

Mark P. Meyer

# SELECTED COAL DEPOSITS IN ALASKA

By Mark P. Meyer

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Manuel Lujan, Jr., Secretary

BUREAU OF MINES

T S Ary, Director

**NOTICE**

**The information presented in this report  
is current to November 1987**

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# UNIT OF MEASURE ABBREVIATIONS USED IN THIS REPORT

Btu	British thermal unit
Btu/lb	British thermal units per pound
d	day
h	hour
ha	hectare
Km	Kilometer
Km <sup>2</sup>	Square kilometer
kV	kilovolt
kWh	kilowatt hour
lb	pound
m	meter
m <sup>3</sup>	cubic meter
Mmt	million metric tons
mt	metric tons
mt/d	metric tons per day
mt/yr	metric tons per year
MWe	megawatt
st	short ton
st/d	short tons per day
st/yr	short tons per year
%	percent

# SELECTED COAL DEPOSITS IN ALASKA: A MINERALS AVAILABILITY SYSTEM DIRECTORY

By Mark P. Meyer<sup>1</sup>

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## ABSTRACT

This U.S. Bureau of Mines publication presents salient information in abstract form on 247 coal deposits in Alaska. Coverage includes currently producing deposits and deposits that appear to have commercial production potential. Data are taken from coal properties identified by the U.S. Bureau of Mines minerals availability program and by a literature search. Infrastructural and institutional factors affecting coal development in Alaska are also discussed.

## INTRODUCTION

In September 1985, the U.S. Bureau of Mines (Bureau) Alaska Field Operations Center (AFOC) began a 2-year project to update the Bureau's minerals availability data base on coal in Alaska. The minerals availability program was initiated in 1971 to provide current appraisals of the engineering and the economic availability of minerals for consideration in the formulation of domestic and foreign policies.

Deposit data are obtained from many sources including published and unpublished Bureau reports, records, and files; U.S. Geological Survey (USGS) bulletins, professional papers, and other reports; technical and professional journals; State and Federal agency publications; proprietary company reports; and information obtained from knowledgeable individuals.

The intent of this report is to present salient information on the principal coal deposits in Alaska. This report also contains a summary of historical and current coal mining activity in Alaska and brief discussions of Alaska's infrastructural and institutional factors affecting mineral development.

## ACKNOWLEDGEMENTS

The author would like to thank Roy Merritt, coal geologist, State of Alaska Department of Natural Resources, Division of Geological and Geophysical Surveys, Fairbanks, AK, for his critical review of this report. Also thanks go to Benno J. G. Patsch, geologist, Placer U.S. Inc., San Francisco, CA, for supplying data on its coal properties.

Special gratitude is extended to the staff of the Bureau's AFOC, Anchorage, AK. Particular thanks go to Robert B. Hoekzema, supervisory physical scientist and to Denise A. Herzog, mining engineer, for providing support and direction to the author.

## ORGANIZATION OF DIRECTORY

This publication is organized into two principal sections: an introductory section and a site-specific deposit abstract section. The introductory section presents background information on the coal mining industry in Alaska, the major coal fields of Alaska (fig. 1), and a description of the existing infrastructural and institutional factors that affect the commercial development of Alaska's coal resources. This last subsection briefly discusses the power utilities, transportation, leasing, taxation, and markets in and outside of Alaska.

The larger section of the publication contains site-specific deposit data abstracts. It is composed of single-page summaries of information pertaining to selected coal deposits in Alaska. The summaries are listed by USGS quadrangle and by the name of the property and its location. They are intended to report deposit information

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<sup>1</sup>Physical scientist, Alaska Field Operations Center, Bureau of Mines, Anchorage, AK.

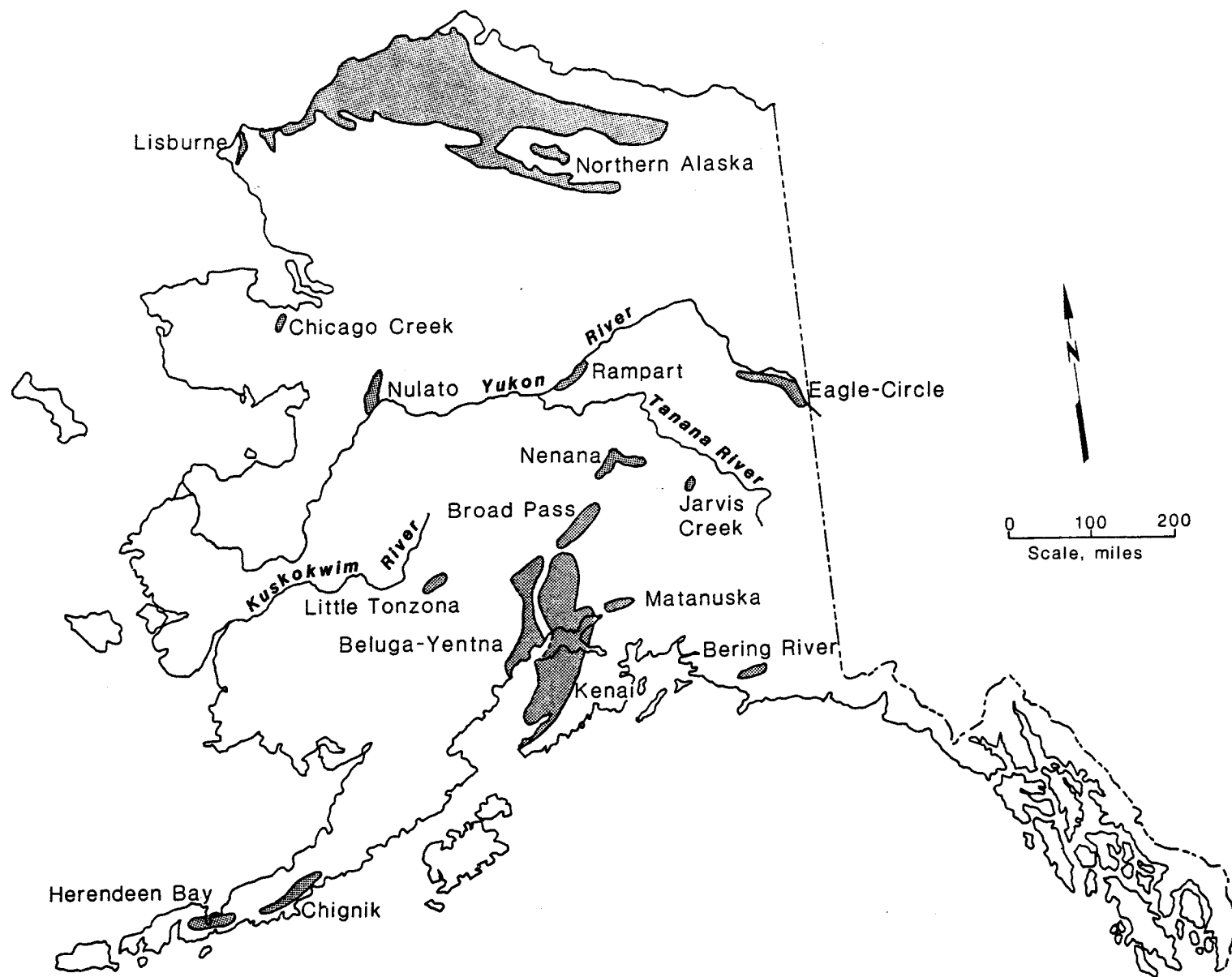


FIGURE 1. — Major coalfields in Alaska (Source: Reference 273)

available through 1987. It is important to note that the status, ownership, and other data may change.

Each abstract is composed of the following subject areas: deposit name and coal type, location and ownership (if known), geology, development, published reserve-resources, and references. Within each subject area there are several individual data elements. Not all data elements are reported for each deposit because proprietary data have been omitted and some data either cannot be determined or are not available. The International System of Units (SI) of measurement is used throughout the deposit abstracts except for published reserve-resources. The reserve-resource data are reported in terms and units of the cited publication. The reference section includes bibliographic references for the deposit, the USGS 1:250,000 quadrangle, and the Bureau's minerals availability data base sequence number (MAS). The sequence number is a 10-digit number that is unique to the deposit and allows rapid retrieval of relevant data from the MAS data base.

An extensive but not exhaustive reference section follows the deposit abstracts. This reference section provides the reader with additional sources of information about the deposits described in the report. Also, a bibliography section is included to provide the reader with reports that contain general, non-site-specific data about coal.

### DEPOSIT SELECTION

This publication is a directory of selected coal deposits in Alaska. Deposit coverage reflects the Bureau's work conducted under the minerals availability program. From September 1985 to July 1987, the Bureau reviewed 247 selected coal deposits. Of these deposits, 51 were identified in already published sources (table 1). The site-specific deposit abstract section contains more detailed information concerning these deposits.

### HISTORY OF COAL MINING IN ALASKA

Small quantities of coal were used by Alaskan natives and by many early explorers. In 1786, Captain Nathaniel Portlock, an English trader, was the first white man to report finding coal in Alaska at Coal Cove on the Kenai Peninsula near Homer, Alaska. The first coal mine in Alaska was opened in 1855 by a Finnish mining engineer named Enoch Furuhielm for the Russian-American Co. at English Harbor (now Port Graham) on the Kenai Peninsula (320)<sup>2</sup>. The coal was used by Russian steamers and American whaling ships. After the purchase of the Alaska Territory by the United States in October 1867, many small mines opened throughout Alaska, but most had closed by 1902 (298). Only a few small mines in isolated areas continued any operations, usually in support of local placer mining. The Coal Land Act of 1873 was extended to Alaska in 1900, opening surveyed lands for coal claims. At that time there were few land surveys in Alaska. In 1904, a second coal land law was passed by Congress to open all lands to coal claims, but locations were limited to four claims totaling 260 ha. These laws created political pressure on President Theodore Roosevelt, who withdrew all coal lands in Alaska from entry in 1906 by executive decree. Starting in 1914, the U.S. Navy began investigating coal from the Bering River Coalfield and from Chickaloon, in the Matanuska Coalfield. Chickaloon coal was successfully tested aboard the U.S.S. Maryland in 1914 (320). The Alaska Leasing Act was also enacted in 1914, but its regulations were not issued until 1916 (298).

Significant coal mining began in 1917 after construction of the Alaska Railroad began in 1916. Mines were opened in the Matanuska and Nenana Coalfields to supply coal to the U.S. Navy, the Alaska Railroad, and communities along the railbelt (298). Approximately one-third of the 35 Mmt of Alaskan coal produced from 1880 to 1985 is estimated to have been mined from the Healy Creek area of the Nenana Coalfield. The Suntrana Mine on Healy Creek produced coal continuously from 1922 to 1962, when a fire forced its closure. Another third of Alaska's coal was produced from Usibelli Coal Mine at Poker Flats on Lignite Creek (Nenana Coalfield). The remaining third was produced from the Matanuska Coalfield (8.3 Mmt) and elsewhere in Alaska (266). Historical coal production peaked in 1965 with a total of 871,379 mt mined (table 2).

Starting in 1924, the U.S. Navy began to convert coal-burning ships to oil. In the period following 1946, the major Alaskan users of coal switched to alternative energy sources. The Alaska Railroad started converting to

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<sup>2</sup>Underlined numbers in parentheses refer to items in the list of references preceding the bibliography.

diesel locomotives in 1946. In 1968 the Anchorage-area powerplants, including the military bases, converted to Cook Inlet natural gas. This caused the closure of the Matanuska coal mines with the exception of small-scale production for local heating (298).

TABLE 1. - Identified and hypothetical coal resources of Alaska,  
million short tons

	Identified	Undiscovered
Northern Alaska..	150,000	4,000,000
Lisburne.....	<sup>1</sup>	<sup>1</sup>
Beluga-Yentna....	11,110	34,800
Nenana.....	7,025	11,505
Little Tonzona...	1,500	3,000
Kenai.....	320	1,535,000
Chignik.....	230	1,500
Matanuska.....	150	500
Herendeen Bay....	130	1,500
Bering River.....	110	3,500
Jarvis Creek.....	75	175
Broad Pass.....	50	500
Eagle-Circle.....	10	100
Chicago Creek....	5	10
Nulato.....	NR	50
Rampart.....	NR	50
Other deposits...	85	2,835
Total.....	170,800	5,595,025

NR Not reported.

<sup>1</sup>See Northern Alaska.

Source: Reference 273.

#### CURRENT COAL DEVELOPMENT IN ALASKA (80)

Currently, the only producing coal mine in Alaska is the Usibelli Coal Mine in the Nenana Coalfield. In 1985 the Usibelli Coal Co. signed a 15-year contract with Sun Eel Shipping Co. (408) to export 679,000 mt of coal per year to the Korean Electric Power Co. (KEPCO) in Honam, Republic of Korea (80). Usibelli coal is also used at the Golden Valley Electrical Association mine-mouth power plant in Healy, which supplies electrical

TABLE 2. - Coal production in Alaska, 1880-1985

Year	st	Year	st	Year	st
1880..	NA	1916..	12,676	1952..	686,218
1881..	NA	1917..	54,275	1953..	861,471
1882..	NA	1918..	75,816	1954..	666,618
1883..	NA	1919..	60,894	1955..	639,696
1884..	NA	1920..	61,111	1956..	726,801
1885..	NA	1921..	76,817	1957..	842,000
1886..	NA	1922..	79,275	1958..	759,000
1887..	NA	1923..	119,826	1959..	660,000
1888..	NA	1924..	99,663	1960..	722,471
1889..	NA	1925..	82,868	1961..	736,831
1890..	<sup>1</sup> 6,076	1926..	87,300	1962..	871,379
1891..	1,083	1927..	104,300	1963..	853,398
1892..	871	1928..	126,100	1964..	744,942
1893..	923	1929..	100,600	1965..	983,182
1894..	488	1930..	120,100	1966..	927,145
1895..	1,687	1931..	105,900	1967..	924,549
1896..	712	1932..	102,700	1968..	750,435
1897..	2,673	1933..	96,200	1969..	667,179
1898..	2,652	1934..	107,500	1970..	549,473
1899..	2,264	1935..	119,425	1971..	698,000
1900..	2,855	1936..	136,600	1972..	<sup>2</sup> 668,000
1901..	2,740	1937..	131,600	1973..	694,000
1902..	3,052	1938..	159,230	1974..	700,000
1903..	2,717	1939..	146,250	1975..	766,000
1904..	1,824	1940..	173,970	1976..	706,000
1905..	4,334	1941..	238,960	1977..	685,000
1906..	6,061	1942..	260,893	1978..	730,000
1907..	10,689	1943..	289,232	1979..	750,000
1908..	4,066	1944..	348,375	1980..	750,000
1909..	3,430	1945..	297,644	1981..	800,000
1910..	2,250	1946..	366,809	1982..	830,000
1911..	1,850	1947..	361,220	1983..	803,000
1912..	1,205	1948..	407,906	1984..	849,161
1913..	2,312	1949..	433,533	1985..	1,370,000
1914..	1,190	1950..	421,455		
1915..	1,629	1951..	494,333		

NA Not available

<sup>1</sup>Total for 1980 includes coal production from 1880-1891.<sup>2</sup>1972-1984 evaluations are estimates.

Source: Reference 80.

energy to the Fairbanks area and southward to Homer. The Usibelli Coal Co. serving Alaska since 1945 currently has long-term contracts with Ft. Wainwright Army Base, Eielson Air Force Base, Clear Air Force Base, Fairbanks Municipal Utility System, University of Alaska-Fairbanks, and Reliable Coal of Healy, Alaska. Average yearly production is approximately 882,000 mt for in-State use. Interest in coal development in Alaska is continuing, and the following five companies are currently evaluating coal properties.

The Delta Coal Co. continued a feasibility study on its property at Little Gold Creek in the Jarvis Creek Coalfield. Plans call for mining 55,000 mt/yr over a 20-year mine life.

Diamond Alaska Coal Co. is continuing work on engineering and environmental designs, acquiring financing, and developing sales contracts for its coal deposits in the Beluga Coalfield. Plans call for producing 2.2 Mmt/yr with a potential increase in production up to 11 Mmt/yr.

Placer U.S. Inc. is continuing feasibility studies on its coal deposits located in the Beluga Coalfield. Production of 1.1 Mmt/yr is planned. Talks have been held with the Electric Power Development Corp. of Japan in the development of markets for its coal.

Hawley Resources Properties and Rocky Mountain Energy continued feasibility and development studies on its coal properties in the Matanuska Coalfield. Preliminary mine-feasibility studies were conducted with Signal Energy Systems on development of a 150-MWe mine-mouth power plant.

Bering Development Corp. continued feasibility studies on the exportation of 0.6 to 1.6 Mmt/yr of coal from the Bering River Coalfield.

### MAJOR COAL FIELDS OF ALASKA (265, 273)

Alaska's 16 major coalfields are shown on figure 1 and listed in table 3. The coals are Cretaceous to Tertiary in age and range in rank from anthracite to lignite.

#### NORTHERN ALASKA COALFIELD

The Northern Alaska Coalfield is the largest in Alaska, underlying 77,700 km<sup>2</sup> along the north slope of the Brooks Range. The coals occur primarily in the Cretaceous Corwin Formation.

They range in rank from subbituminous in the northern portion to bituminous in the southern portion. Some coking coals occur within this coalfield. Individual coalbeds ranging from 4.5 to 12 m thick are characteristic of the group and occur in flat-lying to gently dipping structures.

#### LISBURNE COALFIELD

The Lisburne Coalfield occupies an area of approximately 500 km<sup>2</sup> in northwestern Alaska. The coals occur primarily in the Paleozoic Kapaloak Formation with minor amounts occurring in the Cretaceous Corwin Formation. The coals are bituminous in rank and occur in beds generally less than 2 m thick. The beds are generally folded and faulted into complex geologic structures.

#### CHICAGO CREEK COALFIELD

The Chicago Creek Coalfield on the Seward Peninsula occupies an area of less than 100 km<sup>2</sup>. Coal occurs in the Tertiary Kugruk Formation and is lignite in rank. One coalbed up to 24 m thick has been reported dipping from 45° to 70° in a graben structure.

#### NULATO COALFIELD

The Nulato Coalfield covers an area of up to 390 km<sup>2</sup> along the Yukon River in western Alaska. Bituminous to subbituminous coal occurs in the Cretaceous Kaltag Formation. Coking coal occurs in minor amounts in this coalfield. The coalbeds are generally less than 1.2 m thick and have been folded and faulted into locally complex structures.



TABLE 3. - Major coalfields in Alaska

Coalfield	Area km <sup>2</sup>	Formation name	Formation age	Coal rank	Thickness m
Northern Alaska.	77,700	Corwin.....	Cretaceous.	Subbitu. -bitum.	4.5-12
Beluga- Yentna.	15,500	Tyonek, Beluga, & Sterling.	...do.....	...do...	6
Kenai.....	5,200	Beluga & Sterling.	...do.....	Subbitu.	0.8-6
Herendeen Bay.	2,800	Chignik & Bear Lake.	Cretac. & Tertiary.	Bitum... Lignite.	0.6
Nenana....	2,600	Suntrana & Healy Ck.	Cretaceous.	Subbitu.	6
Eagle- Circle.	2,100	...do.....	...do.....	...do...	6.7
Matanuska.	1,800	Chickaloon.	...do.....	Bitum.- anthra.	0.6-12
Bering River.	780	Kushtaka...	...do.....	...Do...	1.8-9
Lisburne..	550	Kapaloak & Corwin.	Paleozoic & Cretac.	Bitum...	2
Little Tonzona.	520	Unnamed....	...do.....	...do...	1.5-6
Chignik...	390	Chignik....	Cretaceous.	Subbitu. -bitum.	2
Nulato....	390	Kaltag.....	...do.....	...do...	1.2
Rampart...	260	Unnamed....	Tertiary...	...do...	1.5
Broad Pass.	100	...do.....	...do.....	Subbitu. -lign.	1.5-3
Chicago Creek.	100	Kugruk.....	...do.....	Lignite.	24
Jarvis Creek.	100	Healy Ck...	...do.....	...do...	3

Shown on figure 1.

Source: Reference 268, 273.

#### RAMPART COALFIELD

The Rampart Coalfield covers an area of approximately 260 km<sup>2</sup> in central Alaska. Coal occurs in an unnamed Tertiary coal-bearing unit that ranges in rank from subbituminous to bituminous. The coalbeds are less than 1.5 m thick and are steeply dipping.

## EAGLE-CIRCLE COALFIELD

The Eagle-Circle Coalfield occupies an area of 2,100 km<sup>2</sup> along the upper Yukon River in eastern Alaska. Coal occurs in an unnamed Tertiary coal-bearing unit and ranges in rank from subbituminous to bituminous. Minor amounts of coking coal occur in the Eagle area of this coalfield. The coalbeds are generally thin with one 6.7 m thick bed occurring in broad, open folds.

## NENANA COALFIELD

The Nenana Coalfield covers an area of approximately 2,600 km<sup>2</sup> trending east-west along the northern flank of the Alaska Range in central Alaska. Coal primarily occurs in the Suntrana and Healy Creek Formations of the Tertiary coal-bearing unit, which is up to 900 m thick. The coal is subbituminous in rank and occurs as seams up to 18 m thick. The coalbeds occur in moderately dipping fault blocks and gentle folds.

The bulk of Alaska's coal production is currently mined from this coalfield. Three seams in the Suntrana Formation, the 3, 4, and 6, each averaging 6 m thick, are being mined at the Usibelli Coal Mine.

## JARVIS CREEK COALFIELD

The Jarvis Creek Coalfield makes up the eastern portion of the Nenana Coalfield. The field occupies an area of less than 100 km<sup>2</sup>. Coal occurs in the Tertiary Healy Creek Formation and is subbituminous in rank. The coalbeds are gently dipping and are less than 3 m thick in an isolated structural basin.

## LITTLE TONZONA COALFIELD

The Little Tonzona Coalfield occupies an area of 520 km<sup>2</sup> in southwestern Alaska. Coal occurs in an unnamed Tertiary coal-bearing unit and is subbituminous in rank. The coalbeds are generally 1.5 to 6 m thick; however, one 30 m thick bed is reported. The structure of the field is low-angle fault blocks and minor folds.

## BROAD PASS COALFIELD

The Broad Pass Coalfield occupies an area of 100 km<sup>2</sup> in northern south-central Alaska. Coalbeds occur in an unnamed Tertiary coal-bearing unit. Coal ranges from subbituminous to lignite in rank. The beds range in thickness from 1.5 to 3 m and occupy a narrow graben structure.

## BELUGA-YENTNA COALFIELD

The Beluga-Yentna Coalfield occupies an area of 15,500 km<sup>2</sup> in south-central Alaska. Coal occurs primarily in the Cretaceous Tyonek Formation with lesser deposits in the Cretaceous Beluga and Sterling Formations. Coal ranges from subbituminous to lignite in rank. The coalbeds are generally 6 m thick with one bed reported to be more than 15 m thick. Beds are in flat-lying to broad, gentle folds with minor localized faults.

Currently, this coalfield has the highest development potential of recoverable coal resources in Alaska (table 1). Development work is being done in this field with the possibility of two mines being opened in the early 1990's.

## MATANUSKA COALFIELD

The Matanuska Coalfield occupies an area of approximately 1,800 km<sup>2</sup> in south-central Alaska. Coal occurs in the 900 m thick Tertiary Chickaloon Formation. Coal ranges in rank from bituminous in the southwest to anthracite in the northeast with some high-quality coking-quality coal occurring in the Chickaloon area. Up to 30 coalbeds range from 0.6 to 12 m thick in an east-west trending canoe-shaped syncline. This coalfield ranks second in historic coal production with 8.3 Mmt of bituminous coal mined prior to 1968 (266).

## KENAI COALFIELD

The Kenai Coalfield occupies an area of over 5,200 km<sup>2</sup> covering the western Kenai Peninsula and extending offshore beneath Cook Inlet. Coal occurs in the Cretaceous Beluga and Sterling Formations and are subbituminous in rank. The coalbeds range from 0.8 to 6 m thick and are flat-lying to gently dipping in structure.

## BERING RIVER COALFIELD

The Bering River Coalfield occupies an area of 780 km<sup>2</sup> in south-central Alaska. Coal occurs in the Cretaceous Kushtaka Formation and ranks from bituminous to anthracite with minor amounts of coking coal present. The coalbeds range from 1.8 to 9 m thick, occur in pod- or lens-shaped structures and are structurally complex.

## CHIGNIK COALFIELD

The Chignik Coalfield occupies an area of 390 km<sup>2</sup> in the Alaska Peninsula. Coal occurs in the Cretaceous Coal Valley Member of the Chignik Formation, ranging from bituminous to subbituminous in rank. The beds are less than 2 m thick and have moderate dips.

## HERENDEEN BAY COALFIELD

The Herendeen Bay Coalfield occupies an area of 2,800 km<sup>2</sup> on the Alaska Peninsula. Coal occurs in the Cretaceous Chignik and Tertiary Bear Lake Formations. Coal in the Chignik Formation is bituminous in rank and in the Tertiary Bear Lake Formation is lignite in rank. Coal occurs in 17 beds that are usually less than 0.6 m thick and are moderately folded and faulted.

## INFRASTRUCTURE AND INSTITUTIONS AFFECTING COAL MINING IN ALASKA

Infrastructural and institutional factors that affect coal mining in Alaska include utilities, transport, leases, taxation, and markets inside and outside of Alaska.

### UTILITIES

Utilities serving Alaska's communities include electricity, natural gas, oil, water, and coal.

#### Electricity

Alaska's electricity is provided by centralized systems along the area from Fairbanks to Homer, and by decentralized systems in the rural areas. Electrical power is generated by utilities, industry, the military, and independent operators in rural and isolated areas. The utilities account for 67% (1,374 MWe) of the installed capacity, industry for 23% (485 MWe), and national defense 10% (205 MWe) (6). Figure 2 shows the electrical transmission systems in Alaska.

#### Natural Gas

Alaska's natural gas is produced in two areas of the State: the northern coastal region at Barrow and Prudhoe Bay, and the Cook Inlet region. The northern coastal region contains 1,024 trillion m<sup>3</sup> of proven reserves, and the Cook Inlet region contains 106 trillion m<sup>3</sup> of proven reserves (6).

Cook Inlet gas is used for thermal and electrical generation for residential, commercial, and industrial users in south-central Alaska. Natural gas from the South Barrow gasfield supplies Point Barrow.

## Oil

Alaska's oil is not extensively used by Alaska's larger utilities because they are supplied with natural gas. Nearly all of Alaska's oil is exported. Some oil is refined in Alaska at Nikiski on the Kenai peninsula and at Fairbanks. Diesel fuel is used extensively in rural communities for generation of electricity.

## Water

Alaska's large hydropotential is largely untapped and undeveloped. Currently, hydropower is being produced at Eklutna Lake north of Anchorage for use along the Fairbanks-Homer area, and at Snettisham Lake in southeast Alaska, providing power for the Juneau area.

## Coal

Alaska has identified and hypothetical coal resources that exceed 6.35 trillion mt of coal (273). Table 1 lists the identified and hypothetical resources of the major coalfields in the State.

Coal in Alaska is mostly bituminous in rank, with occurrences of anthracite-grade coal in the Matanuska and Bering River Coalfields. Coking coal is present in minor amounts in the Northern Alaska, Eagle-Circle, Nulato, Matanuska, and Bering River Coalfields. The Matanuska Coalfield contains the highest quality coking coal in Alaska (329).

## TRANSPORT

Transportation infrastructure and the major population centers developed in response to the economic growth in mines, petroleum, timber, defense, fisheries, and government. The population centers are the hubs of the transportation networks by which people and goods are moved into and out of the rural communities. Thus, Alaska uses modes of transportation that in turn control the development of the State. Alaska's transportation system is extremely diverse because it must move people and goods over great distances using land, air, and water.

## Railroad

Alaska is served by one operating railroad, the Alaska Railroad, owned and operated by the State of Alaska. Construction of the Alaska Railroad was authorized by the U.S. Congress in 1914 and completed in 1924. The railroad was purchased by the State of Alaska in 1985.

The railroad is a vital all-weather link connecting the port cities of Whittier, Seward, and Anchorage with Fairbanks and the coal deposits of the Nenana Coalfield. The railroad has 750 km of track running from Seward to Fairbanks via Anchorage (fig. 3) and also has 105 km of branch lines, some connected with the Nenana Coalfield.

At the present time, the Alaska Railroad is the major coal transport system within Alaska. The railroad connects the Usibelli Coal Mine near Healy to the Fairbanks-Nenana Valley area markets, to the Anchorage-Cook Inlet area, and to the Seward coal-loading facilities. Trucks transport the coal from the railroad yards and coal-holding facilities to individual users not along the railroad (425).

## Road

Early roads and trails in Alaska were constructed to haul supplies to mining camps. These early routes followed Native trails or were constructed by miners, the U.S. Army, or the Alaska Road Commission. The Alaska road system contains 6,000 km of highways, roads, and streets (as shown on figure 3). The system connects the major population centers and provides access to the continental United States via the Alcan Highway. Jurisdiction of the roads is controlled by the Federal Government, the State of Alaska, and local governments.

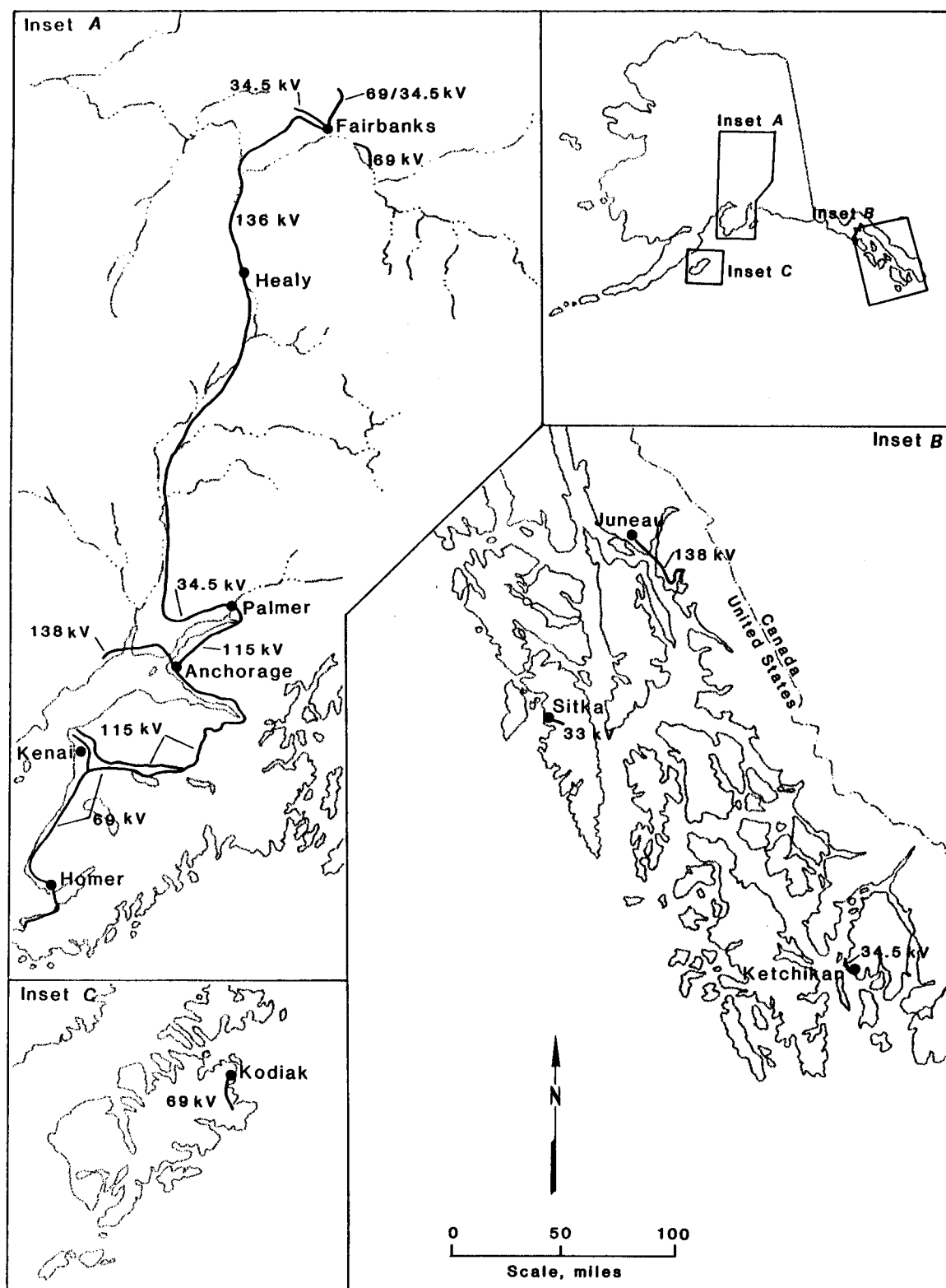


FIGURE 2. — Electrical transmission systems in Alaska  
(Source: Alaska Power Administration)

## Air

Alaska's air transport system provides a vital link between the major population centers and rural Alaska. Alaska's large and sparsely populated land mass and the limited availability of alternative transport in rural areas play a major role in the development of air transport. Air transport has proven extremely flexible, diverse, and unique in meeting the requirements in Alaska.

Alaska has approximately 1,000 airports: 195 in private use and 805 open to the public. International and regional airports such as those at Anchorage, Fairbanks, Juneau, Nome, and Deadhorse meet Federal Aviation Administration (FAA) requirements. Some smaller community airports and airstrips are mainly unimproved and may not meet FAA requirements. Many lakes throughout the State are used by floatplanes and are not under the jurisdiction of the FAA.

## Marine Highway

The Alaska Marine Highway System serves some coastal communities in southeast Alaska that are not connected by road or railroad networks. Service is provided to those communities along Alaska's coastline from Ketchikan to Seward. Anchorage, Whittier, and Valdez are the major ice-free port cities in central Alaska. The northern port cities, including Nome and Barrow, and the interior port cities of Bethel and Fairbanks, are seasonal, depending upon commercial activity and ice-free conditions.

Alaska relies heavily on marine transport as its primary means of cargo movement within the State and also to and from markets in the west coast of the United States and in foreign countries. Transported materials include bulk fertilizer, coal, consumer goods, food, minerals, petroleum, seafoods, and wood products.

## River

The first extensive transport system in Alaska was by boat along the State's major rivers. This influenced the settlement of Alaska, especially along the Yukon and Kuskokwim Rivers. Alaska's rivers are used to transport low-value, high-volume materials (gravel, fuel oil) to communities during the ice-free summer months.

## Coal Transportation Modes

Coal transport modes include river and ocean going-barges, ocean-going ships, trucks, railroad coverage, and powerlines (delivering coal-produced electricity from a mine-mouth powerplant). Future coal transport modes could include the use of slurry pipelines and belt conveyors. In Alaska, there is great potential for the use of any combination of the above transportation modes in moving coal from the mine to the user.

To efficiently develop coal mines within Alaska, the State's transportation network must greatly expand. Developing a transportation network throughout Alaska will play an important part in the development of Alaska's coal and other mineral resources. Although some known coal deposits occur close to existing transportation corridors, the bulk of the coal resources occur within regions having little or no transportation infrastructure.

## LEASING (47, 51, 137, 300, 420)

The Federal Government and the State of Alaska lease lands in Alaska for coal development. The Federal Government has issued 1 lease and the State of Alaska has issued 44 active leases to 12 parties as of January 6, 1986 (table 4).

## Federal

Coal leases in Alaska are offered on federally managed lands under the Federal Coal Leasing Amendments Act of 1976 (amending 30 U.S.C. 181 et. seq.). Coal on Federal lands is leased competitively at not less than fair market value. The major provisions of the Federal coal-leasing program are listed below.

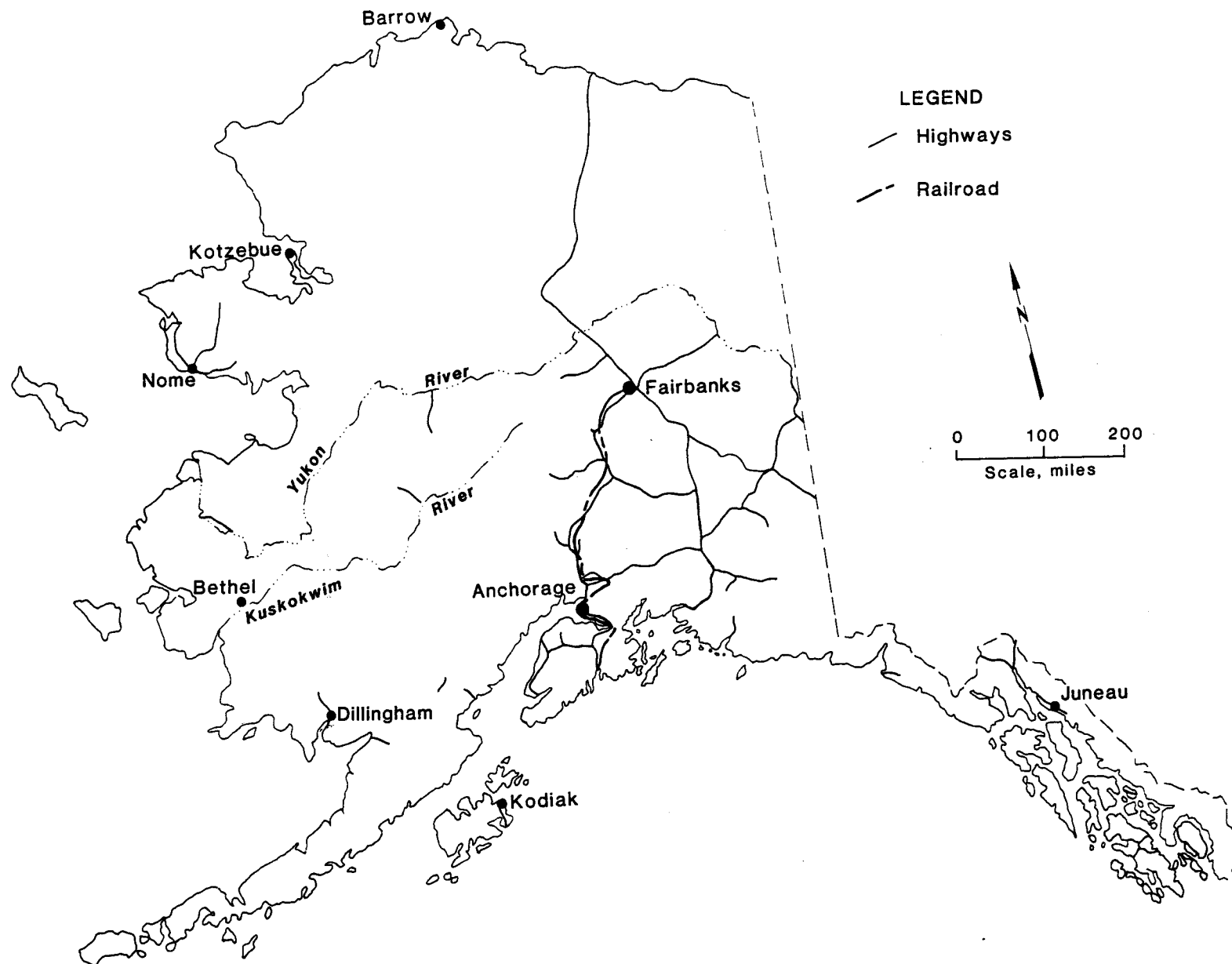


FIGURE 3. — Major railroad and highway systems in Alaska.

An exploration license is required and is issued for a 2-year period. Although the license may not be extended, it can be terminated and then reissued. This license carries no preferential right to a lease.

Rentals of not less than \$1.21/ha per year are required. Minimum royalty rate (based on gross value at the mine mouth) of 12.5% is imposed for surface mining, and a minimum royalty rate of 8% is imposed for underground mining. In certain cases of underground mining, a minimum royalty rate of no less than 5% may be allowed.

Lease terms are for 20 years and for so long thereafter as coal is produced annually in commercial quantities. Leases not producing in commercial quantities at the end of 10 years are terminated.

At least half the hectares offered competitively in any 1 year must be leased under a deferred-bonus bidding system, payable in five equal installments, making it easier for small companies to compete. No person or corporation may hold more than 40,470 ha of leases. A lease bond shall be furnished for each lease in an amount determined by the authorized officer.

A portion of all Federal coal royalties must be paid to the State in which the leased lands are located to provide public services and to mitigate community impact. Alaska is the only State that is entitled to 90% of all royalties collected by the Federal Government on lands within the State; other States are entitled to 50%<sup>3</sup>. A reasonable number of leasing tracts must be reserved and offered to lease to public bodies and/or small businesses in compliance with the Small Business Act.

### State

The State of Alaska offers lands for leasing for the development of coal under the State's coal-leasing program as contained in Alaska Statute 38.05.150 (51). The major provisions of the coal-leasing program are listed below.

No person may hold more than 18,649 ha (two townships) of coal leases and/or permits on State lands. Additional land (up to 2,072 ha) may be leased if the applicant can demonstrate that the additional lands are economically necessary to that business operation. Coal lands are divided into tracts of 16 ha or multiples of 16 ha for leasing purposes.

Prospecting permits may be issued when prospecting or exploration work is necessary to determine the existence or workability of coal deposits. Prospecting permits may not exceed 2,072 ha and may not be issued for more than a 2-year term. If within 2 years the permittee demonstrates that the lands contain coal in commercial quantities and submits a coal recovery plan, the permit is converted to a lease. No specified lease term is required by State statute. Leases are continued indefinitely so long as there is diligent development and continued operation of the mine. If not obtained through conversion of prospecting permits, leases may be awarded to qualified applicants either through competitive bidding or noncompetitive means as determined by the commissioner, Department of Natural Resources (DNR).

The minimum royalty rate that may be charged is 6 cents/mt; no ceiling on the royalty rate is specified. Actual royalty rates charged have ranged from 6 cents/mt to 39 cents/mt.

Until 1978, royalty rates were usually 5.5 cents/mt to 17 cents/mt. Since early 1979, most royalty rates have been set at 39 cents/mt. Royalty rates, once established, are effective for a period of not more than 20 years, at which time they must be reassessed and may be renegotiated at the discretion of the commissioner. Although several of the State leases have been in existence for over 20 years, their royalty rates have not been readjusted since the inception of the lease. Rental fees may not be less than 10 cents/ha for the first year of the lease, increasing to a 20 cents/ha minimum for the second through fifth years, and with rentals not less than 40 cents/ha for each year thereafter.

The commissioner may waive, suspend, or reduce the royalty or rental on an entire leasehold or any tract

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<sup>3</sup>This allocation is established in Public Law 94-579, Federal Land Policy and Management Act of 1976, Section 317. Alaska Statute (AS) 43.05.210 earmarks 37.5% of these revenues for the construction and maintenance of roads or for the support of public education. The other 52.5% may be allocated by the legislature for whatever purposes it chooses.



TABLE 4. - Active coal leases in Alaska

Lessee	Property	Coalfield
FEDERAL		
Delta Coal Co.....	Little Gold Creek...	Jarvis Creek.
STATE		
Am. Exploration & Mining Co.	Evan Jones.....	Matanuska.
Bass, R.D. Trust, W.H. Hunt, & S. Wilson.	Beluga 1.....	Beluga.
Beluga Coal Co.....	Capps, Center Ridge, Lone Ridge, & Threemile Ck. deposits.	...do...
Carrol, C.D., E.H. Corey, Jr., J.D. Lander, W. Sczudlo, and T.W. Somers.	Lignite Creek Coal..	Nenana.
Gore, R.W.	Castle Mountain Mine.	Matanuska.
Grey, H.J., & L.M.	Coffee Creek.....	Beluga.
Hawley Resource Properties.	Baxter, Buffalo, Howard-Jesson, Premier, & Rawson Mines, Wishbone Hill.	Matanuska.
Mobile Mineral Resources.	Canyon & Johnson Creeks.	Yentna.
Renshaw, D.E.	Suntrana Mine.....	Matanuska.
Rock Springs Royalty Co.	Knob Creek Complex, North & South Evan Jones Mines.	...do...
Shallit, G.B., & M.L., and Brigham Young University.	Cripple Creek Mine, Cripple Creek West.	Nenana.
Usibelli Coal Mine, Inc.	Caribou & Moose Seams, Roth-Taylor Mine, Upper Healy Creek Mine, Usibelli Coal Mine.	...do...

Source: Reference 8.

whenever, in the commissioner's judgment, it is necessary to do so to promote development or when the lease cannot be successfully operated under Alaska Statute 38.05.140(d).

Lease revenues are allocated in the following manner: 25% to the Permanent Fund, 5% to the Renewable Resource Fund, 1.5% to the Mental Health Fund, 0.5% to the Public School Fund, and the remainder to the General Fund. Prior to the fulfillment of the State's obligation on June 30, 1980, 2% had been allocated to the

Alaska Native Claims Settlement. All monies allocated to the Permanent Fund go directly into that fund. Monies allocated to the other funds must, in turn, be appropriated to those funds by the legislature.

## TAXATION

Both the Federal Government and the State tax coal mining in Alaska (51).

### Federal

The Federal Government has two major aspects in Federal tax policy that affect coal production: the coal depletion allowance and impact-related production tax.

#### Coal Depletion Allowance

The coal depletion allowance compensates a coal production company for the declining value of its property as coal is produced. Depletion is the conceptual equivalent of depreciation. It is a non cash "expense" that reduces taxable income, and hence is a tax liability for a firm. Because depletion reduces its tax payments, the firm has more cash to invest in its business. A company may be showing little or no income, but it may enjoy a strong cash position because of the depletion allowance.

When a property is leased, the tax benefit of the depletion allowance is shared between the firm mining the land and the lessor. Depletion is calculated for Federal taxes on a cost or percentage basis. The firm is required to use the method that provides the largest deduction. Under the cost method, an initial estimate of the maximum unit production of a coal property is determined. This amount is divided into the adjusted cost basis of the property to determine the amount of cost depletion per unit. This per unit cost is multiplied by the amount of annual production to determine the amount of depletion allowable for that year.

For instance, if a property could be expected to produce 110 Mmt of coal and the firm paid \$110 million in lease bonuses for the economic rights to the resource, the cost depletion allowed would be \$1.00/mt. If the firm mines 11 Mmt in its next year, then it could reduce its taxable income by \$11 million in depletion. As estimates of the productive capacity of the field change, the amount of cost depletion per unit is adjusted.

A simpler method of calculating depletion is as a percentage of revenues. Using the percentage depletion method, an operator's allowance is defined as a specified percentage of its revenues. In the case of coal, the law specifies a depletion allowance of 10%. In other words, 10% of production revenues may be subtracted from total revenues in a calculation of taxable income.

#### Impact-Related Taxes

There are two coal production taxes levied by the Federal Government that are intended to relieve specific adverse impact on coal production. These are the taxes for Black Lung Disease Fund and the Abandoned Mine Land Fund. Receipts from the former tax are dedicated to the relief of black lung victims. This tax is levied at a rate of 55 cents/mt for underground coal and 28 cents/mt for strip-mined coal. In addition, there is a 72 cents/mt reclamation tax. Proceeds from this tax are applied to solving the problems created by unsound mining practices that were followed before the passage of the Surface Mining and Reclamation Act in 1977.

### State Mining License Tax

In addition to the State corporate income tax, Alaska has one other levy which directly affects coal companies: the Mining License Tax (MLT). The provisions of the MLT are found in Alaska Statute 43.65 (51). The MLT is a tax on the net income from mining operations and lease royalties. In the MLT, mining is defined as "the ordinary treatment process (defined as "cleaning, breaking, sizing, and loading for shipment") normally applied by mine owners and operators to obtain the commercially marketable product."

The MLT is levied on the net income from mining operations and lease royalties (to private parties). If a

company or lessor has more than one income-producing property, it must be aggregated for tax purposes. No tax is levied on a firm with a net income less up to \$40,000. For firms with net incomes over \$40,000, the following schedule applies:

<u>Net Income</u>	<u>Tax Rate Applied</u>
From \$40,001 to \$50,000	3 %
From \$50,001 to \$100,000	\$1,500 plus 5 % of excess over \$50,000
Over \$100,000	\$4,000 plus 7 % of excess over \$100,000

Net income is calculated differently for mining income and royalty income. The net income from a mining operation is equal to the revenues from coal sales less deductions for operating expenses and an allowance for depletion of the resource. The lessor's net income from royalty payments is calculated as the revenues from royalties less the lessor's share of the depletion allowance.

The total amount of depletion allowable under the MLT is 10% of the gross income (revenues) from the property, not to exceed 50% of net income calculated without respect to depletion. The total amount of depletion is divided between the mine operator and the lessor, based on the amount of royalty payments. The lessor is able to subtract 10% of royalty payments to compute the net income and is allowed no other deductions. The mining operator takes the remaining depletion allowance.

Mine operators and lessors are exempt from the MLT for 3.5 years after production begins from a new mining operation. The DNR certifies when such production begins. Private lessors, primarily the Native corporations, would not be taxed for rents received prior to production or during production. Their tax liability is limited only to royalties received after the 3.5-year exemption period. Obviously, none of these provisions applies to royalty income received by the State.

## MARKETS IN ALASKA

The Alaskan markets for coal are those that currently use coal for power generation, and those areas that have the potential for future use of coal.

Coal users at the present time are located in the Fairbanks-Nenana Valley area and the Anchorage-Cook Inlet area, which constitute the railbelt area. The users include the military, which uses coal for space heating and thermal generation at its bases in Eielson, Clear, and Wainwright. Nonmilitary users include the University of Alaska--Fairbanks, the thermal electric plant in Healy that supplies electricity to the Fairbanks-Homer areas, and the Fairbanks thermal electric plant that supplies local electricity needs (164).

Potential market areas are the communities dependent upon diesel electrical generation, including those in the Copper River Valley, along the Yukon and Kuskokwim Rivers, and in northern Alaska. Communities close to coal deposits could be potential users under the right economic conditions. Additional coal-fired powerplants within the Fairbanks-Homer area (164) represent one alternative to the demise of the proposed Susitna hydroelectric dam. These could include mine-mouth powerplants in the Nenana and/or Matanuska Coalfields.

## MARKETS OUTSIDE ALASKA

Exports of Alaskan coal started in 1984 with the first shipment of coal to the Republic of Korea. The Usibelli Coal Mine which is near Healy made three shipments of steam coal totaling 40,553 mt to KEPCO (164), and shipped a total of 679,000 mt in 1985 (80) in its first year of a 15-year contract. Competing Canadian and Australian producers also supplying KEPCO with coal will require negotiations for a new Usibelli contract if coal prices are to remain competitive. The Republic of Korea is currently developing new powerplants that can use Alaskan (low sulfur) coal. These powerplants could develop an increased demand for Alaskan coal.

Other Pacific Rim countries including Japan and Taiwan are potential markets for Alaskan steam coal because they import large quantities of coal and other fuels to meet their energy demands. The Republic of Korea and Japan are considering the cutback or shutdown of domestic coal production. This would leave even more room

for Alaskan coal to increase its share of coal imported into the Republic of Korea and Japan. These potential markets are being pursued actively by Alaskan coal companies and the State of Alaska.

### ABSTRACTS OF SELECTED COAL DEPOSITS IN ALASKA

As previously stated, the largest section of this publication consists of single-page site-specific deposit summaries for 247 selected coal deposits in Alaska. Table 5 serves as an index for the following section of site-specific deposit abstracts. Deposit locations are shown on figure 4 (in pocket).

TABLE 5. - Deposit abstract index of selected coal  
deposits in Alaska

Map No. <sup>1</sup>	Deposit name	Map No. <sup>1</sup>	Deposit name
1....	Point Collier.	40...	Hunter Creek.
2....	Kuk River 1.	41...	Chicago Creek.
3....	Kuk River 2.	42...	Wallin Coal Mine.
4....	Kuk River 3.	42...	Superior Coal Mine.
5....	Kugrua River.	43...	Sinuk River.
6....	Kugrua River 1.	44...	Naskak.
7....	Peard Bay.	45...	Koyuk River.
8....	Meade River 3.	46...	Wilson Creek.
9....	Meade River 1.	47...	Tramway Bar.
10...	Meade River Prospect.	48...	Coal Creek-Dahl River.
11...	Meade River Mine 2.	49...	Hodzana River.
12...	Meade River Mine.	50...	Fishhook Bend.
13...	Meade River 2.	51...	Mission Creek.
14...	Kigalik River.	52...	American Creek.
15...	Ikpikpuk River.	53...	Wolf Creek.
16...	Killik River.	54...	Chicken Creek.
17...	Colville River.	55...	Copper Creek Coal.
18...	Awuna River 2.	56...	Washington Creek.
19...	Awuna River.	57...	Nation River Coal.
20...	Utukok River.	58...	Bonanza Creek.
21...	Kokolik River.	59...	Coal Creek-Yukon River.
22...	Tepsako River.	60...	Drew Mine.
23...	Epizeka Anticline.	61...	Hunter.
24...	Eskimo Mine.	62...	Rampart.
25...	Kukpowruk River.	63...	The Pallisades.
26...	Deadfall Syncline.	64...	Melozitna River.
27...	Cape Beaufort.	65...	Quartz Creek.
28...	Cape Sabine.	66...	Poorman Creek II.
29...	Thetis Mine.	67...	Iditarod Mine.
29...	Corwin Bluff.	68...	Innoko River 1.
30...	Corwin Mine.	69...	Innoko River 2.
31...	Niak.	70...	Nahochlatilten Mine.
32...	Cape Lewis.	71...	Koyukuk Island.
33...	Cape Dyer.	72...	Pickart Mine.
34...	Kukpuk River.	73...	Nulato Coal Bed.
35...	Cape Thompson.	74...	Busch Mine.
36...	Kallarichuk River.	75...	Blatchford Mine.
37...	Kobuk River.	76...	Adolph Muller Prospect.
38...	Hockley Hills-North	77...	Old Woman.
39...	Singauruk River.	78...	Steamboat Slough.

<sup>1</sup>Map numbers refer to locations on figure 4.

TABLE 5. - Deposit abstract index of selected coal  
deposits in Alaska--Continued

Map No. <sup>1</sup>	Deposit name	Map No. <sup>1</sup>	Deposit name
79...	Williams Mine.	110..	Cripple Creek West.
80...	Coal Creek Mine.	110..	French Creek.
81...	Anvik River.	110..	Suntrana Creek.
82...	Alaskan Commercial Co.	111..	Gold Run Pass No. 2.
83...	Blackburn Mine.	111..	Gold Run Pass No. 1.
84...	Halls Rapids.	112..	Moose Seam.
85...	Stuyahok River.	112..	Caribou Seam.
86...	Nelson Island.	113..	Nenana River Coal.
87...	North Fork Eek River.	113..	Mile 363 Mine.
88...	Big River.	114..	California Creek South.
89...	Cheeneetnuk River.	115..	Lynn Mine.
90...	Windy Fork-Kuskokwim R.	116..	California Creek.
91...	Little Tonzona River.	117..	Tatlanika.
92...	Johnson Creek.	118..	Mystic Creek.
93...	Canyon Creek.	119..	Coal Creek.
94...	Short Creek.	120..	Little Gold Creek Coal.
95...	Bluff Creek.	121..	Chisna Coal.
96...	Coal Creek.	121..	California.
97...	Coal Creek.	122..	Fourth of July Creek.
97...	Broad Pass.	123..	Lignite Creek.
98...	W.E. Dunkle Mine.	124..	Casement Glacier.
99...	Stony Moose Divide.	125..	Sullivan.
100..	Sable Mountain.	125..	Brightman & Degroff.
100..	Polychrome Mountain.	125..	Meade & Mitchell Seam.
101..	Teklanika River.	125..	Diamond Island.
101..	Sushana.	125..	Harkrader Coal.
101..	Sanctuary River.	125..	Unnamed Mine 3.
102..	Savage River.	125..	Lighter Creek.
103..	Hines Creek.	125..	Unnamed Mine 2.
104..	Yanert Coal Mine.	125..	Davis Creek.
105..	Mile 353 Prospect.	125..	Unnamed Mine 1.
106..	Dry Creek Coal.	126..	Sepphagen.
107..	Peterson Mine.	126..	Firestone Mine.
108..	Moody Creek.	127..	Murder Cove.
109..	Lignite Creek.	127..	Point Gardiner.
109..	Usibeli Coal Mine.	128..	Coal Creek.
110..	Healy Creek Adits.	129..	Lituya Bay Claim.
110..	Upper Healy Creek Mine.	130..	Dalton Mine.
110..	Roth-Taylor Mine.	131..	Duktoth River.
110..	Cripple Creek Mine.	132..	Wardall Ridge.

<sup>1</sup>Map numbers refer to locations on figure 4.

TABLE 5. - Deposit abstract index of selected coal  
deposits in Alaska--Continued

Map No. <sup>1</sup>	Deposit name	Map No. <sup>1</sup>	Deposit name
132..	Canyon Creek.	144..	Baxter Mine.
132..	Clear Creek 1.	144..	Rawson Mine.
132..	Carbon Mountain.	144..	Wishbone Hill.
132..	Second Berg Lake.	145..	Barrett, Lohnes, etel.
132..	Fourth Berg Lake.	146..	Bartholf.
132..	Bering River.	147..	Houston Coal Co.
132..	Hartline Mine.	147..	Houston West.
133..	Trout Creek.	148..	Yentna River.
133..	Clear Creek 2.	149..	Susitna Station.
133..	Lake Charlotte.	150..	Eagle River Mine.
134..	Bering River Coal N.	151..	Alaska Peat.
134..	Leeper Tunnel Site.	152..	Capps Deposit.
134..	Tokun Creek.	153..	Center Ridge Deposit.
134..	Carbon Creek Complex.	153..	Lone Ridge Deposit.
134..	Sheperd Creek.	154..	Beluga River.
134..	Kentucky Mine.	154..	Coffee Creek.
134..	Nevada Creek Tunnel.	155..	Threemile Ck. Deposit.
135..	Bering River Coal S.	155..	Beluga 1.
135..	McDonald Mine.	156..	Tyonek Creek.
135..	Bering Lake Tunnel.	157..	Falls Creek.
136..	Boulder Creek Coal.	158..	Ninilchik.
137..	Anthracite Ridge.	159..	Troublesome Creek.
138..	Chickaloon.	160..	Diamond Creek.
138..	Coal Creek.	160..	Bluff Point.
138..	Matanuska River Coal.	161..	Mine Camp.
139..	Castle Mountain Mine.	161..	Homer.
140..	Red Mountain.	162..	Bradley.
140..	Young Creek.	163..	Curtis Seam.
140..	Kings River.	163..	Fritz Creek.
141..	Carpenter Creek.	164..	Falls Creek.
142..	William Rhinhart.	164..	Eastland Canyon.
143..	Evan Jones.	164..	Cottonwood Creek.
143..	Eska Mine.	165..	Aurora.
143..	Knob Creek Complex.	166..	Coal Cove.
143..	South Evan Jones Mine.	167..	Amalik Bay.
143..	North Evan Jones Mine.	168..	Ayakulik River.
144..	Premier Mine.	169..	Sitkinak Island East.
144..	Doherty Mine.	170..	Sitkinak Island West.
144..	Howard-Jesson.	171..	Hook Bay Mine.
144..	Buffalo Mine.	172..	Thompson Valley 2.

<sup>1</sup>Map numbers refer to locations on figure 4.



TABLE 5. - Deposit abstract index of selected coal  
deposits in Alaska--Continued

Map No. <sup>1</sup>	Deposit name	Map No. <sup>1</sup>	Deposit name
172..	Thompson Valley 1.	175..	Herendeen Bay.
172..	Thompson Valley 3.	175..	Johnson Tunnel.
173..	Whalers Creek Mine.	176..	Coal Harbor.
174..	Chignik Bay Coal.		

<sup>1</sup>Map numbers refer to locations on figure 4.

## POINT COLLIER

Map No: 1

Alternate

Ocean Beach

### LOCATION-OWNERSHIP

Quadrangle..... Wainwright.  
Mining district.. Do.  
Coalfield..... Northern Alaska.  
Elevation..... 7.5 m.  
Topography..... Beach.  
Domain..... Native.

Owner..... Unknown.  
Operator..... Do.

General location.. 3.2 km southwest  
of Wainwright.

Meridian..... Umiat.  
Tract..... Sec. 34, T 15 N, R 32 W.  
Latitude..... 70°36'37" N.  
Longitude..... 160°06'20" W.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships... Deposit covered  
by Beaufort Sea.  
Coking ability..... Not reported.  
Heating value..... 10,000-12,920 Btu/lb (145).  
Composition, %:  
Ash..... 3.8-4.7.  
Sulfur..... 0.5-0.6.  
Moisture..... 18.8.  
Volatile matter.... 32.5-42.0.  
Fixed carbon..... 44.9-58.0.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Less than 5 km.  
Road requirement..... Do.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 3.2 km.  
Destination..... Wainwright.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

145-146, 174, 185, 265, 273, 316,  
320, 358.

USGS quadrangle maps... Wainwright, C-2.  
USBM sequence number... 0020020001.

## KUK RIVER 1

Map No: 2

Alternate names: Wainwright Mine, Kuk Lagoon

Commodity: Subbituminous B

### LOCATION-OWNERSHIP

Quadrangle..... Wainwright  
Mining district.. Do.  
Coalfield..... Northern Alaska.  
Elevation..... 15 m.  
Topography..... Gentle slope.  
Domain..... Native.

Owner..... Unknown.  
Operator..... Do.

General location.. On east shore of Kuk  
Lagoon 12 km southeast  
of Wainwright.  
Meridian..... Umiat.  
Tract..... Sec. 14, T 14 N, R 31 W.  
Latitude..... 70°33'37" N.  
Longitude..... 159°48'58" W.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of S 3° E, 7° W.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 308.  
Width..... Not reported.  
Thickness..... 1.5.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 9,760-12,810 Btu/lb (145).  
Composition, %:  
Ash..... 3.2-4.0.  
Sulfur..... 0.3-0.5.  
Moisture..... 20.7.  
Volatile matter... 31.8-41.7.  
Fixed carbon..... 44.3-58.3.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface-underground.  
  
Year of discovery.. 1889.  
Discovery method... Unknown.

Distance to water supply.. 0.3 km.  
Road requirement..... Do.  
Distance to power supply.. 12 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Several hundred  
metric tons per year.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 12 km.  
Destination..... Wainwright.

### PUBLISHED RESERVES-RESOURCES

Kuk River (Wainwright) area: Reserves; 1,457.7 million short tons (122).  
47 million short tons (strippable).

## REFERENCES

1, 15-16, 35, 48, 58-59, 64, 73, 86,  
122, 130, 133, 141, 145-146, 154, 167,  
169, 174, 185, 191, 235, 241, 258, 265,  
273, 290, 316, 320, 332, 335, 337, 355,  
358, 368, 376-391, 398, 415, 417, 425.

USGS quadrangle maps... Wainwright, C-2.

USBM sequence number... 0020020002.

## KUK RIVER 2

Map No: 3

Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Wainwright.  
Mining district.. Do.  
Coalfield..... Northern Alaska.  
Elevation..... 5 m.  
Topography..... Gentle slope.  
Domain..... Native.

Owner..... Unknown.  
Operator..... Do.

General location.. On east shore of  
Kuk Lagoon 22.5 km  
Southeast of Wainwright.  
Meridian..... Umiat.  
Tract..... Sec. 35, T 13 N, R 31 W.  
Latitude..... 70°26'36" N.  
Longitude..... 159°48'30" W.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of S 28° W, 5° E.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 1.2.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 9,470-13,100 Btu/lb (415).  
Composition, %:  
Ash..... 2.0-3.1.  
Sulfur..... 0.2-0.4.  
Moisture..... 24.3-25.7.  
Volatile matter... 30.0-41.9.  
Fixed carbon..... 42.3-58.5.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface-underground.  
Year of discovery.. 1889.  
Discovery method... Unknown.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Several metric tons  
per year.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 22.5 km.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 22.5 km.  
Destination..... Wainwright.

### PUBLISHED RESERVES-RESOURCES

Kuk River (Wainwright) area: Reserves; 1,457.7 million short tons (122).  
47 million short tons (strippable).

## REFERENCES

1, 35, 48, 58-59, 73, 122, 133, 145,  
154, 174, 185, 213, 273, 316, 320,  
358, 377-378, 382-389, 391, 398,  
415, 417.

USGS quadrangle maps... Wainwright, B-2.

USBM sequence number... 0020020003.

## KUK RIVER 3

Map No: 4

Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Wainwright.  
Mining district.. Do.  
Coalfield..... Northern Alaska.  
Elevation..... 2 m.  
Topography..... Gentle slope.  
Domain..... BLM-administrated.

Owner..... Unknown.  
Operator..... Do.

General location.. On east shore of  
Kuk Lagoon 26 km  
SE of Wainwright.  
Meridian..... Umiat.  
Tract..... Sec. 06, T 12 N, R 31 W.  
Latitude..... 70°25'13" N.  
Longitude..... 159°51'25" W.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of S 40° W, 5° W.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 1.6.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 9,230-13,000 Btu/lb (48).  
Composition, %:  
Ash..... 2.3-3.1.  
Sulfur..... 0.2-0.3.  
Moisture..... 26.7.  
Volatile matter... 29.1-41.0.  
Fixed Carbon..... 41.9-59.0.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface-underground.  
  
Year of discovery.. 1889.  
Discovery method... Unknown.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... 1940.  
Annual production... Several metric tons  
per year.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 26 km.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 26 km.  
Destination..... Wainwright.

### PUBLISHED RESERVES-RESOURCES

Kuk River (Wainwright) area: Reserves; 1,457.7 million short tons (122).  
47 million short tons (Strippable).

## REFERENCES

1, 35, 48, 57-59, 73, 122, 133, 145,  
154, 185, 213, 265, 273, 316, 320,  
358, 377-378, 382-391, 398, 415,  
417, 421.

USGS quadrangle maps... Wainwright, B-2.

USBM sequence number... 0020020004.



## KUGRUA RIVER

Map No: 5

Alternate names: Kugrua River 2

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Wainwright.  
Mining district.. Barrow.  
Coalfield..... Northern Alaska.  
Elevation..... 5 m.  
Topography..... Flat-lying.  
Domain..... BLM-administrated.

General location.. On north shore of  
Kugrua River 30 km  
east of Wainwright.  
Meridian..... Umiat.  
Tract..... Sec. 05, T 15 N, R 28 W.  
Latitude..... 70°40'37" N.  
Longitude..... 159°10'12" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 305.  
Width..... Not reported.  
Thickness..... 1.7.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 8,780-12,410 Btu/lb (146).  
Composition, %:  
Ash..... 7.7-12.0.  
Sulfur..... 0.3-0.7.  
Moisture..... 17.8-20.2.  
Volatile matter... 31.9-44.3.  
Fixed carbon..... 40.5-55.9.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 30 km.

Initial production.. Not reported.  
Past production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

Strippable reserves: 27 million short tons (122).

### REFERENCES

35, 122, 145-146, 185, 191, 265,  
273, 316, 320, 358, 398, 417.

USGS quadrangle maps... Wainwright, C-1.

USBM sequence number... 0020020005.

## KUGRUA RIVER 1

Map No: 6

Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Wainwright.  
Mining district.. Barrow.  
Coalfield..... Northern Alaska.  
Elevation..... 5 m.  
Topography..... Low-lying.  
Domain..... BLM-administrated.

General location.. On east shore of  
Kugrua River 30 km  
northeast of Wainwright.  
Meridian..... Umiat.  
Tract..... Sec. 13, T 16 N, R 29 W.  
Latitude..... 70°44'19" N.  
Longitude..... 159°15'52" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Not reported.

Coking ability..... Do.  
Heating value..... Do.  
Composition, %: (1).  
Ash..... 7.7.  
Sulfur..... 0.7.  
Moisture..... Not reported.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 30 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

1, 35, 185, 265, 273, 316, 320,  
417.

USGS quadrangle maps... Wainwright, C-1.  
USBM sequence number... 0020020007.

## PEARD BAY

Map No: 7

Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Meade River.  
Mining district.. Barrow.  
Coalfield..... Northern Alaska.  
Elevation..... 3 m.  
Topography..... Low-lying.  
Domain..... BLM-administrated.

General location.. Between Peard and  
Kugrua Bays.

Meridian..... Umiat.  
Tract..... Sec. 35, T 17 N, R 26 W.  
Latitude..... 70°47'18" N.  
Longitude..... 158°38'00" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 40° W,  
coal seam. Not reported.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 9,140-12,410 Btu/lb (146).  
Composition, %:  
Ash..... 6.2-7.7.  
Sulfur..... 0.5-0.7.  
Moisture..... 20.2.  
Volatile matter... 32.6-44.3.  
Fixed carbon..... 41.0-55.7.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 32 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

Peard Bay district: Reserves; 840.2 million short tons (122).

### REFERENCES

1, 16, 86, 122, 135, 145-146, 167,  
174, 185, 265, 273, 316, 320, 332,  
358, 398, 417.

USGS quadrangle maps... Meade River, D-5.  
USBM sequence number... 0020030003.

## MEADE RIVER 3

Map No: 8  
Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Meade River.  
Mining district.. Barrow.  
Coalfield..... Northern Alaska.  
Elevation..... 19 m.  
Topography..... Low-lying.  
Domain..... BLM-administrated.

General location.. 18 km north of  
Meade River.

Meridian..... Umat.  
Tract..... Sec. 29, T 15 N, R 21 W.  
Latitude..... 70°37'38" N.  
Longitude..... 157°22'50" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw Prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.3 km.  
Road requirement..... 0.6 km.  
Distance to power supply.. 18 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

35, 135, 185, 265, 273, 316, 320,  
417.

USGS quadrangle maps... Meade River, C-3.  
USBM sequence number... 0020030006.

## MEADE RIVER 1

Map No: 9

Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Meade River.  
Mining district.. Barrow.  
Coalfield..... Northern Alaska.  
Elevation..... 8 m.  
Topography..... Low-lying.  
Domain..... BLM-administrated.

General location.. 19 km north of  
Meade River.

Meridian..... Umat.  
Tract..... Sec. 28, T 15 N, R 21 W.  
Latitude..... 70°37'40" N.  
Longitude..... 157°18'50" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 19 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

35, 136, 145, 174, 185, 265, 273,  
316, 320, 417.

USGS quadrangle maps... Meade River, C-3.

USBM sequence number... 0020030002.

## MEADE RIVER PROSPECT

Map No: 10

Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Meade River.  
Mining district.. Barrow.  
Coalfield..... Northern Alaska.  
Elevation..... 12 m.  
Topography..... Low-lying.  
Domain..... BLM-administrated.

General location.. 23 km northeast  
of Meade River.

Meridian..... Umiat.  
Tract..... Sec. 20, T 15 N, R 20 W.  
Latitude..... 70°38'00" N.  
Longitude..... 157°07'00" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.9.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 10,470-12,960 Btu/lb (146).  
Composition, %:  
Ash..... 2.9-3.5.  
Sulfur..... 0.6-0.7.  
Moisture..... 16.3.  
Volatile matter... 33.8-41.8.  
Fixed carbon..... 47.0-58.2.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 1.0 km.  
Road requirement..... 2.8 km.  
Distance to power supply.. 23 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

1, 35, 135, 145-146, 174, 185,  
265, 273, 316, 320, 417.

USGS quadrangle maps... Meade River, C-2.

USBM sequence number... 0020030005.

## MEADE RIVER MINE 2

Map No: 11  
Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Meade River.  
Mining district.. Barrow.  
Coalfield..... Northern Alaska.  
Elevation..... 18 m.  
Topography..... Low-lying.  
Domain..... Native.

General location.. 16 km northeast  
of Meade River.

Meridian..... Umat.  
Tract..... Sec. 07, T 13 N, R 20 W.  
Latitude..... 70°30'00" N.  
Longitude..... 157°08'00" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.5 km.  
Road requirement..... 6 km.  
Distance to power supply.. 16 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... 1,653 mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 16 km.  
Destination..... Meade River.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

35, 135, 185, 265, 273, 316, 320,  
417.

USGS quadrangle maps... Meade River, C-2.  
USBM sequence number... 0020030007.

## MEADE RIVER MINE

Map No: 12

Alternate names: Alaska Native Service

Commodity: Subbituminous & bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Meade River.  
Mining district.. Barrow.  
Coalfield..... Northern Alaska.  
Elevation..... 15 m.  
Topography..... Low-lying.  
Domain..... Native.

General location.. 0.8 km southwest  
of Meade River.

Meridian..... Umiat.  
Tract..... Sec. 19, T 13 N, R 21 W.  
Latitude..... 70°27'47" N.  
Longitude..... 157°22'55" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Horizontal, 1° E.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 0.7.  
Depth..... 7.6.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating values..... 10,330-12,780 Btu/lb (146).  
Composition, %:  
Ash..... 4.8-5.6.  
Sulfur..... 0.6-0.7.  
Moisture..... 14.4.  
Volatile matter... 33.5-41.4.  
Fixed carbon..... 47.3-58.6.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface-underground.  
  
Year of discovery.. 1923.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 0.8 km.  
Distance to power supply.. 0.8 km.

Initial production.. 1943.  
Last production..... 1964.  
Past production..... Not reported.  
Annual production... Up to 2,205 mt/yr.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 96.5 km.  
Destination..... Barrow.

### PUBLISHED RESERVES-RESOURCES

Measured reserves; 68,000 short tons (1946) (358).



## REFERENCES

16, 35, 82, 122, 135-136, 141, 145, 154, 167,  
174, 183, 185, 191, 258, 265, 273, 285, 316,  
316, 320, 332, 335, 337, 358, 361, 367, 398,  
335, 337, 358, 361, 367, 398, 417-419.

USGS quadrangle maps... Meade River, B-3.

USBM sequence number... 0020030001.

## MEADE RIVER 2

Map No: 13  
Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Meade River.  
Mining district.. Barrow.  
Coalfield..... Northern Alaska.  
Elevation..... 15 m.  
Topography..... Low-lying.  
Domain..... BLM-administrated.

General location.. 24 km southeast  
of Meade River.

Meridian..... Umiat.  
Tract..... Sec. 12, T 11 N, R 21 W.  
Latitude..... 70°18'52" N.  
Longitude..... 157°04'50" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 24 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

16, 35, 135, 174, 185, 265, 273,  
316, 320, 417.

USGS quadrangle maps... Meade River, B-2.

USBM sequence number... 0020030004.

## KIGALIK RIVER

Map No: 14

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Lookout Ridge.  
Mining district.. Wainwright.  
Coalfield..... Northern Alaska.  
Elevation..... 152 m.  
Topography..... Gently rolling.  
Domain..... BLM-administrated.

General location.. 22 km northeast  
of Birthday Pass.

Meridian..... Umiat.  
Tract..... Sec. 20, T 01 S, R 17 W.  
Latitude..... 69°20'00" N.  
Longitude..... 156°04'00" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam averages  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 265, 273, 320, 398, 417.

USGS quadrangle maps... Lookout Ridge, B-1.

USBM sequence number... 0020110002.

## IKPIKPUK RIVER

Map No: 15

Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Ikpiuk River.  
Mining district.. Barrow.  
Coalfield..... Northern Alaska.  
Elevation..... 61 m.  
Topography..... Low-lying.  
Domain..... BLM-administrated.

General location.. At Little Supreme Bluff.

Meridian..... Umat.  
Tract..... Sec. 30, T 03 N, R 12 W.  
Latitude..... 69°35'10" N.  
Longitude..... 154°55'50" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 1.0.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 9,970-12,440 Btu/lb (146).  
Composition, %:  
Ash..... 6.3-20.9.  
Sulfur..... 0.3-0.6.  
Moisture..... 8.4-15.0.  
Volatile matter.. 26.0-34.0.  
Fixed carbon..... 41.3-59.1.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.

Distance to water supply.. 0.1 km.  
Road requirement..... 1.0 km.  
Distance to power supply.. Onsite.

Year of discovery.. 1930.  
Discovery method... Exploration.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

Ikpiuk River District: Reserves; 2,623.9 million short tons (122).  
Strippable - 88 million short tons.

## REFERENCES

1, 16, 35, 122, 130, 145-146,  
174, 185, 191, 265, 273, 316,  
320, 332, 398, 417.

USGS quadrangle maps... Ikpikuk River, C-4.

USBM sequence number... 0020120005.

## KILLIK RIVER

Map No: 16

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Ikpiuk River.  
Mining district.. Colville.  
Coalfield..... Northern Alaska.  
Elevation..... 213 m.  
Topography..... Gently rolling.  
Domain..... Native.

General location.. 2 km south of  
Puirlik Bluff.

Meridian..... Umiat.  
Tract..... Sec. 18, T 05 S, R 08 W.  
Latitude..... 69°00'45" N.  
Longitude..... 153°52'00" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.6.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 8,450-10,110 Btu/lb (146).  
Composition, %:  
Ash..... 11.8-14.1.  
Sulfur..... 0.3.  
Moisture..... 16.4.  
Volatile matter... 29.9-35.7.  
Fixed carbon..... 41.9-50.2.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. 1924.  
Discovery method... Exploration.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

1, 44, 145-146, 174, 185, 265,  
273, 316, 320, 398, 417, 422.

USGS quadrangle maps... Ikpiuk River, A-2.  
USBM sequence number... 0020120003.

## COLVILLE RIVER

Map No: 17  
Alternate names: None

Commodity: Bituminous & subbituminous A

### LOCATION-OWNERSHIP

Quadrangle..... Ikpikpuk River.  
Mining district.. Colville.  
Coalfield..... Northern Alaska.  
Elevation..... 213 m.  
Topography..... Gently rolling.  
Domain..... Native.

General location.. Across from mouth  
of Kurupa River.

Meridian..... Umiat.  
Tract..... Sec. 28, T 04 S, R 13 W.  
Latitude..... 69°03'50" N.  
Longitude..... 155°03'00" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of East-west, 45° S.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 6.1.  
Width..... Not reported.  
Thickness..... 0.76.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 11,825 Btu/lb (16).  
Composition, %:  
Ash..... 2.4.  
Sulfur..... 0.7.  
Moisture..... 8.8.  
Volatile matter... 33.7.  
Fixed carbon..... 55.1.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. 1886.  
Discovery method... Exploration.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

Colville River District: Reserves; Bituminous - 7,222.3 million short tons (122).  
Subbituminous - 11,489.1 million short tons.  
Strippable reserves; Bituminous - 179 million short tons.  
Subbituminous - 386 million short tons.

## REFERENCES

16, 35, 52, 62, 64, 122, 130, 133,  
136, 185, 191, 235, 241, 265, 273,  
316, 320, 332, 367, 398, 417, 423.

USGS quadrangle maps... Ikpikpuk River, A-4.

USBM sequence number... 0020120004.



## AWUNA RIVER 2

Map No: 18  
Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Ikpikpuk River.  
Mining district.. Colville.  
Coalfield..... Northern Alaska.  
Elevation..... 244 m.  
Topography..... Gently rolling.  
Domain..... BLM-administrated.

General location.. 76 km west of  
Puirlik Bluff.  
Meridian..... Umiat.  
Tract..... Sec. 07, T 05 S, R 16 W.  
Latitude..... 69°01'40" N.  
Longitude..... 155°47'00" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 1.1.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1924.  
Discovery method... Exploration.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 265, 273, 316, 320, 367,  
398.

USGS quadrangle maps... Ikpikpuk River, A-5.  
USBM sequence number... 0020120001.

## AWUNA RIVER

Map No: 19  
Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Lookout Ridge.  
Mining district.. Colville.  
Coalfield..... Northern Alaska.  
Elevation..... 244 m.  
Topography..... Gently rolling.  
Domain..... BLM-administrated.

General location.. 18 km south of  
Birthday Pass.

Meridian..... Umiat.  
Tract..... Sec. 18, T 04 S, R 19 W.  
Latitude..... 69°05'50" N.  
Longitude..... 156°33'30" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 1.0.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. 1924.  
Discovery method... Exploration.

Distance to water supply.. 1.6 km.  
Road requirement..... 9.6 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 265, 273, 316, 320, 398.

USGS quadrangle maps... Lookout Ridge, A-1.

USBM sequence number... 0020110001.

## UTUKOK RIVER

Map No: 20  
Alternate names: None

Commodity: Subbituminous & bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Wainwright.  
Mining district.. Do.  
Coalfield..... Northern Alaska.  
Elevation..... 15 m.  
Topography..... Flat-lying.  
Domain..... Native.

General location.. 9 km from mouth  
of Utukok River.

Meridian..... Umiat.  
Tract..... Sec. 28, T 8 N, R 41 W.  
Latitude..... 70°00'49" N.  
Longitude..... 162°08'30" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.9.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 11,850-13,500 Btu/lb (117).  
Composition, %:  
Ash..... 7.6-8.0.  
Sulfur..... 0.2-0.3.  
Moisture..... 4.6.  
Volatile matter... 36.2-41.2.  
Fixed carbon..... 51.6-58.8.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1923.  
Discovery method... Exploration.

Distance to water supply.. 0.2 km.  
Road requirement..... 9 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

Utukok River district: Reserves; 44,738.1 million short tons (Subbituminous) (122).  
2,737.9 million short tons (Bituminous).

## REFERENCES

21, 35, 84, 86, 117, 122, 191,  
213, 273, 316, 332, 334, 361,  
367, 373, 376-377, 398, 417,  
421, 423, 425, 454, 469.

USGS quadrangle maps... Wainwright, A-6.

USBM sequence number... 0020020006.

## KOKOLIK RIVER

Map No: 21

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Point Lay.  
Mining district.. Wainwright.  
Coalfield..... Northern Alaska.  
Elevation..... 5 m.  
Topography..... Low-lying.  
Domain..... Native.

General location.. 3 km east of  
Point Lay.

Meridian..... Umiat.  
Tract..... Sec. 30, T 05 N, R 42 W.  
Latitude..... 69°45'16" N.  
Longitude..... 162°58'40" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.4 km.  
Road requirement..... Do.  
Distance to power supply.. 3 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

35, 85, 117, 122, 191, 273, 316,  
332, 334, 354, 367, 398, 417,  
454, 458.

USGS quadrangle maps... Point Lay, D-2.  
USBM sequence number... 0020090004.

## TEPSAKO RIVER

Map No: 22

Alternate names: Kokolik River

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Point Lay.  
Mining district.. Wainwright.  
Coalfield..... Northern Alaska.  
Elevation..... 17 m.  
Topography..... Low-lying.  
Domain..... Native.

General location.. 29 km east of  
Point Lay.

Meridian..... Umat.  
Tract..... Sec. 29, T 05 N, R 42 W.  
Latitude..... 69°45'10" N.  
Longitude..... 162°25'44" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 3.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 11,888-13,610 Btu/lb (415).  
Composition, %:  
Ash..... 2.8-3.1.  
Sulfur..... 0.4.  
Moisture..... 10.5.  
Volatile matter... 37.3-43.0.  
Fixed carbon..... 49.4-57.0.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 29 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

1, 35, 117, 185, 265, 273, 316,  
320, 415, 417.

USGS quadrangle maps... Point Lay, D-1.

USBM sequence number... 0020090003.

## EPIZETKA ANTICLINE

Map No: 23  
Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Point Lay.  
Mining district.. Wainwright.  
Coalfield..... Northern Alaska.  
Elevation..... 17 m.  
Topography..... Low-lying.  
Domain..... Native.

General location.. 8 km above the mouth of  
the Kukpowruk River.

Meridian..... Umiat.  
Tract..... Sec. 21, T 03 N, R 45 W.  
Latitude..... 69°36'00" N.  
Longitude..... 162°56'40" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 11,910-13,600 Btu/lb (117).  
Composition, %:  
Ash..... 2.5-2.8.  
Sulfur..... 0.4-0.5.  
Moisture..... 9.9.  
Volatile matter... 31.5-35.9.  
Fixed carbon..... 56.1-64.1.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.3 km.  
Road requirement..... Do.  
Distance to power supply.. 19 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

117, 145, 174, 185, 265, 273,  
316, 320.

USGS quadrangle maps... Point Lay, C-2.  
USBM sequence number... 0020090005.

## ESKIMO MINE

Map No: 24

Alternate names: Kukpowruk River

Commodity: High volatile C bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Point Lay.  
Mining district.. Wainwright.  
Coalfield..... Northern Alaska.  
Elevation..... 61 m.  
Topography..... Gently rolling.  
Domain..... Native.

General location.. 52 km southeast  
of Point Lay.

Meridian..... Umiat.  
Tract..... Sec. 28, T 01 S, R 44 W.  
Latitude..... 69°19'28" N.  
Longitude..... 162°33'33" W.

Owner..... Morgan Coal Company.  
Operator..... J.S. Robbins and Associates.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of S 85° W, 7-12° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 152.4.  
Width..... Not reported.  
Thickness..... 6.6.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Good.  
Heating value..... 13,100-13,830 Btu/lb (458).  
Composition, %:  
Ash..... 2.4-7.0.  
Sulfur..... 0.2-0.4.  
Moisture..... 3.2-4.4.  
Volatile matter... 32.0-39.1.  
Fixed carbon..... 50.0-58.6.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.2 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

Kukpowruk coal basin: Strippable; Measured & Indicated - 16.9 million short tons (218).  
Inferred - 98.4 million short tons.  
Underground; Measured & Indicated - 100 million short tons.



## REFERENCES

68, 185, 218, 265, 273, 316,  
320, 458, 460.

USGS quadrangle maps... Point Lay, B-1.

USBM sequence number... 0020090006.

## KUKPOWRUK RIVER

Map No: 25

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Point Lay.  
Mining district.. Wainwright.  
Coalfield..... Northern Alaska.  
Elevation..... 76 m.  
Topography..... Rolling hills.  
Domain..... Native.

General location.. 50 km east-northeast  
of Cape Beaufort.

Meridian..... Umiat.  
Tract..... Sec. 23, T 03 S, R 45 W.  
Latitude..... 69°09'50" N.  
Longitude..... 162°42'40" W.

Owner..... Morgan Coal Company.  
Operator..... Unknown.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of S 85° W, 7-12° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 152.  
Width..... Not reported.  
Thickness..... 6.1.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Good.  
Heating value..... 11,800-15,300 Btu/lb (117).  
Composition, %:  
Ash..... 2.0-10.4.  
Sulfur..... 0.1-0.5.  
Moisture..... 0.8-10.5.  
Volatile matter... 29.1-43.0.  
Fixed carbon..... 49.4-66.6.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. 1923.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

Kukpowruk coal basin: Strippable; Measured & Indicated - 16.9 million short tons (218).  
Inferred - 98.4 million short tons.  
Underground; Measured & Indicated - 100 million short tons.

## REFERENCES

1, 16, 21, 35, 57, 59, 84, 86, 117,  
122, 145-146, 174, 185, 191, 196,  
213, 218, 220, 223, 265, 273, 316,  
320, 327-328, 332, 335, 354-355, 361,  
367, 373, 376, 394, 398, 415, 417,  
421, 425, 454, 458, 460.

USGS quadrangle maps... Point Lay, A-2.

USBM sequence number... 0020090002.

## DEADFALL SYNCLINE

Map No: 26  
Alternate names: None

Commodity: High volatile B bituminous

## LOCATION-OWNERSHIP

Quadrangle..... Point Lay.  
Mining district.. Wainwright.  
Coalfield..... Northern Alaska.  
Elevation..... 73 m.  
Topography..... Gently rolling.  
Domain..... Native.

General location.. 31 km northeast  
of Cape Beaufort.

Meridian..... Umiat.  
Tract..... Sec. 24, T 03 S, R 47 W.  
Latitude..... 69°09'52" N.  
Longitude..... 163°09'41" W.

Owner..... North Slope Borough.  
Operator..... Arctic Slope Regional Corporation.

## GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 4.0.  
Depth ..... 1-10.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 10,675-13,209 Btu/lb (22).  
Composition, %:  
Ash..... 5.53-21.71.  
Sulfur..... 0.06-0.64.  
Moisture..... 2.6-7.93.  
Volatile matter... Not reported.  
Fixed carbon..... Do.

## DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 1.6 km.  
Road requirement..... 10.7 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

## PUBLISHED RESERVES-RESOURCES

Reserves: Measured 15.81 million short tons (22).  
Inferred 59 million short tons.

## REFERENCES

22-23, 80, 164, 273, 316, 427,  
433.

USGS quadrangle maps... Point Lay, A-2.

USBM sequence number... 0020090007.

## CAPE BEAUFORT

Map No: 27

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Point Lay.  
Mining district.. Wainwright.  
Coalfield..... Northern Alaska.  
Elevation..... 15 m.  
Topography..... Gentle slope.  
Domain..... Native.

General location.. At Cape Beaufort  
on the Chukchi Sea.

Meridian..... Umiat.  
Tract..... Sec. 08, T 05 S, R 50 W.  
Latitude..... 69°01'19" N.  
Longitude..... 163°50'09" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of S 45° E, 20° SW.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 1.8.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Yes.  
Heating value..... 8,720-13,830 Btu/lb (458).  
Composition, %:  
Ash..... 4.0-19.8.  
Sulfur..... 0.1-0.7.  
Moisture..... 6.3-19.8.  
Volatile matter... 21.9-42.6.  
Fixed carbon..... 36.7-72.3.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1826.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 9 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

Cape Beaufort district: Resources; Measured 3.5 million short tons (191).  
Indicated 312 million short tons.  
Inferred 686 to 936 million short tons.

## REFERENCES

21, 35, 79, 84, 86, 117, 122, 130,  
164, 185, 191, 265, 273, 316, 320,  
322, 327, 330, 332, 335, 355, 365,  
398, 417, 428, 454, 458.

USGS quadrangle maps... Point Lay, A-4.

USBM sequence number... 0020090001.

## CAPE SABINE

Map No: 28

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... De Long Mtns.  
Mining district.. Lisburne.  
Coalfield..... Northern Alaska.  
Elevation..... 4 m.  
Topography..... Steep cliff.  
Domain..... Native.

General location.. 65 km east of  
Cape Lisburne.

Meridian..... Umiat.  
Tract..... Sec. 24, T 06 S, R 54 W.  
Latitude..... 68°54'26" N.  
Longitude..... 164°36'52" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 80° E, 20-40° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 1.2.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Development deposit.  
Type of operation.. Surface.  
Year of discovery.. 1826.  
Discovery method... Exploration.

Distance to water supply.. 1.0 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

7, 130, 133, 185, 265, 273, 316,  
320, 354, 355, 398, 417.

USGS quadrangle maps... De Long Mtns., D-5.  
USBM sequence number... 0020180010.



## THETIS MINE

Map No: 29

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... De Long Mtns.  
Mining district.. Lisburne.  
Coalfield..... Northern Alaska.  
Elevation..... 15 m.  
Topography..... Low-lying.  
Domain..... Native.

General location.. 6.8 km west of  
Cape Sabine.

Meridian..... Umiat.  
Tract..... Sec. 30, T 06 S, R 54 W.  
Latitude..... 68°53'20" N.  
Longitude..... 164°50'45" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 60° W, 20° SW.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 1.8.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 6,487-10,467 Btu/lb (332).  
Composition, %:  
Ash..... 5.8-31.1.  
Sulfur..... 0.3-0.8.  
Moisture..... 12.0-15.7.  
Volatile matter... 25.0-44.0.  
Fixed carbon..... 29.2-58.8.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface.  
  
Year of discovery.. 1888.  
Discovery method... Exploration.

Distance to water supply.. 0.1 km.  
Road requirement..... 1.0 km.  
Distance to power supply.. Onsite.

Initial production.. 1888.  
Last production..... 1901.  
Past production..... 1,102 mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 1.0 km.  
Destination..... Local use  
and ships.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

130-133, 185, 265, 273, 316, 320,  
332, 364, 398, 417.

USGS quadrangle maps... De Long Mtns., D-5.

USBM sequence number... 0020180005.

## CORWIN BLUFF

Map No: 29

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... De Long Mtns.  
Mining district.. Lisburne.  
Coalfield..... Northern Alaska.  
Elevation..... 15 m.  
Topography..... Steep cliff.  
Domain..... Native.

General location.. 16 km west of  
Cape Sabine.

Meridian..... Umiat.  
Tract..... Sec. 34, T 06 S, R 55 W.  
Latitude..... 68°53'00" N.  
Longitude..... 164°58'35" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 75° W, 30-40° SW.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 0.76.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... No.  
Heating value..... 0.96 (Fuel ratio) (133).  
Composition, %:  
Ash..... 4.33.  
Sulfur..... 0.4.  
Moisture..... 13.55.  
Volatile matter... 41.30.  
Fixed carbon..... 40.80.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface.  
Year of discovery.. 1826.  
Discovery method... Exploration.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... A few metric tons.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 0.1 km.  
Destination..... Local use  
and ships.

### PUBLISHED RESERVES-RESOURCES

Corwin Bluff district: Identified reserves; Indicated - 56 million short tons (189).  
Inferred - 926 million short tons.

## REFERENCES

21, 35, 84, 86, 122, 130, 133, 185,  
189, 265, 273, 316, 320, 332, 335,  
355, 361, 365, 373, 394, 398, 417,  
454.

USGS quadrangle maps... De Long Mtns., D-5.

USBM sequence number... 0020180008.

## CORWIN MINE

Map No: 30

Alternate names: Corwin Trading Co.,  
Arctic Development Co., E.L. West Coal

Commodity: High volatile B bituminous  
High volatile C bituminous

## LOCATION-OWNERSHIP

Quadrangle..... Point Hope.  
Mining district.. Lisburne.  
Coalfield..... Northern Alaska.  
Elevation..... 8 m.  
Topography..... Gentle slope.  
Domain..... BLM-administrated.

General location.. 43.5 km east of  
Cape Lisburne.

Meridian..... Umiat.  
Tract..... Sec. 02, T 07 S, R 56 W.  
Latitude..... 68°52'13" N.  
Longitude..... 165°08'20" W.

Owner..... Mary G. Schofield.  
Operator..... Unknown.

## GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 75° W, 48° SE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 1.5.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... No.  
Heating value..... 8,175-11,876 Btu/lb (332).  
Composition, %:  
Ash..... 7.1-19.7.  
Sulfur..... 0.2-0.6.  
Moisture..... 5.7-13.9.  
Volatile matter... 32.6-45.9.  
Fixed carbon..... 36.5-59.8.

## DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
Year of discovery.. 1826.  
Discovery method... Exploration.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. 1879.  
Past production..... 1923.  
Past production..... 2,866 mt.  
Annual production... Not reported.

Process rate..... Not reported.  
Product type..... Coal.  
Distance shipped..... Unknown.  
Destination..... Local use  
and ships.

## PUBLISHED RESERVES-RESOURCES

Corwin Bluff district: Identified reserves; Indicated - 56 million short tons (191).  
Inferred - 926 million short tons.

## REFERENCES

15, 59, 117, 130, 133, 136, 185,  
189, 265, 273, 292, 316, 320,  
332, 361, 365, 394, 398, 417,  
421, 432, 458.

USGS quadrangle maps... Point Hope, D-1.

USBM sequence number... 0020170004.

## NIAK

Map No: 31

Alternate names: Niak Creek

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Point Hope.  
Mining district.. Lisburne.  
Coalfield..... Northern Alaska.  
Elevation..... 60 m.  
Topography..... Steep cliff.  
Domain..... State.

General location.. 6.4 km south of  
Cape Lisburne.

Meridian..... Umiat.  
Tract..... Sec. 21, T 07 S, R 60 W.  
Latitude..... 68°49'06" N.  
Longitude..... 166°11'20" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 1.4.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 4.97 (Fuel ratio) (133).  
Composition, %:  
Ash..... 2.94.  
Sulfur..... Not reported.  
Moisture..... 3.77.  
Volatile matter... 15.64.  
Fixed carbon..... 77.65.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Pre 1904.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 1.0 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

133, 185, 265, 273, 316, 320,  
398, 417.

USGS quadrangle maps... Point Hope, D-2.

USBM sequence number... 0020170003.

## CAPE LEWIS

Map No: 32

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Point Hope.  
Mining district.. Lisburne.  
Coalfield..... Northern Alaska.  
Elevation..... 60 m.  
Topography..... Steep bluff.  
Domain..... State.

General location.. 17.7 km south of  
Cape Lisburne.

Meridian..... Umiat.  
Tract..... Sec. 33, T 08 S, R 60 W.  
Latitude..... 68°42'07' N.  
Longitude..... 166°11'25" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Corwin.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 75° E, 40° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 804.7.  
Width..... Not reported.  
Thickness..... 1.2.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 3.32 (Fuel ratio) (133).  
Composition, %:  
Ash..... 3.0.  
Sulfur..... 0.96.  
Moisture..... 5.51.  
Volatile matter... 21.16.  
Fixed carbon..... 70.33.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

130, 133, 185, 265, 273, 316, 320,  
398, 417.

USGS quadrangle maps... Point Hope, C-3.

USBM sequence number... 0020170002.



## CAPE DYER

Map No: 33  
Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Point Hope.  
Mining district.. Lisburne.  
Coalfield..... Northern Alaska.  
Elevation..... 60 m.  
Topography..... Steep cliff.  
Domain..... State.

General location.. 25.7 km south  
of Cape Lisburne.

Meridian..... Umiat.  
Tract..... Sec. 21, T 09 S, R 61 W.  
Latitude..... 68°39'00" N.  
Longitude..... 166°13'30" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kapaloak.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.3.  
Depth..... Outcrop.

Formation age..... Paleozoic.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 14,000 Btu/lb (354).  
Composition, %: (133).  
Ash..... 2.81.  
Sulfur..... Not reported.  
Moisture..... 1.71.  
Volatile matter... 15.62.  
Fixed carbon..... 79.86.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1900.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. 1900.  
Last production..... Do.  
Past production..... 1.1 mt.  
Annual production... Not reported.

Process rate..... Not reported.  
Product type..... Coal.  
Distance shipped..... 0.1 km.  
Destination..... A ship.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

130, 133, 141, 185, 265, 269, 273,  
316, 320, 354, 398, 417.

USGS quadrangle maps... Point Hope, C-3.

USBM sequence number... 0020170001.

## KUKPUK RIVER

Map No: 34

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Point Hope.  
Mining district.. Lisburne.  
Coalfield..... Northern Alaska.  
Elevation..... 26 m.  
Topography..... Gently rolling.  
Domain..... Native.

General location.. 39 km northeast  
of Point Hope.

Meridian..... Umiat.  
Tract..... Sec. 14, T 12 S, R 60 W.  
Latitude..... 68°24'30" N.  
Longitude..... 165°54'26" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kapaloak.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Paleozoic.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface.  
Year of discovery.. 1826.  
Discovery method... Unknown.

Distance to water supply.. 0.3 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... A few metric tons.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 39 km.  
Destination..... Point Hope  
whaling station.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

130, 133, 185, 265, 273, 316, 320,  
398, 417.

USGS quadrangle maps... Point Hope, B-2.

USBM sequence number... 0020170007.

## CAPE THOMPSON

Map No: 35

Alternate names: Eegikruttoosook Creek

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Point Hope.  
Mining district.. Lisburne.  
Coalfield..... Northern Alaska.  
Elevation..... 46 m.  
Topography..... Steep slope.  
Domain..... State.

General location.. 42 km southeast  
of Point Hope.

Meridian..... Kateel River.  
Tract..... Sec. 27, T 32 N, R 32 W.  
Latitude..... 68°08'40" N.  
Longitude..... 165°58'00" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kapaloak.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Paleozoic.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1826.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 1.0 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... A few metric tons.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 42 km.  
Destination..... Point Hope  
whaling station.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

130, 133, 185, 265, 273, 316, 320,  
354, 398, 417.

USGS quadrangle maps... Point Hope, A-2.

USBM sequence number... 0020170006.

## KALLARICHUK RIVER

Map No: 36

Alternate names: None

Commodity: High volatile C bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Baird Mountains.  
Mining district.. Kiana.  
Coalfield..... Unnamed.  
Elevation..... 30 m.  
Topography..... Gently rolling.  
Domain..... National Park.

General location.. 7 km northwest of the  
junction of the Kobuk River.

Meridian..... Kateel River.  
Tract..... Sec. 05, T 20 N, R 05 W.  
Latitude..... 67°10'00" N.  
Longitude..... 159°48'48" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 45° E, 45° W.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 0.5.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 5,788-12,585 Btu/lb (123)  
Composition, %:  
Ash..... 12.97-37.62.  
Sulfur..... 0.38-1.43.  
Moisture..... 13.20-17.15.  
Volatile matter... 23.30-45.00.  
Fixed carbon..... 28.38-56.46.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.5 km.  
Road requirement..... 7 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

123, 273, 314, 393, 417, 421.

USGS quadrangle maps... Baird Mtns., A-2.

USBM sequence number... 0020270025.

## KOBUK RIVER

Map No: 37

Alternate names: Haralan Mine, Kiana

Commodity: High volatile C bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Baird Mtns.  
Mining district.. Kiana.  
Coalfield..... Unnamed.  
Elevation..... 122 m.  
Topography..... Gently rolling.  
Domain..... National Park.

General location.. 1.6 km below the  
Kallarichuk River.

Meridian..... Kateel River.  
Tract..... Sec. 32, T 20 N, R 05 W.  
Latitude..... 67°05'30" N.  
Longitude..... 159°47'50' W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.6.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 9,200-10,500 Btu/lb (265).  
Composition, %:  
Ash..... 7.0-35.0.  
Sulfur..... 0.4-1.1.  
Moisture..... Not reported.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface.  
  
Year of discovery.. 1886.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. 1908.  
Last production..... 1932.  
Past production..... 204 mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... Unknown.  
Destination..... Inmachuk.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

1, 35, 73, 109, 185, 237, 265,  
273, 314, 320, 355, 382, 397,  
417.

USGS quadrangle maps... Baird Mtns., A-2.  
  
USBM sequence number... 0020270019.

## HOCKLEY HILLS-NORTH

Map No: 38  
Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Selawik.  
Mining district.. Kiana.  
Coalfield..... Unnamed.  
Elevation..... 155 m.  
Topography..... Gently rolling.  
Domain..... Native.

General location.. 34 km northwest of  
Selawik.

Meridian..... Kateel River.  
Tract..... Sec. 21, T 17 N, R 08 W.  
Latitude..... 66°51'28" N.  
Longitude..... 160°26'30" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 20° E, 40° W.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 0.03.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 5,196-13,031 Btu/lb (124).  
Composition, %:  
Ash..... 58.67-59.54.  
Sulfur..... 0.25.  
Moisture..... 1.46.  
Volatile matter... 11.11-27.87.  
Fixed carbon..... 28.78-72.13.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.2 km.  
Road requirement..... Do.  
Distance to power supply.. 34 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

81, 124, 129, 273, 314, 417.

USGS quadrangle maps... Selawik, D-3.

USBM sequence number... 0020360009.



## SINGAURUK RIVER

Map No: 39

Alternate names: Hockley Hills-South

Commodity: High volatile C bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Selawik.  
Mining district.. Do.  
Coalfield..... Unnamed.  
Elevation..... 92 m.  
Topography..... Gently rolling.  
Domain..... Native.

Owner..... Unknown.  
Operator..... Do.

General location.. 26 km northwest of Selawik.

Meridian..... Kateel River.  
Tract..... Sec. 14, T 16 N, R 08 W.  
Latitude..... 66°47'08" N.  
Longitude..... 160°20'18" W.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 40° E, 30° W.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 1.73.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 4,125-12,590 Btu/lb (124).  
Composition, %:  
Ash..... 11.81-58.29.  
Sulfur..... 0.24-0.68.  
Moisture..... 9.013-15.86.  
Volatile matter... 16.51-43.93.  
Fixed carbon..... 21.07-64.84.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 26 km.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

81, 124, 129, 262, 314, 417.

USGS quadrangle maps... Selawik, D-3.

USBM sequence number... 0020360010.

## HUNTER CREEK

Map No: 40  
Alternate names: None

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Kotzebue.  
Mining district.. Fairhaven.  
Coalfield..... Unnamed.  
Elevation..... 53 m.  
Topography..... Steep slope.  
Domain..... Native.

General location.. 21 km east of Deering.

Meridian..... Kateel River.  
Tract..... Sec. 04, T 07 N, R 17 W.  
Latitude..... 66°01'55" N.  
Longitude..... 162°15'40" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 2.0 km.  
Distance to power supply.. 21 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

108, 129, 185, 265, 273, 320,  
417.

USGS quadrangle maps... Kotzebue, A-1.  
USBM sequence number... 0020350004.

## CHICAGO CREEK

Map No: 41

Alternate names: Kugruk Coal Mine

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Bendeleben.

Mining district.. Fairhaven.

Coalfield..... Chicago Creek.

Elevation..... 40 m.

Topography..... Gently rolling.

Domain..... Native.

General location.. 23 km southeast of Deering.

Meridian..... Kateel River.

Tract..... Sec. 22, T 06 N, R 18 W.

Latitude..... 65°54'10" N.

Longitude..... 162°25'24" W.

Owner..... NANA Regional Corporation.

Operator..... Denali Drilling, Inc.

### GEOLOGY

Formation name.... Kugruk.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 8° W, 53° W.  
coal seam.

Coal seam average  
dimensions, m.

Length..... 1,524.

Width..... 31.7.

Thickness..... 26.8.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Sandstone lies over ore.

Shale lies under ore.

Coking ability..... Not reported.

Heating value..... 6,000-6,000 Btu/lb (198, 415).

Composition, %:

Ash..... 7.1-8.86.

Sulfur..... 0.8.

Moisture..... 33.8-37.73.

Volatile matter... 24.14-39.9.

Fixed carbon..... 19.2-29.27.

### DEVELOPMENT

Current status..... Past producer.

Type of operation.. Surface-underground.

Year of discovery.. 1902.

Discovery method... Prospecting.

Distance to water supply.. 0.1 km.

Road requirement..... 13 km.

Distance to power supply.. Onsite.

Initial production.. 1908.

Last production..... 1911.

Past production..... 121,252 mt.

Annual production... Not reported.

Process rate..... Unknown.

Product type..... Coal.

Distance shipped..... 28 km.

Destination..... Candle.

### PUBLISHED RESERVES-RESOURCES

Demonstrated reserves; 4.5 million short tons (80).

## REFERENCES

15, 21, 35, 44, 52, 54, 68, 71, 78,  
80, 108, 113, 145, 163-166, 174,  
188, 197-198, 224, 286, 290, 354-355,  
368, 373-374, 377-378, 382-388, 390-391,  
395, 398, 415, 417, 421, 427, 433, 462.

USGS quadrangle maps... Bendeleben, D-1.

USBM sequence number... 0020440088.

## WALLIN COAL MINE

Map No: 42  
Alternate names: George Wallin Mine,  
Kugruk Mine

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Bendeleben.  
Mining district.. Fairhaven.  
Coalfield..... Chicago Creek.  
Elevation..... 34 m.  
Topography..... Gently rolling.  
Domain..... BLM-administrated.

General location.. 31 km southeast of Deering.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Kateel River.  
Tract..... Sec. 10, T 05 N, R 13 W.  
Latitude..... 65°50'55" N.  
Longitude..... 162°25'47" W.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 15° W, 67-70° SW.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 21.3.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 9,583-12,762 Btu/lb (180).  
Composition, %:  
Ash..... 5.17-6.44.  
Sulfur..... 1.21-1.61.  
Moisture..... 19.74.  
Volatile matter... 36.25-48.28.  
Fixed carbon..... 38.84-51.72.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. 1902.  
Discovery method... Prospecting.

Distance to water supply.. 0.1 km.  
Road requirement..... 21 km.  
Distance to power supply.. Onsite.

Initial production.. 1914.  
Last production..... 1918.  
Past production..... 11,023 mt.  
Annual production... 28-110 mt/yr.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 28 km.  
Destination..... Candle.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

108-109, 113, 180, 197-198, 237, 273,  
286, 366, 374, 376, 400, 415, 417.

USGS quadrangle maps... Bendeleben, D-1.

USBM sequence number... 0020440160.

## SUPERIOR COAL MINE

Map No: 42

Alternate names: Kugruk

Commodity: Lignite

## LOCATION-OWNERSHIP

Quadrangle..... Bendeleben.  
Mining district.. Fairhaven.  
Coalfield..... Chicago Creek.  
Elevation..... 43 m.  
Topography..... Gently rolling.  
Domain..... State.

General location.. 30 km southwest of Deering.

Meridian..... Kateel River.  
Tract..... Sec. 15, T 05 N, R 18 W.  
Latitude..... 65°50'18" N.  
Longitude..... 162°26'04" W.

Owner..... Unknown.  
Operator..... Do.

## GEOLOGY

Formation name..... Kugruk.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 4° E, 78° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 16.8.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %: (113).  
Ash..... 3.85.  
Sulfur..... 0.68.  
Moisture..... 24.92.  
Volatile matter... 38.15.  
Fixed carbon..... 33.58.

## DEVELOPMENT

Current status..... Development deposit.  
Type of operation.. Underground.  
  
Year of discovery.. 1902.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 20 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 28 km.  
Destination..... Candle.

## PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

57-58, 73, 113, 185, 188, 265,  
273, 286, 320, 355, 374, 417.

USGS quadrangle maps... Bendelben, D-1.  
USBM sequence number... 0020440159.

## SINUK RIVER

Map No: 43

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Nome.  
Mining district.. Do.  
Coalfield..... Unnamed.  
Elevation..... 76 m.  
Topography..... Gently rolling.  
Domain..... Native.

Owner..... Unknown.  
Operator..... Do.

General location.. 5.6 km northeast of Sinuk.

Meridian..... Kateel River.  
Tract..... Sec. 05, T 09 S, R 36 W.  
Latitude..... 64°44'00" N.  
Longitude..... 165°55'20" W.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of coal seam. Not reported.  
Coal seam average dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone encloses ore.

Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 5.6 km.  
Distance to power supply.. Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

134, 185, 200, 265, 273, 320,  
354, 417.

USGS quadrangle maps... Nome, C-2.

USBM sequence number... 0020520059.



## NASKAK

Map No: 44

Alternate names: Naskak Camp Prospect

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... St. Lawrence.  
Mining district.. Bering Sea Region.  
Coalfield..... Unnamed.  
Elevation..... 20 m.  
Topography..... Low-lying.  
Domain..... Native.

General location.. 19 km southeast of Gambell.

Meridian..... Kateel River.  
Tract..... Sec. 19, T 21 S, R 66 W.  
Latitude..... 63°39'00" N.  
Longitude..... 171°29'00" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of coal seam. Not reported.  
Coal seam average dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Not reported.

Coking ability..... Do.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 19 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

178, 185, 265, 273, 313, 320,  
341.

USGS quadrangle maps... St. Lawrence.  
USBM sequence number... 0020610015.

## KOYUK RIVER

Map No: 45  
Alternate names: None

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Norton Bay.  
Mining district.. Koyuk.  
Coalfield..... Unnamed.  
Elevation..... 76 m.  
Topography..... Gently rolling.  
Domain..... Native.

General location.. 1.5 km north of Koyuk.

Meridian..... Kateel River.  
Tract..... Sec. 29, T 06 S, R 12 W.  
Latitude..... 64°56'45" N.  
Longitude..... 161°09'55" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kaltag-Nulato.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Clay lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Pre 1909.  
Discovery method... Unknown.

Distance to water supply.. 1.5 km.  
Road requirement..... Do.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

104, 108, 113, 165, 185, 265, 269,  
273, 320, 396, 417, 421, 427.

USGS quadrangle maps... Norton Bay, D-5.

USBM sequence number... 0020540009.

## WILSON CREEK

Map No: 46

Alternate names: Kiwalik River

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Candle.  
Mining district.. Koyuk.  
Coalfield..... Unnamed.  
Elevation..... 207 m.  
Topography..... Gently rolling.  
Domain..... State.

General location.. 66 km southeast of Candle.

Meridian..... Kateel River.  
Tract..... Sec. 32, T 01 S, R 13 W.  
Latitude..... 65°21'30" N.  
Longitude..... 161°23'10" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name.... Unknown.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1919.  
Discovery method... Exploration.

Distance to water supply.. 0.1 km.  
Road requirement..... 13 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

103, 108, 113, 185, 187, 265,  
273, 311, 320, 417.

USGS quadrangle maps... Candle, B-5.

USBM sequence number... 0020450044.

## TRAMWAY BAR COAL

Map No: 47

Alternate names: None

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Wiseman.  
Mining district.. Koyukuk.  
Coalfield..... Unnamed.  
Elevation..... 323 m.  
Topography..... Gently rolling.  
Domain..... State.

General location.. 3 km northeast of  
Tramway Bar.

Meridian..... Fairbanks.  
Tract..... Sec. 05, T 26 N, R 13 W.  
Latitude..... 67°06'45" N.  
Longitude..... 150°27'39" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kaltag.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 2.7.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 7,263-12,559 Btu/lb (179).  
Composition, %:  
Ash..... 35.79-38.23.  
Sulfur..... 0.14-0.25.  
Moisture..... 6.38.  
Volatile matter... 24.29-41.99.  
Fixed carbon..... 33.54-58.01.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. 1899.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 3 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 3 km.  
Destination..... Tramway Bar.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

35, 80, 131, 160, 169, 179, 185,  
205, 265, 273, 316, 326, 335, 337,  
365-366, 372, 398, 417, 421.

USGS quadrangle maps... Wiseman, A-1.  
USBM sequence number... 0020300068.

## COAL CREEK - DALL RIVER

Map No: 48

Alternate names: Dall River Coal

Commodity: Lignite & subbituminous B

### LOCATION-OWNERSHIP

Quadrangle..... Beaver.  
Mining district.. Yukon Flats.  
Coalfield..... Unnamed.  
Elevation..... 180 m.  
Topography..... Gently rolling.  
Domain..... National Wildlife  
Refuge.  
Owner..... Unknown.  
Operator..... Do.

General location.. 49 km northwest of Stevens  
Village.  
Meridian..... Fairbanks.  
Tract..... Sec. 03, T 17 N, R 11 W.  
Latitude..... 66°19'25" N.  
Longitude..... 149°51'15" W.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 3.4.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 9,821-11,671 Btu/lb (34).  
Composition, %:  
Ash..... 4.63-5.22.  
Sulfur..... Not reported.  
Moisture..... 11.21.  
Volatile matter... 43.10-51.22.  
Fixed carbon..... 41.06-48.78.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1902.  
Discovery method... Exploration.  
Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 1.6 km.  
Distance to power supply.. 49 km.  
Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

21, 34-35, 75, 131, 179, 185,  
262, 265, 273, 320, 393, 417,  
421, 464.

USGS quadrangle maps... Beaver, B-6.  
USBM sequence number... 0020400002.

## HODZANA RIVER

Map No: 49

Alternate names: The Mudbank

Commodity: Lignite A & subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Beaver.  
Mining district.. Yukon Flats.  
Coalfield..... Unnamed.  
Elevation..... 183 m.  
Topography..... Gently rolling.  
Domain..... Native.

General location.. 56 km northwest of Beaver.

Meridian..... Fairbanks.  
Tract..... Sec. 35, T 22 N, R 04 W.  
Latitude..... 60°41'30" N.  
Longitude..... 148°21'30" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.3.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Mudstone lies under ore.  
Coking ability..... Poor.  
Heating value..... 7,466-11,850 Btu (34).  
Composition, %:  
Ash..... 9.80-13.46.  
Sulfur..... Not reported.  
Moisture..... 19.54-27.20.  
Volatile matter... 19.71-31.29.  
Fixed carbon..... 43.29-68.71.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. 1902.  
Discovery method... Exploration.

Distance to water supply.. 0.1 km.  
Road requirement..... 20 km.  
Distance to power supply.. 56.3 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

21, 34, 75, 179, 273, 417, 464.

USGS quadrangle maps... Beaver, C-3.

USBM sequence number... 0020400003.

## FISHHOOK BEND

Map No: 50

Alternate names: Porcupine River, Colleen Basin

Commodity: Lignite A

### LOCATION-OWNERSHIP

Quadrangle..... Colleen.  
Mining district.. Sheenjek.  
Coalfield..... Unnamed.  
Elevation..... 183 m.  
Topography..... Gently rolling.  
Domain..... National Wildlife  
Refuge.  
Owner..... Unknown.  
Operator..... Do.

General location.. On bluff northeast of  
Henry Martin Island.  
Meridian..... Fairbanks.  
Tract..... Sec. 31, T 28 N, R 26 E.  
Latitude..... 67°12'22" N.  
Longitude..... 142°06'20" W.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 1.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 5,155-10,849 Btu/lb (179).  
Composition, %:  
Ash..... 18.47-27.99.  
Sulfur..... Not reported.  
Moisture..... 34.02.  
Volatile matter... 28.09-59.12.  
Fixed carbon..... 19.42-40.88.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.  
Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

34, 179, 273.

USGS quadrangle maps... Colleen, A-3.

USBM sequence number... 0020330005.

## MISSION CREEK

Map No: 51

Alternate names: None

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Eagle.  
Mining district.. Do.  
Coalfield..... Eagle-Circle.  
Elevation..... 442 m.  
Topography..... Steep cliff.  
Domain..... Native.

General location.. 1 km north of Eagle.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Fairbanks.  
Tract..... Sec. 25, T 01 S, R 32 E.  
Latitude..... 64°48'02" N.  
Longitude..... 141°12'28" W.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Conglomerate lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.7 km.  
Road requirement..... 1.5 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

35, 50, 131-132, 172, 179, 185,  
265, 273, 279, 320, 417.

USGS quadrangle maps... Eagle, D-1.  
USBM sequence number... 0020600010.



## AMERICAN CREEK

Map No: 52  
Alternate names: None

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Eagle.  
Mining district.. Do.  
Coalfield..... Eagle-Circle.  
Elevation..... 335 m.  
Topography..... Gently rolling.  
Domain..... State.

General location.. 4 km southwest of Eagle.

Meridian..... Fairbanks.  
Tract..... Sec. 11, T 01 S, R 32 E.  
Latitude..... 64°45'42" N.  
Longitude..... 141°14'44" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Not reported.

Coking ability..... Do.  
Heating value..... 0.96 (Fuel ratio) (131).  
Composition, %:  
Ash..... 16.53.  
Sulfur..... 3.40.  
Moisture..... 6.75.  
Volatile matter... 39.13.  
Fixed carbon..... 37.59.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. 1897.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 4 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

50, 131-132, 172, 179, 185, 265,  
273, 279, 320, 417.

USGS quadrangle maps... Eagle, D-1.

USBM sequence number... 0020600089.

## WOLF CREEK

Map No: 53  
Alternate names: None

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Eagle.  
Mining district.. Do.  
Coalfield..... Eagle-Circle.  
Elevation..... 587 m.  
Topography..... Steep slope.  
Domain..... Native.

General location.. 8 km southwest of Eagle.

Meridian..... Fairbanks.  
Tract..... Sec. 08, T 02 S, R 32 E.  
Latitude..... 64°45'13" N.  
Longitude..... 141°21'02" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Slate encloses ore.

Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.2 km.  
Road requirement..... 4 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

50, 131, 172, 179, 185, 265, 273,  
320, 417.

USGS quadrangle maps... Eagle, D-1.

USBM sequence number... 0020600100.

## CHICKEN COAL

Map No: 54

Alternate names: None

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Eagle.

Mining district.. Fortymile.

Coalfield..... Unnamed.

Elevation..... 579 m.

Topography..... Gently rolling.

Domain..... State.

General location.. 1 km northwest of Eagle.

Meridian..... Copper River.

Tract..... Sec. 31, T 27 N, R 18 E.

Latitude..... 64°04'45" N.

Longitude..... 141°56'30" W.

Owner..... George A. Esterbrook.

Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 65° E, 90°.  
coal seam.

Coal seam average  
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 6.7.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Not reported.

Coking ability..... Do.

Heating value..... 8,330-11,850 Btu/lb (146).

Composition, %:

Ash..... 4.2-13.5.

Sulfur..... 0.4-0.6.

Moisture..... 12.6-23.1.

Volatile matter... 30.8-40.6.

Fixed carbon..... 35.7-54.6.

### DEVELOPMENT

Current status..... Past producer.

Type of operation.. Underground.

Year of discovery.. Unknown.

Discovery method... Do.

Distance to water supply.. 0.1 km.

Road requirement..... 1 km.

Distance to power supply.. Do.

Initial production.. 1930.

Last production..... 1940.

Past production..... Not reported.

Annual production... Do.

Process rate..... Unknown.

Product type..... Coal.

Distance shipped..... 1 km.

Destination..... Chicken.

### PUBLISHED RESERVES-RESOURCES

No reported reserve-resource information.

### REFERENCES

15, 35, 145-146, 172, 174, 179, 185,  
265, 273-274, 277, 279, 320, 334, 355,  
361, 368, 388, 391, 400, 417, 421.

USGS quadrangle maps... Eagle, A-2.

USBM sequence number... 0020600112.

## COPPER CREEK COAL

Map No: 55

Alternate names: Charley Creek Prospect

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Eagle.  
Mining district.. Circle.  
Coalfield..... Unnamed.  
Elevation..... 701 m.  
Topography..... Gently rolling.  
Domain..... National Park.

General location.. 100 km west of Eagle.

Meridian..... Fairbanks.  
Tract..... Sec. 10, T 01 S, R 22 E.  
Latitude..... 64°50'37" N.  
Longitude..... 143°18'15" W.

Owner..... Jim Henderson.  
Operator..... Unknown.

### GEOLOGY

Formation name.... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Not reported.  
  
Coking ability..... Do.  
Heating value..... 11,230-11,470 Btu/lb (146).  
Composition, %:  
Ash..... 23.1-23.6.  
Sulfur..... 0.6.  
Moisture..... 2.1.  
Volatile matter... 20.8-21.3.  
Fixed carbon..... 54.0-55.1.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 100 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

61, 145-146, 172, 174, 185, 265,  
273, 320, 417.

USGS quadrangle maps... Eagle, D-5.

USBM sequence number... 0020600155.

## WASHINGTON CREEK

Map No: 56

Alternate names: Alaska Coal & Coke Co.,  
N.B. La Brie, Stanford, Pratt, Layman, & Jewett

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Charley River.  
River.  
Mining district.. Eagle.  
Coalfield..... Do.  
Elevation..... 427 m.  
Topography..... Gently rolling.  
Domain..... BLM-administrated.

General location.. 16 km south of the Yukon

Meridian..... Fairbanks.  
Tract..... Sec. 20, T 04 N, R 27 E.  
Latitude..... 65°09'30" N.  
Longitude..... 142°18'30" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 1.2.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone encloses ore.  
Coking ability..... Not reported.  
Heating value..... 6,440-9,080 Btu/lb (34).  
Composition, %:  
Ash..... 4.80-28.80.  
Sulfur..... Not reported.  
Moisture..... 19.30-20.50.  
Volatile matter... 25.60-37.60.  
Fixed carbon..... 26.30-37.10.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1897.  
Discovery method... Prospecting.

Distance to water supply.. 0.1 km.  
Road requirement..... 16 km.  
Distance to power supply.. Onsite.

Initial production.. 1897.  
Last production..... Do.  
Past production..... 5.5 mt.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 16 km.  
Destination..... Riverboat.

### PUBLISHED RESERVES-RESOURCES

Hypothetical resources; 100 million short tons (136,355).

## REFERENCES

34-35, 49, 52, 64, 66, 131-132,  
136, 179, 185, 265, 273, 279,  
320, 355, 417, 421.

USGS quadrangle maps... Charley River, A-3.

USBM sequence number... 0020510026.

## NATION RIVER COAL

Map no: 57

Alternate names: Alaska Commercial Co.,  
Nation River Mine, W.E. Williams

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Charley River.  
Mining district.. Eagle-Circle.  
Coalfield..... Do.  
Elevation..... 457 m.  
Topography..... Gently rolling.  
Domain..... Native.

General location.. 2 km from the Yukon River.

Meridian..... Fairbanks.  
Tract..... Sec. 05, T 04 N, R 30 E.  
Latitude..... 65°12'30" N.  
Longitude..... 141°40'30" W.

Owner..... Unknown.

Operator..... Do.

### GEOLOGY

Formation name..... Nation River.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 60° E, 40° SE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 3.96.  
Width..... Not reported.  
Thickness..... 2.4.  
Depth..... Outcrop.

Formation age..... Tertiary (?).  
Rock relationships.. Sandstone lies over ore.  
Conglomerate lies under ore.  
Coking ability..... Good.  
Heating value..... 1.39 (Fuel ratio) (131).  
Composition, %:  
Ash..... 3.04.  
Sulfur..... 2.98.  
Moisture..... 1.39.  
Volatile matter... 40.02.  
Fixed carbon..... 55.55.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface-underground.  
  
Year of discovery.. 1897.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 2 km.  
Distance to power supply.. Onsite.

Initial production.. 1897.  
Last production..... 1898.  
Past production..... 2,315 mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 160 km.  
Destination..... Dawson.

### PUBLISHED RESERVES-RESOURCES

Hypothetical resources; 50 million short tons (191).

## REFERENCES

15, 35, 49, 52, 62, 64, 131-132,  
179, 185, 191, 235, 241, 268-269,  
273, 279, 320, 355, 361, 373, 417,  
421, 425.

USGS quadrangle maps... Charley River, A-2.

USBM sequence number... 0020510029.



## BONANZA CREEK

Map No: 58

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Charley River.  
Mining district.. Eagle-Circle.  
Coalfield..... Do.  
Elevation..... 274 m.  
Topography..... Gently rolling.  
Domain..... National Park.

General location.. 3.5 km from the  
Charley River.

Meridian..... Fairbanks.  
Tract..... Sec. 29, T 05 N, R 25 E.  
Latitude..... 65°13'35" N.  
Longitude..... 142°39'05" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sanstone encloses ore.

Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 3.5 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

49, 131-132, 179, 273, 417, 421.

USGS quadrangle maps... Charley River, A-4.

USBM sequence number... 0020510035.

## COAL CREEK - YUKON RIVER

Map No: 59

Alternate names: None

Commodity: Subbituminous & lignite

### LOCATION-OWNERSHIP

Quadrangle..... Charley River.  
Mining district.. Circle.  
Coalfield..... Eagle-Circle.  
Elevation..... 277 m.  
Topography..... Gently rolling.  
Domain..... National Park.

General location.. 1.6 km. from the mouth of  
Coal Creek.

Meridian..... Fairbanks.  
Tract..... Sec. 19, T 06 N, R 23 E.  
Latitude..... 65°20'18" N.  
Longitude..... 143°06'02" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone encloses ore.  
Coking ability..... Not reported.  
Heating value..... 6,160-10,320 Btu/lb (34).  
Composition, %:  
Ash..... 9.40-18.00.  
Sulfur..... Not reported.  
Moisture..... 30.90-51.40.  
Volatile matter... 29.30-53.80.  
Fixed carbon..... 25.10-46.20.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.5 km.  
Road requirement..... 4.5 km.  
Distance to power supply.. Do.

Initial production.. 1920.  
Last production..... 1930.  
Past production..... Not reported.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 4.5 km.  
Destination..... Coal Creek.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

34, 49, 52, 61, 64, 131-132, 136,  
191, 273, 279, 334, 354-355, 361,  
417, 425.

USGS quadrangle maps... Charley River, B-5.  
USBM sequence number... 0020510036.

## DREW MINE

Map No: 60

Alternate names: Miller Mine, Pioneer

Commodity: Lignite & subbituminous B

### LOCATION-OWNERSHIP

Quadrangle..... Livengood.

Mining district.. Melozitna.

Coalfield..... Rampart.

Elevation..... 91 m.

Topography..... Steep cliff.

Domain..... Native.

Owner..... Unknown.

Operator..... Do.

General location.. 61 km northwest of  
Livengood.

Meridian..... Fairbanks.

Tract..... Sec. 27, T 10 N, R 11 W.

Latitude..... 65°40'13" N.

Longitude..... 149°49'35" W.

### GEOLOGY

Formation name..... Unnamed.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 30° E, 80° S.  
coal seam.

Coal seam average  
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 0.97.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Sanstone encloses ore.

Coking ability..... Not reported.

Heating value..... 5,560-12,360 Btu/lb (179).

Composition, %:

Ash..... 4.64-43.40.

Sulfur..... 0.33.

Moisture..... 6.24-19.00.

Volatile matter... 23.10-48.80.

Fixed carbon..... 24.30-57.90.

### DEVELOPMENT

Current status..... Past producer.

Type of operation.. Underground.

Year of discovery.. 1895.

Discovery method... Prospecting.

Initial production.. 1897.

Last production..... 1900.

Past production..... 1,323 mt.

Annual production... Not reported.

Distance to water supply.. 0.1 km.

Road requirement..... Do.

Distance to power supply.. Onsite.

Process rate..... Unknown.

Product type..... Coal.

Distance shipped..... 0.1 km.

Destination..... Riverboat use.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

15, 34-35, 118, 131-132, 179,  
185, 265, 273, 275, 279, 320,  
324, 417, 432.

USGS quadrangle maps... Livengood, C-6.

USBM sequence number... 0020490115.

## HUNTER

Map No: 61

Alternate names: Minook Creek

Commodity: Lignite A

### LOCATION-OWNERSHIP

Quadrangle..... Tanana.  
Mining district.. Rampart.  
Coal Field..... Do.  
Elevation..... 107 m.  
Topography..... Gently rolling.  
Domain..... Native.

General location.. 5 km southeast of Rampart.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Fairbanks.  
Tract..... Sec. 30, T 08 N, R 12 W.  
Latitude..... 65°29'09" N.  
Longitude..... 150°06'00" W.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 70° E, 20-50° S.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone encloses ore.  
Coking ability..... Not reported.  
Heating value..... 0.87 (Fuel ratio) (179).  
Composition, %:  
Ash..... 5.83.  
Sulfur..... Not reported.  
Moisture..... 11.21.  
Volatile matter... 44.32.  
Fixed carbon..... 38.64.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Pre 1903.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 5 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

131, 179, 185, 265, 273, 275,  
320, 417.

USGS quadrangle maps... Tanana, B-1.  
USBM sequence number... 0020480086.

## RAMPART

Map No: 62

Alternate names: None

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Tanana.  
Mining district.. Rampart.  
Coalfield..... Do.  
Elevation..... 152 m.  
Topography..... Gently rolling.  
Domain..... Native.

General location.. On the south side of the  
Yukon River 3 km below  
Rampart.  
Meridian..... Fairbanks.  
Tract..... Sec. 25, T 08 N, R 13 W.  
Latitude..... 65°29'34" N.  
Longitude..... 150°10'58" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone encloses ore.  
Coking ability..... Poor.  
Heating value..... 0.86 (Fuel ratio) (131).  
Composition, %:  
Ash..... 7.26.  
Sulfur..... Not reported.  
Moisture..... 16.43.  
Volatile matter... 41.09.  
Fixed carbon..... 53.22.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
Year of discovery.. Pre 1902.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 3 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 3 km.  
Destination..... Rampart.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

52, 64, 67, 131-132, 136, 179, 185,  
265, 269, 273, 275, 320, 361, 417.

USGS quadrangle maps... Tanana, B-1.  
USBM sequence number... 0020480099.

## THE PALISADES

Map No: 63

Alternate names: None

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Melozitna.  
Mining district.. Hot Springs.  
Coalfield..... Unnamed.  
Elevation..... 137 m.  
Topography..... Gently rolling.  
Domain..... State.

General location.. On south side of the Yukon  
River 17 km above Birches.

Meridian..... Kateel River.  
Tract..... Sec. 30, T 04 S, R 28 E.  
Latitude..... 65°06'40" N.  
Longitude..... 153°11'58" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Pre 1902.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

129, 131-132, 188, 205, 265, 273,  
315, 320, 417.

USGS quadrangle maps... Melozitna, A-1.

USBM sequence number... 0020470004.

## MELOZITNA RIVER

Map No: 64

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Ruby.  
Mining district.. Melozitna.  
Coalfield..... Unnamed.  
Elevation..... 149 m.  
Topography..... Gently rolling.  
Domain..... BLM-administrated.

General location.. 30 km northeast of Ruby.

Meridian..... Kateel River.  
Tract..... Sec. 06, T 06 S, R 18 E.  
Latitude..... 64°59'59" N.  
Longitude..... 155°18'05" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unknown.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of coal seam. Not reported.  
Coal seam average dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.76.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Not reported.

Coking ability..... Do.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.5 km.  
Road requirement..... Do.  
Distance to power supply.. 30 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... A few metric tons.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 30 km.  
Destination..... Ruby.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

106, 115-116, 179, 205, 273, 417.

USGS quadrangle maps... Ruby, D-5.

USBM sequence number... 0020560067.

## QUARTZ CREEK

Map No: 65

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Ruby.

Mining district.. Do.

Coalfield..... Unnamed.

Elevation..... 91 m.

Topography..... Low lying.

Domain..... State.

General location.. 53 km southeast of Ruby.

Meridian..... Kateel River.

Tract..... Sec. 03, T 14 S, R 19 E.

Latitude..... 64°18'02" N.

Longitude..... 155°04'05" W.

Owner..... Unknown.

Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of coal seam. Not reported.

Coal seam average dimensions, m.

Length..... Do.

Width..... Do.

Thickness..... Do.

Depth..... 30.5.

Formation age..... Tertiary.

Rock relationships.. Not reported.

Coking ability..... Do.

Heating value..... Do.

Composition, %:

Ash..... Do.

Sulfur..... Do.

Moisture..... Do.

Volatile matter... Do.

Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.

Type of operation.. Prospect.

Year of discovery.. Unknown.

Discovery method... Do.

Distance to water supply.. 0.1 km.

Road requirement..... 53 km.

Distance to power supply.. Do.

Initial production.. Not reported.

Last production..... Do.

Past production..... Do.

Annual production... Do.

Process rate..... Not reported.

Product type..... Do.

Distance shipped..... Do.

Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

33, 106, 116, 179, 273, 280-281, 417.

USGS quadrangle maps... Ruby, B-5.

USBM sequence number... 0020560068.



## POORMAN CREEK II

Map No: 66

Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Ruby.  
Mining district.. Innoko.  
Coalfield..... Unnamed.  
Elevation..... 91 m.  
Topography..... Gently rolling.  
Domain..... State.

General location.. 80 km south of Ruby.

Meridian..... Kateel River.  
Tract..... Sec. 09, T 17 S, R 16 E.  
Latitude..... 64°01'37" N.  
Longitude..... 155°45'50" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volitlie matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 1 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... A few metric tons.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 1 km.  
Destination..... Placerville.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

35, 53-58, 73-74, 76, 106, 114, 116, 162,  
179, 185, 233, 265, 273, 276, 280, 320,  
377-379, 390-391, 399-400, 417.

USGS quadrangle maps... Ruby, A-6.  
USBM sequence number... 0020560042.

## IDITAROD MINE

Map No: 67

Alternate names: None

Commodity: Anthracite

### LOCATION-OWNERSHIP

Quadrangle..... Iditarod.  
Mining district.. Do.  
Coalfield..... Unnamed.  
Elevation..... 241 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 8 km southeast of  
Iditarod.  
Meridian..... Seward.  
Tract..... Sec. 28, T 28 N, R 47 W.  
Latitude..... 62°29'00" N.  
Longitude..... 158°00'52" W.

Owner..... William Knox & Charles Krutsinger.

Operator..... Unknown.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 38° E, 80° SE.  
coal sseam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 0.57.  
Depth..... 9.0.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Slate lies under ore.  
Coking ability..... Not reported.  
Heating value..... 14,297-15,323 Btu/lb (281).  
Composition, %:  
Ash..... 5.19-5.27.  
Sulfur..... 0.79-0.84.  
Moisture..... 1.33-1.52.  
Volatile matter... 7.69-8.24.  
Fixed carbon..... 85.60-91.76.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1914.  
Discovery method... Unknown.

Distance to water supply.. 1.5 km.  
Road requirement..... 1.0 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

53, 145-146, 170, 174, 179, 185,  
265, 273, 276, 280-281, 320, 366,  
375, 392, 400, 417, 421.

USGS quadrangle maps... Iditarod, B-5.  
USBM sequence number... 0020730033.

## INNOKO RIVER 1

Map No: 68

Alternate names: None

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Ophir.  
Mining district.. Innoko.  
Coalfield..... Unnamed.  
Elevation..... 35 m.  
Topography..... Low-lying.  
Domain..... National Wildlife  
Refuge.  
Owner..... Unknown.  
Operator..... Do.

General location.. 83 km northwest of Ophir.

Meridian..... Kateel River.  
Tract..... Sec. 14, T 05 E, R 22 S.  
Latitude..... 63°35'00" N.  
Longitude..... 157°50'40" W.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Slate lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 10,470-11,020 Btu/lb (146).  
Composition, %:  
Ash..... 14.5-15.3.  
Sulfur..... 0.3.  
Moisture..... 5.0.  
Volatile matter... 30.0-31.6.  
Fixed carbon..... 50.5-53.1.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

145-146, 174, 179, 230, 273, 417.

USGS quadrangle maps... Ophir, C-4.

USBM sequence number... 0020640044.

## INNOKO RIVER 2

Map No: 69

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Holy Cross.  
Mining district.. Iditarod.  
Coalfield..... Unnamed.  
Elevation..... 22 m.  
Topography..... Low-lying.  
Domain..... Native.

General location.. 46 km northeast of Anvik.

Meridian..... Seward.  
Tract..... Sec. 34, T 32 N, R 54 W.  
Latitude..... 62°49'10" N.  
Longitude..... 159°22'44" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Not reported.  
Coking ability..... Do.  
Heating value..... 10,470-11,020 Btu/lb (146).  
Composition, %:  
Ash..... 14.5-15.3.  
Sulfur..... 0.3.  
Moisture..... 5.0.  
Volatile matter... 30.0-31.6.  
Fixed carbon..... 50.5-53.1.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

145-146, 174, 179, 185, 262, 265,  
320, 417, 421.

USGS quadrangle maps... Holy Cross, D-1.

USBM sequence number... 0020720003.

## NAHOCLATILTEN MINE

Map No: 70

Alternate names: Louden Mine, Yukon River-Louden

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Nulato.  
Mining district.. Hughes.  
Coalfield..... Unnamed.  
Elevation..... 61 m.  
Topography..... Gently rolling.  
Domain..... Native.

Owner..... Unknown.  
Operator..... Do.

General location.. 21 km southeast of Galena.

Meridian..... Kateel River.  
Tract..... Sec. 32, T 09 S, R 12 E.  
Latitude..... 64°40'00" N.  
Longitude..... 156°31'00" W.

### GEOLOGY

Formation name..... Kaltag.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 55-60° E, 65° SE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 91.4.  
Width..... Not reported.  
Thickness..... 0.6.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Good.  
Heating value..... 10,170-11,430 Btu/lb (131).  
Composition, %:  
Ash..... 2.6-2.8.  
Sulfur..... 0.4.  
Moisture..... 7.9-8.5.  
Volatile matter... 37.0-41.7.  
Fixed carbon..... 51.9-58.3.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 21 km.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

45, 105, 115, 131-132, 179, 185,  
265, 273, 312, 320, 395, 417,  
421.

USGS quadrangle maps... Nulato, C-2.  
  
USBM sequence number... 0020550010.

## KOYUKUK ISLAND

Map No: 71

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Nulato.  
Mining district.. Anvik.  
Coalfield..... Unnamed.  
Elevation..... 43 m.  
Topography..... Low-lying.  
Domain..... Native.

General location.. 38 km northwest of Galena.

Meridian..... Kateel River.  
Tract..... Sec. 10, T 07 S, R 06 E.  
Latitude..... 64°54'07" N.  
Longitude..... 157°38'07" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kaltag.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of coal seam. Not reported.  
Coal body average dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... No.  
Heating value..... 1.4 (Fuel ratio) (131).  
Composition, %:  
Ash..... 12.95.  
Sulfur..... Not reported.  
Moisture..... 4.47.  
Volatile matter... 34.32.  
Fixed carbon..... 48.26.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 38 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

45, 64, 105, 131, 185, 265, 273,  
312, 320, 335, 354, 355, 454.

USGS quadrangle maps... Nulato, D-4.  
USBM sequence number... 0020550013.

## PICKART MINE

Map No: 72

Alternate names: Yukon River-Nulato

Commodity: High volatile C bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Nulato.

Mining district.. Anvik.

Coalfield..... Nulato.

Elevation..... 137 m.

Topography..... Gently rolling.

Domain..... Native.

General location.. 18 km northeast of  
Nulato.

Meridian..... Kateel River.

Tract..... Sec. 19, T 07 S, R 05 E.

Latitude..... 64°51'40" N.

Longitude..... 157°55'00" W.

Owner..... Pickart brothers, Alaskan Commercial Company.

Operator..... W.E. Williams.

### GEOLOGY

Formation name..... Kaltag.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 75° E, 35° N.  
coal seam.

Coal seam average  
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 0.76.

Depth..... Outcrop.

Formation age..... Cretaceous.

Rock relationships.. Sandstone lies over ore.

Shale lies under ore.

Coking ability..... Good.

Heating value..... 2.03-2.37 (Fuel ratio) (131).

Composition, %:

Ash..... 6.62-22.64.

Sulfur..... 0.56-0.6.

Moisture..... 1.02-2.22.

Volatile matter... 24.76-27.33.

Fixed carbon..... 50.38-65.03.

### DEVELOPMENT

Current status..... Past producer.

Type of operation.. Surface-underground.

Year of discovery.. Unknown.

Discovery method... Do.

Initial production.. 1898.

Last production..... 1902.

Past production..... Not reported.

Annual production... Do.

Distance to water supply.. 0.1 km.

Road requirement..... Do.

Distance to power supply.. 18 km.

Process rate..... Unknown.

Product type..... Coal.

Distance shipped..... 0.1 km.

Destination..... Riverboats.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

35, 45, 105, 115, 131-132, 179,  
185, 205, 265, 273, 312, 320,  
334, 354-355, 395, 417, 454.

USGS quadrangle maps... Nulato, D-4.

USBM sequence number... 0020550009.

## NULATO COAL BED

Map No: 73

Alternate names: Nulato Mine

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Nulato.  
Mining district.. Anvik.  
Coalfield..... Nulato.  
Elevation..... 152 m.  
Topography..... Gently rolling.  
Domain..... BLM-administrated.

General location.. 20 km north of Nulato.

Meridian..... Kateel River.  
Tract..... Sec. 09, T 07 S, R 04 E.  
Latitude..... 64°54'02" N.  
Longitude..... 158°04'01" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kaltag.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 10° E, 40° NW.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 0.76.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone encloses ore.  
Coking ability..... Not reported.  
Heating value..... 13,350-13,730 Btu/lb (146).  
Composition, %:  
Ash..... 4.9-5.0.  
Sulfur..... 0.9.  
Moisture..... 2.8.  
Volatile matter... 22.5-23.1.  
Fixed carbon..... 69.8-71.9.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 9 km.  
Distance to power supply.. 20 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

1, 15, 21, 45, 78, 105, 115, 131, 136,  
141, 145-146, 174, 179, 265, 269, 273,  
312, 334, 373, 395, 403, 417, 454.

USGS quadrangle maps... Nulato, D-5.  
USBM sequence number... 0020550014.



## BUSCH MINE

Map No: 74

Alternate names: Bush Mine, Yukon River-Nulato

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Nulato.  
Mining district.. Anvik.  
Coalfield..... Nulato.  
Elevation..... 122 m.  
Topography..... Gently rolling.  
Domain..... Native.

General location.. 6.5 km southwest of  
Nulato.

Meridian..... Kateel River.  
Tract..... Sec. 26, T 09 S, R 03 E.  
Latitude..... 64°41'10" N.  
Longitude..... 158°13'30" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kaltag.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 28° E, 40° W.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 1.4.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone encloses ore.  
Coking ability..... Poor.  
Heating value..... 1.76 (Fuel ratio) (131).  
Composition, %:  
Ash..... 7.33.  
Sulfur..... 0.44.  
Moisture..... 11.17.  
Volatile matter... 29.48.  
Fixed carbon..... 52.02.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 1.0 km.  
Road requirement..... Do.  
Distance to power supply.. 6.5 km.

Initial production.. 1903.  
Last production..... Do.  
Past production..... 441 mt.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 6.5 km.  
Destination..... Nulato.

### PUBLISHED RESERVES-RESOURCES

No reported reserve-resource information.

### REFERENCES

35, 45, 105, 115, 131-132, 179,  
185, 205, 265, 273, 312, 320,  
395, 417.

USGS quadrangle maps... Nulato, C-5.  
USBM sequence number... 0020550008.

## BLATCHFORD MINE

Map No: 75

Alternate names: Blatsford Mine, Yukon River-Nulato

Commodity: High volatile C bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Nulato.

Mining district.. Anvik.

Coalfield..... Nulato.

Elevation..... 152 m.

Topography..... Gently rolling.

Domain..... Native.

General location.. 14.5 km southwest of  
Nulato.

Meridian..... Kateel River.

Tract..... Sec. 17, T 10 S, R 03 E.

Latitude..... 64°37'13" N.

Longitude..... 158°18'00" W.

Owner..... Northern Commercial Company.

Operator..... Do.

### GEOLOGY

Formation name..... Kaltag.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 70° E, 45-55° NW.  
coal seam.

Coal seam average  
dimensions, m.

Length..... 6.1.

Width..... Not reported.

Thickness..... 2.4.

Depth..... Outcrop.

Formation age..... Cretaceous.

Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.

Coking ability..... Fair.

Heating value..... 13,350-14,460 Btu/lb (115).

Composition, %:

Ash..... 2.22-5.0.

Sulfur..... 0.52-0.9.

Moisture..... 1.36-2.8.

Volatile matter... 22.44-24.3.

Fixed carbon..... 69.8-75.7.

### DEVELOPMENT

Current status..... Past producer.

Type of operation.. Surface-underground.

Year of discovery.. 1866.

Discovery method... Prospecting.

Distance to water supply.. 0.1 km.

Road requirement..... Do.

Distance to power supply.. Onsite.

Initial production.. 1900.

Last production..... 1913.

Past production..... 331 mt.

Annual production... 110 mt.

Process rate..... Unknown.

Product type..... Coal.

Distance shipped..... 14.5 km.

Destination..... Nulato  
and riverboats.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

35, 45, 105, 115, 131-132, 145,  
174, 179, 185, 265, 273, 312,  
320, 395, 417, 454.

USGS quadrangle maps... Nulato, C-5.

USBM sequence number... 0020550007.

## ADOLPH MULLER PROSPECT

Map No: 76

Alternate names: Kaltag Prospect, Yukon River-Kaltag      Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Nulato.  
Mining district.. Anvik.  
Coalfield..... Nulato.  
Elevation..... 183 m.  
Topography..... Gently rolling.  
Domain..... Native.

General location.. 6 km south of Kaltag  
Station.

Meridian..... Kateel River.  
Tract..... Sec. 04, T 15 S, R 01 E.  
Latitude..... 64°12'55" N.  
Longitude..... 158°40'40" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kaltag.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N-W, 30° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 61.  
Width..... Not reported.  
Thickness..... 1.4.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone encloses ore.  
Coking ability..... No.  
Heating value..... 9,470-13,250 Btu/lb (115).  
Composition, %:  
Ash..... 21.5-23.1.  
Sulfur..... 0.5-0.7.  
Moisture..... 7.0.  
Volatile matter... 24.3-34.0.  
Fixed carbon..... 47.2-66.0.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 1.0 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

1, 45, 105, 115, 145, 174, 185,  
205, 265, 273, 320, 417.

USGS quadrangle maps... Nulato, A-6.  
USBM sequence number... 0020550005.

## OLD WOMAN

Map No: 77

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Norton Bay.  
Mining district.. Anvik.  
Coalfield..... Unnamed.  
Elevation..... 122 m.  
Topography..... Gently rolling.  
Domain..... BLM-administrated.

General location.. 122 km southeast of Koyuk.

Meridian..... Kateel River.  
Tract..... Sec. 27, T 16 S, R 05 W.  
Latitude..... 64°04'41" N.  
Longitude..... 159°38'35" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unknown.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 5.2.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Not reported.

Coking ability..... Do.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 2.5 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

104, 179, 205, 273.

USGS quadrangle maps... Norton Bay, A-2.

USBM sequence number... 0020540010.

## STEAMBOAT SLOUGH

Map No: 78  
Alternate names: Eightmile Point

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Unalakleet.  
Mining district.. Anvik.  
Coalfield..... Unnamed.  
Elevation..... 30 m.  
Topography..... Flat-lying.  
Domain..... BLM-administrated.

General location.. 74 km southwest of Kaltag.

Meridian..... Kateel River.  
Tract..... Sec. 35, T 18 S, R 03 W.  
Latitude..... 63°53'33" N.  
Longitude..... 159°10'50" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kaltag.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 55° E, 20° NW.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale Lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

107, 115, 179, 205, 273.

USGS quadrangle maps... Unalakleet, D-1.

USBM sequence number... 0020630009.

## WILLIAMS MINE

Map No: 79

Alternate names: Whelp and Thein,  
Thein Mine, W.E. Williams

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Unalakleet.

Mining district.. Anvik.

Coalfield..... Unnamed.

Elevation..... 99 m.

Topography..... Steep slope.

Domain..... State.

General location.. 80 km southwest of Kaltag.

Meridian..... Kateel River.

Tract..... Sec. 22, T 19 S, R 03 W.

Latitude..... 63°50'08" N.

Longitude..... 159°13'12" W.

Owner..... Clemens Thein (1900)/W.E. Williams (1902).

Operator..... Do.

### GEOLOGY

Formation name..... Kaltag.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 70° W, 45° W.  
coal seam.

Coal seam average

dimensions, m.

Length..... Not reported.

Width..... 122.

Thickness..... 0.99.

Depth..... Outcrop.

Formation age..... Cretaceous.

Rock relationships.. Sandstone encloses ore.

Conglomerate encloses ore.

Coking ability..... Poor.

Heating value..... 1.22-1.55 (Fuel ratio) (131).

Composition, %:

Ash..... 3.53-8.63.

Sulfur..... 0.4-0.53.

Moisture..... 6.15-7.17.

Volatile matter... 33.05-46.46.

Fixed carbon..... 49.86-51.15.

### DEVELOPMENT

Current status..... Past producer.

Type of operation.. Underground.

Year of discovery.. 1897.

Discovery method... Unknown.

Distance to water supply.. 0.1 km.

Road requirement..... Do.

Distance to power supply.. Onsite.

Initial production.. 1900.

Last production..... 1902.

Past production..... 1,874 mt.

Annual production... Not reported.

Process rate..... Unknown.

Product type..... Coal.

Distance shipped..... 0.1 km.

Destination..... Riverboat.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

45, 107, 115, 131-132, 179, 185,  
265, 273, 320, 417, 454.

USGS quadrangle maps... Unalakleet, D-1.

USBM sequence number... 0020630004.

## COAL MINE CREEK

Map No: 80

Alternate names: Mine Creek, Unalakleet

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Unalakleet.  
Mining district.. Anvik.  
Coalfield..... Unnamed.  
Elevation..... 46 m.  
Topography..... Gently rolling.  
Domain..... Native.

General location.. 14 km south of Unalakleet.

Meridian..... Kateel River.  
Tract..... Sec. 14, T 20 S, R 11 W.  
Latitude..... 63°45'00" N.  
Longitude..... 160°45'00" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 2.4.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Not reported.  
Coking ability..... Do.  
Heating value..... 9,430-12,530 Btu/lb (146).  
Composition, %:  
Ash..... 4.2-8.2.  
Sulfur..... 0.3-0.6.  
Moisture..... 10.7-18.0.  
Volatile matter... 41.8-55.5.  
Fixed carbon..... 33.5-44.5.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface.  
Year of discovery.. 1897.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 14 km.  
Distance to power supply.. Do.

Initial production.. 1918.  
Last production..... 1934.  
Past production..... 331 mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 100 km.  
Destination..... Nome and  
St. Michaels.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.



## REFERENCES

1, 35, 107, 109, 141, 145-146,  
185, 237, 265, 273, 310, 320,  
355, 382-385, 417, 427.

USGS quadrangle maps... Unalakleet, C-4.

USBM sequence number... 0020630001.

## ANVIK RIVER

Map No: 81

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Unalakleet.

Mining district.. Anvik.

Coalfield..... Unnamed.

Elevation..... 320 m.

Topography..... Gently rolling.

Domain..... BLM-administrated.

General location.. 45 km southeast of  
Unalakleet.

Meridian..... Kateel River.

Tract..... Sec. 14, T 22 S, R 08 W.

Latitude..... 63°35'19" N.

Longitude..... 160°09'15" W.

Owner..... Jens Squalmie.

Operator..... Unknown.

### GEOLOGY

Formation name..... Kaltag.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of Not reported.  
coal seam.

Coal seam average  
dimensions, m.

Length..... Do.

Width..... Do.

Thickness..... 1.8.

Depth..... Outcrop.

Formation age..... Cretaceous.

Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.

Coking ability..... Not reported.

Heating value..... Do.

Composition, %:

Ash..... Do.

Sulfur..... Do.

Moisture..... Do.

Volatile matter... Do.

Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.

Type of operation.. Prospect.

Year of discovery.. Unknown.

Discovery method... Do.

Distance to water supply.. 0.1 km.

Road requirement..... 45 km.

Distance to power supply.. Do.

Initial production.. Not reported.

Last production..... Do.

Past production..... Do.

Annual production... Do.

Process rate..... Not reported.

Product type..... Do.

Distance shipped..... Do.

Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

107, 131, 179, 186, 203, 205,  
273, 417.

USGS quadrangle maps... Unalakleet, C-3.

USBM sequence number... 0020630008.

## ALASKAN COMMERCIAL COMPANY

Map No: 82

Alternate names: Coal Mine No. 1

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Unalakleet.  
Mining district.. Anvik.  
Coalfield..... Unnamed.  
Elevation..... 69 m.  
Topography..... Steep slope.  
Domain..... BLM-administrated.

General location.. 102 km northeast of Anvik.

Meridian..... Kateel River.  
Tract..... Sec. 19, T 22 S, R 04 W.  
Latitude..... 63°33'45" N.  
Longitude..... 159°31'00" W.

Owner..... Alaskan Commercial Company.  
Operator..... W.E. Williams.

### GEOLOGY

Formation name..... Kaltag.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 60° W, 35° SW.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 0.8.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone encloses ore.  
Coking ability..... Poor.  
Heating value..... 12,010-13,820 Btu/lb (115).  
Composition, %:  
Ash..... 4.91-9.5.  
Sulfur..... 0.21-0.4.  
Moisture..... 3.6-4.82.  
Volatile matter... 33.8-38.9.  
Fixed carbon..... 53.1-61.1.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
Year of discovery.. 1897.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. 1898.  
Last production..... Do.  
Past production..... 992 mt.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 0.1 km.  
Destination..... Riverboat.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

35, 107, 115, 131, 179, 185, 265,  
273, 320, 417, 454.

USGS quadrangle maps... Unalakleet, C-2.  
USBM sequence number... 0020630003.

## BLACKBURN MINE

Map No: 83

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Unalakleet.  
Mining district.. Anvik.  
Coalfield..... Unnamed.  
Elevation..... 31 m.  
Topography..... Gently rolling.  
Domain..... BLM-administrated.

General location.. 81 km northeast of Anvik.

Meridian..... Kateel River.  
Tract..... Sec. 26, T 24 S, R 05 W.  
Latitude..... 63°22'42" N.  
Longitude..... 159°33'45" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kaltag.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.9.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Not reported.

Coking ability..... Do.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

35, 179, 185, 205, 265, 273, 320,  
417.

USGS quadrangle maps... Unalakleet, B-2.

USBM sequence number... 0020630007.

## HALLS RAPIDS

Map No: 84

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Unalakleet.  
Mining district.. Anvik.  
Coalfield..... Unnamed.  
Elevation..... 30 m.  
Topography..... Gentle slope.  
Domain..... BLM-administrated.

General location.. 48 km northeast of Anvik.

Meridian..... Kateel River.  
Tract..... Sec. 10, T 28 S, R 06 W.  
Latitude..... 63°04'55" N.  
Longitude..... 159°47'00" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kaltag.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 61.  
Width..... Not reported.  
Thickness..... 0.15.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Tuffs enclose ore.  
Coking ability..... Poor.  
Heating value..... 1.35 (Fuel ratio) (131).  
Composition, %:  
Ash..... 2.81.  
Sulfur..... 0.42.  
Moisture..... 8.23.  
Volatile matter... 37.88.  
Fixed carbon..... 51.08.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1897.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 48 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

107, 131, 179, 185, 205, 265,  
273, 320, 417.

USGS quadrangle maps... Unalakleet, A-2.

USBM sequence number... 0020630002.

## STUYAHOK RIVER

Map No: 85

Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Holy Cross.  
Mining district.. Anvik.  
Coalfield..... Unnamed.  
Elevation..... 38 m.  
Topography..... Low-lying.  
Domain..... BLM-administrated.

General location.. 48 km southwest of Anvik.

Meridian..... Seward.  
Tract..... Sec. 33, T 26 N, R 62 W.  
Latitude..... 62°18'28" N.  
Longitude..... 160°46'08" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of coal seam. Not reported.  
Coal seam average dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Not reported.

Coking ability..... Do.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

179, 262, 417.

USGS quadrangle maps... Holy Cross, B-4.

USBM sequence number... 0020720008.

## NELSON ISLAND

Map No: 86

Alternate names: None

Commodity: Bituminous & subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Nunivak Island.

Mining district.. Bethel.

Coalfield..... Unnamed.

Elevation..... 152 m.

Topography..... Steep slope.

Domain..... Native.

Owner..... Unknown.

Operator..... Do.

General location.. 3 km northeast of  
Tanunak.

Meridian..... Seward.

Tract..... Sec. 22, T 06 N, R 91 W.

Latitude..... 60°36'03" N.

Longitude..... 165°13'39" W.

### GEOLOGY

Formation name..... Unnamed.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of Not reported.  
coal seam.

Coal seam average  
dimensions, m.

Length..... Do.

Width..... Do.

Thickness..... 0.46.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Siltstone encloses ore.

Coking ability..... Not reported.

Heating value..... 9,910-15,130 Btu/lb (146).

Composition, %:

Ash..... 14.2-32.3.

Sulfur..... 0.4-0.8.

Moisture..... 1.6-3.9.

Volatile matter... 19.1-31.5.

Fixed carbon..... 47.1-75.0.

### DEVELOPMENT

Current status..... Exploration prospect.

Type of operation.. Prospect.

Year of discovery.. 1900.

Discovery method... Unknown.

Initial production.. Not reported.

Last production..... Do.

Past production..... Do.

Annual production... Do.

Distance to water supply.. 1.5 km.

Road requirement..... 3 km.

Distance to power supply.. Do.

Process rate..... Not reported.

Product type..... Do.

Distance shipped..... Do.

Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

1, 35, 144-146, 174, 185, 265,  
273, 320, 417, 421, 454.

USGS quadrangle maps... Nunivak Island, C-1.

USBM sequence number... 0020890001.

## NORTH FORK OF EEK RIVER

Map No: 87

Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Bethel.  
Mining district.. Do.  
Coalfield..... Unnamed.  
Elevation..... 183 m.  
Topography..... Low-lying.  
Domain..... National Wildlife  
Refuge.

General location.. 89 km southeast of Bethel.

Meridian..... Seward.  
Tract..... Sec. 21, T 01 N, R 66 W.  
Latitude..... 60°09'54" N.  
Longitude..... 160°44'45" W.

Owner..... H. Oman, B. Smith, E. McGan, G. McIntire, and D. McPherson.  
Operator..... Unknown.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.2.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Graywacke lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1912.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 201, 204, 273, 312, 320,  
417.

USGS quadrangle maps... Bethel, A-5.

USBM sequence number... 0020910018.



## BIG RIVER

Map No: 88

Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... McGrath.  
Mining district.. Do.  
Coalfield..... Unnamed.  
Elevation..... 244 m.  
Topography..... Low-lying.  
Domain..... BLM-administrated.

General location.. 80 km southeast of  
McGrath.  
Meridian..... Seward.  
Tract..... Sec. 21, T 25 N, R 32 W.  
Latitude..... 62°15'00" N.  
Longitude..... 155°15'00" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Not reported.  
Coking ability..... Do.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 20 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

59, 72, 158, 179, 185, 265, 273,  
320-321, 364, 392, 417.

USGS quadrangle maps... McGrath, A-5.

USBM sequence number... 0020740051.

## CHEENEETNUK RIVER

Map No: 89

Alternate names: None

Commodity: Subbituminous & bituminous

### LOCATION-OWNERSHIP

Quadrangle..... McGrath.  
Mining district.. Do.  
Coalfield..... Unnamed.  
Elevation..... 330 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 101 km south of McGrath.

Meridian..... Seward.  
Tract..... Sec. 08, T 22 N, R 32 W.  
Latitude..... 62°01'08" N.  
Longitude..... 155°11'20" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 1.8.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Not reported.

Coking ability..... Do.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect  
  
Year of discovery.. 1965.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 33 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

158, 179, 266, 269, 273, 321,  
361, 371, 417.

USGS quadrangle maps... McGrath, A-5.

USBM sequence number... 0020740054.

## WINDY FORK - KUSKOKWIM RIVER

Map No: 90

Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... McGrath.  
Mining district.. Do.  
Coalfield..... Unnamed.  
Elevation..... 434 m.  
Topography..... Gentle slope.  
Domain..... BLM-administrated.

General location.. 92 km southeast of  
McGrath.  
Meridian..... Seward.  
Tract..... Sec. 24, T 27 N, R 27 W.  
Latitude..... 62°25'22" N.  
Longitude..... 154°10'58" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name.... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 23° E, 37-40° S.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 1.8.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Conglomerate lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 3,968-12,711 Btu/lb (372).  
Composition, %:  
Ash..... 29.9-64.0.  
Sulfur..... 0.1-0.8.  
Moisture..... 1.9-4.0.  
Volatile matter... 18.7-76.9.  
Fixed carbon..... 8.9-53.7.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production.... Do.  
Past production.... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

21, 158, 179, 267-269, 273,  
361, 370-372, 417.

USGS quadrangle maps... McGrath, B-3.  
USBM sequence number... 0020740053.

## LITTLE TONZONA RIVER

Map No: 91

Alternate names: Brazil Creek, Knee Deep  
Creek, Deepbank Creek

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... McGrath.  
Mining district.. Do.  
Coalfield..... Unnamed.  
Elevation..... 680 m.  
Topography..... Gentle slope.  
Domain..... BLM-administrated.

General location.. 38 km northeast of  
Farewell Lake Lodge.

Meridian..... Seward.  
Tract..... Sec. 27, T 31 N, R 20 W.  
Latitude..... 62°45'17" N.  
Longitude..... 150°00'18" W.

Owner..... Canadian Superior Exploration Company.  
Operator..... Doyon, Ltd.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 73° E, 47-63° NW.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 38.7.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Siltstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 7,663-11,277 Btu/lb (268).  
Composition, %:  
Ash..... 10.84-13.75.  
Sulfur..... 1.11-1.63.  
Moisture..... 21.21.  
Volatile matter... 37.59-55.33.  
Fixed carbon..... 30.36-44.67.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. 1902.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 35 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

Resources: estimated; 1,500 million short tons (269).

## REFERENCES

21, 158, 179, 191, 193, 265-266,  
268-269, 273, 321, 335, 337, 355,  
361, 370-372, 417.

USGS quadrangle maps... McGrath, D-1.

USBM sequence number... 0020740055.

## JOHNSON CREEK

Map No: 92

Alternate names: Canyon Creek

Commodity: Subbituminous & lignite

### LOCATION-OWNERSHIP

Quadrangle..... Talkeetna.  
Mining district.. Yentna.  
Coalfield..... Beluga-Yentna.  
Elevation..... 226 m.  
Topography..... Low-lying.  
Domain..... State.

General location.. 77 km southwest of  
Petersville.

Meridian..... Seward.  
Tract..... Sec. 31, T 23 N, R 14 W.  
Latitude..... 62°02'28" N.  
Longitude..... 151°54'25" W.

Owner..... Mobil Mineral Resources, Inc.  
Operator..... Do.

### GEOLOGY

Formation name..... Tyonek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 18° W, 16-20°.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 7.6.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Conglomerate lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 5,400-9,450 Btu/lb (46).  
Composition, %:  
Ash..... 6-40.  
Sulfur..... 0.1-0.2.  
Moisture..... 20.0-30.0.  
Volatile matter... Not reported.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 25 km.  
Distance to power supply.. Outcrop.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

Resources: Identified; 500 million short tons (46).

### REFERENCES

8, 36, 46, 78-79, 102, 269,  
272-273, 339, 355, 417.

USGS quadrangle maps... Talkeetna, A-4.

USBM sequence number... 0020750001.

## CANYON CREEK

Map No: 132

Alternate names: Johnson Creek

Commodity: Subbituminous C & lignite

### LOCATION-OWNERSHIP

Quadrangle..... Tyonek.  
Mining district.. Yentna.  
Coalfield..... Beluga-Yentna.  
Elevation..... 470 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 30 km southwest of  
Skwentna.

Meridian..... Seward.  
Tract..... Sec. 07, T 20 N, R 13 W.  
Latitude..... 61°50'18" N.  
Longitude..... 151°42'28" W.

Owner..... Mobil Mineral Resources, Inc.  
Operator..... Do.

### GEOLOGY

Formation name..... Tyonek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N.18° W, 10-15° E.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 8.5.  
Depth..... 61.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Conglomerate lies under ore.  
Coking ability..... Not reported.  
Heating value..... 5,400- 9,450 Btu/lb (46).  
Composition, %:  
Ash..... 6-40.  
Sulfur..... 0.1-0.2.  
Moisture..... 20-30.  
Volatile matter... Not reported.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 1.0 km.  
Road requirement..... 9 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

Reserves: Identified; 500 million short tons (46).

### REFERENCES

8, 36, 46, 78-79, 102, 165,  
269, 272-273, 417.

USGS quadrangle maps... Tyonek, D-5.

USBM sequence number... 0020840040.

## SHORT CREEK

Map No: 94

Alternate names: Cache or Short Creek Mine,

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Talkeetna.  
Mining district.. Yentna.  
Coalfield..... Beluga-Yentna.  
Elevation..... 520 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 14 km west of Petersville.

Meridian..... Seward.  
Tract..... Sec. 36, T 28 N, R 10 W.  
Latitude..... 62°28'50" N.  
Longitude..... 151°02'22" W.

Owner..... Cache Creek Dredging Co.  
Operator..... Do.

### GEOLOGY

Formation name.... Tyonek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 2.4.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Conglomerate lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 2 km.  
Distance to power supply.. Onsite.

Initial production.. 1916.  
Last production..... 1918.  
Past production..... Not reported.  
Annual production... Do.

Process rate..... 22 mt/d.  
Product type..... Coal.  
Distance shipped..... 14 km.  
Destination..... Petersville.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

91, 102, 161, 185, 236, 265,  
273, 278, 320, 339, 361, 392,  
400, 417.

USGS quadrangle maps... Talkeetna, B-3.  
USBM sequence number... 0020750035.



## BLUFF CREEK

Map No: 95

Alternate names: None

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Talkeetna.  
Mining district.. Yentna.  
Coalfield..... Beluga-Yentna.  
Elevation..... 600 m.  
Topography..... Gentle slope.  
Domain..... National Park.

General location.. 24 km northeast of  
Petersville.

Meridian..... Seward.  
Tract..... Sec. 23, T 30 N, R 07 W.  
Latitude..... 62°40'40" N.  
Longitude..... 150°31'55" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Tyonek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Not reported.

Coking ability..... Do.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 5 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

102, 185, 265, 273, 320, 339, 417.

USGS quadrangle maps... Talkeetna, C-2.

USBM sequence number... 0020750036.

## COAL CREEK

Map No: 96  
Alternate name: None

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Mt. McKinley.  
Mining district.. Kantishna.  
Coalfield..... Nenana.  
Elevation..... 1219 m.  
Topography..... Rugged.  
Domain..... National Park.

General location.. 41 km southwest of Toklat  
Ranger Station.

Meridian..... Fairbanks.  
Tract..... Sec. 36, T 18 S, R 17 W.  
Latitude..... 63°18'23" N.  
Longitude..... 150°42'57" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Not reported.

Coking ability..... Do.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 1.2 km.  
Road requirement..... 15 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

72, 89, 101, 185, 273, 318, 320,  
340, 417.

USGS quadrangle maps... Mt. McKinley, B-2.  
  
USBM sequence number... 0020660046.

## COAL CREEK

Map No: 97

Alternate names: Accolade Mines, Inc.,  
Coal Creek Mine Complex

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonfield.  
Coalfield..... Broad Pass.  
Elevation..... 732 m.  
Topography..... Gentle slope.  
Domain..... Native.

General location.. 22 km southwest of Cantwell.

Meridian..... Fairbanks.  
Tract..... Sec. 23, T 19 S, R 09 W.  
Latitude..... 63°15'11" N.  
Longitude..... 149°12'15" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 2.4.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Claystone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 6,395-11,100 Btu/lb (335).  
Composition, %:  
Ash..... 14.07-19.63.  
Sulfur..... 0.15-0.26.  
Moisture..... 28.32.  
Volatile matter... 33.53-58.20.  
Fixed carbon..... 24.08-41.80.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. 1898.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. 2 km.

Initial production.. 1920.  
Last production..... mid 1940's.  
Past production..... 2,866 mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 2 km.  
Destination..... Railroad.

### PUBLISHED RESERVES-RESOURCES

Resources: Strippable; 100,000 short tons (43).

## REFERENCES

3, 19, 43, 72, 87, 95, 185, 234,  
265, 268, 270, 273, 320, 323,  
356-357, 361.

USGS quadrangle maps... Healy, B-5.

USBM sequence number... 0020670130.

## BROAD PASS

Map No: 97

Alternate names: Broad Pass Mine Complex,  
Archie Lewis Tunnel

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Broad Pass.  
Elevation..... 671 m.  
Topography..... Flat lying.  
Domain..... Native.

General location.. 25 km southwest of Cantwell.

Meridian..... Fairbanks.  
Tract..... Sec. 27, T 19 S, R 09 W.  
Latitude..... 63°14'15" N.  
Longitude..... 149°15'20" W.

Owner..... Broad Pass Coal and Development Co.  
Operator..... W.A. Havner.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Horizontal, 2-9° S.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 243.8.  
Width..... Not reported.  
Thickness..... 2.7.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Claystone lies under ore.  
Coking ability..... No.  
Heating value..... 5,720-11,670 Btu/lb (146).  
Composition, %:  
Ash..... 10.6-29.7.  
Sulfur..... 0.2-0.5.  
Moisture..... 21.8-35.8.  
Volatile matter... 27.8-58.2.  
Fixed carbon..... 20.7-46.3.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface.  
Year of discovery.. 1898.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. 1 km.

Initial production.. 1920.  
Last production..... 1922.  
Past production..... 1,306 mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 2 km.  
Destination..... Railroad.

### PUBLISHED RESERVES-RESOURCES

Broad Pass field: Measured reserves; 10 million short tons (78).  
Indicated reserves; 50 million short tons.  
Hypothetical reserves: 500 million short tons.

## REFERENCES

1, 3, 19, 21, 35, 43, 57-58, 73, 78,  
136, 145-146, 174, 177, 185, 191, 193,  
265, 268-269, 273, 320, 334-335, 342,  
354-355, 361, 417, 421.

USGS quadrangle maps... Healy, A-5.

USBM sequence number... 0020670131.

## W.E. DUNKLE COAL MINE

Map No: 98

Alternate names: Costello Creek Coal Mine,  
Dunkle Camp Creek, Coal Creek, Camp Creek

Commodity: Subbituminous B

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonfield.  
Coalfield..... Unnamed.  
Elevation..... 808 m.  
Topography..... Gentle slope.  
Domain..... National Park.

General location.. 32 km southwest of Cantwell.

Meridian..... Fairbanks.  
Tract..... Sec. 18, T 19 S, R 10 W.  
Latitude..... 63°16'13" N.  
Longitude..... 149°31'40" W.

Owner..... Henry Stevens and Frank Wells.  
Operator..... Unknown.

### GEOLOGY

Formation name..... Healy Creek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 30° E, 10-12° SE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 365.8.  
Width..... Not reported.  
Thickness..... 1.3.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Conglomerate lies under ore.  
Coking ability..... No.  
Heating value..... 9,700-13,580 Btu/lb (146).  
Composition, %:  
Ash..... 6.0-15.5.  
Sulfur..... 0.4-0.8.  
Moisture..... 14.3-18.8.  
Volatile matter... 32.0-46.8.  
Fixed carbon..... 36.9-55.8.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
Year of discovery.. 1911.  
Discovery method... Prospecting.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. 32 km.

Initial production.. 1940.  
Last production..... 1954.  
Past production..... 70,547 mt.  
Annual production... Not reported.

Process rate..... Not reported.  
Product type..... Coal.  
Distance shipped..... Not reported.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

Reserves: Measured; 33,670 short tons (351).  
Indicated; 232,120 short tons.  
Inferred; 134,480 short tons.

## REFERENCES

1-3, 26, 35, 89, 91, 98, 145-146,  
174, 185, 193, 234, 268, 270, 273,  
303, 320, 334-335, 337, 342, 349,  
351, 354-355, 367-368, 391, 402-403,  
417, 421.

USGS quadrangle maps... Healy, B-6.

USBM sequence number... 0020670192.



## STONY MOOSE DIVIDE

Map No: 99

Alternate names: Stony Creek West Fork,  
Moose Creek Divide

Commodity: Subbituminous

## LOCATION-OWNERSHIP

Quadrangle..... Mt. McKinley.  
Mining district.. Kantishna.  
Coalfield..... Nenana.  
Elevation..... 1067 m.  
Topography..... Rugged.  
Domain..... National Park.

General location.. 16 km southwest of Toklat  
Ranger Station.

Meridian..... Fairbanks.  
Tract..... Sec. 12, T 17 S, R 15 W.  
Latitude..... 63°27'21" N.  
Longitude..... 150°21'00" W.

Owner..... Unknown.  
Operator..... Do.

## GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 80° E, 55° S.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 3.7.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale encloses ore.

Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

## DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.

Distance to water supply.. 0.5 km.  
Road requirement..... 4.5 km.  
Distance to power supply.. Onsite.

Year of discovery.. 1919.  
Discovery method... Unknown.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

## PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

89, 91, 93, 97, 101, 185, 211, 273,  
289, 320, 340, 416-417.

USGS quadrangle maps... Mt. McKinley, B-1.  
USBM sequence number... 0020660011.

## SABLE MOUNTAIN

Map No: 100

Alternate names: Mile Post 39 Mt. McKinley  
National Park

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Kantishna.  
Coalfield..... Nenana.  
Elevation..... 1067 m.  
Topography..... Steep slope.  
Domain..... National Park.

General location.. 51 km southwest of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 31, T 15 S, R 11 W.  
Latitude..... 63°34'00" N.  
Longitude..... 149°46'05" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 80° W, 60° S.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 4.3.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sand encloses ore.  
Gravel encloses ore.  
Coking ability..... No.  
Heating value..... 6,610 Btu/lb (416).  
Composition, %:  
Ash..... 9.3.  
Sulfur..... 0.3.  
Moisture..... 32.0.  
Volatile matter... 34.6.  
Fixed carbon..... 24.1.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.

Distance to water supply.. 0.1 km.  
Road requirement..... 1.0 km.  
Distance to power supply.. 51 km.

Year of discovery.. Unknown.  
Discovery method... Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

1, 3, 89, 185, 211, 265, 270,  
273, 320, 416.

USGS quadrangle maps... Healy, C-6.  
USBM sequence number... 0020670078.

## POLYCHROME MOUNTAIN

Map No: 100

Alternate names: Polychrome Mine,  
Alaska Road Commission, Mile Post 42  
Mt. McKinley National Park

Commodity: Subbituminous B

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Kantishna.  
Coalfield..... Nenana.  
Elevation..... 1097 m.  
Topography..... Gentle slope.  
Domain..... National Park.

General location.. 56 km southwest of Healy.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Fairbanks.  
Tract..... Sec. 11, T 16 S, R 12 W.  
Latitude..... 63°32'19" N.  
Longitude..... 149°49'35" W.

### GEOLOGY

Formation name..... Healy Creek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 70° E, 30° S.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... 91.4.  
Thickness..... 1.8.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Gravel lies over ore.  
Claystone lies under ore.  
Coking ability..... No.  
Heating value..... 9,050-12,500 Btu/lb (146).  
Composition, %:  
Ash..... 5.7-7.3.  
Sulfur..... 0.5-0.6.  
Moisture..... 21.8.  
Volatile matter... 36.9-50.9.  
Fixed carbon..... 35.6-49.1.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 56 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... Unknown.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

1, 3, 89, 145-146, 174, 185, 211,  
264-265, 273, 289, 320, 416-417.

USGS quadrangle maps... Healy, C-6.

USBM sequence number... 0020670079.

## TEKLANIKA RIVER

Map No: 101  
Alternate names: None

Commodity: Bituminous & subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Kantishna.  
Coalfield..... Nenana.  
Elevation..... 701 m.  
Topography..... Steep slope.  
Domain..... National Park.

General location.. 30 km southwest of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 29, T 13 S, R 10 W.  
Latitude..... 63°45'49" N.  
Longitude..... 149°32'35" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Healy Creek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 1.2.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Gravel lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 7,150-7,631 Btu/lb (416).  
Composition, %:  
Ash..... 5.8-9.7.  
Sulfur..... 0.2-0.3.  
Moisture..... 27.8-28.7.  
Volatile matter... 36.0-39.8.  
Fixed carbon..... 25.6-26.6.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 5.5 km.  
Distance to power supply.. 30 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

1, 3, 35, 43, 89, 93, 185, 211,  
265, 268-269, 273, 289, 320, 354,  
416, 427.

USGS quadrangle maps... Healy, D-6.  
USBM sequence number... 0020670072.

## SUSHANA

Map No: 101

Alternate names: None

Commodity: Bituminous & subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Kantishna.  
Coalfield..... Nenana.  
Elevation..... 762 m.  
Topography..... Gentle slope.  
Domain..... National Park.

General location.. 37 km southwest of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 28, T 13 S, R 11 W.  
Latitude..... 63°45'13" N.  
Longitude..... 149°41'40" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name.... Healy Creek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 1.9.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Gravel encloses ore.  
Sand encloses ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %: (1).  
Ash..... 8.2.  
Sulfur..... 0.3.  
Moisture..... Not reported.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.5 km.  
Road requirement..... 9.5 km.  
Distance to power supply.. 37 km.

Initial production.. Not reported.  
Last production.... Do.  
Past production.... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

1, 3, 43, 93, 185, 211, 265,  
268, 270, 273, 320, 416-417.

USGS quadrangle maps... Healy, D-6.

USBM sequence number... 0020670073.

## SANCTUARY RIVER

Map No: 101  
Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 610 m.  
Topography..... Gentle slope.  
Domain..... National Park.

General location.. 28 km southwest of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 16, T 13 S, R 10 W.  
Latitude..... 63°47'16" N.  
Longitude..... 149°30'15" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Healy Creek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.9.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Gravel lies over ore.  
Shale lies under ore.  
Coking ability..... No.  
Heating value..... 6,560-6,810 Btu/lb (416).  
Composition, %:  
Ash..... 13.2.  
Sulfur..... 0.3.  
Moisture..... 28.6-30.9.  
Volatile matter... 32.4-35.5.  
Fixed carbon..... 22.7-23.5.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 7 km.  
Distance to power supply.. 28 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

1, 3, 43, 89, 93, 185, 211, 265,  
268, 270, 273, 289, 320, 416-417.

USGS quadrangle maps... Healy, D-6.

USBM sequence number... 0020670166.

## SAVAGE RIVER

Map No: 102

Alternate names: None

Commodity: Bituminous & Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 914 m.  
Topography..... Steep slope.  
Domain..... National Park.

General location.. 20 km southwest of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 21, T 13 S, R 09 W.  
Latitude..... 63°46'07" N.  
Longitude..... 149°18'58" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 20° E, 10° W.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 1.6.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone encloses ore.

Coking ability..... No.  
Heating value..... Not reported.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 1.2 km.  
Road requirement..... 4.3 km.  
Distance to power supply.. 20 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

1, 3, 35, 43, 89, 93, 95, 97, 185,  
211, 265, 268, 270, 273, 289, 320,  
416-417, 441.

USGS quadrangle maps... Healy, D-5.

USBM sequence number... 0020670071.



## HINES CREEK

Map No: 103  
Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 914 m.  
Topography..... Gentle slope.  
Domain..... National Park.

General location.. 18 km southwest of Healy.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Fairbanks.  
Tract..... Sec. 15, T 14 S, R 08 W.  
Latitude..... 63°42'15" N.  
Longitude..... 149°05'40" W.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.q  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Not reported.  
  
Coking ability..... No.  
Heating value..... Not reported.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 1 km.  
Road requirement..... 2 km.  
Distance to power supply.. 18 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

3, 95, 185, 265, 270, 273, 320,  
421.

USGS quadrangle maps... Healy, C-5.

USBM sequence number... 0020670069.

## YANERT COAL MINE

Map No: 104

Alternate names: Yanert Mine, Mile 341,  
Mt. McKinley Bituminous Coal Mine

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 671 m.  
Topography..... Gently rolling.  
Domain..... National Park.

General location.. 24 km southeast of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 02, T 15 S, R 07 W.  
Latitude..... 63°38'43" N.  
Longitude..... 148°50'24" W.

Owner..... Mt. McKinley Bituminous Coal Corp.  
Operator..... Do.

### GEOLOGY

Formation name..... Cantwell.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of S 70° W, 40-60° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Conglomerate lies under ore.  
Coking ability..... Not reported.  
Heating value..... 10,590-14,220 Btu/lb (146).  
Composition, %:  
Ash..... 11.9-19.9.  
Sulfur..... 0.4-0.8.  
Moisture..... 4.2-7.7.  
Volatile matter... 11.4-26.4.  
Fixed carbon..... 56.8-73.6.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface-underground.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.5 km.  
Road requirement..... 1.6 km.  
Distance to power supply.. 24 km.

Initial production.. 1923.  
Last production..... 1924.  
Past production..... 106 mt.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 115 km.  
Destination..... Nenana.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

3, 59, 95, 145-146, 173-174, 185,  
199, 211, 265, 268, 270, 273, 320,  
334, 354-355, 381, 403, 416-417,  
421, 454.

USGS quadrangle maps... Healy, C-4.

USBM sequence number... 0020670058.

## MILE 353 PROSPECT

Map No: 105

Alternate names: None

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 640 m.  
Topography..... Steep slope.  
Domain..... National Park.

General location.. 6 km south of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 08, T 13 S, R 07 W.  
Latitude..... 63°48'00" N.  
Longitude..... 148°57'52" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Healy Creek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Not reported.

Coking ability..... No.  
Heating values..... Not reported.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 0.6 km.  
Distance to power supply.. 6 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

3, 185, 265, 270, 273, 320, 417,  
441.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670191.

## DRY CREEK COAL

Map No: 106

Alternate names: Diamond Strip Mine,  
Otto Lake Mine, Ringstead Mine

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 625 m.  
Topography..... Gently rolling.  
Domain..... State.

General location.. 5 km southwest of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 35, T 12 S, R 08 W.  
Latitude..... 63°49'40" N.  
Longitude..... 149°03'17" W.

Owner..... Diamond Coal Company.  
Operator..... Gus Parris, Otto Maki, James Norris.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of S 66° W, 35° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 12.8.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Gravel lies over ore.  
Clay lies under ore.  
Coking ability..... Not reported.  
Heating value..... 8,480-12,135 Btu/lb (219).  
Composition, %:  
Ash..... 6.5-40.0.  
Sulfur..... 0.1.  
Moisture..... 8.3-34.3.  
Volatile matter... 32.7-65.5.  
Fixed carbon..... 17.6-41.2.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 1 km.  
Road requirement..... Existing.  
Distance to power supply.. 5.5 km.

Initial production.. 1943.  
Last production..... 1946.  
Past production..... 45,578 mt.  
Annual production... 1943-7,095 mt,  
1946-38,482 mt.

Process rate..... 74 mt/d.  
Product type..... Coal.  
Distance shipped..... 180 km.  
Destination..... Fairbanks.

### PUBLISHED RESERVES-RESOURCES

Reserves: Measured; 29,800 short tons; (359)  
Inferred; 19,700 short tons.

## REFERENCES

1, 3, 33, 87, 93, 95, 185, 193,  
211, 219, 234, 265, 268, 270, 320,  
359, 416-417, 421, 442, 444.

USGS quadrangle maps... Healy, D-5.

USBM sequence number... 0020670067.

## PETERSON MINE

Map No: 107

Alternate names: New Mine, Healy River Coal Corp

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Healy.

Mining district.. Bonnifield.

Coalfield..... Nenana.

Elevation..... 457 m.

Topography..... Flat lying.

Domain..... State.

General location.. 1 km south of Healy.

Meridian..... Fairbanks.

Tract..... Sec. 29, T 12 S, R 07 W.

Latitude..... 63°51'00" N.

Longitude..... 148°57'55" W.

Owner..... Unknown.

Operator..... Do.

### GEOLOGY

Formation name..... Suntrana.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of Not reported.  
coal seam.

Coal seam average  
dimensions, m.

Length..... Do.

Width..... Do.

Thickness..... Do.

Depth..... Do.

Formation age..... Tertiary.

Rock relationships.. Not reported.

Coking ability..... No.

Heating value..... Not reported.

Composition, %:

Ash..... Do.

Sulfur..... Do.

Moisture..... Do.

Volatile matter... Do.

Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Past producer.

Type of operation.. Underground.

Year of discovery.. 1898.

Discovery method... Unknown.

Distance to water supply.. Onsite.

Road requirement..... Existing.

Distance to power supply.. 1 km.

Initial production.. 1920.

Last production..... 1922.

Past production..... 35,273 mt.

Annual production... Not reported.

Process rate..... Not reported.

Product type..... Coal.

Distance shipped..... Not reported.

Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

3, 185, 234, 265, 268, 270, 273,  
320, 417, 441.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670190.

## MOODY CREEK

Map No: 108

Alternate names: Sugar Loaf No. 1

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 610 m.  
Topography..... Rugged.  
Domain..... State.

General location.. 9 km southeast of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 01, T 13 S, R 07 W.  
Latitude..... 63°49'06" N.  
Longitude..... 148°48'13" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Cantwell.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Conglomerate lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 5.1 km.  
Distance to power supply.. 5.5 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

3, 95, 185, 265, 270, 273, 320,  
441, 444.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670052.



## LIGNITE CREEK COAL

Map No: 109

Alternate names: Calderhead Mine, Arctic  
Coal Co. Mine, Hosanna Creek, Hoseanna Creek

Commodity: Subbituminous C

## LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 457 m.  
Topography..... Gently rolling.  
Domain..... State.

General location.. 9 km northeast of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 35, T 11 S, R 07 W.  
Latitude..... 63°55'01" N.  
Longitude..... 148°51'58" W.

Owner..... Carroll, Corey, Lander, Sczudlo, and Somers.

Operator..... Arctic Coal Company.

## GEOLOGY

Formation name..... Suntrana.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Flat-lying, 6° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 12.2.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Clay lies under ore.  
Coking ability..... Not reported.  
Heating value..... 7,570-11,820 Btu/lb (146).  
Composition, %:  
Ash..... 9.5-12.9.  
Sulfur..... 0.2-0.3.  
Moisture..... 26.5.  
Volatile matter... 35.8-55.9.  
Fixed carbon..... 28.2-44.1.

## DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface.  
  
Year of discovery.. Late 1800's.  
Discovery method... Unknown.

Distance to water supply.. 1.0 km.  
Road requirement..... Existing.  
Distance to power supply.. 7 km.

Initial production.. 1919.  
Last production..... 1921.  
Past production..... Not reported.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... Unknown.  
Destination..... Do.

## PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

1, 3, 24, 30, 35, 37, 46, 54, 57-58,  
72, 74, 87, 89-90, 92-93, 95, 131,  
136, 145-146, 159, 169, 174, 185, 193,  
211, 219, 229, 244-245, 268, 270, 320,  
323, 333, 355, 361, 366, 416-417, 421,  
441, 445-449, 461.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670064.

## USIBELLI COAL MINE

Map No: 109

Alternate names: Usibelli Strip, Gold Run  
Pass, Poker Flats, Two Bull Ridge

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 492 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 5.5 km northeast of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 14, T 12 S, R 06 W.  
Latitude..... 63°54'30" N.  
Longitude..... 148°55'35" W.

Owner..... Usibelli Coal Mine, Inc.  
Operator..... Do.

### GEOLOGY

Formation name..... Suntrana.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of East-west, 10-30° S.  
coal seam.  
Coal seam average Seams 3,4,& 6.  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 6.  
Depth..... Outcrop - 42.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Claystone lies under ore.  
Coking ability..... No.  
Heating value..... 7,022-12,124 Btu/lb (268).  
Composition, %:  
Ash..... 7.66-22.32.  
Sulfur..... 0.12-0.28.  
Moisture..... 23.61-25.68.  
Volatile matter... 32.80-55.28.  
Fixed carbon..... 26.54-46.78.

### DEVELOPMENT

Current status..... Producer.  
Type of operation.. Surface.  
  
Year of discovery.. 1898.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Do.  
Mill location..... On-site.  
Mill status..... Active.  
Mill method..... Crusher.

Initial production.. 1943.  
Last production..... Present.  
Past production..... 17.8 Mmt.  
Annual production... 1.8 Mmt.

Process rate..... 1.6 Mmt/d  
Product type..... Coal.  
Distance shipped..... 583 km.  
Destination..... Fairbanks and Seward.

### PUBLISHED RESERVES-RESOURCES

Reserves: All leases; 250 million short tons (357).  
Poker Flats; 28 million short tons (153).  
Two Bull Ridge; 38 million short tons (153).

## REFERENCES

1, 3-5, 7, 19, 21, 24-25, 33, 35, 43,  
78-80, 127, 136, 138-140, 151, 153,  
164-165, 184, 189-193, 195, 207, 211,  
219, 225, 234, 255, 257-259, 265-266,  
268-270, 272-273, 285, 302-303, 305,  
328, 333-335, 337, 342-343, 345, 354-355,  
361-362, 369, 404, 407, 414, 416-417, 425,  
427-428, 433-436, 441, 449, 470.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670090.

## HEALY CREEK ADITS

Map No: 110  
Alternate names: None

Commodity: Subbituminous C

## LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 655 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 19 km east of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 07, T 12 S, R 05 W.  
Latitude..... 63°52'59" N.  
Longitude..... 148°35'44" W.

Owner..... Unknown.  
Operator..... Do.

## GEOLOGY

Formation name..... Healy Creek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of East-west.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 3.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Gravel lies over ore.  
Sandstone lies under ore.  
Coking ability..... No.  
Heating value..... Not reported.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

## DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. 1898.  
Discovery method... Unknown.

Distance to water supply.. 0.5 km.  
Road requirement..... 4 km.  
Distance to power supply.. 19 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

## PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

1, 3, 26, 33, 35, 43-44, 63, 72-73,  
87, 89-91, 93, 95, 136, 145, 169-170,  
174, 193, 211, 265, 268, 270, 273, 291,  
320, 333, 355, 361, 366, 416-417, 441,  
445-447.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670183.

## UPPER HEALY CREEK MINE

Map No: 110

Alternate names: None

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 693 m.  
Topography..... Flat-lying.  
Domain..... State.

General location.. 17 km east of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 13, T 12 S, R 06 W.  
Latitude..... 63°52'46" N.  
Longitude..... 148°37'50" W.

Owner..... Usibelli Coal Mine, Inc.  
Operator..... Unknown.

### GEOLOGY

Formation name..... Suntrana.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of East-west, 35° NW.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 2.4.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Gravel lies over ore.  
Sandstone lies under ore.  
Coking ability..... No.  
Heating value..... 8,290-12,160 Btu/lb (146).  
Composition, %:  
Ash..... 4.4-6.1.  
Sulfur..... 0.2.  
Moisture..... 27.4.  
Volatile matter... 34.7-50.9.  
Fixed carbon..... 33.5-49.1.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1898.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 3 km.  
Distance to power supply.. 17 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

1, 3, 35, 43-44, 145-146, 174, 185,  
265, 270, 273, 320, 354, 417, 442,  
445-448.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670184.

## ROTH-TAYLOR MINE

Map No: 110

Alternate names: Roth & Manley, Alaska

Cannel Coal Corp., Coal Leasing Block No. 28

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coal Creek..... Nenana.  
Elevation..... 640 m.  
Topography..... Steep slope.  
Domain..... State.

General location.. 15 km east of Healy.

Owner..... Usibelli Coal Mine, Inc.  
Operator..... Unknown.

Meridian..... Fairbanks.  
Tract..... Sec. 14, T 12 S, R 06 W.  
Latitude..... 63°52'26" N.  
Longitude..... 148°40'26" W.

### GEOLOGY

Formation name..... Suntrana.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of East-west, 30-45° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 15.9.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Gravel lies over ore.  
Sandstone lies under ore.  
Coking ability..... No.  
Heating value..... 8,390-13,130 Btu/lb (146).  
Composition, %:  
Ash..... 3.3-12.1.  
Sulfur..... 0.1-0.3.  
Moisture..... 16.2-24.3.  
Volatile matter... 37.9-52.5.  
Fixed carbon..... 29.0-48.1.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface-underground.  
  
Year of discovery.. 1898.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. 15 km.

Initial production.. 1923.  
Last production..... 1924.  
Past production..... 827 mt.  
Annual production... 1923 - 176 mt,  
1924 - 650 mt.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 187 km.  
Destination..... Fairbanks.

### PUBLISHED RESERVES-RESOURCES

Resources: Measured; 50,800 short tons (234).  
Indicated; 13,100 short tons.  
Inferred; 342,900 short tons.



## REFERENCES

1, 3, 26, 33, 43, 92, 145-146,  
174, 185, 234, 265, 270, 273,  
290, 320, 377, 379-381, 402,  
417, 421, 441.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670185.

## CRIPPLE CREEK MINE

Map No: 110

Alternate names: Healy Fork

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 579 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 13 km east of Healy on  
Cripple Creek.

Meridian..... Fairbanks.  
Tract..... Sec. 15, T 12 S, R 06 W.  
Latitude..... 63°52'13" N.  
Longitude..... 148°42'40" W.

Owner..... Grace, Ben, & Mary L. Shallit, & Brigham Young University.  
Operator..... Unknown.

### GEOLOGY

Formation name..... Suntrana.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 70° E, 35° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 71.1.  
Width..... Not reported.  
Thickness..... 5.6.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Gravel lies over ore.  
Sandstone lies under ore.  
Coking ability..... No.  
Heating value..... 6,540-12,200 Btu/lb (146).  
Composition, %:  
Ash..... 4.1-24.3.  
Sulfur..... 0.1-0.4.  
Moisture..... 23.9-25.9.  
Volatile matter... 31.2-58.7.  
Fixed carbon..... 24.9-48.4.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. 1898.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. 13 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 583 km.  
Destination..... Fairbanks.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

1, 3, 24, 43, 145-146, 174, 185,  
234, 265, 270, 273, 320, 417, 441.

USGS quadrangle maps... Healy, D-4.  
  
USBM sequence number... 0020670186.

## CRIPPLE CREEK WEST

Map No: 110

Alternate names: None

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 678 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 12 km east of Healy on  
Cripple Creek.

Meridian..... Fairbanks.  
Tract..... Sec. 21, T 12 S, R 06 W.  
Latitude..... 63°51'57" N.  
Longitude..... 148°43'50" W.

Owner..... Grace, Ben, & Mary L. Shallit, & Brigham Young University.  
Operator..... Unknown.

### GEOLOGY

Formation name..... Suntrana.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 70° E, 40° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 5.6.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Gravel lies over ore.  
Sandstone lies under ore.  
Coking ability..... No.  
Heating Value..... 6,540-12,180 Btu/lb (146).  
Composition, %:  
Ash..... 8.5-24.3.  
Sulfur..... 0.2-0.4.  
Moisture..... 23.9-25.9.  
Volatile matter... 31.2-58.7.  
Fixed carbon..... 24.9-44.4.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. 1898.  
Discovery method... Unknown.

Distance to water supply.. 1.3 km.  
Road requirement..... 0.5 km.  
Distance to power supply.. 12 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

3, 145-146, 174, 185, 265, 270,  
273, 320, 417, 441.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670187.

## FRENCH CREEK

Map No: 110

Alternate names: French Gulch

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 503 m.  
Topography..... Steep slope.  
Domain..... State.

General location.. 10 km east of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 20, T 12 S, R 06 W.  
Latitude..... 63°51'53" N.  
Longitude..... 148°45'39" W.

Owner..... Usibelli Coal Mine, Inc.  
Operator..... Do.

### GEOLOGY

Formation name..... Suntrana.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 6.2.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Gravel lies over ore.  
Sandstone lies under ore.  
Coking ability..... No.  
Heating value..... Not reported.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1898.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. 10 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

3, 33, 43, 185, 265, 270, 273,  
320, 417, 441.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670188.

## SUNTRANA MINE

Map No: 110

Alternate names: New Suntrana (Hill) Mine,  
Old Suntrana Mine, Healy River Coal Corp.

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 510 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 6 km east of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 23, T 12 S, R 07 W.  
Latitude..... 63°51'32" N.  
Longitude..... 148°52'37" W.

Owner..... Daniel E. Renshaw.  
Operator..... Unknown.

### GEOLOGY

Formation name.... Suntrana.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 70° E, 27-33° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 19,000.  
Width..... Not reported  
Thickness..... 8.4.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Claystone lies under ore.  
Coking ability..... No.  
Heating value..... 7,290-13,180 Btu/lb (146).  
Composition, %:  
Ash..... 3.5-16.5.  
Sulfur..... 0.1-0.6.  
Moisture..... 18.2-29.3.  
Volatile matter... 34.7-59.1.  
Fixed carbon..... 27.6-49.2.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. 1898.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. 6 km.

Initial production.. 1922.  
Last production..... 1962.  
Past production..... Not reported.  
Annual production... Do.

Process rate..... 300 mt/d.  
Product type..... Coal.  
Distance shipped..... 187 km.  
Destination..... Fairbanks, Cordova,  
and Anchorage.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

1, 3, 20, 26, 33, 35, 44, 91, 136,  
145-146, 174, 185, 193-194, 211, 219,  
243, 257, 265, 267-268, 270, 273, 290,  
303, 320, 333, 336, 354, 361, 367-368,  
377-378, 381, 383, 387, 402, 416-417,  
421, 441, 444-445, 449-450.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670189.

GOLD RUN PASS NO. 2

Map No: 111  
Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 686 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 14 km northeast of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 03, T 12 S, R 06 W.  
Latitude..... 63°54'32" N.  
Longitude..... 148°42'31" W.

Owner..... Unknown.  
Operator..... Do.

GEOLOGY

Formation name..... Suntrana.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Claystone lies under ore.  
Coking ability..... No.  
Heating value..... Not reported.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. 1898.  
Discovery method... Unknown.

Distance to water supply.. 1 km.  
Road requirement..... 9 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

3, 185, 265, 270, 273, 320, 417,  
441.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670181.

## GOLD RUN PASS NO. 1

Map No: 111  
Alternate names: None

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 879 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 15 km northeast of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 02, T 12 S, R 06 W.  
Latitude..... 63°54'08" N.  
Longitude..... 148°42'00" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Suntrana.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Claystone lies under ore.  
Coking ability..... No.  
Heating value..... Not reported.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1898.  
Discovery method... Unknown.

Distance to water supply.. 2.1 km.  
Road requirement..... 2 km.  
Distance to power supply.. 15 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

3, 185, 265, 268, 270, 273, 320,  
356, 417.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670182.



## MOOSE SEAM

Map No: 112  
Alternate names: None

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonfield.  
Coalfield..... Nenana.  
Elevation..... 594 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 14 km northeast of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 28, T 11 S, R 06 W.  
Latitude..... 63°56'15" N.  
Longitude..... 148°44'52" W.

Owner..... Usibelli Coal Mine, Inc.  
Operator..... Unknown.

### GEOLOGY

Formation name.... Suntrana.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 6.6.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Claystone lies under ore.  
Coking ability..... No.  
Heating value..... 8,953-12,627 Btu/lb (268).  
Composition, %:  
Ash..... 7.68-9.77.  
Sulfur..... 0.15-0.21.  
Moisture..... 16.81-21.42.  
Volatile matter... 36.02-50.81.  
Fixed carbon..... 34.88-49.19.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 6 km.  
Distance to power supply.. 14 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

3, 185, 234, 265, 268, 270, 273,  
320, 333, 337, 441.

USGS quadrangle maps... Healy, D-4.  
USBM sequence number... 0020670102.

## CARIBOU SEAM

Map No: 112

Alternate names: None

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 700 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 14 km northeast of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 28, T 11 S, R 06 W.  
Latitude..... 63°56'07" N.  
Longitude..... 148°43'50" W.

Owner..... Usibelli Coal Mine, Inc.  
Operator..... Unknown.

### GEOLOGY

Formation name..... Suntrana.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 5.06.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Claystone lies under ore.  
Coking ability..... No.  
Heating value..... 8,567-12,464 Btu (269).  
Composition, %:  
Ash..... 9.34-11.96.  
Sulfur..... 0.13-0.20.  
Moisture..... 21.93.  
Volatile matter... 35.88-52.20.  
Fixed carbon..... 32.85-47.80.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1898.  
Discovery method... Unknown.

Distance to water supply.. 1 km.  
Road requirement..... 8 km.  
Distance to power supply.. 14 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

3, 185, 265, 268, 270, 273, 320,  
333, 337, 441.

USGS quadrangle maps... Healy, D-4.  
USBM sequence number... 0020670150.

## NENANA RIVER COAL

Map No: 113

Alternate names: Burns Mine,  
Alaska RR Mile 362

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 366 m.  
Topography..... Gently rolling.  
Domain..... State.

General location.. 5 km northwest of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 06, T 12 S, R 06 W.  
Latitude..... 63°53'57" N.  
Longitude..... 149°00'30" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Suntrana.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 610.  
Width..... Not reported.  
Thickness..... 1.5.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Gravel lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 8,080-11,240 Btu/lb (146).  
Composition, %:  
Ash..... 3.6-5.1.  
Sulfur..... 0.2.  
Moisture..... 28.2.  
Volatile matter... 34.5-48.1.  
Fixed carbon..... 33.7-46.8.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.5 km.  
Road requirement..... 0.1 km.  
Distance to power supply.. 6 km.

Initial production.. 1919.  
Last production..... Do.  
Past production..... 8,047 mt.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 87 km.  
Destination..... Nenana.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

3, 55, 74, 78, 95, 145-146, 174, 185, 245,  
265, 268, 270, 273, 320, 417, 442, 456.

USGS quadrangle maps... Healy D-5.  
USBM sequence number... 0020670063.

## MILE 363 MINE

Map No: 113

Alternate names: Mt. McKinley Park  
Station Prospect

Commodity: High volatile A bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonfield.  
Coalfield..... Nenana.  
Elevation..... 412 m.  
Topography..... Flat-lying.  
Domain..... State.

General location.. 6 km northwest of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 01, T 12 S, R 08 W.  
Latitude..... 63°54'32" N.  
Longitude..... 149°01'18" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Healy Creek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal body average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Not reported.  
Coking ability..... No.  
Heating value..... 13,250-13,600 Btu/lb (146).  
Composition, %:  
Ash..... 9.3-9.6.  
Sulfur..... 0.3.  
Moisture..... 2.6.  
Volatile matter... 35.7-36.7.  
Fixed carbon..... 52.4-53.7.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.5 km.  
Road requirement..... Do.  
Distance to power supply.. 6 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

1, 3, 74, 91, 145-146, 174, 185, 211, 265,  
270, 273, 320, 355, 416-417, 442.

USGS quadrangle maps... Healy, D-5.  
USBM sequence number... 0020670180.

## CALIFORNIA CREEK SOUTH

Map No: 114  
Alternate names: None

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Fairbanks.  
Mining district.. Bonfield.  
Coalfield..... Nenana.  
Elevation..... 671 m.  
Topography..... Gently rolling.  
Domain..... State.

General location.. 99 km southwest of Fairbanks.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Fairbanks.  
Tract..... Sec. 27, T 10 S, R 06 W.  
Latitude..... 64°01'12" N.  
Longitude..... 148°41'50" W.

### GEOLOGY

Formation name..... Healy Creek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Flat-lying.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 3.7.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Gravel encloses ore.  
  
Coking ability..... Not reported.  
Heating value..... 4,710-11,760 Btu/lb (146).  
Composition, %:  
Ash..... 15.8-43.5.  
Sulfur..... 0.2-0.8.  
Moisture..... 25.7-38.2.  
Volatile matter... 23.8-60.5.  
Fixed carbon..... 16.4-48.2.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 3 km.  
Distance to power supply.. 21 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

California Creek area: Inferred resources; 200 million short tons (88).

### REFERENCES

87, 89, 95, 145-146, 185, 265, 273,  
317, 320, 417, 421, 468.

USGS quadrangle maps... Fairbanks, A-4.  
  
USBM sequence number... 0020580140.

## LYNN MINE

Map no: 115

Alternate names: Mile 387

Commodity: Subbituminous & lignite

### LOCATION-OWNERSHIP

Quadrangle..... Fairbanks.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 213 m.  
Topography..... Gently rolling.  
Domain..... State.

General location.. 103 km southeast of Fairbanks.

Meridian..... Fairbanks.  
Tract..... Sec. 12, T 08 S, R 09 W.  
Latitude..... 64°14'02" N.  
Longitude..... 149°15'30" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 1.3.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Not reported.

Coking ability..... Do.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 5 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... 2,205 mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... Unknown.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

74, 95, 185, 265, 273, 317, 320,  
417, 439.

USGS quadrangle maps... Fairbanks, A-5.

USBM sequence number... 0020580138.

## CALIFORNIA CREEK

Map No: 116  
Alternate names: None

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Fairbanks.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 457 m.  
Topography..... Gently rolling.  
Domain..... State.

General location.. 88 km southwest of Fairbanks.

Meridian..... Fairbanks.  
Tract..... Sec. 15, T 09 S, R 06 W.  
Latitude..... 64°07'56" N.  
Longitude..... 148°44'08" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Healy Creek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Flat-lying.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 3.7.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Gravel encloses ore.  
  
Coking ability..... Not reported.  
Heating value..... 4,710-11,760 Btu/lb (146).  
Composition, %:  
Ash..... 15.8-43.5.  
Sulfur..... 0.2-0.8.  
Moisture..... 25.7-38.2.  
Volatile matter... 23.8-60.5.  
Fixed carbon..... 16.4-48.2.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 23 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

California Creek area: Inferred resources; 200 million short tons (88).

### REFERENCES

87, 89, 95, 145-146, 185, 265, 273,  
317, 320, 417, 421, 438.

USGS quadrangle maps... Fairbanks, A-4.  
  
USBM sequence number... 0020580139.

## TATLANIKA

Map No: 117

Alternate names: Tatlanika Creek

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Fairbanks.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 488 m.  
Topography..... Gently rolling.  
Domain..... State.

General location.. 82 km southwest of Fairbanks.

Meridian..... Fairbanks.  
Tract..... Sec. 24, T 09 S, R 04 W.  
Latitude..... 64°07'16" N.  
Longitude..... 148°14'50" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Suntrana.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 2.6.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Gravel encloses ore.  
Coking ability..... Not reported.  
Heating value..... 7,290-11,720 Btu/lb (146).  
Composition, %:  
Ash..... 18.1-22.6.  
Sulfur..... 0.3-0.4.  
Moisture..... 19.7.  
Volatile matter... 37.6-60.2.  
Fixed carbon..... 24.6-39.8.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 54 km.  
Distance to power supply.. 44 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

95, 145-146, 185, 265, 273, 317,  
320, 417, 421, 437.

USGS quadrangle maps... Fairbanks, A-3.  
USBM sequence number... 0020580141.



## MYSTIC CREEK

Map No: 118  
Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Healy.  
Mining district.. Bonnifield.  
Coalfield..... Nenana.  
Elevation..... 1044 m.  
Topography..... Steep slope.  
Domain..... State.

General location.. 54 km northeast of Healy.

Meridian..... Fairbanks.  
Tract..... Sec. 14, T 11 S, R 02 W.  
Latitude..... 63°58'05" N.  
Longitude..... 147°53'13" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 4.9.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Claystone lies under ore.  
Coking ability..... No.  
Heating value..... Not reported.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1898.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 45 km.  
Distance to power supply.. 54 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

Mystic Creek Field: resources; High assurance; 10 million short tons (269).  
Moderate assurance; 25 million short tons.  
Low assurance; 50 million short tons.

## REFERENCES

3, 30, 72, 87-95, 185, 266, 268-269,  
273, 320, 323, 361, 417, 440.

USGS quadrangle maps... Healy, D-2.

USBM sequence number... 0020670094.

## COAL CREEK

Map No: 119

Alternate names: Clearwater Creek

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Mt. Hayes.  
Mining district.. Valdez Creek.  
Coalfield..... Unnamed.  
Elevation..... 1280 m.  
Topography..... Steep slope.  
Domain..... BLM-administrated.

General location.. 75 km east of Paxson.

Meridian..... Fairbanks.  
Tract..... Sec. 15, T 20 S, R 04 E.  
Latitude..... 63°11'01" N.  
Longitude..... 146°56'46" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 3.4.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Not reported.  
  
Coking ability..... Not reported.  
Heating value..... 10,000-12,930 Btu/lb (346).  
Composition, %:  
Ash..... 8.5-9.9.  
Sulfur..... 0.3.  
Moisture..... 14.1.  
Volatile matter... 40.3-52.0.  
Fixed carbon..... 37.1-48.0.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 14 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 265, 273, 320, 346, 350, 361,  
417.

USGS quadrangle maps... Mt. Hayes, A-6.

USBM sequence number... 0020680026.

## LITTLE GOLD CREEK COAL

Map No: 120

Alternate names: Jarvis Creek Coal Mine,  
Delta River, Ruby Creek, Ober Creek,  
V.M. Smith, Sargent Creek, Little Gold Creek

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Mt. Hayes.  
Mining district.. Delta River.  
Coalfield..... Nenana.  
Elevation..... 853 m.  
Topography..... Gentle slope.  
Domain..... BLM-administrated.

General location.. 71 km north of Paxson.

Owner..... Delta Coal Company.  
Operator..... Do.

Meridian..... Fairbanks.  
Tract..... Sec. 31, T 14 S, R 11 E.  
Latitude..... 63°39'46" N.  
Longitude..... 145°41'51" W.

### GEOLOGY

Formation name..... Healy Creek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of NNW, 5-10°.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 1,371.6.  
Width..... 121.9.  
Thickness..... 3.1.  
Depth..... 11.9.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Claystone lies under ore.  
Coking ability..... No.  
Heating value..... 7,800-9,500 Btu/lb (265).  
Composition, %:  
Ash..... 5.0-15.0.  
Sulfur..... 0.3-1.5.  
Moisture..... 20.0-25.0.  
Volatile matter... 35.0-45.0.  
Fixed carbon..... 25.0-35.0.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1950.  
Last production..... 1972.  
Past production..... 5,512 mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 201 km.  
Destination..... Fairbanks.

### PUBLISHED RESERVES-RESOURCES

Resources: High assurance; 30 million short tons (268).  
Moderate assurance; 85 million short tons.  
Low assurance; 175 million short tons.

## REFERENCES

1, 17, 21, 35, 78-80, 110, 136, 164-165,  
171, 185, 191, 211, 265-266, 268-270, 273,  
282-283, 287, 299, 305, 320, 328, 333,  
337, 354-355, 361, 416-417, 420-421, 425,  
427-428, 433, 446-447, 455.

USGS quadrangle maps... Mt. Hayes, C-4.

USBM sequence number... 0020680017.

## CHISNA COAL

Map No: 121

Alternate names: None

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Mt. Hayes.  
Mining district.. Chistochina.  
Coalfield..... Unnamed.  
Elevation..... 280 m.  
Topography..... Steep slope.  
Domain..... State.

General location.. 9 km northeast of Chisna.

Meridian..... Fairbanks.  
Tract..... Sec. 30, T 20 S, R 16 E.  
Latitude..... 63°08'49" N.  
Longitude..... 144°45'22" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 0.32 (Fuel ratio) (262).  
Composition, %:  
Ash..... 4.28.  
Sulfur..... Not reported.  
Moisture..... 15.91.  
Volatile matter... 60.35.  
Fixed carbon..... 19.46.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 9 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 262-264, 265, 273, 320.

USGS quadrangle maps... Mt. Hayes, A-2.

USBM sequence number... 0020680082.

## CALIFORNIA

Map No: 121

Alternate names: Slate Creek

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Mt. Hayes.  
Mining district.. Chistochina.  
Coalfield..... Unnamed.  
Elevation..... 1219 m.  
Topography..... Steep slope.  
Domain..... State.

General location.. 10.5 km north of Chisna.

Meridian..... Fairbanks.  
Tract..... Sec. 22, T 20 S, R 15 E.  
Latitude..... 63°10'05" N.  
Longitude..... 144°50'25" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name.... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Not reported.

Coking ability..... Do.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status.... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 10.5 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

35, 128, 185, 214, 265, 272,  
320, 417.

USGS quadrangle maps... Mt. Hayes, A-2.

USBM sequence number... 0020680085.

## FOURTH OF JULY CREEK

Map No: 122

Alternate names: None

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... McCarthy.  
Mining district.. Nizina.  
Coalfield..... Unnamed.  
Elevation..... 1798 m.  
Topography..... Steep Slope.  
Domain..... National Park.

General location.. 15 km northwest of McCarthy.

Meridian..... Copper River.  
Tract..... Sec. 24, T 04 S, R 12 E.  
Latitude..... 61°30'48" N.  
Longitude..... 143°08'50" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Frederika.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Horizontal.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 1.5 km.  
Road requirement..... 15 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

54, 185, 226, 265, 273, 293,  
296-297, 320, 417.

USGS quadrangle maps... McCarthy, C-6.

USBM sequence number... 0020870114.



## LIGNITE CREEK

Map No: 123

Alternate names: Coal Creek, Rocker Creek

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... McCarthy.  
Mining district.. Chisana.  
Coalfield..... Unnamed.  
Elevation..... 1219 m.  
Topography..... Steep slope.  
Domain..... National Park.

General location.. 59 km southeast of Chisna.

Meridian..... Copper River.  
Tract..... Sec. 16, T 01 N, R 24 E.  
Latitude..... 61°52'28" N.  
Longitude..... 141°00'20" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Frederika.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %: (294).  
Ash..... 8.8.  
Sulfur..... Not reported.  
Moisture..... 14.85.  
Volatile matter... 47.20.  
Fixed carbon..... 29.15.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 17 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

88, 96, 185, 226, 258, 265, 273,  
289, 294-295, 320, 417.

USGS quadrangle maps... McCarthy, D-1.  
USBM sequence number... 0020870121.

## CASEMENT GLACIER COAL

Map No: 124

Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Juneau.  
Mining district.. Do.  
Coalfield..... Unnamed.  
Elevation..... 61 m.  
Topography..... Steep slope.  
Domain..... National Park.

General location.. 58 km north of Gustavus.

Meridian..... Copper River.  
Tract..... Sec. 07, T 34 S, R 57 E.  
Latitude..... 58°56'05" N.  
Longitude..... 135°58'57" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name.... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Not reported.

Coking ability..... Do.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status.... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1959.  
Discovery method... Unknown.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. More than 100 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 227, 265, 273, 320.

USGS quadrangle maps... Juneau, D-6.

USBM sequence number... 0021120180.

## SULLIVAN

Map No: 125

Alternate names: Point Sullivan Coal,  
Sullivan Island.

Commodity: Lignite & bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Sitka.  
Mining district.. Admiralty.  
Coalfield..... Unnamed.  
Elevation..... 3 m.  
Topography..... Flat-lying.  
Domain..... National Wilderness.

General location.. 1.5 km east of Angoon.

Meridian..... Copper River.  
Tract..... Sec. 31, T 50 S, R 68 E.  
Latitude..... 57°30'05" N.  
Longitude..... 134°33'25" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kootznahoo.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of coal seam. Not reported.  
Coal seam average dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 200.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 265, 273, 320, 417, 430,  
432, 469.

USGS quadrangle maps... Sitka, C-2.  
USBM sequence number... 0021140169.

## BRIGHTMAN & DEGROFF

Map No: 125

Alternate names: Lighter Creek

Commodity: Lignite & bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Sitka.  
Mining district.. Admiralty.  
Coalfield..... Unnamed.  
Elevation..... 3 m.  
Topography..... Flat-lying.  
Domain..... National Wilderness.

General location.. 6.5 km east of Angoon.

Meridian..... Copper River.  
Tract..... Sec. 27, T 50 S, R 68 E.  
Latitude..... 57°30'50" N.  
Longitude..... 134°28'40" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kootznahoo.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.4.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 265, 273, 320, 348, 417,  
430, 432, 469.

USGS quadrangle maps... Sitka, C-2.  
  
USBM sequence number... 0021140170.

## MEADE & MITCHELL SEAM

Map No: 125

Alternate names: Lighter Creek 2

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Sitka.  
Mining district.. Admiralty.  
Coalfield..... Unnamed.  
Elevation..... 3 m.  
Topography..... Flat-lying.  
Domain..... National Wilderness.

General location.. 9 km east of Angoon.

Meridian..... Copper River.  
Tract..... Sec. 23, T 50 S, R 68 E.  
Latitude..... 57°31'15" N.  
Longitude..... 134°26'45" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kootznahoo.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Do.

Initial production.. 1896.  
Last production..... Do.  
Past production..... A few mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 9 km.  
Destination..... Angoon.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 265, 273, 320, 348, 417,  
430, 432, 469.

USGS quadrangle maps... Sitka, C-2.

USBM sequence number... 0021140171.

## DIAMOND ISLAND

Map No: 125

Alternate names: None

Commodity: Lignite & bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Sitka.  
Mining district.. Admiralty.  
Coalfield..... Unnamed.  
Elevation..... 3 m.  
Topography..... Flat-lying.  
Domain..... National Wilderness.

General location.. 11 km northeast of Angoon.

Meridian..... Copper River.  
Tract..... Sec. 12, T 50 S, R 68 E.  
Latitude..... 57°32'57" N.  
Longitude..... 134°25'25" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kootznahoo.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.8.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. More than 10 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 265, 273, 320, 469.

USGS quadrangle maps... Sitka, C-2.

USBM sequence number... 0021140172.

## HARKRADER COAL

Map No: 125

Alternate names: McClusky Mine, Admiralty  
Island Coal Co., SE Alaska Coal Co.,  
Kanalku Bay Coal

Commodity: High volatile B bituminous

## LOCATION-OWNERSHIP

Quadrangle..... Sitka.  
Mining district.. Admiralty.  
Coalfield..... Unnamed.  
Elevation..... 3 m.  
Topography..... Flat-lying.  
Domain..... National Wilderness.

General location.. 8 km east of Angoon.

Meridian..... Copper River.  
Tract..... Sec. 35, T 50 S, R 68 E.  
Latitude..... 57°29'55" N.  
Longitude..... 134°26'45" W.

Owner..... Robert Hurley & others.  
Operator..... Do.

## GEOLOGY

Formation name..... Kootznahoo.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Flat-lying.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 0.76.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies under ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 9,930-14,210 Btu/lb (146).  
Composition, %:  
Ash..... 21.4-24.6.  
Sulfur..... 0.9-1.7.  
Moisture..... 3.8-6.4.  
Volatile matter... 34.3-48.6.  
Fixed carbon..... 36.3-52.9.

## DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface-underground.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1928.  
Last production..... 1932.  
Past production..... Not reported.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 128 km.  
Destination..... Juneau.

## PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

1, 15, 145-146, 174, 185, 265,  
273, 320, 348, 373, 379-386, 388-390,  
417, 430, 432, 469.

USGS quadrangle maps... Sitka, B-2.

USBM sequence number... 0021140215.



### UNNAMED MINE 3

Map No: 125  
Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Sitka.  
Mining district.. Admiralty.  
Coalfield..... Unnamed.  
Elevation..... 30 m.  
Topography..... Flat-lying.  
Domain..... National Wilderness.

General location.. 9 km northeast of Angoon.

Meridian..... Copper River.  
Tract..... Sec. 14, T 50 S, R 68 E.  
Latitude..... 57°31'55" N.  
Longitude..... 134°26'47" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kootznahoo.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. More than 10 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 265, 273, 320.

USGS quadrangle maps... Sitka, C-2.

USBM sequence number... 0021140226.

## LIGHTER CREEK

Map No: 125

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Sitka.  
Mining district.. Admiralty.  
Coalfield..... Unnamed.  
Elevation..... 18 m.  
Topography..... Gentle slope.  
Domain..... National Wilderness.

General location.. 7 km east of Angoon.

Meridian..... Copper River.  
Tract..... Sec. 23, T 50 S, R 68 E.  
Latitude..... 57°31'22" N.  
Longitude..... 134°27'00" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kootznahoo.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of coal seam. Not reported.  
Coal seam average dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 265, 273, 320, 417.

USGS quadrangle maps... Sitka, C-2.

USBM sequence number... 0021140227.

## UNNAMED MINE 2

Map No: 125

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Sitka.  
Mining district.. Admiralty.  
Coalfield..... Unnamed.  
Elevation..... 34 m.  
Topography..... Flat-lying.  
Domain..... National Wilderness.

General location.. 7 km east of Angoon.

Meridian..... Copper River.  
Tract..... Sec. 23, T 50 S, R 68 E.  
Latitude..... 57°31'01" N.  
Longitude..... 134°27'13" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kootznahoo.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of coal seam. Not reported.  
Coal seam average dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 265, 273, 320, 417.

USGS quadrangle maps... Sitka, C-2.

USBM sequence number... 0021140278.

## DAVIS CREEK

Map No: 125

Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Sitka.  
Mining district.. Admiralty.  
Coalfield..... Unnamed.  
Elevation..... 31 m.  
Topography..... Gentle slope.  
Domain..... National Wilderness.

General location.. 8 km east of Angoon.

Meridian..... Copper River.  
Tract..... Sec. 26, T 50 S, R 68 E.  
Latitude..... 57°30'25" N.  
Longitude..... 134°26'47" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kootznahoo.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 265, 273, 320.

USGS quadrangle maps... Sitka, C-2.

USBM sequence number... 0021140229.

## UNNAMED MINE 1

Map No: 125  
Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Sitka.  
Mining district.. Admiralty.  
Coalfield..... Unnamed.  
Elevation..... 12 m.  
Topography..... Flat-lying.  
Domain..... National Wilderness.

General location.. 5 km east of Angoon.

Meridian..... Copper River.  
Tract..... Sec. 33, T 50 S, R 68 E.  
Latitude..... 57°30'04" N.  
Longitude..... 134°30'13" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kootznahoo.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 265, 273, 320, 417.

USGS quadrangle maps... Sitka, C-2.

USBM sequence number... 0021140230.

## SEPPHAGEN

Map No: 126  
Alternate names: None

Commodity: Lignite & Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Sitka.  
Mining district.. Admiralty.  
Coalfield..... Unnamed.  
Elevation..... 3 m.  
Topography..... Gentle slope.  
Domain..... National Wilderness.

General location.. 4 km east of Killisnoo.

Meridian..... Copper River.  
Tract..... Sec. 04, T 51 S, R 68 E.  
Latitude..... 57°28'40" N.  
Longitude..... 134°30'15" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kootznahoo.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.3.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. More than 100 km.

Year of discovery.. 1895.  
Discovery method... Unknown.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 265, 273, 320, 348, 417,  
430, 432, 469.

USGS quadrangle maps... Sitka, B-2.

USBM sequence number... 0021140167.

## FIRESTONE MINE

Map No: 126  
Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Sitka.  
Mining district.. Admiralty.  
Coalfield..... Unnamed.  
Elevation..... 15 m.  
Topography..... Gentle slope.  
Domain..... National Wilderness.

General location.. 3 km southeast of Angoon.

Meridian..... Copper River.  
Tract..... Sec. 05, T 50 S, R 68 E.  
Latitude..... 57°28'30" N.  
Longitude..... 134°32'52" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kootznahoo.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface-underground.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1880.  
Last production..... Do.  
Past production..... Not reported.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 3 km.  
Destination..... Angoon.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 265, 273, 320, 417.

USGS quadrangle maps... Sitka, B-2.

USBM sequence number... 0021140225.

## MURDER COVE

Map No: 127

Alternate names: Datewell Mine

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Sitka.  
Mining district.. Admiralty.  
Coalfield..... Unnamed.  
Elevation..... 152 m.  
Topography..... Gentle slope.  
Domain..... National Wilderness.

General location.. 2 km northwest of Tyee.

Meridian..... Copper River.  
Tract..... Sec. 35, T 55 S, R 68 E.  
Latitude..... 57°03'45" N.  
Longitude..... 134°33'40" W.

Owner..... Admiralty Coal & Fuel Company.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 1.5.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Conglomerate lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 11,200-11,880 Btu/lb (146).  
Composition, %:  
Ash..... 17.1-18.1.  
Sulfur..... 0.3.  
Moisture..... 5.7.  
Volatile matter... 30.3-32.1.  
Fixed carbon..... 46.9-49.8.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1868.  
Discovery method... Unknown.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. More than 100 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

35, 77, 145-146, 174, 185, 222,  
224, 265, 273, 320, 348, 373,  
417, 430, 467-469.

USGS quadrangle maps... Sitka, A-2.  
USBM sequence number... 0021140164.



## POINT GARDINER

Map No: 127  
Alternate names: None

Commodity: Bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Sitka.  
Mining district.. Admiralty.  
Coalfield..... Unnamed.  
Elevation..... 10 m.  
Topography..... Gentle slope.  
Domain..... National Wilderness.

General location.. 49 km south of Angoon.

Meridian..... Copper River.  
Tract..... Sec. 16, T 56 S, R 68 E.  
Latitude..... 57°01'50" N.  
Longitude..... 134°36'40" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kootznahoo.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. Less than 50 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 265, 273, 320.

USGS quadrangle maps... Sitka, A-2.

USBM sequence number... 0021140231.

## COAL CREEK

Map No: 128

Alternate names: Coal Creek Coal, Lituya Bay Coal

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Mt. Fairweather.  
Mining district.. Juneau.  
Coalfield..... Unnamed.  
Elevation..... 152 m.  
Topography..... Steep slope.  
Domain..... National Park.

General location.. South side of Lituya Bay.

Meridian..... Copper River.  
Tract..... Sec. 29, T 37 S, R 48 E.  
Latitude..... 58°37'50" N.  
Longitude..... 137°31'45" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Cenotaph.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.2.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Conglomerate lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %: (227).  
Ash..... 29.0-29.7.  
Sulfur..... 0.5.  
Moisture..... 2.4.  
Volatile matter... 34.6-35.5.  
Fixed carbon..... 34.0-34.8.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Onsite.  
Road requirement..... Less than 10 km.  
Distance to power supply.. More than 100 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

77, 185, 227, 265, 273, 320, 417.

USGS quadrangle maps... Mt. Fairweather, C-5.

USBM sequence number... 0021110019.

## LITUYA BAY COAL CLAIM

Map No: 129

Alternate names: Coal Creek

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Mt. Fairweather.  
Mining district.. Juneau.  
Coalfield..... Unnamed.  
Elevation..... 30 m.  
Topography..... Gentle slope.  
Domain..... National Park.

General location.. 15 km northwest of  
Lituya Bay.

Meridian..... Copper River.  
Tract..... Sec. 18, T 36 S, R 46 E.  
Latitude..... 58°44'37" N.  
Longitude..... 137°47'50" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name.... Cenotaph.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.2.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Conglomerate lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %: (227).  
Ash..... 29.0-29.7.  
Sulfur..... 0.5.  
Moisture..... 2.4.  
Volatile matter... 34.6-35.5.  
Fixed carbon..... 34.0-34.8.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. More than 100 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

77, 185, 227, 265, 273, 320, 373,  
417.

USGS quadrangle maps... Mt. Fairweather, C-6.

USBM sequence number... 0021110120.

## DALTON MINE

Map No: 130

Alternate names: Dalton Tunnel, Esker Stream

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Yakatat.  
Mining district.. Do.  
Coalfield..... Unnamed.  
Elevation..... 99 m.  
Topography..... Gentle slope.  
Domain..... National Park.

General location.. 43 km north of Yakatat.

Meridian..... Copper River.  
Tract..... Sec. 17, T 23 S, R 33 E.  
Latitude..... 59°55'40" N.  
Longitude..... 139°47'30" W.

Owner..... Jack Dalton/Jewell Brothers & Associates.  
Operator..... Do.

### GEOLOGY

Formation name..... Kulthieth.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.3.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale encloses ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1891.  
Discovery method... Prospecting.

Distance to water supply.. 0.1 km.  
Road requirement..... 4 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 265, 273, 319-320, 411-412, 417.

USGS quadrangle maps... Yakatat, D-5.

USBM sequence number... 0021080012.

## DUKTOTH RIVER

Map No: 131

Alternate names: Yakataga

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Bering Glacier.

Mining district.. Yakataga.

Coalfield..... DuktOTH River.

Elevation..... 610 m.

Topography..... Steep slope.

Domain..... Native.

General location.. 29 km north of Cape  
Yakataga.

Meridian..... Copper River.

Tract..... Sec. 25, T 18 S, R 17 E.

Latitude..... 60°19'30" N.

Longitude..... 142°27'00" W.

Owner..... Unknown.

Operator..... Do.

### GEOLOGY

Formation name..... Kulthieth.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 80° E, 35° N.  
coal seam.

Coal seam average  
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 1.2.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Shale encloses ore.

Coking ability..... Not reported.

Heating value..... Do.

Composition, %: (146).

Ash..... 23.5-23.7.

Sulfur..... 0.7.

Moisture..... 1.0.

Volatile matter... 11.5-11.6.

Fixed carbon..... 64.0-64.7.

### DEVELOPMENT

Current status..... Exploration prospect.

Type of operation.. Prospect.

Year of discovery.. Unknown.

Discovery method... Do.

Distance to water supply.. 0.1 km.

Road requirement..... 25 km.

Distance to power supply.. 29 km.

Initial production.. Not reported.

Last production..... Do.

Past production..... Do.

Annual production... Do.

Process rate..... Not reported.

Product type..... Do.

Distance shipped..... Do.

Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

52-53, 145-146, 170, 174, 185,  
239, 265, 273, 284, 320, 366,  
417.

USGS quadrangle maps... Bering Glacier, B-4.

USBM sequence number... 0020970014.

## WARDALL RIDGE

Map No: 132

Alternate names: None

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Bering Glacier.

Mining district.. Yakataga.

Coalfield..... Bering River.

Elevation..... 122 m.

Topography..... Steep slope.

Domain..... Native.

General location.. 39 km northeast of Katalla.

Meridian..... Copper River.

Tract..... Sec. 10, T 17 S, R 08 E.

Latitude..... 60°25'00" N.

Longitude..... 143°58'00" W.

Owner..... Unknown.

Operator..... Do.

### GEOLOGY

Formation name..... Kushtaka.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 65° E, 45° NW.  
coal seam.

Coal seam average  
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 1.7.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Shale lies over ore.

Sandstone lies under ore.

Coking ability..... Not reported.

Heating value..... 12,360-14,680 Btu/lb (146).

Composition, %:

Ash..... 1.2-7.3.

Sulfur..... 0.6-0.7.

Moisture..... 3.1-5.3.

Volatile matter... 15.6-18.5.

Fixed carbon..... 70.3-82.6.

### DEVELOPMENT

Current status..... Exploration prospect.

Type of operation.. Prospect.

Year of discovery.. 1896.

Discovery method... Unknown.

Initial production.. Not reported.

Last production..... Do.

Past production..... Do.

Annual production... Do.

Distance to water supply.. 1 km.

Road requirement..... 5 km.

Distance to power supply.. Onsite.

Process rate..... Not reported.

Product type..... Do.

Distance shipped..... Do.

Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

145-146, 170, 174, 185, 239, 265,  
273, 320, 366, 417, 421.

USGS quadrangle maps... Bering Glacier, B-8.

USBM sequence number... 0020970015.

## CANYON CREEK

Map No: 132

Alternate names: Davis Camp, Davis Mine

Commodity: Anthracite

High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Bering Glacier.

Mining district.. Yakataga.

Coalfield..... Bering River.

Elevation..... 244 m.

Topography..... Steep slope.

Domain..... Native.

General location.. 43 km northeast of Katalla.

Meridian..... Copper River.

Tract..... Sec. 01, T 17 S, R 08 E.

Latitude..... 60°25'52" N.

Longitude..... 143°55'30" W.

Owner..... Unknown.

Operator..... Do.

### GEOLOGY

Formation name..... Kushtaka.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 80° E, 35° W.  
coal seam.

Coal seam average  
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 1.4.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Shale lies over ore.

Sandstone lies under ore.

Coking Ability..... Not reported.

Heating value..... 11,890-15,200 Btu/lb (146).

Composition, %:

Ash..... 9.2-15.5.

Sulfur..... 0.6-0.8.

Moisture..... 7.4-7.8.

Volatile matter... 6.9-8.9.

Fixed carbon..... 71.3-91.2.

### DEVELOPMENT

Current status..... Exploration prospect.

Type of operation.. Prospect.

Year of discovery.. 1896.

Discovery method... Unknown.

Distance to water supply.. 0.1 km.

Road requirement..... 5 km.

Distance to power supply.. Onsite.

Initial production.. Not reported.

Last production..... Do.

Past production..... Do.

Annual production... Do.

Process rate..... Not reported.

Product type..... Do.

Distance shipped..... Do.

Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

39, 57, 73, 145-146, 174, 185,  
224, 237-239, 241, 244, 246, 248,  
265, 273, 320, 400, 417.

USGS quadrangle maps... Bering Glacier, B-8.

USBM sequence number... 0020970016.



## CLEAR CREEK 1

Map No: 132

Alternate names: None

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Bering Glacier.

Mining district.. Yakataga.

Coalfield..... Bering River.

Elevation..... 488 m.

Topography..... Steep slope.

Domain..... Native.

General location.. 40 km northeast of Katalla.

Meridian..... Copper River.

Tract..... Sec. 03, T 17 S, R 08 E.

Latitude..... 60°25'25" N.

Longitude..... 143°59'00" W.

Owner..... Unknown.

Operator..... Do.

### GEOLOGY

Formation name..... Kushtaka.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 90° E, 67° N.  
coal seam.

Coal seam average  
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 2.7.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Shale lies over ore.

Sandstone lies under ore.

Coking ability..... Not reported.

Heating value..... 12,350-15,830 Btu/lb (146).

Composition, %:

Ash..... 1.7-13.5.

Sulfur..... 0.6-3.4.

Moisture..... 1.2-6.6.

Volatile matter... 8.7-14.6.

Fixed carbon..... 71.5-90.7.

### DEVELOPMENT

Current status..... Exploration prospect.

Type of operation.. Prospect.

Year of discovery.. 1896.

Discovery method... Unknown.

Distance to water supply.. 0.1 km.

Road requirement..... 7 km.

Distance to power supply.. Onsite.

Initial production.. Not reported.

Last production..... Do.

Past production..... Do.

Annual production... Do.

Process rate..... Not reported.

Product type..... Do.

Distance shipped..... Do.

Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

39, 145-146, 174, 185, 224, 239, 241,  
248, 265, 273, 320, 417, 421.

USGS quadrangle maps... Bering Glacier, B-8.

USBM sequence number... 0020970017.

## CARBON MOUNTAIN

Map No: 132  
Alternate names: None

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Bering Glacier.  
Mining district.. Yakataga.  
Coalfield..... Bering River.  
Elevation..... 427 m.  
Topography..... Steep slope.  
Domain..... Native.

General location.. 44 km northeast of Katalla.

Meridian..... Copper River.  
Tract..... Sec. 06, T 17 S, R 09 E.  
Latitude..... 60°25'40" N.  
Longitude..... 143°53'50" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kushtaka.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 80° W, 20-25° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 2.8.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lie over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 12,140-15,490 Btu/lb (146).  
Composition, %:  
Ash..... 2.1-14.9.  
Sulfur..... 0.6-1.4.  
Moisture..... 3.0-13.9.  
Volatile matter... 5.0-11.4.  
Fixed carbon..... 73.9-91.7.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. 1896.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 6 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

39, 145-146, 174, 185, 224, 238-239,  
241, 244, 246, 248, 265, 273, 320,  
361, 417.

USGS quadrangle maps... Bering Glacier, B-8.  
USBM sequence number... 0020970019.

## SECOND BERG LAKE

Map No: 132  
Alternate names: None

Commodity: Anthracite

### LOCATION-OWNERSHIP

Quadrangle..... Bering Glacier.  
Mining district.. Yakataga.  
Coalfield..... Bering River.  
Elevation..... 427 m.  
Topography..... Steep slope.  
Domain..... Native.

General location.. 48 km northeast of Katalla.

Meridian..... Copper River.  
Tract..... Sec. 33, T 16 S, R 09 E.  
Latitude..... 60°26'50" N.  
Longitude..... 143°50'00" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kushtaka.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 85° W, 32° NE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 0.8.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %: (146).  
Ash..... 4.9-5.1.  
Sulfur..... 1.1.  
Moisture..... 3.7.  
Volatile matter... 5.4-5.6.  
Fixed carbon..... 86.0-89.3.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. 1896.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 11 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

145-146, 174, 185, 224, 239, 241,  
248, 265, 273, 320, 417.

USGS quadrangle maps... Bering Glacier, B-8.  
  
USBM sequence number... 0020970020.

## FOURTH BERG LAKE

Map No: 132

Alternate names: Sheep Creek

Commodity: Anthracite

### LOCATION-OWNERSHIP

Quadrangle..... Bering Glacier.

Mining district.. Yakataga.

Coalfield..... Bering River.

Elevation..... 366 m.

Topography..... Steep slope.

Domain..... Native.

General location.. 51 km northeast of Katalla.

Meridian..... Copper River.

Tract..... Sec. 22, T 16 S, R 09 E.

Latitude..... 60°28'10" N.

Longitude..... 143°48'00" W.

Owner..... Unknown.

Operator..... Do.

### GEOLOGY

Formation name.... Kushtaka.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 76° W, 55° SW.  
coal seam.

Coal seam average  
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 0.9.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Shale lies over ore.

Sandstone lies under ore.

Coking ability..... Not reported.

Heating value..... Do.

Composition, %: (146).

Ash..... 20.5-22.2.

Sulfur..... 2.9-3.1.

Moisture..... 7.7.

Volatile matter... 5.8-6.3.

Fixed carbon..... 66.0-71.5.

### DEVELOPMENT

Current status.... Exploration prospect.

Type of operation.. Prospect.

Year of discovery.. 1896.

Discovery method... Unknown.

Distance to water supply.. 1 km.

Road requirement..... 14 km.

Distance to power supply.. Onsite.

Initial production.. Not reported.

Past production..... Do.

Past production..... Do.

Annual production... Do.

Process rate..... Not reported.

Product type..... Do.

Distance shipped..... Do.

Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

145-146, 174, 185, 224, 239, 241,  
248, 265, 273, 320, 417.

USGS quadrangle maps... Bering Glacier, B-8.

USBM sequence number... 0020970021.

## BERING RIVER

Map No: 132  
Alternate names: None

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Bering Glacier.  
Mining district.. Yakataga.  
Coalfield..... Bering River.  
Elevation..... 305 m.  
Topography..... Steep slope.  
Domain..... Native.

General location.. 35 km northeast of Katalla.

Meridian..... Copper River.  
Tract..... Sec. 22, T 17 S, R 08 E.  
Latitude..... 60°23'00" N.  
Longitude..... 143°59'55" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kushtaka.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 4.2.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 11,000-15,000 Btu/lb (78).  
Composition, %:  
Ash..... 2-18.  
Sulfur..... 0.1-1.0.  
Moisture..... 1-8.  
Volatile matter... 13-17.  
Fixed carbon..... 65-91.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1896.  
Discovery method... Unknown.

Distance to water supply.. 2 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

Bering River field: Resources; Identified; 110 million short tons (80).  
Hypothetical; 3,500 million short tons.

### REFERENCES

35, 44, 52, 62, 68, 78-80, 238-239,  
244, 246, 273, 357, 361, 417, 421.

USGS quadrangle maps... Bering Glacier, B-8.  
USBM sequence number... 0020970024.

## HARTLINE MINE

Map No: 132

Alternate names: Partline Mine

Commodity: Anthracite

### LOCATION-OWNERSHIP

Quadrangle..... Bering Glacier.  
Mining district.. Yakataga.  
Coalfield..... Bering River.  
Elevation..... 549 m.  
Topography..... Steep slope.  
Domain..... BLM-administrated.

General location.. 42 km northeast of Katalla.

Meridian..... Copper River.  
Tract..... Sec. 36, T 17 S, R 08 E.  
Latitude..... 60°26'42" N.  
Longitude..... 143°55'23" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name.... Kushtaka.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1896.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 7 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 239, 265, 273, 320, 417.

USGS quadrangle maps... Bering Glacier, B-8.

USBM sequence number... 0020970025.

## TROUT CREEK MINE

Map No: 133

Alternate names: Cunningham Prospect

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Cordova.  
Mining district.. Yakataga.  
Coalfield..... Bering River.  
Elevation..... 137 m.  
Topography..... Steep slope.  
Domain..... Native.

General location.. 36 km northeast of Katalla.

Meridian..... Copper River.  
Tract..... Sec. 07, T 17 S, R 08 E.  
Latitude..... 60°25'14" N.  
Longitude..... 144°03'30" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kushtaka.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 65° E, 38° NW.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 182.9.  
Width..... Not reported.  
Thickness..... 2.2.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 13,870-15,730 Btu/lb (146).  
Composition, %:  
Ash..... 3.0-10.4.  
Sulfur..... 0.6-0.7.  
Moisture..... 1.0-2.7.  
Volatile matter... 16.2-18.5.  
Fixed carbon..... 72.3-82.6.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. 1896.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1905.  
Last production..... Do.  
Past production..... Not reported.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 36 km.  
Destination..... Katalla.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

39, 145-146, 174, 185, 211, 224,  
239, 246, 248, 265, 273, 320, 328,  
416-417, 454.

USGS quadrangle maps... Cordova, B-1.  
  
USBM sequence number... 0020960087.

## CLEAR CREEK 2

Map No: 133

Alternate names: None

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Cordova.  
Mining district.. Yakataga.  
Coalfield..... Bering River.  
Elevation..... 335 m.  
Topography..... Steep slope.  
Domain..... Native.

General location.. 36 km northeast of Katalla.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Copper River.  
Tract..... Sec. 21, T 17 S, R 08 E.  
Latitude..... 60°23'00" N.  
Longitude..... 144°00'00" W.

### GEOLOGY

Formation name..... Kushtaka.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 65° E, 49° NW.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 2.7.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 12,350-15,830 Btu/lb (146).  
Composition, %:  
Ash..... 1.7-13.5.  
Sulfur..... 0.6-3.4.  
Moisture..... 1.2-6.6.  
Volatile matter... 8.7-14.6.  
Fixed carbon..... 71.5-90.7.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1896.  
Discovery method... Unknown.

Distance to water supply.. 2 km.  
Road requirement..... 1 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

34, 145-146, 174, 185, 224, 239,  
273, 320, 417.

USGS quadrangle maps... Cordova, B-1.

USBM sequence number... 0020960088.



## LAKE CHARLOTTE

Map No: 133

Alternate names: Charlotte Seam

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Cordova.  
Mining district.. Yakataga.  
Coalfield..... Bering River.  
Elevation..... 76 m.  
Topography..... Gentle slope.  
Domain..... Native.

General location.. 33 km northeast of Katalla.

Meridian..... Copper River.  
Tract..... Sec. 04, T 17 S, R 07 E.  
Latitude..... 60°25'58" N.  
Longitude..... 144°10'18" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kushtaka.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 12° E, 72° SE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 2.9.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 6,883 Btu/lb (238).  
Composition, %:  
Ash..... 20.72.  
Sulfur..... 0.55.  
Moisture..... 0.68.  
Volatile matter... 17.87.  
Fixed carbon..... 60.73.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Underground.  
  
Year of discovery.. 1896.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 7 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 238-239, 241, 246, 273, 320,  
417.

USGS quadrangle maps... Cordova, B-1.  
  
USBM sequence number... 0020960099.

## BERING RIVER COAL N.

Map No: 134

Alternate names: Bering River Coal Co.,  
Cunningham Claim, Shield's Prospect,  
Kushtaka Ridge, Carbon Camp, Carbon Ridge

Commodity: High volatile B bituminous  
Anthracite

### LOCATION-OWNERSHIP

Quadrangle..... Cordova.  
Mining district.. Yakataga.  
Coalfield..... Bering River.  
Elevation..... 518 m.  
Topography..... Steep slope.  
Domain..... Native.

General location.. 30 km northeast of Katalla.

Meridian..... Copper River.  
Tract..... Sec. 22, T 17 S, R 07 E.  
Latitude..... 60°23'26" N.  
Longitude..... 144°09'16" W.

Owner..... Chugach Alaska Corporation.  
Operator..... Bering Development Corporation.

### GEOLOGY

Formation name..... Kushtaka.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 40° E, 45° W.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 2.9.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not determined.  
Heating value..... 5,500-15,750 Btu/lb (146).  
Composition, %:  
Ash..... 1.8-59.0.  
Sulfur..... 0.3-5.3.  
Moisture..... 1.0-9.4.  
Volatile matter... 13.0-17.0.  
Fixed carbon..... 65.0-91.0.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1896.  
Discovery method... Unknown.

Distance to water supply.. 1.5 km.  
Road requirement..... 13 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

Reserves: Identified; 58 million short tons (164).

## REFERENCES

7, 10, 13, 15, 21, 35, 39, 44, 64,  
53-58, 136, 145-146, 164-165, 174,  
185, 211, 224, 235. 237-239, 341-342,  
244, 246, 248, 265-266, 269, 273, 320,  
328, 354-357, 361, 377-387, 389-390,  
400, 405, 410, 416-417, 425, 427-428,  
433, 454.

USGS quadrangle maps... Cordova, B-1.

USBM sequence number... 0020960054.

## LEEPER TUNNEL SITE

Map No: 134

Alternate names: Nevada Creek

Commodity: High volatile B bituminous

## LOCATION-OWNERSHIP

Quadrangle..... Cordova.  
Mining district.. Yakataga.  
Coalfield..... Bering River.  
Elevation..... 244 m.  
Topography..... Steep slope.  
Domain..... Native.

General location.. 29 km northeast of Katalla.

Meridian..... Copper River.  
Tract..... Sec. 21, T 17 S, R 07 E.  
Latitude..... 60°23'15" N.  
Longitude..... 144°11'05" W.

Owner..... Unknown.  
Operator..... Do.

## GEOLOGY

Formation name..... Kushtaka.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 90° E, 78° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 5.9.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Slight.  
Heating value..... 14,171-15,761 Btu/lb (224).  
Composition, %:  
Ash..... 6.06-6.31.  
Sulfur..... 1.11-1.16.  
Moisture..... 4.01.  
Volatile matter... 12.46-13.85.  
Fixed carbon..... 77.47-86.15.

## DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1896.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 0.8 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

## PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

185, 224, 239, 241, 265, 273,  
320, 331, 417.

USGS quadrangle maps... Cordova, B-1.

USBM sequence number... 0020960091.

## TOKUN CREEK

Map No: 134  
Alternate names: Tokum Creek

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Cordova.  
Mining district.. Yakataga.  
Coalfield..... Bering River.  
Elevation..... 229 m.  
Topography..... Steep slope.  
Domain..... National Forest.

General location.. 25 km northeast of Katalla.

Meridian..... Copper River.  
Tract..... Sec. 23, T 17 S, R 06 E.  
Latitude..... 60°23'00" N.  
Longitude..... 144°16'51" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kushtaka.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 78° W, 40° NE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 2.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %: (146).  
Ash..... 10.3-10.8.  
Sulfur..... 1.1-1.2.  
Moisture..... 4.4.  
Volatile matter... 12.0-12.5.  
Fixed carbon..... 73.3-76.7.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. 1896.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 6 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 25 km.  
Destination..... Katalla.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

145-146, 174, 185, 224, 239, 241,  
248, 265, 273, 320, 417.

USGS quadrangle maps... Cordova, B-1.  
  
USBM sequence number... 0020960093.

## CARBON CREEK COMPLEX

Map No: 134

Alternate names: Upper & Lower Tunnels,  
Shields Prospect Tunnel, Carbon Tunnel

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Cordova.  
Mining district.. Yakataga.  
Coalfield..... Bering River.  
Elevation..... 53 m.  
Topography..... Gentle slope.  
Domain..... Native.

General location.. 28 km northeast of Katalla.

Meridian..... Copper River.  
Tract..... Sec. 20, T 17 S, R 07 E.  
Latitude..... 60°22'55" N.  
Longitude..... 144°12'00" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kushtaka.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 65° E, 60-78° NW.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 2.7.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Fair.  
Heating value..... Not reported.  
Composition, %: (146).  
Ash..... 3.6-3.8.  
Sulfur..... 1.6.  
Moisture..... 4.2.  
Volatile matter... 13.4-14.0.  
Fixed carbon..... 78.8-82.2.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. 1896.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 2.1 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 28 km.  
Destination..... Katalla.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

#### REFERENCES

39, 73, 145, 147, 185, 224, 238-239,  
241, 246, 248, 265, 273, 320, 328,  
356, 392, 417, 454.

USGS quadrangle maps... Cordova, B-1.

USBM sequence number... 0020960094.

## SHEPERD CREEK

Map no: 134

Alternate names: Canoe Landing, Shepard Creek

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Cordova.  
Mining district.. Yakataga.  
Coalfield..... Bering River.  
Elevation..... 119 m.  
Topography..... Gentle slope.  
Domain..... National Forest.

General location.. 26 km northeast of Katalla.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Copper River.  
Tract..... Sec. 30, T 17 S, R 07 E.  
Latitude..... 60°21'49" N.  
Longitude..... 144°14'19" W.

### GEOLOGY

Formation name..... Kushtaka.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 20° E, 65° NW.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 1.1.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 7,644 Btu/lb (238).  
Composition, %:  
Ash..... 10.89.  
Sulfur..... 0.69.  
Moisture..... 1.54.  
Volatile matter... 14.58.  
Fixed carbon..... 72.99.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1896.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 4 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 238-239, 241, 246, 265, 273,  
320, 417.

USGS quadrangle maps... Cordova, B-1.

USBM sequence number... 0020960096.



## KENTUCKY MINE

Map No: 134

Alternate names: None

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Cordova.  
Mining district.. Yakataga.  
Coalfield..... Bering River.  
Elevation..... 91 m.  
Topography..... Gentle slope.  
Domain..... Native.

General location.. 29 km northeast of Katalla.

Meridian..... Copper River.  
Tract..... Sec. 22, T 17 S, R 07 E.  
Latitude..... 60°23'02" N.  
Longitude..... 144°08'46" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kushtaka.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. 1896.  
Discovery method... Unknown.

Distance to water supply.. 0.2 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 29 km.  
Destination..... Katalla.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 239, 265, 273, 320.

USGS quadrangle maps... Cordova, B-1.

USBM sequence number... 0020960092.

## NEVADA CREEK TUNNEL

Map No: 134

Alternate names: None

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Cordova.  
Mining district.. Yakataga.  
Coalfield..... Bering River.  
Elevation..... 34 m.  
Topography..... Low-lying.  
Domain..... Native.

General location.. 28 km northeast of Katalla.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Copper River.  
Tract..... Sec. 20, T 17 S, R 07 E.  
Latitude..... 60°22'50" N.  
Longitude..... 144°12'41" W.

### GEOLOGY

Formation name..... Kushtaka.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 90° E, 78° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 5.9.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %: (146).  
Ash..... 4.9-5.2.  
Sulfur..... 0.6.  
Moisture..... 6.0.  
Volatile matter... 13.0-13.8.  
Fixed carbon..... 76.1-81.0.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. 1896.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 28 km.  
Destination..... Katalla.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

145-146, 174, 185, 224, 239, 241,  
265, 273, 320, 417.

USGS quadrangle maps... Cordova, B-1.

USBM sequence number... 0020960095.

## BERING RIVER COAL S.

Map No: 135

Alternate names: Christopher's Tunnel, Dick Creek

Commodity: High volatile B bituminous  
Anthracite

### LOCATION-OWNERSHIP

Quadrangle..... Cordova.  
Mining district.. Yakataga.  
Coalfield..... Bering River.  
Elevation..... 305 m.  
Topography..... Steep slope.  
Domain..... National Forest.

General location.. 21 km northeast of Katalla.

Meridian..... Copper River.  
Tract..... Sec. 12, T 18 S, R 06 E.  
Latitude..... 60°19'57" N.  
Longitude..... 144°16'43" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Kushtaka.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 20° W, 25° NE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 3.1.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 11,720-15,190 Btu/lb (146).  
Composition, %:  
Ash..... 2.6-18.3.  
Sulfur..... 0.7-3.7.  
Moisture..... 5.5-6.0.  
Volatile matter... 12.9-16.7.  
Fixed carbon..... 64.3-88.1.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. 1896.  
Discovery method... Unknown.

Distance to water supply.. 0.1 km.  
Road requirement..... 2 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

35, 44, 52, 65, 145-146, 174, 185,  
238-239, 241, 244, 246, 248, 265,  
273, 320, 400, 417, 421.

USGS quadrangle maps... Cordova, B-1.

USBM sequence number... 0020960055.

## MCDONALD MINE

Map No: 135

Alternate names: None

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Cordova.  
Mining district.. Yakataga.  
Coalfield..... Bering River.  
Elevation..... 351 m.  
Topography..... Steep slope.  
Domain..... National Forest.

General location.. 20 km northeast of Katalla.

Meridian..... Copper River.  
Tract..... Sec. 13, T 18 S, R 06 E.  
Latitude..... 60°19'10" N.  
Longitude..... 144°16'09" W.

Owner..... T. P. McDonald, and Harry Dugdale.  
Operator..... Unknown.

### GEOLOGY

Formation name..... Kushtaka.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 4.6.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 11,000-15,640 Btu/lb (146).  
Composition, %:  
Ash..... 9.0-18.2.  
Sulfur..... 0.6-2.9.  
Moisture..... 1.0-8.6.  
Volatile matter... 13.5-19.7.  
Fixed carbon..... 65.0-83.6.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. 1896.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1907.  
Last production..... 1916.  
Past production..... Not reported.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 20 km.  
Destination..... Katalla.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

39, 54, 145-146, 174, 185, 239,  
265, 273, 320, 354-355, 400,  
417.

USGS quadrangle maps... Cordova, B-1.  
  
USBM sequence number... 0020960097.

## BERING LAKE TUNNEL

Map No: 135

Alternate names: None

Commodity: High volatile B bituminous

## LOCATION-OWNERSHIP

Quadrangle..... Cordova.  
Mining district.. Yakataga.  
Coalfield..... Bering River.  
Elevation..... 152 m.  
Topography..... Steep slope.  
Domain..... National Forest.

General location.. 19 km northeast of Katalla.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Copper River.  
Tract..... Sec. 14, T 18 S, R 06 E.  
Latitude..... 60°19'05" N.  
Longitude..... 144°17'19" W.

## GEOLOGY

Formation name..... Kushtaka.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 40° E, 52° NW.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 2.0.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 14,070-14,830 Btu/lb (146).  
Composition, %:  
Ash..... 5.0-5.3.  
Sulfur..... 1.2-1.3.  
Moisture..... 5.1.  
Volatile matter... 13.9-15.5.  
Fixed carbon..... 76.0-84.5.

## DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. 1896.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1906.  
Last production..... 1916.  
Past production..... Not reported.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 19 km.  
Destination..... Katalla.

## PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

39, 44, 52, 54, 67-68, 145-146,  
174, 185, 224, 238-241, 246, 265,  
273, 320, 373, 417.

USGS quadrangle maps... Cordova, B-1.  
  
USBM sequence number... 0020960098.

## BOULDER CREEK COAL

Map No: 136  
Alternate names: None

Commodity: Semianthracite

## LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 975 m.  
Topography..... Steep slope.  
Domain..... State.

General location.. 67 km northeast of Palmer.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Seward.  
Tract..... Sec. 06, T 21 N, R 08 E.  
Latitude..... 61°56'25" N.  
Longitude..... 148°04'00" W.

## GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 11° W, 20° NE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 0.4.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating values..... Do.  
Composition, %: (170).  
Ash..... 8.66-9.14.  
Sulfur..... 0.43-0.50.  
Moisture..... 5.27.  
Volatile matter... 35.50-41.24.  
Fixed carbon..... 50.57-58.76.

## DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 19 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

## PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

83, 112, 143, 156, 170, 181-182,  
185, 221, 224, 248-249, 252, 265,  
267, 273, 307, 320, 366, 417.

USGS quadrangle maps... Anchorage, D-3.  
  
USBM sequence number... 0020850195.

## ANTHRACITE RIDGE

Map No: 137

Alternate names: Anthracite Hill

Commodity: Anthracite

High volatile B bituminous

## LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 1280 m.  
Topography..... Steep slope.  
Domain..... State.

General location.. 59 km northeast of Palmer.

Meridian..... Seward.  
Tract..... Sec. 12, T 20 N, R 07 E.  
Latitude..... 61°50'25" N.  
Longitude..... 148°06'15" W.

Owner..... Unknown.

Operator..... Do.

## GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 70° W, 40° S.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 30.5.  
Width..... Not reported.  
Thickness..... 4.4.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Yes.  
Heating value..... 10,120-14,960 Btu/lb (146).  
Composition, %:  
Ash..... 3.8-23.5.  
Sulfur..... 0.2-0.8.  
Moisture..... 1.9-7.2.  
Volatile matter... 7.1-39.8.  
Fixed carbon..... 44.2-91.4.

## DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1898.  
Discovery method... Military exploration.

Distance to water supply.. 0.1 km.  
Road requirement..... 3.5 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

## PUBLISHED RESERVES-RESOURCES

Anthracite Ridge field: High assurance; 4.5 million short tons (267).  
Moderate assurance; 10 million short tons.  
Low assurance; 20 million short tons.



## REFERENCES

1, 33, 35, 40, 72, 78, 83, 91-92, 112,  
143, 145-146, 156, 170, 174, 181-182,  
185, 191, 221, 224, 247-248, 252,  
265-267, 269, 273, 320, 337, 342,  
344, 354-355, 361, 366, 417, 454.

USGS quadrangle maps... Anchorage, D-3.

USBM sequence number... 0020850193.

## CHICKALOON

Map No: 138

Alternate names: None

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 300 m.  
Topography..... Steep bluff.  
Domain..... State.

General location.. 41 km northeast of Palmer.

Meridian..... Seward.  
Tract..... Sec. 25, T 20 N, R 05 E.  
Latitude..... 61°47'50" N.  
Longitude..... 148°27'45" W.

Owner..... Navy Alaska Coal Commission.  
Operator..... Do.

### GEOLOGY

Formation name.... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 50-70° N, 65-85° S.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 304.8.  
Width..... Not reported.  
Thickness..... 1.9.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Good.  
Heating value..... 10,270-15,480 Btu/lb (146).  
Composition, %:  
Ash..... 8.0-30.1.  
Sulfur..... 0.5-0.9.  
Moisture..... 1.2-3.5.  
Volatile matter... 15.0-23.9.  
Fixed carbon..... 53.5-79.7.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface-underground.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1911.  
Last production..... 1922.  
Past production..... 27,557 mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 98 km.  
Destination..... Anchorage.

### PUBLISHED RESERVES-RESOURCES

Chickaloon field: Resources: High assurance; 20.5 million short tons (270).  
Moderate assurance; 30 million short tons.  
Low assurance; 40 million short tons.

## REFERENCES

1, 33, 35, 40, 53-54, 58-59, 70, 73-74,  
78, 91-92, 111-112, 136, 143, 145-146,  
151-152, 156, 169-170, 174, 181-182,  
184-185, 221, 224, 236-237, 247-249,  
252, 257, 261, 265-267, 269, 273, 307,  
320, 328, 342, 352, 366, 381, 403, 406,  
416-417, 421, 454.

USGS quadrangle maps... Anchorage, D-4.

USBM sequence number... 0020850189.

## COAL CREEK

Map No: 138

Alternate names: Ross Heckey, Heckey Mine

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 300 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 36 km northeast of Palmer.

Meridian..... Seward.  
Tract..... Sec. 31, T 20 N, R 06 E.  
Latitude..... 61°46'45" N.  
Longitude..... 148°25'40" W.

Owner..... Navy Alaska Coal Commission.  
Operator..... Do.

### GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 64° E, 70° SE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 1.8.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Good.  
Heating value..... 11,400-15,530 Btu/lb (146).  
Composition, %:  
Ash..... 5.8-23.3.  
Sulfur..... 0.4-1.0.  
Moisture..... 1.1-4.1.  
Volatile matter... 13.8-27.0.  
Fixed carbon..... 56.3-83.6.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface-underground.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1921.  
Last production..... 1930.  
Past production..... 1,819 mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 98 km.  
Destination..... Anchorage.

### PUBLISHED RESERVES-RESOURCES

Identified reserves; 2 million short tons (267).

## REFERENCES

1, 35, 57-58, 70, 91-92, 111-112, 121,  
143, 145-146, 156, 170, 174, 181-182,  
221, 224, 248-249, 252, 265, 267, 273,  
290, 307, 320, 366, 368, 377, 378-386,  
403, 417, 454.

USGS quadrangle maps... Anchorage, D-4.

USBM sequence number... 0020850190.

## MATANUSKA RIVER COAL

Map No: 138

Alternate names: None

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 490 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 44 km northeast of Palmer.

Meridian..... Seward.  
Tract..... Sec. 33, T 20 N, R 06 E.  
Latitude..... 61°46'37" N.  
Longitude..... 148°22'30" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 36° E, 44° SE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 2.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 9,670-13,600 Btu/lb (146).  
Composition, %:  
Ash..... 18.6-20.7.  
Sulfur..... 0.3-0.4.  
Moisture..... 10.3.  
Volatile matter... 24.8-34.8.  
Fixed carbon..... 46.3-65.2.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 1.5 km.  
Distance to power supply.. 2 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

52, 62, 112, 143, 145-146, 156,  
170, 174, 181-182, 221, 235, 241,  
248-249, 252, 267, 273, 366, 406.

USGS quadrangle maps... Anchorage, D-4.  
USBM sequence number... 0020850192.

## CASTLE MOUNTAIN MINE

Map No: 139

Alternate names: None

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 700 m.  
Topography..... Steep slope.  
Domain..... State.

General location.. 38 km northeast of Palmer.

Meridian..... Seward.  
Tract..... Sec. 21, T 20 N, R 05 E.  
Latitude..... 61°48'57" N.  
Longitude..... 148°32'50" W.

Owner..... Robert W. Gore.  
Operator..... Unknown.

### GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 22° W, 37° NE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 75.  
Width..... 22.9.  
Thickness..... 2.2.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Conglomerate lies over ore.  
Sandstone lies under ore.  
Coking ability..... Yes.  
Heating value..... 12,258-15,238 Btu/lb (333).  
Composition, %:  
Ash..... 17.78-18.10.  
Sulfur..... 0.46-0.57.  
Moisture..... 1.08-1.78.  
Volatile matter... 28.23-35.10.  
Fixed carbon..... 52.20-64.90.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1958.  
Last production..... 1960.  
Past production..... 22,855 mt.  
Annual production... 1958-11,564 mt,  
1960-11,291 mt.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 134 km.  
Destination..... Anchorage.

### PUBLISHED RESERVES-RESOURCES

Castle Mountain field: Resources; High assurance; 6.5 million short tons (270).  
Moderate assurance; 10 million short tons.  
Low assurance; 25 million short tons.

## REFERENCES

8, 21, 112, 143, 156, 181-182, 185,  
221, 232, 247-249, 265, 267, 269,  
271, 273, 320, 328, 333, 471, 454,  
459.

USGS quadrangle maps... Anchorage, D-5.

USBM sequence number... 0020850167.



## RED MOUNTAIN

Map No: 140

Alternate names: None

Commodity: High volatile C bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 1097 m.  
Topography..... Steep slope.  
Domain..... State.

General location.. 32 km northeast of Palmer.

Meridian..... Seward.  
Tract..... Sec. 23, T 20 N, R 04 E.  
Latitude..... 61°48'12" N.  
Longitude..... 148°41'30" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 67° E, 54° SE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 3.7.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... No.  
Heating value..... 11,230-13,300 Btu/lb (146).  
Composition, %:  
Ash..... 5.1-5.7.  
Sulfur..... 0.2-0.3.  
Moisture..... 10.6.  
Volatile matter... 33.80-40.1.  
Fixed carbon..... 50.5-59.9.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 6 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

70, 112, 143, 145-146, 156, 174,  
181-182, 185, 221, 248, 265, 267,  
273, 320, 417.

USGS quadrangle maps... Anchorage, D-5.  
USBM sequence number... 0020850184.

## YOUNG CREEK

Map No: 140  
Alternate names: None

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 483 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 29 km northeast of Palmer.

Meridian..... Seward.  
Tract..... Sec. 34, T 20 N, R 04 E.  
Latitude..... 61°46'29" N.  
Longitude..... 148°41'45" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 15° E, 20° NW.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 0.5.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... No.  
Heating value..... 11,230-13,430 Btu/lb (146).  
Composition, %:  
Ash..... 5.1-10.6.  
Sulfur..... 0.2-0.6.  
Moisture..... 2.5-10.6.  
Volatile matter... 28.3-40.1.  
Fixed carbon..... 50.5-60.4.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 6 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

Young Creek field: Resources; High assurance; 2.5 million short tons (267).  
Moderate assurance; 5 million short tons.  
Low assurance; 8 million short tons.

## REFERENCES

90, 112, 143, 145-146, 156, 174,  
181-182, 185, 221, 224, 248-249,  
252, 265, 267, 273, 307, 320,  
366, 405, 417.

USGS quadrangle maps... Anchorage, D-5.

USBM sequence number... 0020850185.

## KINGS RIVER

Map No: 140

Alternate names: Kings Creek

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 300 m.  
Topography..... Gentle slope.  
Domain..... Native.

General location.. 33 km northeast of Palmer.

Meridian..... Seward.  
Tract..... Sec. 31, T 20 N, R 05 E.  
Latitude..... 61°47'15" N.  
Longitude..... 148°37'40" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 18° E, 18° SE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 402.  
Width..... Not reported.  
Thickness..... 2.4.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Fair.  
Heating value..... 11,690-15,470 Btu/lb (146).  
Composition, %:  
Ash..... 8.6-16.5.  
Sulfur..... 0.1-0.7.  
Moisture..... 1.8-6.6.  
Volatile matter... 3.9-27.8.  
Fixed carbon..... 58.5-95.6.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 3.5 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

70, 92, 101, 111-112, 143, 145-146,  
156, 170, 174, 181-182, 185, 221,  
224, 248-249, 252, 265, 267, 273,  
307, 320, 366, 402, 406, 417.

USGS quadrangle maps... Anchorage, D-5.

USBM sequence number... 0020850187.

## CARPENTER CREEK

Map No: 141

Alternate names: C-SL #1, C-SL #2,  
C-RF #1, C-RF #2, C-DM #1

Commodity: High volatile B bituminous

## LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 270 m.  
Topography..... Gentle slope.  
Domain..... Native.

General location.. 31 km northeast of Palmer.

Meridian..... Seward.  
Tract..... Sec. 18, T 19 N, R 05 E.  
Latitude..... 61°44'30" N.  
Longitude..... 148°36'35" W.

Owner..... Ron Frasier.  
Operator..... Do.

## GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 75° W, 17° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 0.9.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... No.  
Heating value..... Not reported.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

## DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 2 km.  
Distance to power supply.. 2.5 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

## PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

112, 143, 156, 181-182, 185, 221,  
248, 265, 267, 273, 290, 320, 417.

USGS quadrangle maps... Anchorage, C-5.  
USBM sequence number... 0020850186.

WILLIAM RHINEHART & ASSOCS.

Map No: 142

Alternate names: Granite Coal Mine

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 260 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 22 km northeast of Palmer.

Meridian..... Seward.  
Tract..... Sec. 18, T 19 N, R 04 E.  
Latitude..... 61°44'07" N.  
Longitude..... 148°47'47" W.

Owner..... Unknown.  
Operator..... Do.

GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Flat lying.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Conglomerate lies over ore.  
Sandstone lies under ore.  
Coking ability..... No.  
Heating value..... Not reported.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method.,. Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 1.0 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

112, 143, 156, 181-182, 185, 221,  
248, 265, 273, 324, 417.

USGS quadrangle maps... Anchorage, C-5.  
  
USBM sequence number... 0020850183.

## EVAN JONES

Map No: 143

Alternate names: Evan Jones Coal Co.,  
Jonesville Mine Complex

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 427 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 17 km northeast of Palmer.

Meridian..... Seward.  
Tract..... Sec. 17, T 19 N, R 03 E.  
Latitude..... 61°43'52" N.  
Longitude..... 148°56'05" W.

Owner..... Placer U.S. Inc.  
Operator..... Do.

### GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 70° E, 30-50° S.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 1,432.6.  
Width..... Not reported.  
Thickness..... 1.8.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Conglomerate lies over ore.  
Sandstone lies under ore.  
Coking ability..... Poor.  
Heating value..... 10,290-14,400 Btu/lb (146).  
Composition, %:  
Ash..... 8.1-24.5.  
Sulfur..... 0.2-0.6.  
Moisture..... 2.0-8.9.  
Volatile matter... 33.7-49.0.  
Fixed carbon..... 37.4-54.4.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface-underground.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Year of discovery.. Unknown.  
Discovery method... Do.

Initial production.. 1921.  
Last production..... 1968.  
Past production..... 6.6 Mmt.  
Annual production... Not reported.

Process rate..... 200 mt/d.  
Product type..... Coal.  
Distance shipped..... 97 km.  
Destination..... Anchorage.

### PUBLISHED RESERVES-RESOURCES

Reserves: Identified; 100 million short tons (267).



## REFERENCES

1, 8, 20, 24, 26, 35, 40, 42, 44, 57-58,  
73, 91-92, 112, 121, 143, 145-146,  
151-152, 156, 174-177, 181-182, 184-185,  
191, 207, 211-212, 215, 219, 221, 234,  
247-248, 256, 265, 267, 269, 273, 290,  
309, 320, 328, 333, 337, 342, 352,  
354-355, 361, 367-368, 377, 378-391,  
402-403, 416-417, 421, 427, 443, 451,  
454.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number... 0020850181.

## ESKA MINE

Map No: 143

Alternate names: Eska Creek, Knob Creek,  
Alaska Engineering Commission, McCauley  
Prospect, Eska Complex.

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 290 m.  
Topography..... Gentle Slope.  
Domain..... State.

General location.. 18 km northeast of Palmer.

Meridian..... Seward.  
Tract..... Sec. 16, T 19 N, R 03 E.  
Latitude..... 61°44'15" N.  
Longitude..... 148°54'40" W.

Owner..... The Alaska Railroad.  
Operator..... Do.

### GEOLOGY

Origin..... Sedimentation.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 60° E, 30-40° NW.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 304.8.  
Width..... Not reported.  
Thickness..... 2.9.  
Depth..... Outcrop.

Geologic age..... Tertiary.  
Rock relationships.. Conglomerate lies over ore.  
Sandstone lies under ore.  
Coking ability..... No.  
Heating value..... 9,630-14,610 Btu/lb (146).  
Composition, %:  
Ash..... 5.5-28.9.  
Sulfur..... 0.3-0.6.  
Moisture..... 2.7-6.4.  
Volatile matter... 34.3-49.0.  
Fixed carbon..... 33.6-53.9.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface-underground.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1917.  
Last production..... 1945.  
Past production..... 236,993 mt.  
Annual production... Not reported.

Process rate..... 100 mt/d.  
Product type..... Coal.  
Distance shipped..... 98 km.  
Destination..... Anchorage.

### PUBLISHED RESERVES-RESOURCES

Reserves: 1.15 million short tons (74).

## REFERENCES

1, 26, 33, 42-44, 57-58, 70, 74, 90-92,  
111-112, 121, 136, 143, 145-146, 151,  
156, 169, 174, 177, 181-182, 184-185,  
206, 211, 219, 221, 224, 236-237, 240,  
247-249, 252, 265, 267, 273, 303, 307,  
320, 342, 352, 354-355, 361, 366-368,  
379-391, 402-403, 406, 416-417, 421,  
451.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number... 0020850182.

## KNOB CREEK COMPLEX

Map No: 143

Alternate names: Knob Creek Mine, Mrak  
Coal Mine, South Knob Creek Mine

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 465 m.  
Topography..... Gentle slope.  
Domain..... Native.

General location.. 20 km northeast of Palmer.

Meridian..... Seward.  
Tract..... Sec. 15, T 19 N, R 03 E.  
Latitude..... 61°44'30" N.  
Longitude..... 148°52'48" W.

Owner..... Knob Creek Coal Company.  
Operator..... Do.

### GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 1.4.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... No.  
Heating value..... 10,200 Btu/lb (267).  
Composition, %:  
Ash..... 9.0.  
Sulfur..... 0.4.  
Moisture..... Not reported.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. 20 km.

Initial production.. 1953.  
Last production..... 1966.  
Past production..... Not reported.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 113 km.  
Destination..... Anchorage.

### PUBLISHED RESERVES-RESOURCES

Resources: Estimated; 27 million short tons (267).

## REFERENCES

1, 24, 35, 42, 112, 121, 143, 156,  
175-176, 181-182, 185, 212, 221,  
247-249, 265, 267, 273, 320, 417,  
451, 454.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number... 0020850260.

## SOUTH EVAN JONES MINE

Map No: 143

Alternate names: None

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 533 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 17 km northeast of Palmer.

Meridian..... Seward.  
Tract..... Sec. 17, T 19 N, R 03 E.  
Latitude..... 61°44'32" N.  
Longitude..... 148°56'10" W.

Owner..... Rock Springs Royalty Company.  
Operator..... Do.

### GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... No.  
Heating value..... Not reported.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 1 km.  
Road requirement..... Existing.  
Distance to power supply.. 1 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

8, 112, 143, 156, 181-182, 185,  
221, 248, 265, 273, 320, 417.

USGS quadrangle maps... Anchorage, C-6.  
USBM sequence number... 0020850281.

## NORTH EVAN JONES MINE

Map No: 143

Alternate names: None

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 472 m.  
Topography..... Steep slope.  
Domain..... State.

General location.. 11 km north of Palmer.

Meridian..... Seward.  
Tract..... Sec. 13, T 19 N, R 02 E.  
Latitude..... 61°44'23" N.  
Longitude..... 148°59'46" W.

Owner..... Rock Springs Royalty Company.  
Operator..... Do.

### GEOLOGY

Formation name.... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... No.  
Heating value..... Not reported.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.3 km.  
Road requirement..... 2 km.  
Distance to power supply.. 4.6 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

8, 112, 143, 156, 181-182, 185,  
221, 248, 265, 273, 320, 417.

USGS quadrangle maps... Anchorage, C-6.  
  
USBM sequence number... 0020850282.

## PREMIER MINE

Map No: 144

Alternate names: Agostino Mine, Alaska  
Bituminous Coal Co., Alaska Matanuska Coal Co.,  
Anchorage Coal Co., Paul Omlin

Commodity: High volatile B bituminous

## LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 335 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 10 km north of Palmer.

Meridian..... Seward.  
Tract..... Sec. 23, T 19 N, R 02 E.  
Latitude..... 61°42'08" N.  
Longitude..... 149°05'31" W.

Owner..... Hawley Resources Properties, Inc./Rocky Mountain Energy.  
Operator..... Do.

## GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 33° E, 70° SE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 2.4.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Conglomerate lies over ore.  
Sandstone lies under ore.  
Coking ability..... Yes - strong.  
Heating value..... 11,090-14,310 Btu/lb (145).  
Composition, %:  
Ash..... 6.3-17.4.  
Sulfur..... 0.2-0.4.  
Moisture..... 4.2-5.8.  
Volatile matter... 37.6-44.1.  
Fixed carbon..... 40.8-55.9.

## DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface-underground.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Do.

Initial production.. 1925.  
Last production..... 1983.  
Past production..... 176,367 mt.  
Annual production... Not reported.

Process rate..... 100 mt/d.  
Product type..... Coal.  
Distance shipped..... 99.8 km.  
Destination..... Anchorage.

## PUBLISHED RESERVES-RESOURCES

Reserves: Indicated; 370,000 short tons (453).  
Inferred; 500,000 short tons.



## REFERENCES

1, 8, 12-13, 20, 26, 33, 45, 42, 44,  
78, 112, 121, 143, 145, 156, 164-165,  
174-175, 181-182, 188, 211, 219, 265,  
267, 273, 290, 320, 328, 333, 337, 342,  
355, 377-386, 402, 416-417, 421, 427-428,  
433, 435-436, 451, 454.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number... 0020850168.

## DOHERTY MINE

Map No: 144

Alternate names: Pioneer Mine, Doherty  
Coal Co., Pioneer Mining Company

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 140 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 9 km north of Palmer.

Meridian..... Seward.  
Tract..... Sec. 02, T 18 N, R 02 E.  
Latitude..... 61°40'53" N.  
Longitude..... 149°01'50" W.

Owner..... O. Shearer, and H. Wilcox.  
Operator..... Unknown.

### GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 67° E, 45° SE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 0.9.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Slight.  
Heating value..... 10,460-11,260 Btu/lb (146).  
Composition, %:  
Ash..... 19.8-20.7.  
Sulfur..... 0.5.  
Moisture..... 4.3-7.1.  
Volatile matter... 31.6-35.6.  
Fixed carbon..... 41.0-44.1.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Year of discovery.. Unknown.  
Discovery method... Do.

Initial production.. 1916.  
Last production..... 1953.  
Past production..... 55,115 mt.  
Annual production... Not reported.

Process rate..... 80 mt/d.  
Product type..... Coal.  
Distance shipped..... 80 km.  
Destination..... Anchorage.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

1, 20, 42, 44, 92, 111-112, 143,  
145-146, 156, 169, 181-182, 185,  
221, 240, 247-248, 265, 267, 273,  
320, 379-386, 400, 417, 436.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number... 0020850178.

## HOWARD-JESSON

Map No: 144

Alternate names: Leroy Permit, Matanuska  
Center, Alaska Matanuska Coal Company

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 370 m.  
Topography..... Gently rolling.  
Domain..... State.

General location.. 15 km north of Palmer.

Meridian..... Seward.  
Tract..... Sec. 23, T 19 N, R 02 E.  
Latitude..... 61°43'40" N.  
Longitude..... 149°02'35" W.

Owner..... Hawley Resources Properties, Inc.  
Operator..... Do.

### GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 32° E, 65° S.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 2.7.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 10,590-14,070 Btu/lb (146).  
Composition, %:  
Ash..... 9.5-20.1.  
Sulfur..... 0.2-1.4.  
Moisture..... 5.5-5.8.  
Volatile matter... 35.8-47.6.  
Fixed carbon..... 39.4-53.6.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface-underground.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1929.  
Last production..... Do.  
Past production..... Not reported.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 85 km.  
Destination..... Anchorage.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

8, 20, 112, 143, 145-146, 156, 174,  
181-182, 221, 247-248, 267, 273,  
290, 380, 417, 421.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number... 0020850179.

## BUFFALO MINE

Map No: 144

Alternate names: Buffalo Coal Company

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 312 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 19 km north of Palmer.

Meridian..... Seward.  
Tract..... Sec. 23, T 19 N, R 02 E.  
Latitude..... 61°43'18" N.  
Longitude..... 149°03'18" W.

Owner..... Hawley Resource Properties, Inc.  
Operator..... Do.

### GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 41° E, 52-65° SE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 625.  
Width..... Not reported.  
Thickness..... 1.8.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Poor.  
Heating value..... 8,420-14,390 Btu/lb (146).  
Composition, %:  
Ash..... 6.4-35.4.  
Sulfur..... 0.2-0.6.  
Moisture..... 3.2-6.0.  
Volatile matter... 30.7-48.9.  
Fixed carbon..... 31.4-56.5.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
Year of discovery.. 1939.  
Discovery method... Prospecting.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1942.  
Last production..... 1945.  
Past production..... 5,291 mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 80 km.  
Destination..... Anchorage.

### PUBLISHED RESERVES-RESOURCES

Reserves: Measured; 0.5 million short tons (20).  
Indicated; 0.49 million short tons.  
Inferred; 1.37 million short tons.

## REFERENCES

1, 8, 20, 33, 42-44, 112, 121, 143,  
145-146, 156, 174-175, 181-182, 185,  
211-212, 219, 221, 247-249, 265, 267,  
273, 320, 342, 355, 367, 416-417, 421,  
450-451.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number... 0020850285.

## BAXTER MINE

Map No: 144

Alternate names: None

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 308 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 18 km north of Palmer.

Meridian..... Seward.  
Tract..... Sec. 27, T 19 N, R 02 E.  
Latitude..... 61°42'45" N.  
Longitude..... 149°04'19" W.

Owner..... Hawley Resource Properties, Inc.  
Operator..... Do.

### GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 40-60° E, 20° SE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 426.  
Width..... Not reported.  
Thickness..... 3.4.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Poor.  
Heating value..... 12,450-14,310 Btu/lb (146).  
Composition, %:  
Ash..... 5.8-8.3.  
Sulfur..... 0.3.  
Moisture..... 4.6-5.2.  
Volatile matter... 39.7-45.6.  
Fixed carbon..... 47.3-54.4.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1917.  
Last production..... 1925.  
Past production..... Not reported.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 79 km.  
Destination..... Anchorage.

### PUBLISHED RESERVES-RESOURCES

Resources depleted (19).



## REFERENCES

1, 8, 19, 33, 42, 58, 73, 92, 111-112,  
121, 143, 145-146, 151, 156, 174,  
181-182, 185, 219, 221, 247-248, 265,  
267, 273, 320, 355, 417, 421, 451.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number... 0020850286.

## RAWSON MINE

Map No: 144

Alternate names: New Black Diamond Coal Co.,  
Wishbone Hill Coal Co., Moose Creek Coal Co.

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 370 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 14 km north of Palmer.

Meridian..... Seward.  
Tract..... Sec. 14, T 19 N, R 02 E.  
Latitude..... 61°43'52" N.  
Longitude..... 149°01'50" W.

Owner..... Hawley Resources Properties, Inc.  
Operator..... Do.

### GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of S 82° E, 60° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 2.6.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking Ability..... No.  
Heating value..... 10,030-14,200 Btu/lb (146).  
Composition, %:  
Ash..... 7.6-24.3.  
Sulfur..... 0.2-0.5.  
Moisture..... 3.7-8.6.  
Volatile matter... 37.5-44.8.  
Fixed carbon..... 32.6-55.2.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1921.  
Last production..... 1938.  
Past production..... Not reported.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 84 km.  
Destination..... Anchorage.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

1, 8, 20, 26, 33, 42, 44, 91, 112, 143,  
145-146, 156, 174, 181-182, 185, 221,  
236, 247-248, 252, 266-267, 269, 273,  
290, 320, 361, 377-378, 385-389, 400,  
402-403, 406, 417, 421, 451, 454.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number.. 0020850180.

## WISHBONE HILL

Map No: 144

Alternate names: New Black Diamond Coal  
Co., Wishbone Hill Coal Company

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Matanuska.  
Elevation..... 396 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 12 km north of Palmer.

Meridian..... Seward.  
Tract..... Sec. 23, T 19 N, R 02 E.  
Latitude..... 61°43'20" N.  
Longitude..... 149°02'25" W.

Owner..... Hawley Resource Properties, Inc.  
Operator..... Do.

### GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N.80° E, 30° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 1.8.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... No.  
Heating value..... 10,400-13,200 Btu/lb (78).  
Composition, %:  
Ash..... 4-22.  
Sulfur..... 0.2-1.0.  
Moisture..... 3-9.  
Volatile matter... 32-45.  
Fixed carbon..... 38-51.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 0.8 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

7-8, 20, 33, 35, 42, 70, 78, 91, 112,  
143, 156, 181-182, 185, 211, 221,  
248-249, 265, 267, 273, 320, 342,  
354, 357, 384, 402, 417, 421, 451.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number... 0020850283.

BARRETT, LOHNES, THORPE & POMROY

Map No: 145

Alternate names: None

Commodity: Subbituminous B

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Unnamed.  
Elevation..... 245 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 13 km northwest of Palmer.

Meridian..... Seward.  
Tract..... Sec. 34, T 19 N, R 01 E.  
Latitude..... 61°41'50" N.  
Longitude..... 149°16'00" W.

Owner..... Unknown.  
Operator..... Do.

GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Conglomerate lies over ore.  
Shale lies under ore.  
Coking Ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

143, 156, 185, 265, 273, 320,  
417.

USGS quadrangle maps... Anchorage, C-7.  
USBM sequence number... 0020850174.

## BARTHOLF

Map No: 146

Alternate names: Grohnert, Dodson, & Brown,  
Stadler-Harris, Coal Creek

Commodity: Subbituminous B

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Unnamed.  
Elevation..... 120 m.  
Topography..... Gentle slope.  
Domain..... Native.

General location.. 19 km northwest of Palmer.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Seward.  
Tract..... Sec. 16, T 18 N, R 01 W.  
Latitude..... 61°39'23" N.  
Longitude..... 149°27'35" W.

### GEOLOGY

Formation name..... Chickaloon.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of East-west, 13-20° S.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 396.2.  
Width..... Not reported.  
Thickness..... 1.4.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Conglomerate lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 8,460-12,920 Btu/lb (43).  
Composition, %:  
Ash..... 20.5-23.8.  
Sulfur..... 0.4-0.5.  
Moisture..... 14.1.  
Volatile matter... 31.1-47.8.  
Fixed carbon..... 34.1-52.2.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Year of discovery.. 1917.  
Discovery method... Unknown.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

43, 143, 185, 265, 273, 320, 417.

USGS quadrangle maps... Anchorage, C-7.  
USBM sequence number... 0020850171.

## HOUSTON COAL CO.

Map No: 147

Alternate names: Houston East, Houston  
Bed, Houston Coal Company

Commodity: Subbituminous B

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Unnamed.  
Elevation..... 100 m.  
Topography..... Low-lying.  
Domain..... State.

General location.. 1 km northwest of Houston.

Meridian..... Seward.  
Tract..... Sec. 20, T 18 N, R 03 W.  
Latitude..... 61°38'23" N.  
Longitude..... 149°51'00" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Tyonek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 804.7.  
Width..... 1,609.3.  
Thickness..... 1.3.  
Depth..... 8-18.

Formation age..... Tertiary.  
Rock relationships.. Conglomerate lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 8,260-10,730 Btu/lb (146).  
Composition, %:  
Ash..... 13.4-19.6.  
Sulfur..... 0.1-0.2.  
Moisture..... 13.9-18.7.  
Volatile matter... 33.6-49.5.  
Fixed carbon..... 27.4-42.2.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface.  
  
Year of discovery.. 1917.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Do.

Initial production.. 1948.  
Last production..... 1954.  
Past production..... 99,206 mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 98 km.  
Destination..... Anchorage.

### PUBLISHED RESERVES-RESOURCES

Reserves: Estimated; 14.58 million short tons (254).



## REFERENCES

1, 35, 40, 43-44, 143, 145-146, 185,  
236, 251, 254, 265, 267-268, 273,  
309, 320, 342, 354-355, 388-390,  
417, 421, 427.

USGS quadrangle maps... Anchorage, C-8.

USBM sequence number... 0020850169.

## HOUSTON WEST

Map No: 147

Alternate names: None

Commodity: Subbituminous B

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Unnamed.  
Elevation..... 79 m.  
Topography..... Low-lying.  
Domain..... State.

General location.. 41 km west of Palmer.

Meridian..... Seward.  
Tract..... Sec. 24, T 18 N, R 04 W.  
Latitude..... 61°38'11" N.  
Longitude..... 149°54'14" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Not reported.

Coking ability..... Do.  
Heating value..... Do.  
Composition, %: (1).  
Ash..... 19.0.  
Sulfur..... 0.4.  
Moisture..... Not reported.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1917.  
Last production..... 1920.  
Past production..... 11,023 mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 3 km.  
Destination..... Houston.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

1, 143, 185, 265, 273, 320, 417.

USGS quadrangle maps... Anchorage, C-8.

USBM sequence number... 0020850287.

## YENTNA RIVER

Map No: 148  
Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Tyonek.  
Mining district.. Yentna.  
Coalfield..... Beluga-Yentna.  
Elevation..... 43 m.  
Topography..... Low-lying.  
Domain..... State.

General location.. 30 km west of Willow.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Seward.  
Tract..... Sec. 17, T 18 N, R 07 W.  
Latitude..... 61°39'05" N.  
Longitude..... 150°35'20" W.

### GEOLOGY

Formation name..... Tyonek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 15.2.  
Depth..... 45.7.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 8,000 Btu/lb (269).  
Composition, %:  
Ash..... Variable.  
Sulfur..... Less than 5.  
Moisture..... Not reported.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 30 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

35, 91, 95, 102, 265, 269,  
273, 417.

USGS quadrangle maps... Tyonek, C-2.

USBM sequence number... 0020840028.

## SUSITNA STATION

Map No: 149  
Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Tyonek.  
Mining district.. Willow Creek.  
Coalfield..... Beluga-Yentna.  
Elevation..... 15 m.  
Topography..... Low-lying.  
Domain..... State.

General location.. 33 km southwest of Willow.

Meridian..... Seward.  
Tract..... Sec. 22, T 17 N, R 07 W.  
Latitude..... 61°32'37" N.  
Longitude..... 150°30'30" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Tyonek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 19 km.

Initial production.. Do.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

91, 100, 273, 342, 354, 355.

USGS quadrangle maps... Tyonek, C-2.

USBM sequence number... 0020840029.

## EAGLE RIVER MINE

Map No: 150  
Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Willow Creek.  
Coalfield..... Unnamed.  
Elevation..... 8 m.  
Topography..... Low-lying.  
Domain..... Military reservation.

General location.. 5 km north of Anchorage.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Seward.  
Tract..... Sec. 07, T 14 N, R 02 W.  
Latitude..... 61°18'53" N.  
Longitude..... 149°42'48" W.

### GEOLOGY

Formation name.... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Not reported.  
  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 1.2 km.  
Distance to power supply.. 2.2 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

143, 185, 265, 273, 320, 417.

USGS quadrangle maps... Anchorage, B-8.

USBM sequence number... 0020850288.

## ALASKA PEAT

Map No: 151

Alternate names: None

Commodity: Peat

### LOCATION-OWNERSHIP

Quadrangle..... Anchorage.  
Mining district.. Do.  
Coalfield..... Unnamed.  
Elevation..... 30 m.  
Topography..... Flat-lying.  
Domain..... Municipality.

Owner..... Unknown.  
Operator..... Do.

General location.. Located in Anchorage.  
  
Meridian..... Seward.  
Tract..... Sec. 01, T 12 N, R 04 W.  
Latitude..... 61°09'55" N.  
Longitude..... 149°54'00" W.

### GEOLOGY

Formation name..... Unknown.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Quaternary.  
Rock relationships.. Not reported.  
  
Coking Ability..... No.  
Heating value..... Not reported.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Process rate..... Unknown.  
Product type..... Peat.  
Distance shipped..... Various.  
Destination..... Anchorage.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

150.

USGS quadrangle maps... Anchorage, A-8.

USBM sequence number... 0020850116.

## CAPPS DEPOSIT

Map No: 152

Alternate names: Beluga Coal Company

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Tyonek.  
Mining district.. Redoubt.  
Coalfield..... Beluga-Yentna.  
Elevation..... 617 m.  
Topography..... Gentle slope.  
Domain..... Native.

General location.. 40 km northwest of Beluga.

Meridian..... Seward.  
Tract..... Sec. 22, T 14 N, R 14 W.  
Latitude..... 61°17'50" N.  
Longitude..... 151°46'00" W.

Owner..... Placer U.S. Inc. (Placer Amex, Inc.).  
Operator..... Beluga Coal Company.

### GEOLOGY

Formation name..... Tyonek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of North-Northeast.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 4,800.  
Width..... 6,400.  
Thickness..... 10.  
Depth..... 35.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 8,327-12,151 Btu/lb (335).  
Composition, %:  
Ash..... 7.81-10.23.  
Sulfur..... 0.14-0.21.  
Moisture..... 23.65.  
Volatile matter... 35.20-51.35.  
Fixed carbon..... 33.34-48.65.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1900.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... 51.5 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

7-8, 18, 21, 36, 40, 78-80, 119-120,  
136, 154, 164-165, 168, 189-193, 216,  
266, 269, 273, 285, 301, 304, 308, 325,  
333-335, 337, 342, 346-347, 354-355,  
361, 363, 406, 409-410, 417, 421, 425,  
427, 453.

USGS quadrangle maps... Tyonek, B-5.

USBM sequence number... 0020840038.



## CENTER RIDGE DEPOSIT

Map No: 153

Alternate names: Beluga Coal Company

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Tyonek.  
Mining district.. Redoubt.  
Coalfield..... Beluga-Yentna.  
Elevation..... 472 m.  
Topography..... Gently rolling.  
Domain..... State.

General location.. 32 km west of Beluga.

Owner..... Placer U.S. Inc. (Placer Amex, Inc.).  
Operator..... Beluga Coal Company.

Meridian..... Seward.  
Tract..... Sec. 33, T 13 N, R 13 W.  
Latitude..... 61°10'35" N.  
Longitude..... 151°36'55" W.

### GEOLOGY

Formation name..... Tyonek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of North-Northeast.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 2,900.  
Width..... 4,300.  
Thickness..... 12.  
Depth..... 75.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 8,327-12,151 Btu/lb (335).  
Composition, %:  
Ash..... 17.81-10.23.  
Sulfur..... 0.14-0.21.  
Moisture..... 23.65.  
Volatile matter... 35.20-51.35.  
Fixed carbon..... 33.34-48.65.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. 1900.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... 33.8 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

7-8, 18, 21, 36, 40, 78-80, 119-120,  
136, 154, 164-165, 168, 189-193, 216,  
266, 269, 273, 285, 301, 304, 308,  
325, 333-335, 337, 342, 346-347, 354-355,  
361, 363, 406, 409-410, 417, 421, 425,  
427, 453.

USGS quadrangle maps... Tyonek, A-5.

USBM sequence number... 0020840034.

## LONE RIDGE DEPOSIT

Map No: 153

Alternate names: Beluga Coal Company

Commodity: Subbituminous C

## LOCATION-OWNERSHIP

Quadrangle..... Tyonek.  
Mining district.. Redoubt.  
Coalfield..... Beluga-Yentna.  
Elevation..... 381 m.  
Topography..... Low-lying.  
Domain..... State.

General location.. 26 km west of Beluga.

Meridian..... Seward.  
Tract..... Sec. 24, T 13 N, R 13 W.  
Latitude..... 61°11'52" N.  
Longitude..... 151°31'40" W.

Owner..... Placer U.S. Inc. (Placer Amex, Inc.).  
Operator..... Beluga Coal Company.

## GEOLOGY

Formation name..... Tyonek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of North-Northeast.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 4,800.  
Width..... 4,800.  
Thickness..... 8.  
Depth..... 35.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 8,327-12,151 Btu/lb (335).  
Composition, %:  
Ash..... 7.81-10.23.  
Sulfur..... 0.14-0.21.  
Moisture..... 23.65.  
Volatile matter... 35.20-51.35.  
Fixed carbon..... 33.34-48.65.

## DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1900.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... 40.2 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

## PUBLISHED RESERVES-RESOURCES

Lone Ridge Deposit: Resources; 100 million short tons (80).

## REFERENCES

7-8, 18, 21, 36, 40, 78-80, 119-120,  
136, 154, 164-165, 168, 189-193, 216,  
266, 269, 273, 285, 301, 304, 308,  
325, 333-335, 337, 342, 346-347,  
354-355, 361, 363, 406, 409-410,  
417, 421, 425, 427, 453.

USGS quadrangle maps... Tyonek, A-5.

USBM sequence number... 0020840039.

## BELUGA RIVER

Map No: 154

Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Tyonek.  
Mining district.. Redoubt.  
Coalfield..... Beluga-Yentna.  
Elevation..... 75 m.  
Topography..... Low-lying.  
Domain..... State.

General location.. 13 km northwest of Beluga.

Meridian..... Seward.  
Tract..... Sec. 04, T 13 N, R 11 W.  
Latitude..... 61°14'30" N.  
Longitude..... 151°14'45" W.

Owner..... Ed Coffey, and J. V. Brown.  
Operator..... Unknown.

### GEOLOGY

Formation name..... Tyonek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 17-22° W, 55° NE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 15.2.  
Width..... Not reported.  
Thickness..... 2.0.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 7,160-9,470 Btu/lb (175).  
Composition, %:  
Ash..... 16.8-22.2.  
Sulfur..... 0.2.  
Moisture..... 24.4.  
Volatile matter... 30.1-39.8.  
Fixed carbon..... 28.7-38.0.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 13 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

35, 52, 72, 175, 185, 202, 224,  
233, 265, 272-273, 320, 417, 452,  
457.

USGS quadrangle maps... Tyonek, A-4.  
USBM sequence number... 0020840024.

## COFFEE CREEK

Map No: 154

Alternate names: None

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Tyonek.  
Mining district.. Redoubt.  
Coalfield..... Beluga-Yentna.  
Elevation..... 107 m.  
Topography..... Low-lying.  
Domain..... State.

General location.. 9.5 km northwest of Beluga.

Meridian..... Seward.  
Tract..... Sec. 12, T 13 N, R 11 W.  
Latitude..... 61°13'58" N.  
Longitude..... 151°09'58" W.

Owner..... Howard J., & Lois M. Grey.  
Operator..... Unknown.

### GEOLOGY

Formation name..... Tyonek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of North-Northeast.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... Do.  
Depth..... Do.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Conglomerate lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 9.5 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

8, 273.

USGS quadrangle maps... Tyonek, A-4.

USBM sequence number... 0020840036.

### THREEMILE CREEK DEPOSIT

Map No: 155

Alternate names: Beluga Coal Company

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Tyonek.  
Mining district.. Redoubt.  
Coalfield..... Beluga-Yentna.  
Elevation..... 91.4 m.  
Topography..... Low-lying.  
Domain..... State.

General location.. 10 km west of Beluga.

Meridian..... Seward.  
Tract..... Sec. 27, T 13 N, R 11 W.  
Latitude..... 61°11'15" N.  
Longitude..... 151°12'42" W.

Owner..... Placer U.S. Inc. (Placer Amex, Inc.).  
Operator..... Beluga Coal Company.

### GEOLOGY

Formation name..... Tyonek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of North-Northeast.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 4,600.  
Width..... 3,200.  
Thickness..... 2.  
Depth..... 46.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 8,327-12,151 Btu/lb (335).  
Composition, %:  
Ash..... 7.81-10.23.  
Sulfur..... 0.14-0.21.  
Moisture..... 23.65.  
Volatile matter... 35.20-51.35.  
Fixed carbon..... 33.34-48.65.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1900.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... 16.1 km.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

7-8, 18, 21, 36, 40, 78-80, 119-120,  
136, 154, 164-165, 168, 189-193, 216,  
266, 269, 273, 285, 301, 304, 308,  
325, 333-335, 337, 342, 346-347,  
354-355, 361, 363, 406, 409-410,  
417, 421, 425, 427, 453.

USGS quadrangle maps... Tyonek, A-4.

USBM sequence number... 0020840037.



## BELUGA 1

Map No: 155

Alternate names: Diamond Alaska Coal Co.,  
B-H-W leases, Chuitna River Coal Field

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Tyonek.  
Mining district.. Redoubt.  
Coalfield..... Beluga-Yentna.  
Elevation..... 229 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 16 km northwest of Beluga.

Meridian..... Seward.  
Tract..... Sec. 24, T 13 N, R 12 W.  
Latitude..... 61°12'00" N.  
Longitude..... 151°21'20" W.

Owner..... Starkey Wilson, Richard D. Bass Estate, & W.H. Hunt.

Operator..... Diamond Alaska Coal Company.

### GEOLOGY

Formation name..... Tyonek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of North-northeast,  
coal seam. 0-15° S.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 6.9.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Conglomerate lies under ore.  
Coking ability..... Not reported.  
Heating value..... 6,290-8,890 Btu/lb (165).  
Composition, %:  
Ash..... 10-31.  
Sulfur..... 0.1-0.3.  
Moisture..... 11-29.  
Volatile matter... 28-38.  
Fixed carbon..... 26-35.

### DEVELOPMENT

Current status..... Development deposit.  
Type of operation.. Prospect.

Distance to water supply.. Onsite.  
Road requirement..... 17.7 km.  
Distance to power supply.. 16 km.

Year of discovery.. Unknown.  
Discovery method... Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

Reserves: Proven; 891 million short tons (157).  
Indicated; 282 million short tons.

## REFERENCES

7-9, 11, 14, 18, 21, 36, 78-80, 125-126,  
136, 149, 154, 157, 164-165, 189, 191-193,  
266, 269, 273, 301, 326, 333, 335, 342,  
354, 363, 369, 406, 409-410, 413, 417,  
421, 426, 427-428, 435, 453.

USGS quadrangle maps... Tyonek, A-4.

USBM sequence number... 0020840035.

## TYONEK CREEK

Map No: 156  
Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Tyonek.  
Mining district.. Redoubt.  
Coalfield..... Beluga-Yentna.  
Elevation..... 46 m.  
Topography..... Low-lying.  
Domain..... Indian reservation.

General location.. 4.5 km southwest of Tyonek.

Meridian..... Seward.  
Tract..... Sec. 15, T 11 N, R 11 W.  
Latitude..... 61°02'37" N.  
Longitude..... 151°12'30" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Tyonek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 6.1.  
Depth..... Outcrop.

Sulfur..... 0.4-0.6.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 8,350-12,160 Btu/lb (146).  
Composition, %:  
Ash..... 3.7-5.2.  
Moisture..... 27.6.  
Volatile matter... 31.5-45.8.  
Fixed carbon..... 37.2-54.2.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 18 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

72, 100, 145-146, 149, 174, 235,  
250-251, 273, 417, 421.

USGS quadrangle maps... Tyonek, A-4.  
USBM sequence number... 0020840023.

## FALLS CREEK

Map No: 157

Alternate names: None

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Kenai.

Mining district.. Homer.

Coalfield..... Kenai.

Elevation..... 50 m.

Topography..... Bluff.

Domain..... State.

General location.. 3 km south of Clam Gulch.

Meridian..... Seward.

Tract..... Sec. 06, T 01 N, R 12 W.

Latitude..... 60°12'03" N.

Longitude..... 151°26'00" W.

Owner..... Unknown.

Operator..... Do.

### GEOLOGY

Formation name..... Sterling.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of Flat-lying.  
coal seam.

Coal seam average

dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... Do.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Sandstone lies over ore.

Siltstone lies under ore.

Coking ability..... Not reported.

Heating value..... Do.

Composition, %:

Ash..... Do.

Sulfur..... Do.

Moisture..... Do.

Volatile matter... Do.

Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.

Type of operation.. Prospect.

Year of discovery.. Unknown.

Discovery method... Do.

Distance to water supply.. 0.1 km.

Road requirement..... Existing.

Distance to power supply.. 3 km.

Initial production.. Not reported.

Last production..... Do.

Past production..... Do.

Annual production... Do.

Process rate..... Not reported.

Product type..... Do.

Distance shipped..... Do.

Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

3, 41, 185, 265, 273, 320, 417.

USGS quadrangle maps... Kenai, A-4.

USBM sequence number... 0020940022.

## NINILCHIK

Map No: 158

Alternate names: Deep Creek

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Kenai.  
Mining district.. Homer.  
Coalfield..... Kenai.  
Elevation..... 10 m.  
Topography..... Bluff.  
Domain..... State.

General location.. 1.5 km south of Ninilchik.

Meridian..... Seward.  
Tract..... Sec. 04, T 02 S, R 14 W.  
Latitude..... 60°02'15" N.  
Longitude..... 151°41'32" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Sterling.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Flat-lying.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 1.8.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Siltstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 7,437-11,800 Btu/lb (333).  
Composition, %:  
Ash..... 13.25-17.37.  
Sulfur..... 0.25-0.39.  
Moisture..... 23.72.  
Volatile matter... 36.01-57.13.  
Fixed carbon..... 27.02-42.87.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Existing.  
Distance to power supply.. 1.5 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

3, 41, 185, 265, 273, 320, 333,  
417, 463.

USGS quadrangle maps... Kenai, A-5.

USBM sequence number... 0020940019.

## TROUBLESOME CREEK

Map No: 159

Alternate names: Troublesome Gulch

Commodity: Subbituminous C

## LOCATION-OWNERSHIP

Quadrangle..... Seldovia.  
Mining district.. Homer.  
Coalfield..... Kenai.  
Elevation..... 15 m.  
Topography..... Low-lying.  
Domain..... State.

General location.. 21 km northwest of Homer.

Meridian..... Seward.  
Tract..... Sec. 21, T 05 S, R 15 W.  
Latitude..... 59°43'35" N.  
Longitude..... 151°50'45" W.

Owner..... J. & M. Booth (Warren Coal Company).  
Operator..... Do.

## GEOLOGY

Formation name..... Sterling.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 50° E, 10-15° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 0.57.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 8,050-12,380 Btu/lb (146).  
Composition, %:  
Ash..... 15.0-18.7.  
Sulfur..... 0.4-0.6.  
Moisture..... 20.0.  
Volatile matter... 35.9-55.2.  
Fixed carbon..... 29.1-44.8.

## DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 3 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

## PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

41, 145-146, 149, 174, 185, 250-251,  
265, 273, 320, 406, 417.

USGS quadrangle maps... Seldovia, C-5.  
USBM sequence number... 0021040061.

## DIAMOND CREEK

Map No: 160  
Alternate names: None

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Seldovia.  
Mining district.. Homer.  
Coalfield..... Kenai.  
Elevation..... 31 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 11 km northwest of Homer.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Seward.  
Tract..... Sec. 08, T 06 S, R 14 W.  
Latitude..... 59°40'18" N.  
Longitude..... 151°41'03" W.

### GEOLOGY

Formation name..... Beluga.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 1.1.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 7,810-11,780 Btu/lb (146).  
Composition, %:  
Ash..... 5.6-7.8.  
Sulfur..... 0.2-0.3.  
Moisture..... 28.1.  
Volatile matter... 33.5-50.5.  
Fixed carbon..... 32.8-49.5.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. 1 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

145-146, 149, 174, 185, 250-251,  
265, 273, 320, 417.

USGS quadrangle maps... Seldovia, C-5.  
  
USBM sequence number... 0021040063.

## BLUFF POINT

Map No: 160

Alternate names: McNally & Maitland,  
Valley Coal Corporation

Commodity: Subbituminous C

## LOCATION-OWNERSHIP

Quadrangle..... Seldovia.  
Mining district.. Homer.  
Coalfield..... Kenai.  
Elevation..... 198 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 10 km northwest of Homer.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Seward.  
Tract..... Sec. 09, T 06 S, R 14 W.  
Latitude..... 59°40'01" N.  
Longitude..... 151°40'09" W.

## GEOLOGY

Formation name..... Beluga.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 1.7.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 8,350-12,100 Btu/lb (146).  
Composition, %:  
Ash..... 8.4-13.0.  
Sulfur..... 0.3-0.5.  
Moisture..... 21.0-22.4.  
Volatile matter... 36.0-55.1.  
Fixed carbon..... 31.1-44.9.

## DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. 1888.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1915.  
Last production..... 1923.  
Past production..... Not reported.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 10 km.  
Destination..... Homer.

## PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.



## REFERENCES

41, 43, 55-58, 73, 145-146, 149,  
174, 185, 236-237, 250-251, 265,  
273, 290, 320, 400, 405-406, 417.

USGS quadrangle maps... Seldovia, C-5.

USBM sequence number... 0021040064.

## MINE CAMP

Map No: 161

Alternate names: West Homer, Bluff Point,  
Coal Point

Commodity: Subbituminous C

## LOCATION-OWNERSHIP

Quadrangle..... Seldovia.  
Mining district.. Homer.  
Coalfield..... Kenai.  
Elevation..... 31 m.  
Topography..... Steep bluff.  
Domain..... State.

General location.. 1 km east of Homer.

Meridian..... Seward.  
Tract..... Sec. 24, T 06 S, R 24 W.  
Latitude..... 59°38'40" N.  
Longitude..... 151°35'15" W.

Owner..... Cook Inlet Coal Fields Company.  
Operator..... Do.

## GEOLOGY

Formation name..... Beluga.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 58° W, 15-20° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 0.8.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 0.63-0.81 (Fuel ratio) (406).  
Composition, %:  
Ash..... 5.13-7.60.  
Sulfur..... 0.32-0.38.  
Moisture..... 19.22-20.87.  
Volatile matter... 40.71-43.95.  
Fixed carbon ..... 5.13-8.05.

## DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. 1888.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1899.  
Last production..... 1946.  
Past production..... 27,557 mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 1 km.  
Destination..... Homer.

## PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

1, 38, 41, 185, 250-251, 265,  
273, 320, 405-406, 417.

USGS quadrangle maps... Seldovia, C-5.  
USBM sequence number... 0021040048.

## HOMER

Map No: 161

Alternate names: Homer Coal Corporation

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Seldovia.

Mining district.. Homer.

Coalfield..... Kenai.

Elevation..... 60 m.

Topography..... Steep bluff.

Domain..... State.

General location.. 4 km west of Homer Spit.

Meridian..... Seward.

Tract..... Sec. 24, T 06 S, R 14 W.

Latitude..... 59°38'40" N.

Longitude..... 151°34'20" W.

Owner..... Homer Coal Corporation.

Operator..... Do.

### GEOLOGY

Formation name..... Beluga.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 70° E, 7° N.  
coal seam.

Coal seam average  
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 1.8.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Sandstone lies over ore.

Shale lies under ore.

Coking ability..... Not reported.

Heating value..... 8,028-11,747 Btu/lb (335).

Composition, %:

Ash..... 8.65-11.23.

Sulfur..... 0.23-0.34.

Moisture..... 23.01.

Volatile matter... 35.63-52.13.

Fixed carbon..... 32.71-47.87.

### DEVELOPMENT

Current status..... Past producer.

Type of operation.. Underground.

Year of discovery.. 1888.

Discovery method... Unknown.

Distance to water supply.. Onsite.

Road requirement..... Existing.

Distance to power supply.. Onsite.

Initial production.. 1946.

Last production..... 1951.

Past production..... Not reported.

Annual production... Do.

Process rate..... Unknown.

Product type..... Coal.

Distance shipped..... 1 km.

Destination..... Homer.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

1, 29, 41, 43, 149, 211, 219, 224,  
250-251, 265-266, 269, 273, 335,  
337, 352, 355, 361, 377, 405, 416-417.

USGS quadrangle maps... Seldovia, C-5.

USBM sequence number... 0021040049.

## BRADLEY

Map No: 162

Alternate names: Bradley Seam, Fritz Creek

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Seldovia.

Mining district.. Homer.

Coalfield..... Kenai.

Elevation..... 248 m.

Topography..... Flat-lying.

Domain..... State.

General location.. 7 km northeast of Homer.

Meridian..... Seward.

Tract..... Sec. 12, T 06 S, R 13 W.

Latitude..... 59°43'35" N.

Longitude..... 151°15'50" W.

Owner..... Alaska Coal Company.

Operator..... Do.

### GEOLOGY

Formation name..... Beluga.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of Not reported.  
coal seam.

Coal seam average  
dimensions, m.

Length..... Do.

Width..... Do.

Thickness..... 2.1.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Sandstone lies over ore.

Shale lies under ore.

Coking ability..... Not reported.

Heating value..... Do.

Composition, %:

Ash..... Do.

Sulfur..... Do.

Moisture..... Do.

Volatile matter... Do.

Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Past producer.

Type of operation.. Underground.

Year of discovery.. 1888.

Discovery method... Unknown.

Initial production.. 1895.

Last production..... Do.

Past production..... 16.5 mt.

Annual production... Do.

Distance to water supply.. Onsite.

Road requirement..... Existing.

Distance to power supply.. Onsite.

Process rate..... Unknown.

Product type..... Coal.

Distance shipped..... 7 km.

Destination..... Homer.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

41, 185, 250-251, 265, 273, 320,  
405-406, 417.

USGS quadrangle maps... Seldovia, C-4.

USBM sequence number... 0021040046.

## CURTIS SEAM

Map No: 163

Alternate names: McNeil Canyon

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Seldovia.  
Mining district.. Homer.  
Coalfield..... Kenai.  
Elevation..... 91 m.  
Topography..... Steep slope.  
Domain..... State.

General location.. 18 km northeast of Homer.

Owner..... Alaska Coal Company.  
Operator..... Do.

Meridian..... Seward.  
Tract..... Sec. 25, T 05 S, R 12 W.  
Latitude..... 59°46'45" N.  
Longitude..... 151°09'45" W.

### GEOLOGY

Formation name..... Sterling.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 1.2.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 0.75 (Fuel ratio) (406).  
Composition, %:  
Ash..... 9.10.  
Sulfur..... 0.34.  
Moisture..... 21.54.  
Volatile matter... 39.10.  
Fixed carbon..... 30.26.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. 1888.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1890.  
Last production..... 1897.  
Past production..... 716 mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 18 km.  
Destination..... Homer.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

41, 185, 211, 250-251, 265, 273,  
320, 400, 405-406, 416-417, 421.

USGS quadrangle maps... Seldovia, C-4.

USBM sequence number... 0021040045.

## FRITZ CREEK

Map No: 163  
Alternate names: Swede & Hoe

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Seldovia.  
Mining district.. Homer.  
Coalfield..... Kenai.  
Elevation..... 212 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 13 km northeast of Homer.

Meridian..... Seward.  
Tract..... Sec. 20, T 05 S, R 12 W.  
Latitude..... 59°43'35" N.  
Longitude..... 151°21'30" W.

Owner..... Alaska Coal Company.  
Operator..... Do.

### GEOLOGY

Formation name..... Beluga.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. 1888.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1888.  
Last production..... 1906.  
Past production..... Not reported.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 13 km.  
Destination..... Homer.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

41, 43, 185, 265, 273, 320,  
405-406, 417.

USGS quadrangle maps... Seldovia, C-4.  
  
USBM sequence number... 0021040047.

## FALLS CREEK

Map No: 164  
Alternate names: None

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Seldovia.  
Mining district.. Homer.  
Coal Creek..... Kenai.  
Elevation..... 122 m.  
Topography..... Steep slope.  
Domain..... State.

General location.. 26 km northeast of Homer.

Meridian..... Seward.  
Tract..... Sec. 03, T 05 S, R 11 W.  
Latitude..... 59°46'34" N.  
Longitude..... 151°07'20" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Sterling.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.7.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 2 km.  
Distance to power supply.. Do.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

41, 185, 265, 273, 320, 405-406,  
417.

USGS quadrangle maps... Seldovia, D-3.  
USBM sequence number... 0021040058.



## EASTLAND CANYON

Map No: 164

Alternate names: None

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Seldovia.

Mining district.. Homer.

Coalfield..... Kenai.

Elevation..... 114 m.

Topography..... Steep slope.

Domain..... State.

General location.. 23 km northeast of Homer.

Meridian..... Seward.

Tract..... Sec. 09, T 05 S, R 11 W.

Latitude..... 59°45'29" N.

Longitude..... 151°09'28" W.

Owner..... North Pacific Mining and Transportation Company.

Operator..... Do.

### GEOLOGY

Formation name..... Sterling.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 70° W, 4° N.  
coal seam.

Coal seam average  
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 0.4.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Sandstone lies over ore.

Shale lies under ore.

Coking ability..... Not reported.

Heating value..... 0.82 (Fuel ratio) (406).

Composition, %:

Ash..... 7.29.

Sulfur..... 0.27.

Moisture..... 19.29.

Volatile matter... 40.31.

Fixed carbon..... 33.11.

### DEVELOPMENT

Current status..... Past producer.

Type of operation.. Underground.

Year of discovery.. 1888.

Discovery method... Unknown.

Initial production.. 1894.

Last production..... 1897.

Past production..... 716 mt.

Annual production... Not reported.

Distance to water supply.. Onsite.

Road requirement..... Existing.

Distance to power supply.. Onsite.

Process rate..... Unknown.

Product type..... Coal.

Distance shipped..... 23 km.

Destination..... Homer.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

41, 185, 250-251, 265, 273, 320,  
405-406, 417.

USGS quadrangle maps... Seldovia, D-4.

USBM sequence number... 0021040059.

## COTTONWOOD CREEK

Map No: 164

Alternate names: None

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Seldovia.  
Mining district.. Homer.  
Coalfield..... Kenai.  
Elevation..... 31 m.  
Topography..... Steep slope.  
Domain..... State.

General location.. 21 km northeast of Homer.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Seward.  
Tract..... Sec. 17, T 05 S, R 11 W.  
Latitude..... 59°44'25" N.  
Longitude..... 151°11'30" W.

### GEOLOGY

Formation name..... Sterling.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.9.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... 3 km.  
Distance to power supply.. 2.5 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

41, 185, 265, 273, 320, 405-406,  
417.

USGS quadrangle maps... Seldovia, C-4.

USBM sequence number... 0021040060.

## AURORA

Map No: 165  
Alternate names: None

Commodity: Subbituminous C

### LOCATION-OWNERSHIP

Quadrangle..... Seldovia.  
Mining district.. Homer.  
Coalfield..... Unnamed.  
Elevation..... 91 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 24 km east of Homer.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Seward.  
Tract..... Sec. 35, T 05 S, R 11 W.  
Latitude..... 59°42'25" N.  
Longitude..... 151°05'25" W.

### GEOLOGY

Formation name..... Sterling.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. 0.1 km.  
Road requirement..... Do.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 265, 273, 320, 417.

USGS quadrangle maps... Seldovia, D-3.

USBM sequence number... 0021040062.

## COAL COVE

Map No: 166

Alternate names: Port Graham, Wharf Mine,  
Coal Bay

Commodity: Subbituminous C

## LOCATION-OWNERSHIP

Quadrangle..... Seldovia.  
Mining district.. Homer.  
Coalfield..... Kenai.  
Elevation..... 8 m.  
Topography..... Gentle slope.  
Domain..... Native.

General location.. 11 km southwest of Seldovia.

Owner..... Russian-American Company.  
Operator..... Do.

Meridian..... Seward.  
Tract..... Sec. 13, T 09 S, R 16 W.  
Latitude..... 59°23'45" N.  
Longitude..... 151°53'45" W.

## GEOLOGY

Formation name.... Tyonek.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 22° W, 11°  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 518.2.  
Width..... Not reported.  
Thickness..... 3.2.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 8,560-12,350 Btu (146).  
Composition, m %:  
Ash..... 8.8-15.8.  
Sulfur..... 0.5-1.1.  
Moisture..... 20.0-20.4.  
Volatile matter... 32.7-54.4.  
Fixed carbon..... 32.5-45.6.

## DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. 1786.  
Discovery method... Exploration.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1855.  
Last production..... 1913.  
Past production..... 9,370 mt.  
Annual production... Not reported.

Process rate..... 35 mt/d.  
Product type..... Coal.  
Distance shipped..... Variable.  
Destination..... Local and  
steamboats.

## PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

7, 35, 38, 44, 52-54, 56, 62, 64, 68,  
79, 136, 145-146, 149, 170, 174, 180,  
185, 224, 231, 235, 237, 241, 250-251,  
253, 265, 273, 288, 320, 352, 354-355,  
361, 366, 404-406, 417, 424, 429, 433,  
465-466.

USGS quadrangle maps... Seldovia, B-6.

USBM sequence number... 0021040032.

## AMALIK BAY

Map No: 167

Alternate names: Amalik Harbor

Commodity: Anthracite & bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Mt. Katmai.  
Mining district.. Bristol Bay.  
Coalfield..... Unnamed.  
Elevation..... 46 m.  
Topography..... Steep slope.  
Domain..... National Park.

General location.. 22 km east of Katmai  
Village site.

Meridian..... Seward.  
Tract..... Sec. 32, T 24 S, R 32 W.  
Latitude..... 58°03'15" N.  
Longitude..... 154°32'22" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.46.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 1.45 (Fuel ratio) (406).  
Composition, %:  
Ash..... 8.90.  
Sulfur..... 0.75.  
Moisture..... 1.62.  
Volatile matter... 36.56.  
Fixed carbon..... 52.92.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. More than 100 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

185, 273, 320, 406, 417, 430,  
432.

USGS quadrangle maps... Mt Katmai, A-2.

USBM sequence number... 0021260005.

## AYAKULIK RIVER

Map No: 168  
Alternate names: Red River

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Karluk.  
Mining district.. Kodiak.  
Coalfield..... Unnamed.  
Elevation..... 9 m.  
Topography..... Low-lying.  
Domain..... Native.

General location.. 0.5 km east of Ayakulik.

Meridian..... Seward.  
Tract..... Sec. 28, T 34 S, R 33 W.  
Latitude..... 57°11'50" N.  
Longitude..... 154°31'30" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Noncoherent.  
Heating value..... 0.66 (Fuel ratio) (406).  
Composition, %:  
Ash..... 2.41.  
Sulfur..... 0.17.  
Moisture..... 12.31.  
Volatile matter... 51.48.  
Fixed carbon..... 33.80.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. More than 100 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

56, 60, 94, 149, 185, 228, 246,  
265, 273, 320, 381, 390-391, 406,  
417, 428-430.

USGS quadrangle maps... Karluk, A-2.  
USBM sequence number... 0021300006.

## SITKINAK ISLAND EAST

Map No: 169  
Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Kaguyak.  
Mining district.. Kodiak.  
Coalfield..... Unnamed.  
Elevation..... 61 m.  
Topography..... Steep slope.  
Domain..... State.

General location.. Eastern end of Sitkinak Island.

Meridian..... Seward.  
Tract..... Sec. 12, T 42 S, R 30 W.  
Latitude..... 56°33'05" N.  
Longitude..... 153°53'30" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... 0.3.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. More than 100 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

149, 185, 208-209, 265, 273, 320,  
360, 406, 417.

USGS quadrangle maps... Kaguyak, C-6.  
USBM sequence number... 0021360001.



## SITKINAK ISLAND WEST

Map No: 170  
Alternate names: None

Commodity: Subbituminous

### LOCATION-OWNERSHIP

Quadrangle..... Trinity Islands.  
Mining district.. Kodiak.  
Coalfield..... Unnamed.  
Elevation..... 122 m.  
Topography..... Steep slope.  
Domain..... State.

General location.. On south side of Sitkinak Island.

Meridian..... Seward.  
Tract..... Sec. 27, T 42 S, R 32 W.  
Latitude..... 56°30'00" N.  
Longitude..... 154°15'00" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Unnamed.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 1 km.  
Destination..... Ships.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

149, 185, 208-209, 246, 265, 273,  
320, 417.

USGS quadrangle maps... Trinity Islands, C-1.  
USBM sequence number... 0021350002.

## HOOK BAY MINE

Map No: 171

Alternate names: None

Commodity: High volatile A bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Chignik.  
Mining district.. Alaska Peninsula.  
Coalfield..... Chignik.  
Elevation..... 183 m.  
Topography..... Steep slope.  
Domain..... Native.

General location.. 25 km northeast of Chignik.

Meridian..... Seward.  
Tract..... Sec. 15, T 42 S, R 57 W.  
Latitude..... 56°33'00" N.  
Longitude..... 158°15'06" W.

Owner..... Alaska Peninsula Mining & Trading Company.  
Operator..... Do.

### GEOLOGY

Formation name..... Chignik.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 11° E, 34° E.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 2.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 10,110-14,530 Btu (146).  
Composition, %:  
Ash..... 25.3-26.6.  
Sulfur..... 2.3-3.2.  
Moisture..... 5.1.  
Volatile matter... 27.2-39.1.  
Fixed carbon..... 42.4-60.9.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. 1908.  
Discovery method... Prospecting.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 15 km.  
Distance to power supply.. Less than 50 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

145-146, 155, 174, 185, 217, 224,  
265, 273, 320, 401, 406, 417.

USGS quadrangle maps... Chignik, C-1.

USBM sequence number... 0021330011.

## THOMPSON VALLEY 2

Map No: 172  
Alternate names: None

Commodity: High volatile C bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Chignik.  
Mining district.. Alaska Peninsula.  
Coalfield..... Chignik.  
Elevation..... 320 m.  
Topography..... Steep slope.  
Domain..... Native.

General location.. 21 km northeast of Chignik.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Seward.  
Tract..... Sec. 09, T 43 S, R 58 W.  
Latitude..... 56°28'46" N.  
Longitude..... 158°26'29" W.

### GEOLOGY

Formation name..... Chignik.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. Less than 50 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

145-146, 155, 174, 185, 217, 257,  
265, 273, 320, 401, 417.

USGS quadrangle maps... Chignik, B-2.  
USBM sequence number... 0021330012.

## THOMPSON VALLEY 1

Map No: 172

Alternate names: None

Commodity: High volatile C bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Chignik.  
Mining district.. Alaska Peninsula.  
Coalfield..... Chignik.  
Elevation..... 152 m.  
Topography..... Steep slope.  
Domain..... Native.

General location.. 19 km northwest of Chignik.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Seward.  
Tract..... Sec. 08, T 43 S, R 58 W.  
Latitude..... 56°28'26" N.  
Longitude..... 158°27'19" W.

### GEOLOGY

Formation name..... Chignik.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 61° E, 21° NW.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 2.7.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 9,640-12,960 Btu/lb (146).  
Composition, %:  
Ash..... 14.9-16.7.  
Sulfur..... 0.7-0.9.  
Moisture..... 10.8.  
Volatile matter... 30.3-40.8.  
Fixed carbon..... 44.0-59.2.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1912.  
Last production..... 1922.  
Past production..... Not reported.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 19 km.  
Destination..... Chignik.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

145-146, 155, 174, 185, 217, 224,  
265, 269, 273, 320, 401, 406, 417.

USGS quadrangle maps... Chignik, B-2.

USBM sequence number... 0021330013.

## THOMPSON VALLEY 3

Map No: 172

Alternate names: None

Commodity: High volatile C bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Chignik.  
Mining district.. Alaska Peninsula.  
Coalfield..... Chignik.  
Elevation..... 183 m.  
Topography..... Steep slope.  
Domain..... Native.

General location.. 20 km northwest of Chignik.

Meridian..... Seward.  
Tract..... Sec. 09, T 43 S, R 58 W.  
Latitude..... 56°28'05" N.  
Longitude..... 158°26'23" W.

Owner..... Unknown.  
Operator..... Do.

### GEOLOGY

Formation name..... Chignik.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of Not reported.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Do.  
Width..... Do.  
Thickness..... Do.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... Do.  
Composition, %:  
Ash..... Do.  
Sulfur..... Do.  
Moisture..... Do.  
Volatile matter... Do.  
Fixed carbon..... Do.

### DEVELOPMENT

Current status..... Raw prospect.  
Type of operation.. Prospect.  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. Less than 50 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

145-146, 155, 174, 185, 217, 265,  
269, 273, 320, 401, 417.

USGS quadrangle maps... Chignik, B-2.  
USBM sequence number... 0021330014.

## WHALERS CREEK MINE

Map No: 173

Alternate names: None

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Chignik.  
Mining district.. Alaska Peninsula.  
Coalfield..... Chignik.  
Elevation..... 159 m.  
Topography..... Steep slope.  
Domain..... Native.

General location.. 15 km west of Chignik.

Owner..... Unknown.  
Operator..... Do.

Meridian..... Copper River.  
Tract..... Sec. 09, T 45 S, R 60 W.  
Latitude..... 56°18'04" N.  
Longitude..... 158°38'44" W.

### GEOLOGY

Formation name..... Chignik.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 5° E, 22° E.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... 183.  
Width..... Not reported.  
Thickness..... 4.8.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 11,240-14,100 Btu (146).  
Composition, %:  
Ash..... 15.3-16.1.  
Sulfur..... 1.8-2.2.  
Moisture..... 5.0.  
Volatile matter... 34.3-43.0.  
Fixed carbon..... 45.4-57.0.

### DEVELOPMENT

Current status..... Exploration prospect.  
Type of operation.. Underground.  
  
Year of discovery.. Unknown.  
Discovery method... Do.

Distance to water supply.. Less than 3 km.  
Road requirement..... Less than 10 km.  
Distance to power supply.. Less than 20 km.

Initial production.. Not reported.  
Last production..... Do.  
Past production..... Do.  
Annual production... Do.

Process rate..... Not reported.  
Product type..... Do.  
Distance shipped..... Do.  
Destination..... Do.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

### REFERENCES

145-146, 155, 174, 185, 217, 224,  
265, 273, 320, 401, 406, 417.

USGS quadrangle maps... Chignik, B-2.  
  
USBM sequence number... 0021330015.

## CHIGNIK BAY COAL

Map No: 174  
Alternate names: Chignik River Mine,  
Chignik River

Commodity: High volatile C bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Chignik.  
Mining district.. Alaska Peninsula.  
Coalfield..... Chignik.  
Elevation..... 15 m.  
Topography..... Steep slope.  
Domain..... Native.

General location.. 20 km west of Chignik.

Meridian..... Seward.  
Tract..... Sec. 30, T 45 S, R 60 W.  
Latitude..... 56°15'50" N.  
Longitude..... 158°42'40" W.

Owner..... Alaska Packers Association.  
Operator..... Do.

### GEOLOGY

Formation name..... Chignik.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 2° E, 24° E.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... 805.  
Thickness..... 1.6.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 9,850-13,840 Btu/lb (146).  
Composition, %:  
Ash..... 21.8-23.4.  
Sulfur..... 1.3-1.8.  
Moisture..... 7.1.  
Volatile matter... 31.5-44.2.  
Fixed carbon..... 39.3-55.8.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface-underground.  
Year of discovery.. 1885.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1893.  
Last production..... 1911.  
Past production..... Not reported.  
Annual production... Do.

Process rate..... 600 mt/d.  
Product type..... Coal.  
Distance shipped..... 20 km.  
Destination..... Chignik.

### PUBLISHED RESERVES-RESOURCES

Chignik field: Reserves; Indicated; 100 million short tons (79).  
Hypothetical; 300 million short tons.

## REFERENCES

15, 27-28, 32, 35, 44, 52, 63-64, 69,  
71, 78-79, 99, 136, 141-142, 145-146,  
148-149, 154-155, 174, 185, 217, 224,  
235, 265-266, 269, 273, 320, 333,  
345-355, 361, 373, 401, 406, 417, 421,  
425, 428, 430, 454.

USGS quadrangle maps... Chignik, B-3.

USBM sequence number... 0021330001.



## HERENDEEN BAY

Map No: 175

Alternate names: Mine Creek, Lower Tunnel,  
Philbick & Foster, Johnson Tunnel,  
Mine Harbor

Commodity: Subbituminous B

### LOCATION-OWNERSHIP

Quadrangle..... Port Moller.  
Mining district.. Alaska Peninsula.  
Coalfield..... Herendeen Bay.  
Elevation..... 61 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 1 km east of Herendeen Bay.

Meridian..... Seward.  
Tract..... Sec. 14, T 51 S, R 74 W.  
Latitude..... 55°46'00" N.  
Longitude..... 160°40'00" W.

Owner..... Alaska Mining and Development Company.  
Operator..... Do.

### GEOLOGY

Formation name..... Chignik.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 01° W, 30° N.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 0.7.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 6,180-13,920 Btu/lb (146).  
Composition, %:  
Ash..... 5.9-49.4.  
Sulfur..... 0.3-0.6.  
Moisture..... 1.8-8.0.  
Volatile matter... 26.1-40.4.  
Fixed carbon..... 23.6-60.5.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface-underground.  
  
Year of discovery.. 1880.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1880.  
Last production..... 1904.  
Past production..... 904 mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 1 km.  
Destination..... Herendeen Bay.

### PUBLISHED RESERVES-RESOURCES

Herendeen Bay field: Reserves; Indicated; 10-100 million short tons (79).  
Hypothetical; 300 million short tons.

## REFERENCES

15, 21, 27, 35, 44, 52, 63-64, 78-79,  
136, 141-142, 145-146, 149, 174, 185,  
224, 235, 265-266, 269, 273, 306, 320,  
354-355, 361, 373, 405, 417, 421, 425,  
428, 432, 454.

USGS quadrangle maps... Port Moller, D-3.

USBM sequence number... 0021380004.

## JOHNSON TUNNEL

Map No: 175  
Alternate names: None

Commodity: High volatile B bituminous

### LOCATION-OWNERSHIP

Quadrangle..... Port Moller.  
Mining district.. Alaska Peninsula.  
Coalfield..... Herendeen Bay.  
Elevation..... 351 m.  
Topography..... Gentle slope.  
Domain..... State.

General location.. 3 km east of Herenden Bay.

Meridian..... Seward.  
Tract..... Sec. 12, T 51 S, R 74 W.  
Latitude..... 55°46'22" N.  
Longitude..... 160°38'04" W.

Owner..... C.A. Johnson/Alaska Transportation and Coal Company.  
Operator..... Do.

### GEOLOGY

Formation name..... Chignik.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 11° W, 34° NE.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... 53.  
Thickness..... 2.1.  
Depth..... Outcrop.

Formation age..... Cretaceous.  
Rock relationships.. Shale lies over ore.  
Sandstone lies under ore.  
Coking ability..... Not reported.  
Heating value..... 11,790-13,880 Btu/lb (146).  
Composition, %:  
Ash..... 7.1-7.7.  
Sulfur..... 0.4-0.5.  
Moisture..... 8.0.  
Volatile matter... 33.5-39.5.  
Fixed carbon..... 51.4-60.5.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Underground.  
  
Year of discovery.. 1880.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1896.  
Last production..... 1902.  
Past production..... Not reported.  
Annual production... Do.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 3 km.  
Destination..... Herendeen Bay.

### PUBLISHED RESERVES-RESOURCES

Herendeen Bay field: Reserves; Indicated; 10-100 million short tons (79).  
Hypothetical; 300 million short tons.

## REFERENCES

79, 145-146, 174, 185, 265, 273,  
306, 320, 417.

USGS quadrangle maps... Port Moller, D-2.

USBM sequence number... 0021380017.

## COAL HARBOR

Map No: 176

Alternate names: Alaska Coal Company,  
John Dix, Henry & Alexander Tibbey

Commodity: Lignite

### LOCATION-OWNERSHIP

Quadrangle..... Port Moller.  
Mining district.. Alaska Peninsula.  
Coalfield..... Unga Island.  
Elevation..... 30 m.  
Topography..... Gentle slope.  
Domain..... Native.

General location.. 1 km northwest of Coal  
Harbor, Unga Island.

Meridian..... Seward.  
Tract..... Sec. 08, T 56 S, R 74 W.  
Latitude..... 55°20'54" N.  
Longitude..... 160°40'00" W.

Owner..... Tide Water Consolidated Company.  
Operator..... Do.

### GEOLOGY

Formation name..... Bear Lake.  
Shape of coal seam. Tabular.  
Coal controls..... Bedding.  
Strike and dip of N 12° W, 8° W.  
coal seam.  
Coal seam average  
dimensions, m.  
Length..... Not reported.  
Width..... Do.  
Thickness..... 1.2.  
Depth..... Outcrop.

Formation age..... Tertiary.  
Rock relationships.. Sandstone lies over ore.  
Shale lies under ore.  
Coking ability..... Not reported.  
Heating value..... 5,810-11,740 Btu/lb (146).  
Composition, %:  
Ash..... 26.2-34.1.  
Sulfur..... 0.5-1.1.  
Moisture..... 23.3.  
Volatile matter... 25.4-50.3.  
Fixed carbon..... 25.1-49.7.

### DEVELOPMENT

Current status..... Past producer.  
Type of operation.. Surface-underground.  
  
Year of discovery.. 1880.  
Discovery method... Unknown.

Distance to water supply.. Onsite.  
Road requirement..... Existing.  
Distance to power supply.. Onsite.

Initial production.. 1882.  
Last production..... 1902.  
Past production..... 987 mt.  
Annual production... Not reported.

Process rate..... Unknown.  
Product type..... Coal.  
Distance shipped..... 1 km.  
Destination..... Coal Harbor.

### PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

## REFERENCES

15, 27, 35, 52, 62, 64, 79, 136,  
145-146, 149, 174, 185, 224, 235,  
241, 265-266, 269, 273, 320, 354-355,  
361, 373, 405-406, 417, 421, 425, 428.

USGS quadrangle maps... Port Moller, B-3.

USBM sequence number... 0021380005.

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