and the drum of the hoist, to prevent undue jerking of slack rope during hoisting.

All parts of the top of the shaft other than the bucket hole must be covered excepting for ventilation arrangement. The bucket hole must have a door which must be closed to cover the hole while (1) when men are loading or unloading, (2) when tools or supplies are being loaded or unloaded, (3) when the bucket is being dumped.

The shaft top shall be fenced so that no unauthorized person may enter the area of the shaft top. No one shall visit or interfere with the shaft top man while he is working.

The ventilation shall only be by an efficient fan set at the top of the shaft. All fans must be protected from damage by shock of blasts and any other condition which might interfere with their operation.

Fans driven by gasoline or oil engine shall be set ten feet away from the shaft and shall have a belt drive of not less than five feet long, so that the engine is on the side of the fan away from the shaft. Fumes from gas or oil engines shall be piped away from the engine through a pipe not less than fifteen feet in length and away from the shaft. Fan shall run continuously, excepting that they may be stopped during the time shots are being fired.

The bucket shall not be loaded with dirt or muck, more than within three inches of the top.

Materials, appliances or tools which when loaded project over the top of the bucket, shall be securely lashed to the hoisting chain or cable. The hoistman or engineer shall stop any bucket loaded in this manner as it is coming up through the hoist hole at the surface—the top man shall signal the hoistman when to hoist above the shaft top decking.

No person shall ride on a loaded or partly loaded bucket of muck, nor shall any person ride on the bucket loaded or partly loaded with tools or supplies.

Men must ride with one leg in the empty bucket where more

than one man is riding at one time. A single man riding shall have both legs inside the bucket.

Hoist man must slow down the hoisting speed when bucket is approaching the surface landing, when hoisting muck, and must not exceed 100 feet per minute hoisting speed with men on when approaching and passing through the bucket opening at the surface.

The bucket must be steadied at the surface before being lowered and especially when men are loaded ready to be lowered into the shaft.

The empty bucket going down must be stopped fifteen feet from the bottom of the shaft and held there until signalled down by the men in the bottom, excepting when men are riding down with no one in the bottom of the shaft; in this operation the bucket may be lowered all the way down; but on the last fifteen feet from the bottom the speed shall not exceed a rate of 100 feet per minute.

The bucket being hoisted from the bottom must be raised five feet and stopped. At this point it shall be steadied by the bottom man and cleaned of anything sticking to it. After this, the bottom man will signal for hoisting to the top.

All men in the shaft bottom shall be out of the hoisting compartment when timber, equipment, or anything else which will not go inside the bucket is being lowered down the shaft. No repairs shall be made on any part of the upper portions of the shaft when sinkers are in the bottom.

EXPLOSIVES AND BLASTING.

Explosives must not be loaded into the bucket with any supplies or equipment and no person shall ride in the bucket with explosives. Primers for explosives must be sent down in a separate bucket with no other explosives or anything else in the same bucket.

No blasting shall be done in any other way than by the use of an electric battery. The electric battery shall be operated from the shaft top only. The person firing the shots and all other persons shall be away from the shaft top and under some protecting cover while blasting is being done. No shots shall be fired from the electric lines of the power, light or signal system. All men shall be withdrawn from any part of the shaft during any blasting operation in the shaft.

The shaft must be carefully examined from top to bottom after every blast is fired. Careful examination shall be made for muddy material sticking or lodging on the timber, sides or buntons. The shaft must be examined by a proper official after any period of no work of two hours or more. Examinations shall be made for explosive gas during periods when fan is stopped and air drills not in operation.

The shaft shall be thoroughly ventilated and the smoke and fumes cleared out before men descend into the shaft after blasting.

An approved safety lamp in good working condition must be kept on hand at all times for testing purposes in the shaft.

SIGNALS.

A well constructed signal system shall be installed. If electrically operated the wires must be carried down the shaft at the opposite end of the shaft from power lines or shot firing cables or light wires. Electric signals must have a bell and flash arrangement.

Signals, as written in Section No. 3578, or No. 130, of the Colorado Coal Mining Laws, shall be adopted and used, and shall be posted in the engine room, and at shaft top.

Signals:

1 bell.....	hoist (when engine is at rest).
1 bell.....	stop (when engine is in motion)
2 bells.....	lower
3 bells.....	men are ready to get in the bucket

Engineer shall answer three bells by slowly hoisting the bucket two or three feet and setting it back on the bottom. When men are loaded, one bell must be given to hoist. Upon receiving this signal, engineer shall hoist the bucket about three feet and hold it there until it is steadied and cleaned. Another signal of one bell must then be given for the engineer to hoist away.

Other signals may be used for special purposes, but they must not interfere with the standard code as set forth herein. These other special signals shall be posted with the regular code.

LIGHTING.

Nothing but electric cap lamps shall be used by the sinking crew members; electric lights on a circuit may be used in the shaft bottom, but the wires on such an arrangement must be kept as a separate installation from any other circuit.

The surface arrangements must be well lighted for night shift work. The lighting shall be such that no shadows are cast on the shaft top, nor shall anything else interfere with the view of the engineer. In event that the surface lighting system fails at night, all hoisting shall cease until the lights are in working order again; excepting that should such failure of the lights be for an extended period, the working crew may be carefully hoisted from the shaft at this time, light being provided by some temporary arrangement.

GENERAL.

Hoisting engines, headframes, ropes, cables and chains, signal systems, lighting systems, blasting installations, and all other equipment, must be examined once per day and reported safe for use.

Sinking crew members shall wear hard hats and hard toe rubber shoes or boots. An arrangement of a warm room must be installed on the surface as a First Aid Station, and a full First Aid to the Injured equipment be kept on hand.

Telephone communication must be established between the shaft site and the nearest town where medical assistance can be obtained.

Plumb bobs must be pulled up out of the shaft and set aside on the surface when not in use.

No intoxicating liquor shall be allowed anywhere near the shaft site, and no one shall be allowed to work in or around the shaft on whom the odor of liquor can be detected.

Each crew of sinkers at the shaft bottom shall be in charge of a competent and careful leader.

SPECIAL FOR DEEPENING SHAFTS.

Where shafts are being deepened all regulations as set forth herein shall be obeyed and in addition:

All work of sinking must be covered and guarded from work being carried on above the sinking.

Appreciation is hereby shown of the cooperation of the United States Bureau of Mines, the State Board of Vocational Training, the United Mine Workers of America, the State Industrial Commission, the Employers Mutual Insurance Company, the State Planning Commission, the WPA, the coal operators and the individual miners of the State.

WORK OF THE FIELD FORCE.

(Deputy Inspectors)

The following is a summary of the work done by the field force of the Department, during the year 1938:

Total number of inspections made.....	1,250
Number of fatal accidents investigated.....	31
Number of general complaints adjusted.....	97
Number of scale inspections made.....	12
Total number of miles traveled by the field force.....	68,682

THOMAS ALLEN,
State Inspector of Coal Mines.

DIRECTORY OF COAL MINES IN THE STATE OF COLORADO FOR THE YEAR ENDING DECEMBER 31, 1933

TABLE NO. 1

TABLE SHOWING, BY COMPANY AND INDIVIDUAL OPERATORS, NUMBER OF TONS PRODUCED, NUMBER OF MEN EMPLOYED AND NUMBER OF MEN INJURED FOR THE YEAR 1938

COMPANIES	Total Production	No. of Men Employed	No. of Fatal Accidents	Number of Non-Fatal Accidents
Adair, Ivor.....	483	2	.....	.....
Aguilar Black Diamond Coal Co.....	3,677	8	.....	2
Ainsworth, H. A.....	940	2	.....	.....
Altitude Fuel Co.....	3,463	8	.....	.....
American Independent Coal Co.....	12,715	32	.....	1
American Smelting & Refining Co.....	101,367	165	.....	6
Aquilla, Tony.....	679	7	.....	.....
Audin, Clement & Sons.....	3,031	8	.....	2
Ausec, Frank.....	3,444	8	.....	2
Aztec Coal Mining Co.....	9,155	32	.....	4
Babb, John, Jr.....	273	2	.....	.....
Babson Coal Co.....	3,831	5	.....	.....
Bachy Coal Co.....	262	2	.....	.....
Bald Coal Co.....	2,202	6	.....	3
Baldwin Fuel Co.....	1,203	3	.....	.....
Baldy Coal Co.....	8,290	12	.....	.....
Barbato, Joe.....	265	1	.....	.....
Barber Asphalt Corp.....	5,583	8	.....	1
Barker Coal Co.....	2,151	4	.....	.....
Barmettler, A. E.....	656	2	.....	.....
Barnell, George M.....	2,993	5	.....	.....
Batchelor & Richardson.....	50	2	.....	.....
Baxter, Arthur.....	484	1	.....	.....
Bear Canon Coal Co.....	38,044	49	.....	5
Bear Coal & Coke Co.....	15,979	23	.....	.....
Bear River Coal Co.....	27,150	71	.....	.....
Bellino, Frank.....	270	1	.....	.....
Bierce, James A.....	115	2	.....	.....
Big Five Coal Co.....	9,149	13	.....	2
Big Six Coal Co.....	1,561	3	.....	1
Black Diamond Coal Co. (Delta).....	1,187	3	.....	.....
Black Diamond Coal Co. (La Plata).....	1,452	3	.....	.....
Black Diamond Fuel Co.....	49,152	62	.....	3
Blackhawk Coal Mining Co.....	8,761	25	.....	2
Blue Blaze Coal Co.....	2,995	9	.....	.....
Bluff Springs Leasing Co.....	17,799	41	.....	4
Blume, Alfred.....	850	3	.....	.....
Boaglio Coal Co.....	87	2	.....	.....
Bohlender Coal Co.....	2,573	8	.....	.....
Bonner, George.....	245	2	.....	.....
Boulder Valley Coal Co.....	294,539	311	3	38
Bowerman, J. C. & Son.....	751	6	.....	.....
Bowman, Guillermo.....	585	2	.....	.....
Brookside Coal Mining Co.....	3,449	11	.....	1
Brundy, Roy L.....	279	4	.....	.....
Buddy Coal Co.....	1,380	4	.....	.....
Butte Valley Coal Co.....	44,763	83	.....	2
Caddell Coal Co.....	1,136	7	.....	3
Caldirola Coal Co.....	19,384	30	.....	2
Caliente Coal Co.....	25,918	154	1	3
Calumet Fuel Co.....	269,027	259	1	5
Canon Black Diamond Coal Co.....	26,495	39	1	3
Canon Blue Ribbon Coal Co.....	6,245	15	.....	1
Canon Chief Coal Co.....	10,035	11	.....	2
Canon Coal Creek Coal Co.....	200	1	.....	.....

TABLE NO. 1—Continued

COMPANIES	Total Production	No. of Men Employed	No. of Fatal Accidents	Number of Non-Fatal Accidents
Canon Eagle Coal Co.....	2,073	6	1	4
Canon Ideal Coal Co.....	459	2	.....	.....
Canon Imperial Coal Co.....	4,498	7	.....	1
Canon Liberty Coal Co.....	996	4	.....	1
Canon Monarch Coal Co.....	21,711	46	.....	2
Canon National Coal Co.....	1,250	12	.....	.....
Canon Peacock Coal Co.....	515	5	.....	.....
Canon Red Arrow Coal Co.....	1,944	4	.....	.....
Caprock Fuel Co.....	31,558	15	.....	1
Carbon Coal Co.....	21,865	27	.....	3
Carbon Creek Coal Co.....	650	3	.....	.....
Castle Coal Mining Co.....	11,677	19	.....	3
Champion Coal Co.....	691	5	.....	2
Childress, J. M.....	354	2	.....	.....
Clara Belle Coal Co.....	15,107	23	.....	2
Clark Coal Co.....	3,461	6	.....	1
Clayton Coal Co.....	197,112	283	.....	20
Coal Gulch Coal Co.....	331	2	.....	.....
Coal King Mining Co.....	460	3	.....	.....
Coats, Milo.....	102	1	.....	.....
Coles, W. E.....	10,867	8	.....	1
Colorado Fuel & Iron Corp.....	828,596	1,244	2	80
Colorado Springs Co.....	40,683	48	.....	1
Colorado & Utah Coal Co.....	185,823	211	.....	21
Comet Coal Co.....	709	4	.....	.....
Consolidated Coal & Coke Co.....	88,981	125	.....	8
Consolidated Pinnacle Coal Co.....	660	5	.....	.....
Corley Coal Co.....	13,228	18	1	1
Cornwell, Ira & Son.....	70	1	.....	.....
Cottonwood Coal Co.....	880	2	.....	.....
Courtier, Harris.....	24,329	25	.....	.....
Cox & Lindeman.....	607	2	.....	.....
Craig, L. L.....	302	2	.....	.....
Cramer, R. C.....	291	2	.....	.....
Crane, Leroy R.....	119	1	.....	.....
Crested Butte Coal Co.....	24,474	29	.....	1
Crisp, Earl.....	476	2	.....	.....
Crumpley, P. H.....	421	3	.....	.....
Daisy Coal Co.....	1,145	2	.....	.....
Dalrymple, J. M.....	1,695	4	.....	.....
Danville Coal Co.....	2,377	5	.....	.....
Davis, Charles E.....	199	2	.....	.....
DeBoy, Frank.....	109	1	.....	.....
Deldosso Coal Co.....	10,873	23	.....	4
Denver Golden Coal Co.....	381	5	.....	.....
Diamond Coal Co.....	715	2	.....	.....
Diamond Fuel Co.....	595	4	.....	.....
Dick Coal Co.....	33,153	30	.....	.....
Dill & Boglino.....	216	2	.....	.....
Diluzio, James.....	1,021	3	.....	.....
Domestic Coal Co.....	17,237	9	.....	4
Duca, Joseph Z.....	5,439	9	.....	1
Duran, Philip.....	223	4	.....	.....
Durango Coal Co.....	511	3	.....	.....
Dutch Oven Coal Co.....	943	7	.....	1
Economy Coal Co.....	2,400	6	.....	1
Edwards, George M.....	2,405	4	.....	.....
Elder, Gene.....	148	2	.....	.....
Eldorado Coal Co.....	4,844	7	.....	.....
Estes, Richard.....	784	3	.....	.....

TABLE NO. 1—Continued

COMPANIES	Total Production	No. of Men Employed	No. of Fatal Accidents	Number of Non-Fatal Accidents
Evans Coal Co.....	2,407	8	.....	1
Fabec, Louis.....	310	3	.....	.....
Fawn Hollow Coal Co.....	1,425	4	.....	.....
Fire Glow Coal Mine.....	674	1	.....	.....
Franceville Coal Co.....	4,983	9	.....	4
Frisko Coal Co.....	1,336	4	.....	.....
Garcia, Benito.....	385	1	.....	.....
Garfield Coal Co.....	10,577	21	.....	.....
Gaspar, Louis.....	13,990	27	1	4
Gearhart, Ballard & Sons.....	6,098	9	.....	.....
Giordano Coal Co.....	1,364	5	.....	1
Giuliano-Carpine Coal Co.....	39,741	49	.....	2
Gordon Coal Co.....	23,956	47	1	6
Gozzer, Peter.....	708	1	.....	.....
Graden Coal Co.....	34,437	41	.....	3
Green Valley Coal Co.....	5,998	8	.....	.....
Griffiths Coal Co.....	9,088	17	.....	2
Guadagnoli & Cimino Coal Co.....	1,724	4	.....	.....
Gwynn, E.....	362	2	.....	.....
Haas, William.....	1,118	3	.....	.....
Halcumb, N. H.....	440	3	.....	.....
Hammond, W. C.....	264	1	.....	.....
Hart, G. G. & Sons.....	1,638	2	.....	.....
Hayden Coal Co.....	130,798	179	1	20
Hayden Valley Mutual Coal Co.....	16,277	22	.....	4
Hedley, William.....	606	2	.....	.....
Henderson, John J.....	183	2	.....	.....
Hesperus Coal Co.....	885	3	.....	.....
Hicks, Ernest.....	2,836	5	.....	.....
Hicks & Sons.....	2,972	6	.....	.....
High View Coal Co.....	4,957	8	.....	.....
Hiland Coal Mines, Inc.....	3,484	7	.....	1
Hollingsworth, John A.....	.....	.....	.....	.....
Home Fuel & Supply Co.....	3,072	3	.....	.....
Horace Miners Ass'n.....	3,680	10	.....	.....
Horton Coal Co.....	.....	.....	.....	.....
Huerfano Coal Co.....	23,648	71	.....	5
Ideal Coal Co.....	1,521	3	.....	2
Imperial Coal Co.....	153,860	169	.....	13
Independent Coal Co.....	979	5	.....	.....
Jackson, J. C.....	326	2	.....	.....
Jefferson Coal Co.....	7,585	6	.....	1
Jeffries Fuel Co.....	1,740	3	.....	2
Jewell Collieries Corp.....	15,963	53	.....	2
Jimmy Camp Coal Co.....	2,977	7	.....	1
Johnson, John F.....	18	1	.....	.....
Jones, R. C.....	405	2	.....	.....
Jones, R. J.....	407	2	.....	.....
Jones & Trachta.....	12	1	.....	.....
Juanita Coal & Coke Co.....	33,718	44	.....	2
Kattnig, Martin.....	397	1	.....	.....
Keck, W. R.....	2,144	5	.....	.....
Kerr Coal Co.....	22,481	30	.....	.....
Kazele, John.....	499	1	.....	.....
Keystone Coal Co.....	54,079	107	1	10
Kingery, Walter.....	1,996	7	.....	.....
Klikus, John.....	191	3	.....	.....
Knez, Joe L.....	9,846	6	.....	2
Knowlton, W. H.....	377	1	.....	.....
Kovac, Martin.....	621	6	.....	1

TABLE NO. 1—Continued

COMPANIES	Total Production	No. of Men Employed	No. of Fatal Accidents	Number of Non-Fatal Accidents
Ko-Z Coal Co.....	7,378	12	.....	.....
La Salle Coal Co.....	2,032	5	.....	1
Lee & Watkins.....	300	3	.....	.....
Le Donne, James.....	850	3	.....	.....
Lennex, Frank.....	15	2	.....	.....
Leyden Lignite Co.....	114,712	113	.....	9
Liley & Merlino.....	4,964	14	.....	4
Linn, David D.....	381	2	.....	.....
Little Johnny Coal Co.....	4,272	8	1	1
Llewellyn Coal Co.....	905	3	.....	.....
Logan-Girardo & Jamcola.....	104	3	.....	.....
Louisville-Lafayette Coal Co.....	131,127	138	1	21
Lucia, Ben C.....	100	1	.....	.....
McBroom, Chas.....	35	2	.....	.....
McCall, Glen & John A. Rabska.....	130	2	.....	.....
McCann, J. E.....	872	3	.....	.....
McCune & Boscia.....	883	5	.....	.....
McDowell, John.....	1,856	6	.....	.....
McLaughlin Coal Co.....	8,243	17	.....	2
McNeil Coal Corp.....	102,959	137	2	8
McNew, Paul.....	217	2	.....	.....
McPhail, T. P.....	150	3	.....	.....
Major Coal Co.....	12,186	26	.....	.....
Maloney, Joe.....	5,457	21	.....	1
Mancos Coal Co.....	762	4	.....	.....
Manley Coal Mining Co.....	4,787	14	.....	2
Marinelli, Mike.....	305	2	.....	.....
Martin Coal Co.....	3,031	5	.....	.....
Martin, Gus J.....	36	1	.....	.....
Martorano, Mike.....	670	3	.....	.....
Mathews, John.....	335	3	.....	.....
Medlock, E. O.....	203	1	.....	.....
Mesa County Quality Coal Co.....	997	3	.....	.....
Micheli, Pio.....	7,136	16	1	1
Midwest Red Arrow Coal Co.....	2,294	5	.....	.....
Minnequa Fuel Co.....	23,496	32	.....	5
Mitchell, Lyle.....	477	2	.....	.....
Moffat Coal Co.....	123,480	294	.....	15
Monarch Coal Co.....	1,221	4	.....	.....
Morasky, Joe.....	3,232	9	.....	.....
Morgan, Wm. L.....	335	2	.....	.....
Morning Star Coal Co.....	1,955	3	.....	.....
Morton, R. L.....	45	1	.....	.....
Moschetti, Tony.....	1,302	2	.....	.....
Mt. Carbon Anthracite Co.....	1,499	5	.....	.....
Mundell, J. W. & Son.....	261	2	.....	.....
Murrell, James.....	356	2	.....	.....
Nall, W. R.....	1,049	2	.....	.....
National Fuel Co.....	158,217	166	.....	37
Neish, J. J.....	406	3	.....	.....
Nelson & Hardman.....	108	2	.....	.....
Nix & Nix.....	601	2	.....	.....
Noftsgger & Walker.....	796	3	.....	.....
Nogo, John.....	353	2	.....	.....
North Park Coal Co.....	11,666	17	.....	2
Northern Coal Co.....	335	2	.....	.....
Nushaft Canon Coal Co.....	35,814	41	2	4
Oberding, W. J.....	727	3	.....	.....
O. K. Coal Co.....	6,607	8	.....	.....
Oliver Coal Co.....	68,321	63	.....	4

TABLE NO. 1—Continued

COMPANIES	Total Production	No. of Men Employed	No. of Fatal Accidents	Number of Non-Fatal Accidents
Owen, Louis	317	2	.....	.....
Owen, R. E.	498	3	.....	.....
Owen, W. H.	112	1	.....	.....
Paonia Farmers Coal Co.	4,906	4	.....	.....
Paramount Coal Co.	330	6	.....	.....
Park Coal Co.	9,599	14	.....	.....
Park, W. J.	40	2	.....	.....
Patterson, James.	3,668	6	.....	1
Patton, Lloyd L.	7,065	14	.....	.....
Peachey Coal Co. ....	.....	.....	.....	.....
Peerless Coal Co.	994	2	.....	1
Perino Coal Co.	5,406	7	.....	1
Petry Brothers.	150	1	.....	.....
Phelan, C. G.	6,736	9	.....	1
Pierce, F. E.	3,832	4	.....	.....
Pikes Peak Fuel Co.	187,865	143	2	25
Pine Cliff Coal Co.	3,871	9	.....	2
Pine Gulch Coal Co.	6,379	12	.....	2
Pittsburgh Coal Co.	1,924	5	.....	5
Pluto Coal Mining Co.	16,644	22	.....	2
Pollard, C. F.	1,284	2	.....	1
Pollo, John, Jr.	94	2	.....	.....
Postal Mining Co.	426	3	.....	.....
Premier Coal Co.	2,316	4	.....	.....
Pryor Coal Mining Co.	49,149	93	.....	1
Pumort & Hybarger. ....	.....	.....	.....	.....
Rainbow Coal Co.	412	4	.....	.....
Red Ash Coal Co.	7,204	15	.....	7
Reisdorff, K. H.	350	4	.....	.....
Rhodes & Tomoff's. ....	.....	.....	.....	.....
Rice, Arthur J.	656	1	.....	.....
Rienau, R. C.	1,192	2	.....	.....
Riggs, W. E.	1,568	3	.....	.....
Rinehart, C. W.	587	2	.....	.....
Rocchio, Tony.	2,180	5	.....	.....
Rocky Mountain Fuel Co.	395,448	581	2	83
Rogers Brothers.	200	3	.....	.....
Rolfes, George T.	6,347	8	.....	.....
Ross Coal Co.	1,900	4	.....	1
Rouse Coal Mining Co.	14,183	21	.....	1
Royal Gorge Coal Co.	6,174	18	.....	2
Russell, Wm. E. Coal Co.	77,080	101	1	9
Sanchez, Demetrio.	1,525	3	.....	.....
Sandoval & Garcia.	441	3	.....	.....
Santarelli, Tony.	16,057	13	.....	2
Scappucci, Dan.	982	2	.....	.....
Serroni, Otto.	3,920	7	.....	.....
Sexton-Beswick-Dobbins.	851	2	.....	.....
Shamrock Coal Co. (Huerfano).	3,289	4	.....	3
Shamrock Coal Co. (Weld).	45,326	70	.....	.....
Sipe, Sipe & Rosenberger.	207	3	.....	.....
Slagle, Ella.	101	1	.....	.....
Sleepy Cat Coal Co.	920	3	.....	.....
Sneddon & Smith.	1,483	6	.....	.....
South Canon Mine Leasing Co.	20,117	19	.....	1
Spencer, Geo. H. ....	.....	.....	.....	.....
Spillman Coal Co. ....	.....	.....	.....	.....
Spring Canon Coal Co.	2,385	3	.....	.....
Staley, M. E.	513	3	.....	.....
Stander, Joe H.	400	2	.....	.....

TABLE NO. 1—Continued

COMPANIES	Total Production	No. of Men Employed	No. of Fatal Accidents	Number of Non-Fatal Accidents
Staples, S. L. & Son.....	716	2	.....	.....
Starkville Coal Co.....	2,593	3	.....	.....
States-Hall Coal Co.....	3,937	12	.....	1
Steele, George & Co.....	1,602	3	.....	.....
Stove Canon Coal Co.....	4,236	5	.....	2
Streenan, John.....	3,710	7	.....	1
Strawberry Coal Co.....	1,012	5	.....	.....
Stukey, D. & R.....	122	2	.....	.....
Sudar Coal Co.....	2,394	5	.....	.....
Supancic-Price-Skoda	4,840	6	.....	1
Temple Fuel Co.....	50,935	85	.....	14
Thompson, Harry	50	1	.....	.....
Thor Fuel Co.....	11,732	24	.....	3
Tipotsch, Frank.....	328	1	.....	.....
Tompkins, J. G. & Sons.....	1,000	3	.....	.....
Torrid Coal Mining Co.....	203	3	.....	.....
Tow Creek Coal Co.....	410	4	.....	.....
Triangle Coal Co. ....	.....	.....	.....	.....
Trinidad Supply Coal Co.....	319	2	.....	.....
Tweeddale, Thomas W.....	330	3	.....	.....
U. S. Vanadium Corp.....	23,602	23	.....	.....
Valdez, Felix & Partners.....	1,372	3	.....	.....
Valley View Coal Co.....	1,119	5	.....	.....
Van Winkle Coal Co.....	3,506	3	.....	.....
Vickers Coal Co.....	25,728	54	.....	3
Victor-American Fuel Co.....	438,254	850	5	69
Watts, John A.....	426	3	.....	.....
Whicker, H. L. & Son.....	114	1	.....	.....
White Ash Coal Co.....	1,200	5	.....	.....
Wieland, E. C.....	53	3	.....	.....
Wilhite, Andy L.....	637	5	.....	.....
Wiltze, A. C.....	800	3	.....	.....
Wilson, T. A.....	173	2	.....	.....
Zieseniss, Henry.....	1,422	2	.....	.....
Zulian, Mario.....	20	2	.....	.....
GRAND TOTAL	5,722,899	8,663	31	722

TABLE NO. 2

MINE FATALITIES BY CAUSES, 1934-1938 INCLUSIVE
(As Per Revised Government Form)

CAUSES	YEARS				
	1934	1935	1936	1937	1938
Underground:					
1. Falls of roof (rock, coal or draw slate)	8	10	3	9	12
2. Roof fall due to car or machine knocking out post.....	---	---	---	---	---
3. Falls of face or rib.....	5	1	11	6	6
4. Rush of coal, rock or gob.....	---	---	---	---	---
5. Other falling material or objects (not being handled by injured worker)	---	---	---	---	---
6. Falls of persons.....	---	---	---	---	---
7. Handling materials.....	---	---	---	---	---
8. Hand tools.....	---	---	---	---	---
9. Stepping on nails or other sharp objects	---	---	---	---	---
10. Striking or bumping against objects	---	---	---	---	---
11. Mine cars and mine locomotives.....	2	3	2	3	5
12. Explosions of gas or coal dust.....	---	---	8	---	---
13. Explosives (not including those in No. 12)	---	5	1	1	---
14. Electricity (not resulting in explosions)	3	---	---	2	3
15. Machinery	---	1	---	---	2
16. Suffocation from natural gases (not from mine fires or explosions)....	1	---	---	1	---
17. Mine fires (burns, suffocations, etc.)	---	---	---	---	---
18. All other accidents underground.....	1	1	---	---	---
Total Underground	20	21	25	23	28
19. Shaft and slope.....	---	2	---	---	1
20. Falls or slides of coal or overburden	---	---	---	---	---
Surface (including tippie, breaker, shops & yards)					
34. Mine cars and mine locomotives.....	---	1	---	1	---
35. Railway cars and locomotives.....	---	1	---	---	---
36. Handling materials.....	---	---	---	---	---
37. Hand tools	---	---	---	---	---
38. Falls of persons.....	---	---	---	---	1
39. Falling objects.....	---	---	---	---	---
40. Machinery on surface.....	1	---	---	---	---
41. Electricity	---	---	1	---	---
42. Explosives	---	---	---	---	1
43. All other surface accidents.....	---	1	3	---	---
Total Surface.....	1	5	4	1	3
GRAND TOTAL	21	26	29	24	31

NUMBER INJURED IN COAL MINES IN COLORADO DURING THE YEAR
ENDED DEC. 31, 1938

Government Classification

Time Lost—5 or More Days

CAUSES

Underground

1. Falls of roof (rock, coal or draw slate).....	179
2. Roof falls due to car or machine knocking out post.....	4
3. Falls of face or rib.....	60
4. Rush of coal, rock or gob.....	2
5. Other falling material or objects (not being handled by injured worker)	7
6. Falls of persons.....	42
7. Handling materials.....	7
8. Hand tools.....	18
9. Stepping on nails or other sharp objects.....	2
10. Striking or bumping against objects.....	22
11. Mine cars and mine locomotives.....	98
12. Explosions of gas or coal dust.....	...
13. Explosives (not including those in No. 12).....	5
14. Electricity (not resulting in explosions).....	9
15. Machinery	38
16. Suffocation from natural gases (not from mine fires or explosions).....	...
17. Mine fires (burns, suffocations, etc.).....	...
18. All other accidents underground.....	194
TOTAL UNDERGROUND	687
19. Shaft and slope.....	...
20. Falls or slides of coal or overburden.....	...

Surface (including tippie, breaker, shops & yards)

34. Mine cars and mine locomotives.....	3
35. Railway cars and locomotives.....	...
36. Handling materials.....	3
37. Hand tools.....	1
38. Falls of persons.....	5
39. Falling objects.....	1
40. Machinery on surface.....	3
41. Electricity .....	...
42. Explosives .....	...
43. All other surface accidents.....	19
TOTAL SURFACE	35
GRAND TOTAL	722

TABLE NO. 3

SHOWING BY COUNTIES, MINES OPERATED, NAME OF OPERATOR AND ADDRESS OF MINE, CHARACTER OF COAL, NUMBER OF DAYS WORKED, AVERAGE NUMBER OF MEN EMPLOYED, TOTAL NUMBER OF TONS OF COAL PRODUCED IN 1938, AND CAPACITY OF MINE PER DAY IN TONS.

ARCHULETA COUNTY

Name of Mine	Name of Company	Mine Postoffice	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine Per Day, Tons
Bellino.....	Frank Bellino.....	Pagosa Junction.....	Sub-bituminous.....	100	1	270	15
Cox.....	T. A. Wilson.....	Pagosa Springs.....	Sub-bituminous.....	90	2	173	.....
Columbine.....	Leroy Crane.....	Bayfield.....	Sub-bituminous.....	50	1	119	.....
McBroom.....	Chas. McBroom.....	Dyke.....	Sub-bituminous.....	12	1	35	.....
Number	of mines licensed : 6.....			68.4	5	597	

BOULDER COUNTY

Centennial.....	Boulder Valley Coal Co.....	Louisville.....	Sub-bituminous.....	285	163	170,588	1,500
Hi-Way.....	Louisville-Lafayette Coal Co.....	Broomfield.....	Sub-bituminous.....	191	138	131,127	1,000
Industrial.....	Rocky Mountain Fuel Co.....	Superior.....	Sub-bituminous.....	135	167	82,407	800
Monarch No. 2.....	National Fuel Co.....	Broomfield.....	Sub-bituminous.....	123	60	51,632	400
Black Diamond No. 2.....	Black Diamond Fuel Co.....	Lafayette.....	Sub-bituminous.....	278	62	49,152	450
Lewis No. 2.....	Harris Courtier.....	Gorham.....	Sub-bituminous.....	233	25	24,329	150
Pluto.....	Pluto Coal Mining Co.....	Superior.....	Sub-bituminous.....	226	22	16,644	125
Regal.....	Louis Gaspar.....	Lafayette.....	Sub-bituminous.....	220	27	13,990	150
Big "5".....	Big "5" Coal Co.....	Boulder.....	Sub-bituminous.....	268	13	9,149	50
Gorham.....	McLaughlin Coal Co.....	Gorham.....	Sub-bituminous.....	179	17	8,243	85

BOULDER COUNTY—Continued

Firestone.....	Ko-Z Coal Mining Co.....	Louisville.....	Sub-bituminous.....	196	12	7,378	75
Liley.....	Liley & Merlino.....	Louisville.....	Sub-bituminous.....	140	14	4,964	60
High View.....	High View Coal Co.....	Gorham.....	Sub-bituminous.....	222	8	4,957	35
Eldorado.....	Eldorado Coal Co.....	Gorham.....	Sub-bituminous.....	168	7	4,844	50
Pine Cliff.....	Pine Cliff Coal Co.....	Boulder.....	Sub-bituminous.....	229	9	3,871	50
Crown.....	Wm. E. Russell Coal Co.....	Superior.....	Sub-bituminous.....	94	17	3,412	.....
Premier.....	Premier Coal Co.....	Boulder.....	Sub-bituminous.....	271	4	2,316	15
Pittsburgh.....	Pittsburgh Coal Co.....	Gorham.....	Sub-bituminous.....	224	5	1,924	15
Ross.....	Ross Coal Co.....	Gorham.....	Sub-bituminous.....	215	4	1,900	15
Northern.....	Northern Coal Co.....	Gorham.....	Sub-bituminous.....	30	2	335	.....
Paramount.....	Paramount Coal Co.....	Lafayette.....	Sub-bituminous.....	25	6	330	15
Marshall.....	Logan, Girardo & Jamcola.....	Boulder.....	Sub-bituminous.....	26	3	104	10
Number	of mines licensed : 22.....			200.6	785	593,596	

DELTA COUNTY

King.....	Juanita Coal & Coke Co.....	Bowie.....	Bituminous.....	124	44	32,718	1,000
Green Valley.....	Green Valley Coal Co.....	Cedaredge.....	Semi-bituminous.....	300	8	5,998	50
Paonia Farmers.....	Paonia Farmers Coal Co.....	Paonia.....	Bituminous.....	234	4	4,906	50
Red Canon.....	Lloyd L. Patton.....	Cedaredge.....	Bituminous.....	257	6	3,668	40
Top.....	States-Hall Coal Co.....	Cedaredge.....	Semi bituminous.....	225	8	2,207	50
Red Mountain.....	States-Hall Coal Co.....	Cedaredge.....	Sub-bituminous.....	195	4	1,730	20
Black Diamond.....	Black Diamond Coal Co.....	Cedaredge.....	Semi-bituminous.....	100	3	1,187	10
Independent.....	Independent Coal Co.....	Cedaredge.....	Sub-bituminous.....	150	5	979	35
Winton.....	J. C. Rowerman & Sons.....	Austin.....	Bituminous.....	304	6	751	100
Western Star.....	C. W. Rhehart.....	Cedaredge.....	Semi-bituminous.....	76	2	587	15
Fitzsimmons.....	J. J. Neish.....	Paonia.....	Semi-bituminous.....	75	3	406	.....
Farmers.....	Louis Owens.....	Lazear.....	Bituminous.....	110	2	317	6
Gelwicks.....	Paul McNew.....	Paonia.....	Sub-bituminous.....	58	2	217	8
	of mines licensed : 15.....			170.1	97	56,671	

TABLE NO. 3—Continued

DOUGLAS COUNTY

Name of Mine	Name of Company	Mine Postoffice	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine Per Day, Tons
Willow Creek.....	R. C. Cramer.....	Littleton.....	Sub-bituminous.....	140	2	291	5

ELBERT COUNTY

Barker or Wright.....	Barker Coal Co.....	Matheson.....	Sub-bituminous.....	350	4	2,151	.....
Beaver Valley.....	J. M. Dalrymple.....	Agate.....	Sub-bituminous.....	136	4	1,695	10
Stander.....	Joe J. Stander.....	Ramah.....	Sub-bituminous.....	100	2	400	4
Number	of mines licensed : 5			234.4	10	4,246	

EL PASO COUNTY

Pikeview.....	Pikes Peak Fuel Co.....	Pikeview.....	Sub-bituminous.....	209	143	187,865	1,000
City Coal Mine.....	Colorado Springs Co.....	Colorado Springs.....	Sub-bituminous.....	236	48	40,683	400
Clara Belle.....	Clara Belle Coal Co.....	Colorado Springs.....	Sub-bituminous.....	290	23	15,107	200
Franceville.....	Franceville Coal Co.....	Colorado Springs.....	Sub-bituminous.....	220	9	4,983	40
New Keystone.....	John Strean.....	Colorado Springs.....	Sub-bituminous.....	199	7	3,710	20
Altitude.....	Altitude Fuel Co.....	Colorado Springs.....	Sub-bituminous.....	300	8	3,463	30
Busy Bee.....	Frank Ausec.....	Colorado Springs.....	Sub-bituminous.....	310	8	3,444	11
Jimmy Camp.....	Jimmy Camp Fuel Co.....	Colorado Springs.....	Sub-bituminous.....	214	7	2,977	50
Climax.....	Danville Coal Co.....	Colorado Springs.....	Sub-bituminous.....	201	5	2,377	12
Cottonwood.....	Cottonwood Coal Co.....	Colorado Springs.....	Sub-bituminous.....	219	2	880	6
Number	of mines licensed : 11			227.2	260	265,489	

FREMONT COUNTY

Chandler.....	Victor-American Fuel Co.....	Chandler.....	Bituminous.....	145	260	107,154	850
Rockvale No. 3.....	Colorado Fuel & Iron Corp.....	Canon City.....	Bituminous.....	214	92	75,639	500
Cedar Canon.....	Giuliano-Carpine Coal Co.....	Florence.....	Bituminous.....	190	49	33,741	275
Canon Black Diamond.....	Canon Black Diamond Coal Co.....	Florence.....	Bituminous.....	288	39	26,495	100
Canon Monarch No. 2.....	Canon Monarch Coal Co.....	Florence.....	Bituminous.....	284	46	21,711	100
Rex Carbon.....	Nushaft Canon Coal Co.....	Coal Creek.....	Semi-bituminous.....	216	16	19,730	175
Caldriola.....	Caldriola Coal Co.....	Florence.....	Bituminous.....	159	30	19,384	200
American Independent No. 2.....	Bluff Springs Leasing Co.....	Florence.....	Bituminous.....	181	41	17,799	150
Nushaft.....	Nushaft Canon Coal Co.....	Coal Creek.....	Bituminous.....	202	25	16,084	100
Double Dick.....	Tony Santarelli.....	Florence.....	Bituminous.....	259	13	16,057	100
Corley No. 6.....	Corley Coal Co.....	Florence.....	Bituminous.....	217	18	13,228	150
American Independent No. 3.....	American Independent Coal Co.....	Florence.....	Bituminous.....	196	32	12,715	75
Canon Chief.....	Canon Chief Coal Co.....	Florence.....	Bituminous.....	204	11	10,035	40
Griffiths.....	Griffiths Coal Mining Co.....	Canon City.....	Bituminous.....	181	17	9,088	150
Pine Gulch.....	Pine Gulch Coal Co.....	Florence.....	Bituminous.....	241	12	6,379	40
Horseshoe.....	Canon Blue Ribbon Coal Co.....	Florence.....	Bituminous.....	194	15	6,245	40
Royal Gorge.....	Royal Gorge Coal Co.....	Canon City.....	Bituminous.....	133	18	6,174	125
Canon Zenith.....	Joseph Z. Duca.....	Florence.....	Bituminous.....	189	9	5,439	38
Newton Creek.....	Perino Coal Co.....	Florence.....	Bituminous.....	247	7	5,406	30
Manley.....	Manley Coal Co.....	Canon City.....	Bituminous.....	195	14	4,787	75
Canon Imperial.....	Canon Imperial Coal Co.....	Coal Creek.....	Bituminous.....	157	7	4,498	40
Little Johnny.....	Little Johnny Coal Co.....	Florence.....	Semi-bituminous.....	191	8	4,272	25
Canon Tiger.....	Hiland Coal Mines, Inc.....	Florence.....	Bituminous.....	251	7	3,484	50
Brookside.....	Brookside Coal Mining Co., Inc.....	Florence.....	Semi-bituminous.....	115	11	3,449	35
O. K. Canon.....	Evans Coal Co.....	Florence.....	Semi-bituminous.....	87	8	2,407	25
Spring Canon.....	Spring Canon Coal Co.....	Florence.....	Semi-bituminous.....	161	3	2,385	10
Bald.....	Bald Coal Co.....	Florence.....	Bituminous.....	147	6	2,202	20
Canon Eagle.....	Canon Eagle Coal Co.....	Florence.....	Bituminous.....	211	6	2,073	25
Canon Red Arrow.....	Canon Red Arrow Coal Co.....	Florence.....	Bituminous.....	202	4	1,944	10
Fawn Hollow.....	Fawn Hollow Coal Co.....	Canon City.....	Bituminous.....	136	4	1,425	15
Canon Old Slope.....	Tony Moschetti.....	Florence.....	Semi-bituminous.....	220	2	1,302	15
Canon National.....	Canon National Coal Co.....	Florence.....	Semi-bituminous.....	204	12	1,250	15
Liberty.....	Canon Liberty Coal Co.....	Canon City.....	Bituminous.....	135	4	396	6
Dutch Oven.....	Dutch Oven Coal Co.....	Canon City.....	Bituminous.....	94	7	943	100
Canon Peacock.....	Canon Peacock Coal Co.....	Florence.....	Semi-bituminous.....	61	5	515	100

TABLE NO. 3—Continued
FREMONT COUNTY—Continued

Name of Mine	Name of Company	Mine Postoffice	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine Per Day, Tons
Canon Ideal.....	Canon Ideal Coal Co.....	Coal Creek.....	Semi-bituminous.....	69	2	459	.....
White Ash No. 2.....	Martin Kattnig.....	Rockvale.....	Bituminous.....	167	1	397	.....
Willie No. 3.....	Joe Barbato.....	Florence.....	Bituminous.....	80	1	265	.....
Canon Coal Creek.....	Canon Coal Creek Coal Co.....	Coal Creek.....	Bituminous.....	75	1	200	.....
Petry.....	Petry Brothers.....	Florence.....	Bituminous.....	70	1	150	.....
Number	of mines licensed : 43			185.3	864	473,906	

GARFIELD COUNTY

South Canon.....	South Canon Mine Leasing Co.....	Glenwood Springs.....	Bituminous.....	298	19	20,117	85
New Castle.....	W. E. Coles.....	New Castle.....	Bituminous.....	216	8	10,867	50
Carbonera.....	Barber Asphalt Corp.....	Mack.....	Bituminous.....	153	8	5,583	40
Stove Canon.....	Stove Canon Coal Co.....	Glenwood Springs.....	Bituminous.....	206	5	4,236	80
Ziesenis.....	Henry Ziesenis.....	Rifle.....	Bituminous.....	184	2	1,422	40
I. H. I.....	Bill Haas.....	Rifle.....	Bituminous.....	144	3	1,118	.....
Silt.....	Llewellyn Coal Co.....	Silt.....	Bituminous.....	77	3	905	.....
Gem.....	Sexton-Beswick-Dobbins.....	Glenwood Springs.....	Bituminous.....	72	2	851	10
Harvey Gap.....	James LeDonne.....	Silt.....	Bituminous.....	108	3	850	5
North Canon.....	Richard Estes.....	Rifle.....	Bituminous.....	65	3	784	5
Diamond.....	Diamond Fuel Co.....	Glenwood Springs.....	Bituminous.....	38	4	595	30
Monger.....	N. H. Halcumb.....	Fruita.....	Bituminous.....	25	3	440	10
Ohkraut.....	Frank DeBoy.....	Glenwood Springs.....	Bituminous.....	70	1	109	.....
Number	of mines licensed : 14			181.7	64	47,877	.....

GUNNISON COUNTY

Owner	Coal Mine	County	Bituminous	Semi-bituminous	Anthracite	Number
Somerset	Calumet Fuel Co.	Somerset	178			151
Crested Butte	Colorado Fuel & Iron Corp.	Crested Butte	153			241
Oliver	Oliver Coal Co.	Somerset	161			63
Alpine	Rocky Mountain Fuel Co.	Baldwin	104			65
Bulkey No. 2	Crested Butte Coal Co.	Crested Butte	196			29
Bear	Bear Coal & Coke Co.	Somerset	135			23
New Baldwin	Rocky Mountain Fuel Co.	Baldwin	132			9
Horace	Horace Miners Association	Gunnison	162			10
Hawks Nest	C. Audin & Sons	Somerset	101			8
Edwards	George W. Edwards	Somerset	146			4
Richardson	Mount Carbon Anthracite Co.	Gunnison	112			5
Baldwin Star	Baldwin Fuel Co.	Baldwin	145			3
O. C.	S. L. Staples & Son	Gunnison	143			2
Carbon Creek	Carbon Creek Coal Co.	Gunnison	164			3
Hinkle	W. H. Hedley	Gunnison	90			2
Castle Rock	Geo. Bonner	Gunnison	84			2
	of mines licensed: 16.		154.3			621
						524,188

HUERFANO COUNTY

Owner	Coal Mine	County	Bituminous	Semi-bituminous	Anthracite	Number
Robinson No. 4	Colorado Fuel & Iron Corp.	Farr	236			159
Kehler No. 2	Colorado Fuel & Iron Corp.	Toaga	150			153
Calumet No. 2	Calumet Fuel Co.	Delecarbon	179			108
Alamo No. 2	Pryor Coal Mining Co.	Pryor	152			93
	Butte Valley Coal Co.	Butte Valley	125			83
Gordon	Gordon Coal Co.	Walsenburg	164			47
Morning Glory	Minnequa Fuel Co.	Walsenburg	186			32
Ravenwood	Caliente Coal Co.	Ravenwood	105			88
Rouse	Rouse Coal Mining Co.	Walsenburg	131			21
Major	Major Coal Co.	Walsenburg	162			26
Toltec	Aztec Coal Mining Co.	Toltec	102			32
Blackhawk	Blackhawk Coal Mining Co.	Walsenburg	170			25
Leader No. 2	Red Ash Coal Co.	Walsenburg	186			15
Matland	Caliente Coal Co.	Matland	61			66
Nugget	Joe Maloney	Rugby	148			21
						150
						8,761
						38
						6,882
						5,457

TABLE NO. 3—Continued
HUERFANO COUNTY—Continued

Name of Mine	Name of Company	Mine Postoffice	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine Per Day, Tons
Ojo Canon.....	Peachey Coal Co.....	La Veta.....	Bituminous.....	217	7	3,835	20
Shamrock.....	Shamrock Coal Co.....	Walsenburg.....	Bituminous.....	172	4	3,239	25
Tompkins (Niggerhead).....	Peachey Coal Co.....	La Veta.....	Bituminous.....	233	4	3,022	20
Del Carbo.....	Blue Blaze Coal Co.....	Walsenburg.....	Bituminous.....	180	9	2,995	35
Premium.....	Sudar Coal Co.....	Walsenburg.....	Bituminous.....	162	5	2,394	35
Big Six.....	Big Six Coal Co.....	Walsenburg.....	Bituminous.....	161	3	1,561	.....
Sun.....	Sneddon & Smith.....	Walsenburg.....	Bituminous.....	140	6	1,483	15
Caddell No. 3.....	Caddell Coal Co.....	Walsenburg.....	Bituminous.....	140	7	1,136	10
Strawberry.....	Strawberry Coal Co.....	Walsenburg.....	Bituminous.....	93	5	1,012	7
George No. 3.....	J. G. Tompkins & Sons.....	La Veta.....	Bituminous.....	163	3	1,000	10
New Sunnyside.....	McCune & Boscia.....	Alamo.....	Bituminous.....	107	5	833	25
Murrell.....	James Murrell.....	La Veta.....	Bituminous.....	31	2	326	3
New Oakview.....	Wm. L. Morgan.....	La Veta.....	Bituminous.....	40	2	335	.....
C. O. D. No. 1.....	Philip Duran.....	La Veta.....	Bituminous.....	60	4	233	4
Occidental.....	Peachey Coal Co.....	La Veta.....	Bituminous.....	23	3	208	10
Torrid No. 4.....	Torrid Coal Mining Co.....	Rugby.....	Bituminous.....	17	3	203	.....
Rogers.....	Rogers Brothers.....	La Veta.....	Bituminous.....	20	3	200	3
C. O. D. No. 2.....	Klikus Coal Co.....	La Veta.....	Bituminous.....	113	3	191	3
Number	of mines licensed : 35.....			154.8	1,047	595,602	

JACKSON COUNTY

Moore Strip Pitt.....	North Park Coal Co.....	Coalmont.....	Sub-bituminous.....	227	17	11,666	500
Marr.....	George M. Barnell.....	Walden.....	Sub-bituminous.....	206	5	2,993	30
Sudduth.....	J. C. Jackson.....	Cowdrey.....	Sub-bituminous.....	120	2	326	.....
Number	of mines licensed : 3.....			217.2	24	14,985	.....

JEFFERSON COUNTY

Number	of mines licensed :	7	Sub-bituminous	200	113	114,712	600
Leyden	Leyden Lignite Co.		Sub-bituminous	200	113	114,712	600
Caprock	Caprock Fuel Co.		Sub-bituminous	256	15	31,558	250
Virginia	Jefferson Coal Co.		Sub-bituminous	222	6	7,585	50
Van Winkle	Van Winkle Coal Co.		Sub-bituminous	306	3	3,506	25
Economy	Economy Coal Co.		Sub-bituminous	275	6	2,400	20
Ideal	Denver Golden Coal Co.		Sub-bituminous	87	5	381	-----
				207.9	148	160,142	

LA PLATA COUNTY

Number	Owner	County	Product	1911	1912	1913
Castle	Castle Coal Co.	Durango	Bituminous	191	19	11,677
O. K.	O. K. Coal Co.	Durango	Bituminous	166	8	6,607
Supreme	Otto Serroni	Durango	Bituminous	230	7	3,920
Sunshine	F. E. Pierce	Durango	Bituminous	235	4	3,832
Klondyke	W. R. Keck	Durango	Bituminous	169	5	2,144
Morning Star	Morning Star Coal Co.	Durango	Bituminous	149	3	1,955
Black Diamond	Black Diamond Coal Co.	Durango	Bituminous	115	3	1,452
Valley View	Valley View Coal Co.	Mancos	Bituminous	240	5	1,119
Peerless	Peerless Coal Co.	Durango	Bituminous	142	2	994
Hunt	Hesperus Coal Co.	Durango	Bituminous	212	3	885
Peacock	Alfred Blume	Dolores	Bituminous	57	3	850
Hay Gulch	A. C. Wiltse	Hesperus	Bituminous	168	3	800
Fire Glow	Fire Glow Coal Mine	Falla	Bituminous	241	1	674
Durango	Durango Coal Co.	Durango	Bituminous	91	3	511
Coal King	Coal King Mining Co.	Hesperus	Bituminous	62	3	460
Soda Springs	P. H. Crumpley	Kline	Bituminous	52	3	421
Tipotsch	Frank Tipotsch	Hesperus	Bituminous	107	1	328
Dill	Dill & Boglino	Durango	Bituminous	86	2	216
Blue Jay	Charles E. Davis	Bayfield	Bituminous	62	2	199
John J. Henderson	John J. Henderson	Durango	Bituminous	55	2	183
Shamrock	James A. Bierce	Bayfield	Bituminous	77	2	115
Fire Chief	E. C. Wieland	Bayfield	Bituminous	20	3	53
Excelstor	Batchelor & Richardson	Bayfield	Bituminous	20	2	50
	of mines licensed: 25			152.3	89	39,445

TABLE NO. 3—Continued
LARIMER COUNTY

Name of Mine	Name of Company	Mine Postoffice	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine Per Day, Tons
Ideal.....	Ideal Coal Co.....	Carr.....	Sub-bituminous.....	217	3	1,521	40
White Rose.....	John Nogo.....	Carr.....	Sub-bituminous.....	75	2	353	3
Pioneer.....	K. H. Reisdorff.....	Carr.....	Sub-bituminous.....	102	4	350	10
Bachy.....	Bachy Coal Co.....	Carr.....	Sub-bituminous.....	66	2	262	2
Number	of mines licensed: 4.....			121.9	11	2,486	

LAS ANIMAS COUNTY

Frederick.....	Colorado Fuel & Iron Corp.....	Valdez.....	Bituminous.....	133	456	243,290	2,000
Delagua.....	Victor-American Fuel Co.....	Delagua.....	Bituminous.....	140	273	152,011	1,250
Boncarbo.....	American Smelting & Ref. Co.....	Boncarbo.....	Bituminous.....	167	165	101,367	1,500
Morley.....	Colorado Fuel & Iron Corp.....	Morley.....	Bituminous.....	79	143	68,210	1,000
Brodhead No. 9.....	Temple Fuel Co.....	Brodhead.....	Bituminous.....	140	85	50,935	500
Bear Canon No. 6.....	Bear Canon Coal Co.....	Valloroso.....	Bituminous.....	200	49	38,044	500
Dix.....	Dick Coal Co.....	Boncarbo.....	Bituminous.....	186	30	33,153	250
Kenneth.....	Vickers Coal Co.....	Rugby.....	Bituminous.....	111	54	25,728	500
Ludlow.....	Huerfano Coal Co.....	Ludlow.....	Bituminous.....	59	71	23,648	500
Jewell.....	Jewell Collieries Corp.....	Agular.....	Bituminous.....	76	53	15,963	300
Thor.....	Thor Fuel Co.....	Trinidad.....	Bituminous.....	138	24	11,732	100
Sopris No. 1.....	Deldosso Coal Co.....	Trinidad.....	Bituminous.....	167	23	10,873	54
Baldy.....	Baldy Coal Co.....	Trinidad.....	Bituminous.....	160	12	8,290	80
Rapson.....	Michell, Pfo.....	Rugby.....	Bituminous.....	98	16	7,136	200
Agular Black Diamond.....	Agular Black Diamond Coal Co.....	Trinidad.....	Bituminous.....	189	8	3,677	40

LAS ANIMAS COUNTY—Continued

Morasky.....	Joe Morasky.....	Trinidad	Bituminous	280	9	3,232	10
Bowen.....	Home Fuel & Supply Co.	Trinidad	Bituminous	264	3	3,072	20
Starkville.....	Starkville Coal Co.	Trinidad	Bituminous	258	3	2,593	10
Jeffries.....	Jeffries Fuel Co.	Trinidad	Bituminous	181	3	1,740	50
Lakeview.....	Guadagnoli & Cimino Coal Co.	Trinidad	Bituminous	200	4	1,724	20
Forbes No. 9.....	W. E. Riggs.....	Trinidad	Bituminous	280	3	1,568	12
Sanchez.....	Demetrio Sanchez.....	Poncarbo	Bituminous	190	3	1,525	8
Rugby No. 3.....	Pelix Valdez & Partners	Rugby	Bituminous	141	3	1,372	25
Gem.....	Giordano Coal Co.	Aguilar	Bituminous	126	5	1,364	25
Frisco.....	Frisco Coal Co.	Trinidad	Bituminous	174	4	1,336	4
Daisy.....	Daisy Coal Co.	Aguilar	Bituminous	210	2	1,145	10
Highway.....	Dan Scappucci.....	Trinidad	Bituminous	90	2	982	10
Martorano.....	Mike Martorano.....	Sopris	Bituminous	45	3	670	5
Crystal.....	Guillermo Bowman.....	Jansen	Bituminous	160	2	585	5
Forbes No. 10.....	John Kezele.....	Trinidad	Bituminous	228	1	499	5
Rugby No. 5.....	Sandoval & Garcia.....	Rugby	Bituminous	112	3	441	.....
Rainbow.....	Rainbow Coal Co.	Trinidad	Bituminous	78	4	412	10
Garcia.....	Benito Garcia.....	Dicks	Bituminous	126	1	385	5
Santa Fe.....	Thomas W. Tweeddale.....	Trinidad	Bituminous	37	3	330	10
Bloom.....	Trinidad Supply Coal Co.	Trinidad	Bituminous	76	2	319	3
Sunrise.....	Louis Fabec.....	Trinidad	Bituminous	212	3	310	10
McPhail.....	Thos. McPhail.....	Aguilar	Bituminous	20	3	150	.....
Prospect No. 1.....	W. H. Owen.....	Trinidad	Bituminous	28	1	112	.....
Valley.....	Ben Valley.....	Sopris	Bituminous	49	1	100	3
Boaglio.....	Boaglio Coal Co.	Trinidad	Bituminous	32	2	87	10
Sarcillo Canyon.....	Ira Cornwell.....	Trinidad	Bituminous	20	1	70	.....
Stonewall Valley.....	Gus J. Martin.....	Weston	Bituminous	40	1	36	.....
Number	of mines licensed : 46			132.3	1,535	820,216	.....

MESA COUNTY

Company	Product	180	21	30	60	500
Cameo	Bituminous	180		30	22.481	
Garfield	Palisade	190		21	10.577	
Mt. Garfield	Palisade	280		9	6.098	
River View	Cameo	257		6	4.840	25
Winger	Palisade	140		6	3.461	50

TABLE NO. 3—Continued
MESA COUNTY—Continued

Name of Mine	Name of Company	Mine Postoffice	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine Per Day, Tons
Blue Flame.....	Martin Coal Co.....	Palisade.....	Bituminous.....	152	5	3,031	25
Palisade.....	Hicks & Sons.....	Palisade.....	Bituminous.....	221	6	2,972	75
McGinley.....	Ernest Hicks.....	Grand Junction.....	Bituminous.....	200	5	2,836	25
Midwest Red Arrow.....	Midwest Red Arrow Coal Co.....	Palisade.....	Bituminous.....	162	5	2,294	50
Farmers Mutual.....	Tony Rocchio.....	Grand Junction.....	Bituminous.....	199	5	2,180	15
Riverside.....	John McDowell.....	Palisade.....	Bituminous.....	166	6	1,856	20
Williams.....	Monarch Coal Co.....	Grand Junction.....	Bituminous.....	236	4	1,221	10
Nearing.....	Mesa County Quality Coal Co.....	Fruita.....	Bituminous.....	186	3	997	15
Thomas.....	Tony Aquilla.....	Grand Junction.....	Bituminous.....	35	7	679	.....
Hidden Treasure.....	Martin Kovac (Deceased).....	Fruita.....	Bituminous.....	135	6	621	.....
Coal Gulch.....	Coal Gulch Coal Co.....	Loma.....	Bituminous.....	102	2	331	8
Marinelli.....	Mike Marinelli.....	Fruita.....	Bituminous.....	39	2	305	10
Peacock.....	L. L. Craig.....	Grand Junction.....	Bituminous.....	90	2	302	5
Black Diamond.....	J. W. Mundell & Son.....	Grand Junction.....	Bituminous.....	63	2	261	.....
Mt. Lincoln.....	Slipe, Sipe & Rosenberger.....	Palisade.....	Bituminous.....	80	3	207	3
Number	of mines licensed: 24			172.1	135	67,550	

MOFFAT COUNTY

Streeter.....	Domestic Coal Co.....	Axial.....	Bituminous.....	295	9	17,237	300
Knez.....	Knez Coal Co.....	Craig.....	Bituminous.....	225	6	9,846	.....
Mt. Streeter.....	C. G. Phelan.....	Axial.....	Bituminous.....	295	9	6,736	50
James.....	G. G. Hart & Sons.....	Meeker.....	Bituminous.....	137	2	1,628	25
Baker.....	A. E. Barmettler.....	Craig.....	Bituminous.....	117	2	666	.....

MOFFAT COUNTY—Continued

Coal White Ash.....	Lee & Watkins.....	Vernal, Utah.....	Bituminous.....	300
Wise.....	John Rabb, Jr.....	Craig.....	Bituminous.....	273
Community.....	E. O. Medlock.....	Craig.....	Bituminous.....	203
Wisconsin.....	H. L. Whicker & Son.....	Lay.....	Bituminous.....	114
Walker.....	R. L. Morton.....	Craig.....	Bituminous.....	45
Number.....	of mines licensed : 11.....			36
				208.8
				37,048

MONTEZUMA COUNTY

Montezuma.....	Walter Kingery.....	Cortez.....	Bituminous.....	1,996
Wilden No. 1.....	James Diluzio.....	Durango.....	Bituminous.....	1,021
Wilden No. 2.....	H. A. Ahnsworth.....	Manco.....	Bituminous.....	940
Manco.....	Manco Coal Co.....	Manco.....	Bituminous.....	762
Cortez (Mesa Verde).....	Andy L. Wilhite.....	Cortez.....	Bituminous.....	637
Number.....	of mines licensed : 7.....			21
				164.4
				5,356

MONTROSE COUNTY

U. S. Vanadium.....	U. S. Vanadium Corp.....	Nucla.....	Sub-bituminous.....	23
Independence.....	W. J. Oberding.....	Nucla.....	Sub-bituminous.....	3
Rice.....	Arthur Rice.....	Radvale.....	Sub-bituminous.....	1
Sunshine.....	Nix & Nix.....	Nucla.....	Sub-bituminous.....	2
Liberty Bell.....	Lytle Mitchell.....	Nucla.....	Sub-bituminous.....	2
Cimmaron.....	John A. Watts.....	Montrose.....	Sub-bituminous.....	3
Pleasant Valley.....	James Patterson.....	Nucla.....	Sub-bituminous.....	2
Number.....	of mines licensed : 8.....			36
				236.8
				23,602
				727
				656
				601
				477
				426
				40
				26,529

OURAY COUNTY

Bright Diamond.....	Ella Slagle.....	Ridgway.....	Sub-bituminous.....	101
Number.....	of mines licensed : 2.....			1
				30

TABLE NO. 3—Continued

PITKIN COUNTY

Name of Mine	Name of Company	Mine Postoffice	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine Per Day, Tons
Placita.....	J. E. McCann.....	Carbondale.....	Bituminous.....	126	3	872	50

RIO BLANCO COUNTY

New Pollard.....	C. F. Pollard.....	Meeker.....	Bituminous.....	220	2	1,284	35
Rienau.....	R. C. Rienau.....	Meeker.....	Bituminous.....	300	2	1,192	10
Nine Mile.....	W. R. Nail.....	Meeker.....	Bituminous.....	179	2	1,049	15
Twelve Mile.....	Pete Gozzer.....	Meeker.....	Bituminous.....	150	1	708	.....
Johnny Boy.....	Cox & Lindeman.....	Meeker.....	Bituminous.....	230	2	607	.....
White River.....	M. E. Staley.....	Rangely.....	Bituminous.....	64	3	513	.....
Rector.....	Arthur Baxter.....	Rangely.....	Bituminous.....	103	1	484	10
Rio Blanco.....	Ivor Adair.....	Rio Blanco.....	Bituminous.....	96	2	483	20
McKee.....	McCall & Rabska.....	Meeker.....	Bituminous.....	100	2	130	.....
Coats.....	Milo Coats.....	Meeker.....	Bituminous.....	82	1	102	2
Douglas Creek.....	Jones & Traehtha.....	Rangely.....	Bituminous.....	10	1	12	.....
Number	of mines licensed: 12			146.6	19	6,564	.....

ROUTT COUNTY

Harris.....	Colorado & Utah Coal Co.....	Mt. Harris.....	Bituminous.....	150	211	185,823	2,000
Hayden No. 3.....	Hayden Coal Co.....	Haybro.....	Bituminous.....	120	179	130,758	1,200
Moffat No. 1 & No. 2.....	Moffat Coal Co.....	Oak Creek.....	Bituminous.....	95	246	119,340	4,000
Pinnacle.....	Victor-American Fuel Co.....	Oak Creek.....	Bituminous.....	128	201	112,360	1,000
Wadge.....	Victor-American Fuel Co.....	Mt. Harris.....	Bituminous.....	83	116	66,729	1,000

ROUT COUNTY—Continued

Keystone.....	Keystone Coal Co.....	Routt.....	Bituminous.....	108	107	54,079	800
Bear River.....	Bear River Coal Co.....	Bear River.....	Bituminous.....	69	71	27,150	800
Hayden Valley.....	Hayden Valley Mutual Coal Co.	Hayden.....	Bituminous.....	310	22	16,277	80
MacGregor.....	McNeil Coal Corp.....	MacGregor.....	Bituminous.....	205	12	12,569	80
Argo Gulch.....	Geo. T. Rolfe.....	Oak Creek.....	Bituminous.....	271	7	5,600	30
Oak Hills No. 2.....	Moffat Coal Co.....	Oak Creek.....	Bituminous.....	30	48	4,140	300
Babson.....	Babson Coal Co.....	Hayden.....	Bituminous.....	210	5	3,831	40
Apex.....	George Steele & Co.....	Oak Creek.....	Bituminous.....	140	3	1,602	15
Sleepy Cat.....	Sleepy Cat Coal Co.....	Hayden.....	Bituminous.....	104	3	920	.....
Bruce Walters.....	Noftsger & Walker.....	Mt. Harris.....	Bituminous.....	119	3	796	.....
Webber.....	Geo. T. Rolfe.....	Oak Creek.....	Bituminous.....	148	1	747	10
Champion.....	Champion Coal Co.....	Mt. Harris.....	Bituminous.....	28	5	691	25
Elk Creek No. 3.....	Consolidated Pinnacle Coal Co.	Milner.....	Bituminous.....	32	5	660	.....
Postal.....	Postal Mining Co.....	Oak Creek.....	Bituminous.....	80	3	426	20
Tow Creek.....	Tow Creek Coal Co.....	Bear River.....	Bituminous.....	123	4	410	10
Edna.....	R. J. Jones.....	Oak Creek.....	Bituminous.....	106	2	407	.....
Jones.....	R. C. Jones.....	Bear River.....	Bituminous.....	70	2	405	20
Dave's Grand Baby.....	David D. Linn.....	Haybro.....	Bituminous.....	120	2	381	.....
Seven Points.....	E. Gwynn.....	Phillpsburg.....	Bituminous.....	127	2	362	.....
Big Mack.....	J. M. Childress.....	Steamboat Springs.....	Bituminous.....	45	2	354	25
Richneg.....	John Mathews.....	Oak Creek.....	Bituminous.....	65	3	335	10
Hammond.....	W. C. Hammond.....	Mt. Harris.....	Bituminous.....	120	1	264	.....
Fish Creek.....	D. & R. Stukey.....	Steamboat Springs.....	Bituminous.....	38	2	122	6
Morgan.....	John Pollo, Jr.....	Steamboat Springs.....	Bituminous.....	50	2	94	25
Wonder Valley.....	Harry T. Thompson.....	Steamboat Springs.....	Bituminous.....	20	1	50	.....
McCroskey.....	Mario Zulan.....	Milner.....	Bituminous.....	6	2	20	.....
Johnson.....	John F. Johnson.....	Hayden.....	Bituminous.....	9	1	18	5
Number	of mines licensed: 37			114.3	1 274	747,760	

SAN MIGUEL COUNTY

Keck-Itellance.....	R. E. Owen.....	Norwood.....	Bituminous.....	74	3	498
Gray.....	Earl M. Crisp.....	Norwood.....	Bituminous.....	90	2	476
O. K.....	W. H. Knowlton.....	Norwood.....	Bituminous.....	120	1	377
Elder.....	Gene Elder.....	Norwood.....	Bituminous.....	50	2	148
Nelson.....	Nelson & Hardman.....	Redvale.....	Bituminous.....	60	2	108
Number.....	of mines licensed : 7.....			74.2	10	1,607

TABLE NO. 3—Continued

WELD COUNTY

Name of Mine	Name of Company	Mine Postoffice	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine Per Day, Tons
Columbine.....	Rocky Mountain Fuel Co.	Serene.....	Sub-bituminous.....	280	239	193,832	800
Imperial.....	Imperial Coal Co.	Erie.....	Sub-bituminous.....	191	169	153,860	1,200
Boulder Valley.....	Boulder Valley Coal Co.	Erie.....	Sub-bituminous.....	139	148	123,951	1,500
Clayton.....	Clayton Coal Co.	Erie.....	Sub-bituminous.....	170	132	110,025	1,000
Puritan.....	National Fuel Co.	Erie.....	Sub-bituminous.....	116	106	106,585	900
Sterling.....	McNeil Coal Corp.	Dacono.....	Sub-bituminous.....	151	125	90,390	1,000
Baum.....	Consolidated Coal & Coke Co.	Dacono.....	Sub-bituminous.....	151	125	88,987	1,000
Morrison.....	Clayton Coal Co.	Erie.....	Sub-bituminous.....	155	151	87,087	1,500
Grant.....	Rocky Mountain Fuel Co.	Frederick.....	Sub-bituminous.....	136	101	81,266	650
Russell.....	Wm. E. Russell Coal Co.	Frederick.....	Sub-bituminous.....	168	84	73,668	600
Shamrock.....	Shamrock Coal Co.	Erie.....	Sub-bituminous.....	110	70	45,326	500
Graden.....	Graden Coal Co.	Dacono.....	Sub-bituminous.....	149	41	34,437	300
Evans.....	Carbon Coal Co.	Frederick.....	Sub-bituminous.....	168	27	21,865	300
Monroe.....	Park Coal Co.	Longmont.....	Sub-bituminous.....	278	14	9,599	75
Bohlender.....	Bohlender Coal Co.	La Salle.....	Sub-bituminous.....	305	8	2,573	.....
La Salle.....	La Salle Coal Co.	Greeley.....	Sub-bituminous.....	236	5	2,032	.....
Buddy.....	Buddy Coal Co.	La Salle.....	Sub-bituminous.....	174	4	1,380	20
White Ash.....	White Ash Coal Co.	La Salle.....	Sub-bituminous.....	146	5	1,200	25
Diamond.....	Diamond Coal Co.	La Salle.....	Sub-bituminous.....	163	2	715	10
Comet.....	Comet Coal Co.	Eaton.....	Sub-bituminous.....	150	4	709	25
Tamoc.....	Roy L. Brundy.....	Cornish.....	Sub-bituminous.....	105	4	279	5
Galeton.....	Frank Lennex.....	Galeton.....	Sub-bituminous.....	5	2	15	3
Number	of mines licensed: 23						
Total	number of mines licensed: 385			174.1	1,566	1,229,775	
				159.8	8,663	5,722,899	

SHOWING INCREASE AND DECREASE OF COAL PRODUCTION BY COUNTIES—1937-1938

Counties	1937	1938	Increase	Decrease
Archuleta	117	597	480	.....
Boulder	528,142	593,596	65,454	.....
Delta	69,182	56,671	.....	12,511
Douglas .....	.....	291	291	.....
Elbert	5,940	4,246	.....	1,694
El Paso	293,325	265,489	.....	27,836
Fremont	499,571	473,906	.....	25,665
Garfield	53,359	47,877	.....	5,482
Gunnison	660,286	524,188	.....	136,098
Huerfano	770,515	595,602	.....	174,913
Jackson	24,073	14,985	.....	9,088
Jefferson	179,046	160,142	.....	18,904
La Plata	42,985	39,445	.....	3,540
Larimer	2,524	2,486	.....	38
Las Animas	1,429,531	820,216	.....	609,315
Mesa	79,638	67,550	.....	12,088
Moffat	20,146	37,048	16,902	.....
Montezuma	4,099	5,356	1,257	.....
Montrose	12,812	26,529	13,717	.....
Ouray .....	.....	101	101	.....
Pitkin	1,284	872	.....	412
Rio Blanco	5,484	6,564	1,080	.....
Routt	1,022,131	747,760	.....	274,371
San Miguel	985	1,607	622	.....
Weld	1,490,220	1,229,775	.....	260,445
TOTAL	7,195,395	5,722,899	99,904	1,572,400
Decrease, 1938				1,472,496

COAL PRODUCTION IN PREPARED SIZES BY COUNTIES—1938

County	Mine Run	Lump	Egg	Nut	Pea	Slack	Total
Archuleta -----	597	-----	-----	-----	-----	-----	597
Boulder -----	50,623	119,467	87,623	36,596	12,870	286,417	593,596
Delta -----	5,717	17,556	-----	11,580	1,479	20,339	56,671
Douglas -----	291	-----	-----	-----	-----	-----	291
Elbert -----	510	802	257	1,095	575	1,007	4,246
El Paso -----	114,376	25,212	10,437	3,953	6,420	105,091	265,489
Fremont -----	101,429	149,861	4,582	79,536	8,575	129,923	473,906
Garfield -----	22,308	9,432	-----	5,041	226	10,870	47,877
Gunnison -----	147,980	69,557	7,360	38,971	3,176	257,144	524,188
Huerfano -----	141,286	70,227	27,647	55,277	12,592	288,573	595,602
Jackson -----	5,492	4,441	-----	4,516	-----	536	14,895
Jefferson -----	65,578	8,141	5,214	7,421	6,010	67,778	160,142
La Plata -----	19,696	7,208	95	4,601	1,650	6,195	39,445
Larimer -----	759	1,016	30	-----	397	284	2,486
Las Animas ---	422,598	21,983	17,486	14,883	4,837	338,429	820,216
Mesa -----	24,669	21,670	-----	7,207	3,429	10,575	67,550
Moffat -----	8,847	15,514	-----	3,180	240	9,267	37,048
Montezuma -----	4,112	828	-----	216	144	56	5,356
Montrose -----	4,034	-----	-----	559	-----	21,936	26,529
Ouray -----	101	-----	-----	-----	-----	-----	101
Pitkin -----	872	-----	-----	-----	-----	-----	872
Rio Blanco ---	2,919	1,896	-----	1,277	99	373	6,564
Routt -----	183,162	205,980	37,892	92,279	6,743	221,704	747,760
San Miguel ---	1,411	127	-----	36	33	-----	1,607
Weld -----	38,315	370,009	97,203	17,137	93,913	613,198	1,229,775
Total-----	1,367,682	1,120,927	295,826	385,361	163,408	2,389,695	5,722,899

COKE PRODUCED IN 1938 BY COMPANIES AND COUNTIES

Companies	Total No. of Ovens Used	Total Tonnage	Counties	Total No. of Ovens Used	Total Tonnage
American Smelting and Refining Co.....	135	54,721	Las Animas	135	54,721
Colorado Fuel and Iron Corp.....	149	186,805	Pueblo	149	186,805
Total	284	241,526		284	241,526

Remarks:

Average number of days worked.....	286.5
Average number of men employed at the coke ovens.....	64
Number of tons of coal made into coke.....	398,681

COAL PRODUCTION IN COLORADO FROM 1873 TO 1938, INCLUSIVE

Year	Tons	Year	Tons
1873	69,977	1906	10,308,421
1874	87,372	1907	10,965,640
1875	98,838	1908	9,773,007
1876	117,666	1909	10,722,490
1877	160,000	1910	12,104,887
1878	200,630	1911	10,197,595
1879	322,732	1912	11,016,948
1880	375,000	1913	9,268,939
1881	706,744	1914	8,201,423
1882	1,161,479	1915	8,715,397
1883	1,220,593	1916	10,522,185
1884	1,130,024	1917	12,515,305
1885	1,398,796	1918	12,658,055
1886	1,436,211	1919	10,406,543
1887	1,791,735	1920	12,514,693
1888	2,185,477	1921	9,141,947
1889	2,400,629	1922	10,003,610
1890	3,075,781	1923	10,336,735
1891	3,512,632	1924	10,501,088
1892	3,771,234	1925	10,440,387
1893	3,947,056	1926	10,616,760
1894	3,021,028	1927	9,781,580
1895	3,339,495	1928	9,921,585
1896	3,371,633	1929	9,934,064
1897	3,565,660	1930	8,238,094
1898	4,174,037	1931	6,604,063
1899	4,826,939	1932	6,616,525
1900	5,495,734	1933	5,284,872
1901	6,021,405	1934	5,251,003
1902	7,522,923	1935	5,948,661
1903	7,775,302	1936	6,845,837
1904	6,776,551	1937	7,215,916
1905	8,989,631	1938	5,722,899

TOTAL NUMBER OF TONS OF COAL SHIPPED BY THE
COAL MINES OF COLORADO DURING 1938; BY TRUCK,
WAGON, RAILROAD OR USED FOR STEAM OR HEAT

Counties	Tons of Coal Shipped by Railroad	Tons of Coal Shipped by Trucks and Wagons	Used at Mine for Power and Heat	Total Tons of Coal Produced
Archuleta .....	.....	597	.....	597
Boulder	199,789	383,200	10,607	593,596
Delta	30,387	22,282	4,002	56,671
Douglas .....	.....	291	.....	291
Elbert .....	.....	4,096	150	4,246
El Paso	41,163	220,302	4,024	265,489
Fremont	174,569	297,257	2,080	473,906
Garfield	7,091	40,546	240	47,877
Gunnison	483,764	27,902	12,522	524,188
Huerfano	523,349	70,344	1,909	595,602
Jackson	9,784	4,657	544	14,985
Jefferson	106,478	51,520	2,144	160,142
La Plata	10,784	28,281	380	39,445
Larimer .....	.....	2,483	3	2,486
Las Animas.....	740,225	67,518	12,473	820,216
Mesa	231	66,665	654	67,550
Moffat .....	.....	37,048	.....	37,048
Montezuma .....	.....	5,356	.....	5,356
Montrose .....	.....	26,529	.....	26,529
Ouray .....	.....	101	.....	101
Pitkin .....	.....	872	.....	872
Rio Blanco.....	.....	6,462	.....	6,462
Routt	679,166	37,887	30,707	747,760
San Miguel.....	.....	1,312	.....	1,312
Weld	919,493	274,128	36,154	1,229,775
Total	3,926,273	1,678,033	118,593	5,722,899

TONS SHIPPED OUT OF THE STATE

Boulder	325	Larimer	100
Delta	5,640	Las Animas	185,686
Elbert	100	Rio Blanco.....	400
Fremont	77,793	Routt	281,430
Gunnison	69,447	Weld	1,100
Huerfano	162,282		
Jackson	7,972	Total	792,275

MECHANICAL LOADING IN COLORADO IN 1938

County, Company, Mine	Number of Mechanical Loaders	Shaker Type	Mobile or Track Type	Chain Con- veyors, Short Face Type	Room Conveyors	Mainline or Entry Conveyors	Belt Convey- ors, Number and Type	Power Shovels, No. and Type	Other Types of Mechanical Loaders	Total Ton- nage Loaded by Mechan- ical Devices	Total Production of Mine (Tons)
Boulder County											
Black Diamond Fuel Co.	5	5	...	...	...	...	...	...	...	36,852	49,152
Black Diamond No. 2 Mine.....							...	...	...	102,459	170,588
Boulder Valley Coal Co.	11	11	...	...	...	...	...	...	...	62,359	82,407
Centennial Mine.....							...	...	...	24,321	24,321
Rocky Mountain Fuel Co.	1	1	...	...	...	...	...	...	...	3,412	3,412
Industrial Mine.....							...	...	...	104,691	131,127
Harris Courtier	1	1	...	...	...	...	...	...	...	51,632	51,632
Lewis No. 2 Mine.....							...	...	...	126,496	187,865
W. E. Russell Coal Co.	1	1	...	...	...	...	...	...	...	1,482	21,711
Crown Mine.....							1	...	...	3,491	13,228
Louisville-Lafayette Coal Co.	16	15	...	...	...	...	...	...	...	7,413	19,384
Hi-Way Mine.....							...	...	...	...	26,495
National Fuel Co.	5	5	...	...	...	...	...	...	...	...	6,379
Monarch No. 2 Mine.....							...	...	...	...	...
El Paso County											
Pikes Peak Fuel Co.	4	2	2	...	...	...	...	...	...	...	...
Pike View Mine.....							...	...	...	...	...
Fremont County											
Canon Monarch Fuel Co.	1	1	...	...	...	...	...	...	...	...	...
Canon Monarch Mine.....							...	...	...	...	...
The Corley Coal Co.	2	1	...	...	...	1	...	...	...	...	...
Corley No. 6 Mine.....							...	...	...	...	...
Caldirola Coal Co.	1	...	1	...	...	...	...	...	...	...	...
Caldirola Mine.....							...	...	...	...	...
Canon Black Diamond Coal Co.	1	1	...	...	...	...	...	...	...	...	...
Canon Black Diamond Mine.....							...	...	...	...	...
Pine Gulch Coal Co.	1	1	...	...	...	...	...	...	...	...	...
Pine Gulch Mine.....							...	...	...	...	...

MECHANICAL LOADING IN COLORADO IN 1938—Continued

County, Company, Mine	Number of Mechanical Loaders	Shaker Type	Mobile or Track Type	Chain Conveyors, Short Face Type	Room Conveyors	Mainline or Entry Conveyors	Belt Conveyors, Number and Type	Power Shovels, No. and Type	Other Types of Mechanical Loaders	Total Tonnage Loaded by Mechanical Devices	Total Production of Mine (Tons)
Fremont County—Continued											
Perino Coal Co.	1	1	...	...	...	...	...	...	...	4,527	5,406
Newman Creek Mine.											
Canon Red Arrow Coal Co.	1	1	...	...	...	...	...	...	...	1,944	1,944
Canon Red Arrow Mine.											
Colo. Fuel & Iron Corp.	2	2	...	...	...	...	...	...	...	16,870	75,639
Rockvale No. 3 Mine.											
Nushaft Canon Coal Co.	2	2	...	...	...	...	...	...	...	14,798	19,730
Rex Carbon Mine.											
Victor-American Fuel Co.											
Chandler Mine.	20	...	...	...	12	8	...	...	...	56,330	107,154
Gunnison County											
Calumet Fuel Co.											
Somerset Mine.	1	...	1	...	...	...	...	...	...	1,292	184,552
Colo. Fuel & Iron Corp.											
Crested Butte Mine.	2	2	...	...	...	...	...	...	...	18,004	178,884
Oliver Coal Co.											
Oliver Mine.	2	...	2	...	...	...	...	...	...	35,796	68,321
Huerfano County											
Calumet Fuel Co.											
Calumet No. 2 Mine.	3	3	...	...	...	...	...	...	...	42,075	84,475
Gordon Coal Co.											
Gordon Mine.	4	4	...	...	...	...	...	...	...	22,477	44,763
Mesa County											
Garfield Coal Co.											
Garfield Mine.	1	1	...	...	...	...	...	...	...	5,300	10,577
Moffat County											
Domestic Coal Co.											
Streeter Mine.	3	1	...	...	2	...	...	...	...	17,237	17,237

MECHANICAL LOADING IN COLORADO IN 1938—Continued

County, Company, Mine	Number of Mechanical Loaders	Shaker Type	Mobile or Track Type	Chain Conveyors, Short Face Type	Room Conveyors	Mainline or Entry Conveyors	Belt Conveyors, Number and Type	Power Shovels, No. and Type	Other Types of Mechanical Loaders	Total Tonnage Loaded by Mechanical Devices	Total Production of Mine (Tons)
Routt County											
Colo. & Utah Coal Co.	15	6	2	1	...	...	...	6	...	129,506	185,823
Harris Mine											
Hayden Coal Co.	3	2	1	...	...	...	...	...	...	9,140	130,798
Hayden No. 3 Mine											
Keystone Coal Co.	4	4	...	...	...	...	...	...	...	18,655	54,079
Keystone Mine											
Moffat Coal Co.	16	...	...	5	10	1	...	...	...	78,510	119,340
Moffat No. 1 and No. 2 Mines											
Victor-American Fuel Co.	16	8	1	...	4	2	...	...	1	112,360	112,360
Pinnacle Mine											
Victor-American Fuel Co.	10	8	...	...	...	2	...	...	...	66,729	66,729
Wadge Mine											
Weld County											
McNeil Coal Corp.	3	3	...	...	...	...	...	...	...	32,863	90,390
Sterling Mine											
Imperial Coal Co.	1	1	...	...	...	...	...	...	...	10,000	153,860
Imperial Mine											
Rocky Mountain Fuel Co.	8	8	...	...	...	...	...	...	...	26,451	193,832
Columbine Mine											
Clayton Coal Co.	4	4	...	...	...	...	...	...	...	9,269	87,087
Morrison Mine											
Wm. E. Russell Coal Co.	4	4	...	...	...	...	...	...	...	41,400	73,668
Russell Mine											
Carbon Coal Co.	2	...	2	...	...	...	...	...	...	8,293	21,865
Evans Mine											
Shamrock Coal Co.	1	1	...	...	...	...	...	...	...	9,319	45,326
Shamrock Mine											
GRAND TOTAL, 1938	180	112	12	6	28	14	1	6	1	1,313,753	2,921,540
GRAND TOTAL, 1937	123	56	15	11	32	...	3	6	...	1,018,039	2,603,486

FATAL ACCIDENTS—1938

Date	Name	Company	Mine	County	Cause
1. Jan. 12	Arthur W. Brown	Victor-American Fuel Co.	Delagua	Las Animas	Fall of roof (rock)
2. Jan. 18	Tony Dinardi	Victor-American Fuel Co.	Chandler	Fremont	Fall of roof (draw slate)
3. Feb. 4	Peter Bond	Pikes Peak Fuel Co.	Pikeview	El Paso	Fall of roof (slate)
4. Feb. 22	Alfred Walker	Eagle Coal Co.	Eagle	Fremont	Handling explosives
5. Feb. 22	Frank Bergant	Victor-American Fuel Co.	Pinnacle	Routt	Fall of face coal
6. Feb. 24	Charles R. Ryan	Corley Coal Co.	Corley No. 6	Fremont	Machinery (hoist)
7. Feb. 25	Walter Merciez	Louisville-Lafayette Coal Co.	Hi-Way	Boulder	Fall of roof (rock)
8. Feb. 25	Claude Thomas	Caliente Coal Co.	Ravenwood	Huerfano	Fall of roof (coal)
9. Mar. 1	Ludwig Busin	Gordon Coal Co.	Gordon	Huerfano	Fall of roof (rock)
10. Apr. 27	Leo Shields	Victor-American Fuel Co.	Chandler	Fremont	Runaway trip
11. May 16	Victor Petri	Pio Micheli	Rapson	Las Animas	Caught between car and rib
12. June 16	Louis Assala	Rocky Mountain Fuel Co.	Columbine	Weld	Fall of roof (rock)
13. June 18	Dan Hodson	Rocky Mountain Fuel Co.	Columbine	Weld	Fall of roof (rock)
14. July 15	Joe Shumock	Boulder Valley Fuel Co.	New Centennial	Boulder	Electrocution
15. Aug. 24	Tony Sporich	C. F. & I. Corp.	Crested Butte	Gunnison	Fall of rib coal
16. Sept. 1	John D. Smolis	Hayden Coal Co.	Hayden No. 3	Routt	Fall of rib coal
17. Sept. 14	Claude Clark	Boulder Valley Fuel Co.	New Centennial	Boulder	Moving machinery
18. Sept. 25	Anton Calogoj	Victor-American Fuel Co.	Pinnacle	Routt	Fall of roof (slate)
19. Sept. 25	Ferdinand Cornish	Regal Coal Co.	Regal	Boulder	Electrocution
20. Sept. 26	Frank Casias	C. F. & I. Corp.	Frederick	Las Animas	Run over by car
21. Sept. 29	James Pafford	Wm. E. Russell Coal Co.	Russell	Weld	Caught between top of motor and cross bar
22. Oct. 12	August Caumiant	McNeil Coal Corp.	McNeil	Routt	Fall into an abandoned air shaft
23. Oct. 15	Martin Styduhar	Calumet Fuel Co.	Calumet No. 2	Huerfano	Fall of roof (slate)
24. Nov. 13	George W. Prather	Boulder Valley Coal Co.	New Centennial	Boulder	Fall on moving machinery
25. Nov. 17	Peter Mortenson	Pikes Peak Fuel Co.	Pikeview	El Paso	Fall of roof (rock)
26. Nov. 25	Ramon Rameriz	Canon Black Diamond Coal Co.	Canon Black Diamond	Fremont	Electrocution
27. Dec. 5	Albert Cordova	Nushaft Canon Coal Co.	Rex Carbon	Fremont	Fall of face coal
28. Dec. 5	Joseph Flores	Little Johnny Coal Co.	Little Johnny	Fremont	Fall of face coal
29. Dec. 15	Martin Fabijan	Keystone Coal Co.	Keystone	Routt	Fall of roof (rock)
30. Dec. 16	William J. Smith	Little Johnny Coal Co.	Little Johnny	Fremont	Fall of face coal
31. Dec. 22	Leonard Dean	McNeil Coal Corp.	Sterling	Weld	Caught between motor and roof

TWENTY-FIVE CERTIFIED FOR COAL MINE INSPECTOR

Examination given for Chief and Deputy Coal Mine Inspector, by State Civil Service Commission, on Apr. 7, 8 and 9, 1938, and conducted by the State Board of Coal Mine Examiners, appointed by the Civil Service Commission, namely: F. W. Whiteside, R. R. Vaile, and Jack Matheson of Denver; Gerald Arnold of Boncarbo, Colo., and W. S. Getchel of Colorado Springs, Colo.

George H. Smith, Canon City
John J. Roddy, Montrose
George C. Dalrymple, Trinidad
A. R. Sneddon, Chandler
Andrew Campbell, Tioga
James Hamilton, Colorado Springs
David A. Kerr, Superior
Daniel Park, McGregor
Robert Dalrymple, Denver
John T. Williams, Canon City
William Peachey, La Veta
James F. Schweiger, Lafayette
Robert J. Campbell, Cedaredge

William J. Aitken, Denver
Eugene W. Machin, Frederick
Thomas Warburton, Boncarbo
Arthur E. Thompson, Louisville
Arthur C. Brown, Paonia
Douglas C. Clark, Oak Creek
Clifford S. Dawe, Segundo
Daniel R. Ratkovich, Trinidad
John J. Neish, Denver
Reese T. Roberts, Canon City
James A. McCune, Walsenburg
Archibald Bowman, Morley

SUCCESSFUL CANDIDATES IN THE EXAMINATION FOR COAL MINE OFFICIALS—1938

MINE FOREMAN

Barnell, Geo. M., Walden
 Bey, William W., Durango
 Bixler, Everett A., Durango
 Bowerman, Chester A., Austin
 Burgess, Thomas, Louisville
 Cahill, Raymond V., Vailorso
 Cartwright, H. V., Boulder
 Chatin, August H., Arvada
 Dalrymple, J. M., Agate
 Daniels, William, Oak Creek
 Dewey, Joseph, Erie
 Elliott, Robert, Colorado Springs
 Falco, Adolph, Florence
 Faycosh, Joe, Frederick
 Giuliano, Mike, Coal Creek
 Hadden, Willis, Palisade
 Hambly, Edward C., Englewood
 Harris, William J., Louisville
 Hayner, William F., Jr., Dacono
 Haynes, Maurice, Clifton
 Hyatt, Wesley, Castlegate, Utah
 Jackson, John, Frederick
 Johns, Thomas B., Frederick
 Kerr, David W., Louisville
 Kissell, Clarence, Cameo
 Kissell, Chester, Routt
 Knez, Joe L., Craig
 Krizmanich, Tony, Crested Butte
 Lakovich, Joe, Jr., Louisville
 Largo, Tony, Louisville
 Mahaffey, Mitchell, Mt. Harris
 McCallum, C. N., Erie
 McCurdy, W. B., Oak Creek
 McDowell, James, Palisade
 Miller, Thelbert W., Erie
 Monks, John Thomas, Lafayette
 Oberto, Tony, Canon City
 Odendahl, Walter B., Oak Creek
 Orr, John L., Crested Butte
 Otava, Earl G., Longmont
 Parry, William R., Mt. Harris
 Pierce, Calvin L., Durango
 Pinkney, Harry D., Crested Butte
 Rolka, Stanley, Oak Creek
 Romero, Carmen, Louisville
 Rooney, Morris, Arvada
 Rotar, John, Louisville
 Sabatino, Frank, Canon City
 Somerville, William R., Palisade
 Stiers, Charlie J., Palisade
 Tate, Nick, Canon City
 Vancil, Martin, Longmont
 Varley, Frank, Louisville
 Walker, Leroy W., Florence
 Williams, William, Lafayette
 Wilson, Andrew, Frederick
 Wilson, David K., Haybro
 Young, Adam, Florence
 Zavilla, Mike, Rockvale
 Zemlock, Andy, Glenwood Springs

ASSISTANT MINE FOREMAN

Beer, Lloyd, Florence
 Bujaci, John, Florence
 Carlson, Gunnar S., Routt
 Gillespie, Charles R., Tioga
 Harris, Sam, Brodhead
 Jermance, Raymond B., Canon City
 Kerr, John W., Superior
 Krist, Joe F., Walsenburg
 Mudra, Joe, Oak Creek
 Pasterski, John M., Louisville
 Williams, John M., Delagua
 Strainer, A., Jr., Canon City
 Swallow, George W., Erie

FIREBOSS

Allen, Clarence, Louisville
 Bald, James D., Florence
 Berardi, Charles, Florence
 Berardi, Frank A., Louisville
 Berta, Joe J., Canon City
 Berta, Tony L., Canon City
 Bodo, Louis, Durango
 Bodycomb, Thomas, Walsenburg
 Brennan, Charles H., Erie
 Brown, James M., Walsenburg
 Bruno, Michael, Superior
 Caddell, William, Walsenburg
 Calerich, John M., Frederick
 Caranta, Barney, Jr., Durango
 Cartwright, John L., Lafayette
 Cary, Harlan J., Mt. Harris
 Ciochetti, Nello E., Firestone
 Coleman, Charles, Palisade
 Conway, John W., Louisville
 Cordray, Ira, Florence
 DeCino, Tom, Frederick
 Delauro, James, Florence
 DeNovellis, Tony, Lafayette
 DiFrancia, Daniel, Superior
 DiFrancia, Nick, Superior
 Dinisi, Charles G., Walsenburg
 Early, A. (Bud), Greeley
 Egnatoff, Costa, Baldwin
 Elliott, Archie, Colorado Springs
 Elliott, Thomas, Colorado Springs
 Evezich, Paul, Frederick
 Faycosh, Ernest, Frederick
 Ferderber, Mike, Walsenburg
 Ferina, Martin, Arvada
 Ferkovich, Phillip, Walsenburg
 Fultz, Benjamin F., Louisville
 Furlong, Edward F., Walsenburg
 Gatti, Joe, Coal Creek
 Gilmore, Robert Lee, Palisade
 Giordano, Michael A., Walsenburg
 Giordano, Michele, Walsenburg
 Gomez, Manuel, Haybro
 Gonzales, Hilario, Colorado Springs
 Graham, Thomas W., Louisville

SUCCESSFUL CANDIDATES IN THE EXAMINATION FOR COAL MINE OFFICIALS—1938—Continued

FIREBOSS—Continued

Green, John Robert, Lafayette
 Gregory, James F., La Veta
 Guadagnoli, Emilio, Colo. Springs
 Guerrierri, Gene, Crested Butte
 Gutfelder, Louis F., Jr., Louisville
 Hall, James H., Denver
 Hallo, Joe, Florence
 Hamilton, Colin, Walsenburg
 Hamilton, Colin, Florence
 Hawks, Homer, Colorado Springs
 Hicks, Dale, Palisade
 Hicks, John, Louisville
 Hindman, Charles, Louisville
 Hocheder, Frank J., Louisville
 Hutchin, Everett C., Durango
 Hyden, W. W., Boulder
 Irons, Sam, Haybro
 Johnson, Lawrence A., Longmont
 Kasper, Eugene, Oak Creek
 Kattnig, Martin, Rockvale
 Kissell, Harold James, Cameo
 Komaroski, Louis, Walsenburg
 Korfanta, Henry, Oak Creek
 Kosarek, Ernest, Pryor
 Kostenbader, William, Erie
 Krizmanich, George, Crested Butte
 Lamberson, Earl, Florence
 Landis, Emmet, Erie
 Laub, Roy, Walden
 Lewis, David, Canon City
 Lewis, John, Coal Creek
 Linn, Thomas B., Oak Creek
 Littrell, O. H., Canon City
 Littrell, Robert F., Canon City
 Lonsdale, W. H., McGregor
 Lyons, Joseph M., Louisville
 Machin, Walter E., Superior
 Marinelli, Mike, Fruita
 Martella, Toney, Louisville
 Martinelli, Jack, Walsenburg
 Mascitelli, Ben, Florence
 Mathews, George, Jr., Greeley
 McFerguson, Sam, McGregor
 McHugh, Henry L., Louisville
 McLeod, W. S., Pikeview
 Mellen, Guy W., Crested Butte
 Metz, William C., Broomfield
 Miklaucie, Joe, Ravenwood
 Millar, Dave, Walsenburg
 Miller, Ralph, Oak Creek
 Miller, William, Walsenburg
 Milosevich, Dan, Oak Creek
 Naranjo, John, Tioga
 O'Holleran, Pearl, Palisade
 Oldham, Melvyn W., Oak Creek

FIREBOSS—Continued

O'Neil, John, Farr
 Orecchio, Joe, Tioga
 Page, John W., Arvada
 Palumbo, Pasqual, Brookside
 Paterson, William, Haybro
 Paulovich, Marion, Oak Creek
 Petrick, Joseph S., Leyden
 Phillip, Steve, Jr., Walsenburg
 Pickens, George T., Fruita
 Porta, Charles, Lafayette
 Powers, John, Delcarbon
 Puckett, Cecil D., Oak Creek
 Rice, Harbert V., Longmont
 Ritz, George, Walsenburg
 Rivera, John B., Lafayette
 Roark, William, Walsenburg
 Roberts, Joe, Durango
 Rossi, John, Canon City
 Rotar, Thomas E., Louisville
 Savada, Paul, Pinnacle
 Schmelzer, Edward, Jr., Louisville
 Scholes, Edward W., Tioga
 Scholes, Roy, Tioga
 Schuster, John, Mt. Harris
 Sheader, Charles F., Denver
 Sheader, Joseph H., Lafayette
 Simeone, Louis, Rockvale
 Simpson, Fred E., Longmont
 Simvoulos, George, McGregor
 Smith, H. G., Colorado Springs
 Sneddon, Walter, Chandler
 Snyder, Edward M., Tioga
 Spock, Joseph, Walsenburg
 Sterk, Paul J., Tioga
 Styduhar, Rudolph, Walsenburg
 Styduhar, Tony, Walsenburg
 Tafoya, Victor, Lafayette
 Tate, Nick, Canon City
 Templeton, Oswald, Walsenburg
 Tomsic, Frank, Walsenburg
 Tosetto, Carl, Canon City
 Valko, John, Walsenburg
 Walsh, Edward H., Frederick
 Watson, James T., Louisville
 Watson, Thomas, Louisville
 Westley, A. E., New Castle
 Wilkinson, Joseph, Louisville
 Williams, Stanley, Oak Creek
 Wist, Emil, Somerset
 Wist, Eugene, Paonia
 Zink, Albert, Walsenburg
 Zinko, Otto, Walsenburg
 Zulian, Victor, Mt. Harris
 Zuniga, Joseph D., Haybro



