

**CHAPTER XII**  
**LAND USE INFORMATION**

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## **1.0 EXISTING AND HISTORIC LAND USES**

### **1.1 PAST USES**

The patterns of settlement and associated land uses that occurred within the project and surrounding areas are largely related to coal development activities. Coal was first discovered in the Wishbone Hill area in the late 1800's. Concentrated exploration efforts in search of coal by geologists with the Federal government began about 1904 and continued for about a decade, resulting in numerous survey reports and reserve maps (Bauer and Cole 1985). In 1916, the Geological Survey began issuing coal leases within defined leasing units. Rail access into the area was completed by 1917 and in 1923 a spur ascending Moose Creek was built to transport coal from the northwest side of Wishbone Hill.

From 1916 through 1981, the primary land use within the Wishbone Hill project and surrounding areas was coal mining. For nearly 40 years, coal was used by the federally directed Railroad Commission to power steam locomotives and by the local communities for heating. In the mid-1950's, when the Railroad converted to diesel fuel, the majority of the production shifted to the military bases near Anchorage. After the bases converted to natural gas in 1963, coal continued to be mined on a small scale for local consumption.

In the years following 1917, other land uses within the Wishbone Hill area were somewhat restricted because of the intense mining activities. Local developments along Moose Creek as well as the towns of Jonesville and Sutton resulted from the coal mining activities.

### **1.2 CURRENT USES**

The last active mining operation within the Wishbone Hill area was the Omlin mine. This was a small scale surface mining operation that provided coal for local consumption. Just prior to the passage of the Alaska Surface Coal Mining Control and Reclamation Act in 1983 the mine closed.

Shortly after the closure of the Omlin Mine in 1982, a renewed interest in coal mining on a larger scale began to develop. Based on additional exploration work by several mining companies, the State of Alaska held a competitive coal lease sale in 1985 and issued four additional leases in the

Wishbone Hill area. Although no active mining operations have resumed at this time, exploration work continues to be conducted on a fairly routine basis to better define the economic coal reserves in the area. Coal mining permits have been secured from the State of Alaska and ongoing environmental evaluations continue to be conducted in preparation for future coal mining operations.

Portions of the Wishbone Hill area are also used for commercial timber harvesting, personal use and commercial firewood sales, and Christmas tree cutting. These activities are regulated by the Division of Forestry and used to manage the forest resources and enhance wildlife habitat. A series of roads and trails were created to transport forest products from the area.

In addition to mining and forest management, public lands in the Wishbone Hill area are also used for recreation. Popular activities include target shooting, four-wheeling, snowmobiling, large and small game hunting, dog sledding, hiking, biking, and skiing. On some of the private holdings west of the Wishbone Hill area, the land has been subdivided and used for either recreational summer cabins or residential dwellings. Part A of this Application provides the names and addresses of the owners of record and includes a map depicting the locations of the private parcels of land.

The primary means of public access to the Wishbone Hill area is by way of Buffalo Mine Road. This road was originally developed to provide access for miners and also transport coal from the mines located on the northwest side of Wishbone Hill. Today the road is maintained by the State Department of Transportation and Public Facilities to Mile 5.1 and is used by a variety of groups including residents living in the area, recreationists, timber contractors, and mining and exploration companies.

The current land uses within the Wishbone Hill mine permit area can be classified under the following categories:

- state coal lease lands covered under a management plan
- undeveloped state lands covered under a management plan
- undeveloped state lands not included in a management plan
- undeveloped borough lands
- undeveloped private lands

Plate XII-1 depicts the permit lands that pertain to each of these categories and also shows the land

use management plan boundaries. With the exception of 150 acres in the northeast portion of the permit area and a small 8.5 acre parcel near the southern terminus of the road corridor, all the land within the permit area is under either state or borough control. The 150 acres and 8.5 acre parcel are owned by Usibelli Coal Mine, Inc. (UCM) and have no developments or improvements. The land use is similar to that of the adjacent state lands (i.e. wildlife habitat). Land use within the Wishbone Hill permit area has not changed since the early 1900's when coal mining was first introduced.

## **2.0 LAND CLASSIFICATION AND MANAGEMENT PLANS**

### **2.1 PLANNING PROCESS**

The Alaska Department of Natural Resources (ADNR) develops plans at three levels: Statewide, Area, and Management. The Statewide Natural Resources Plan develops the ADNR's long-term goals and objectives for resource management. Area plans are developed to determine the resource uses that will occur on public lands. Management plans are developed to coordinate the site-specific resource development actions. The overall goals, objectives, and policies which are developed in the Statewide and Area plans provide guidance to the Management Plans.

### **2.2 PLANS APPLICABLE TO THE WISHBONE HILL AREA**

In 1985, the ADNR developed the Susitna Area Plan (ADNR 1985) to designate specific land uses for the entire Susitna Basin. The Wishbone Hill area was included in this Area plan. While the plan was being developed, the Alaska State Legislature passed an Act in 1984 (AS 16.20) which created the Matanuska Valley Moose Range (MVMR). The MVMR was established to "maintain, improve, and enhance moose populations and habitat and other wildlife resources of the area, and to perpetuate public multiple use of the area, including fishing, grazing, forest management, hunting, trapping, mineral and coal entry and development, and other forms of public use of public land not incompatible with the purposes stated" (ADNR 1986). AS 16.20.350(b) required that the ADNR develop and adopt a management plan for the MVMR that reflects the concurrence of the Department of Fish & Game (ADF&G). In 1986, the ADNR and ADF&G cooperatively prepared and published a management plan for the MVMR. As shown on Plate XII-1, the majority of the Wishbone Hill mine permit area is included in the MVMR.

The management plan for the MVMR is consistent with the Susitna Area Plan and provides more detailed management guidance by deciding where and how the resource uses will occur in the Range. The plan provides guidelines for multiple use management and allows as many uses as possible without eliminating or unreasonably limiting other resources. As an example, the plan states that an area may be leased for coal mining and while the land is not actually being developed for coal, the state can harvest the timber from the lease and the land can be enhanced to create moose browse. Once the mining lessee begins to operate on the land, the actual mining site will be used for mining only, but during the reclamation of the mining site, the lessee will reclaim the land so as to produce wildlife habitat. Surface resources on lands outside of the actual mining development area can still be utilized.

Following approval and adoption of the management plan, specific policies were put into effect for portions of the MVMR covered by existing coal leases. Some areas were set aside for commercial timber harvest and others for personal-use firewood cutting in order to promote regeneration of moose browse. The plan encourages coal development within the entire MVMR and requires compliance with the provisions of the Alaska Surface Coal Mining Control and Reclamation Act. Reclamation requirements for post mining land use emphasize moose habitat enhancement and multiple use recreational opportunities.

The Matanuska-Susitna Borough Coastal Management Plan (Mat-Su Borough 1987) also addresses a significant portion of the Matanuska Valley. The plan defines issues, outlines land management policies, and defines areas meriting special attention. The Wishbone Hill coal leases are outside of the coastal district boundaries but a very small portion of the proposed access road for the mining project falls within the coastal zone area of jurisdiction. During project permitting, the southern portion of the proposed permit area within Section 1 of Township 18 North, Range 2 East was examined by the borough and found to be consistent with the policies of the Coastal Management Plan.

### **3.0 CONDITION, CAPABILITY AND PRODUCTIVITY OF LAND WITHIN THE PERMIT AREA**

Biological productivity and ecological capability are discussed in detail in Chapters VIII, IX and X.

Chapter XI characterizes the physical and chemical properties of the soil within the permit area and discusses soil productivity. Moose browse productivity was measured as part of the vegetation baseline study program and is included in Chapter VIII. There are no jurisdictional wetlands within the proposed permit area boundary.

Those portions of the permit area that were disturbed by past mining activities are in an early stage of plant succession and provide wildlife habitat and browse for moose. In other portions of the permit area, some of the timber stands are over mature and in a decadent stage. Timber harvesting and firewood cutting practices in these areas have allowed the resources to be utilized and also created additional habitat for moose and other wildlife species.

Steep topography in certain areas limits the kinds of activities that could occur; however, such terrain is not inconsistent with currently designated uses (e.g. wildlife habitat, general recreation, and mineral development). Soil and hydrological conditions do not limit the capability of the area.

#### **4.0 MAN-MADE FEATURES**

##### **4.1 PREVIOUS COAL MINING IN AND ADJACENT TO THE PERMIT AREA**

Mining activities in, or immediately adjacent, to the proposed permit area began about 1916. Prior to that time the area was wilderness with light use by hunters, prospectors and other back-country travelers (see Chapter XIII).

The Baxter Mine (see Plate XII-1) was the first mining operation in the permit area, operating in 1917-1918 and 1921-1925. This underground mine produced a small amount of coal from the Premier coal group. Production was sledged to a branch line of the Alaska Railroad at the mouth of Moose Creek until a narrow gauge spur was completed to the mine in 1923. The mine was abandoned in 1925 due to a lack of capital and the faulted condition of the coal bed. Maximum annual production was about 3000 tons. The workings of the mine have been removed as a result of subsequent surface mining through the underground workings.

The Buffalo Mine, located on Moose Creek upstream from the Baxter Mine, (Plate XII-1) began operation in 1939 and again tapped the Premier coal series with underground workings on several

levels. Heaviest mining occurred during World War II with the help of the Army between 1942 and 1945. Floods in 1942 damaged the railroad forcing the mine to haul coal by truck via Buffalo Mine Road. The mine was closed in 1945 but reopened with new equipment in 1952. The renovations were unsuccessful and work was suspended in 1953. The Alaska Division of Mining supervised the reclamation of the Buffalo Mine in 1986-1987 using funds supplied by the Abandoned Mine Reclamation Program. Portals were sealed, structures were burned or removed, and some areas were revegetated (ADNR 1984).

The Premier Mine, southwest of the Baxter Mine (Plate XII-1), operated for the longest period of time relative to any of the other Moose Creek mines. It began with underground development work in 1922 on the south side of Moose Creek and continued with a shift of operations to coal beds on the north side of the creek. Workings concentrated on the No. 3 bed of the Premier coal series. The mine was the major producer of the district for several years. In 1926, the narrow gauge railroad along Moose Creek was replaced with standard gauge track as far as the Premier Mine. In 1933 the lower workings became flooded and the mine was forced to close. The property remained idle until World War II when it was re-opened in 1942 and 1943 and some coal was produced from pillars remaining above the water level. Following another period of inactivity, the Pioneer Mining Company took over the operation and produced coal from the underground workings between the old Premier and Baxter workings on the south side of Moose creek during 1953-1955. Limited surface mining also occurred above the underground workings in 1955-1957. In the early 1960's Paul Omlin took over the Premier leases. He reworked the Pioneer Mining Company's Pioneer pit (see Plate XII-1) and opened two additional surface mining pits between the Premier and the Baxter Mines. The Omlin operation was small, amounting to about 1000 tons per year, and continued operating until the early 1980's.

In 1984 Hawley Resource Properties, in a joint venture with Rocky Mountain Energy (a subsidiary of Union Pacific Corporation), exercised an option on the Omlin leases. As part of the lease transfer, a reclamation plan was developed and implemented to bring the leases into good standing per the Alaska Surface Coal Mining Program. Reclamation included removal of the Omlin structures and equipment; grading and revegetation of the support facilities areas; and stabilization of high walls and spoil piles associated with the pits. It was recognized that portions of the existing pits might be involved in future surface mining.

Although coal was produced from nine different mines in the Wishbone Hill/Sutton district, no more than four were ever in operation at the same time. During the period from 1935-1940 average combined production was about 55,000 tons per year (Barnes and Payne 1956). Production increased during and after the war to an annual average of about 162,000 tons for the 1941-1950 period. More than two-thirds of this production was from the Evan Jones Mine near Sutton.

## **4.2 SURFACE AND UNDERGROUND DISTURBANCE FROM PREVIOUS MINING**

As described in the previous section, both underground and surface coal mining have occurred within and adjacent to the proposed permit area resulting in various kinds of disturbed areas including pits, facility yards, roads and underground workings. Most of this activity was concentrated near the northern and western edges of the permit area along Moose Creek. Surface disturbance features and approximate locations of underground workings are illustrated on Plate XII-1.

The Premier, Baxter and Buffalo Mines all involved underground workings. The Baxter Mine workings have been mined through by subsequent surface mining and no longer exist. The portal to the Premier Mine was located on the north side of Moose Creek with workings extending under Moose Creek to the southeast. In the 1930's the lower workings were flooded and presumably remain in that condition. Portals were closed and surface features reclaimed for the above mines through reclamation programs. Some of the pits were partially regraded to eliminate steep slopes. Plate XII-1 shows the extent of the remaining disturbed areas from all previous mining in the vicinity. It should be noted that some of the older disturbed areas have become revegetated and may be difficult to differentiate from nearby undisturbed sites.

## **4.3 STRUCTURES**

All structures associated with previous mining activities were removed in conjunction with past reclamation programs. Today, there are no pre-existing mining structures on the proposed permit area; however, several pieces of heavy machinery still remain in place at the Buffalo Mine site.

There are currently 12 buildings located within roughly 1000 feet of the permit area. As shown on Plate XII-1, the actual distance from the mining activities is considerably greater. Four of the

buildings are situated along the Glenn Highway in the vicinity of the southern terminus of the proposed mine access/haul road in the SW1/4 of Section 1, Township 18 North, Range 2 East. According to the Matanuska Susitna Borough's (MSB) assessment records, the buildings are classified as residential frame dwellings.

The other eight buildings are located west of the permit area in the NE1/4 of Section 33 and the NE1/4 of Section 28, Township 19 North, Range 2 East (see Plate XII-1). These buildings are separated from the permit area by Tsadaka Canyon and Moose and are accessed via subdivision roads from the Buffalo Mine Road. MSB assessment records indicate that six of the buildings are cabins, one a log home, and the other a frame dwelling.

#### **4.4 PUBLIC ROADS AND TRAILS**

There are four public easements located in or within 100 feet of the permit area (see Plat XII-1). The first easement, ADL 57529, is for Buffalo Mine Road and includes a public right-of-way 100 feet in width. Buffalo Mine Road was original built to provide access to the underground mines along Moose Creek and was latter upgraded and used to haul coal from the Buffalo Mine. It is maintained by the State of Alaska up to a point near the old Premier Mine.

The second easement, ADL 56975, is a public access road that extends from the end of the Buffalo Mine Road right-of-way. This easement is 60 feet in width and parallels a portion of Moose Creek (see Plate XII-1).

ADL 52715 is the third easement and covers an access trail that extends from the Buffalo Mine Road eastward to the abandoned Jonesville Mine (see Plate XII-1) This trail traverses portions of the permit area and has a designated right-of-way width of 60 feet.

The fourth easement was originally acquired for logging operations under ADL 218234. This easement was for a 80 foot wide logging trail and included public use (see Plate XII-1).

## **4.5 UTILITIES**

An overhead power line crosses the permit area in Section 34, Township 19 North, Range 2 East (Plate XII-1). The portion of the line in this area is covered by a state utility easement issued under ADL 202787.

## **5.0 REFERENCES**

Alaska Department of Natural Resources, 1984. Buffalo Mine, Matanuska Valley Alaska: Reclamation Plan and Environmental Assessment. By: Woodward Clyde Consultants, For: ADNR, Division of Mining, Anchorage.

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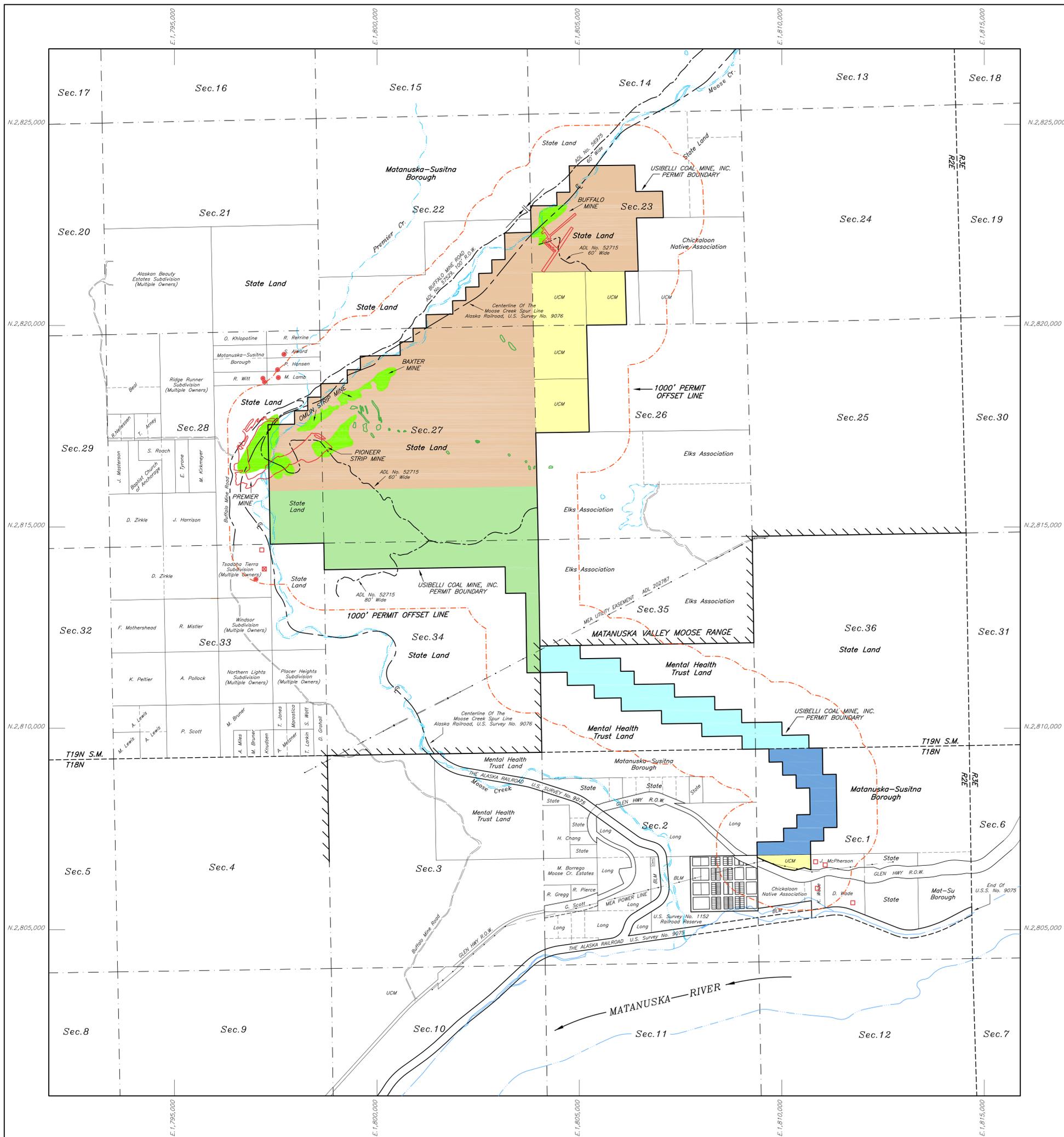
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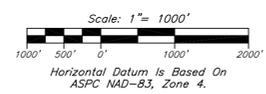
## **6.0 RESPONSIBLE PARTIES**

This chapter was prepared by Usibelli Coal Mine, Inc.

**PLATE XII-1**  
**LAND USE AND MAN-MADE FEATURES**



- LEGEND**
- STATE COAL LEASE LANDS WITH A MANAGEMENT PLAN.
  - UNDEVELOPED STATE LAND WITH A MANAGEMENT PLAN.
  - UNDEVELOPED STATE LAND WITHOUT A MANAGEMENT PLAN.
  - UNDEVELOPED MATANUSKA-SUSITNA BOROUGH LAND.
  - UNDEVELOPED PRIVATE LAND.
  - MATANUSKA VALLEY MOOSE RANGE BOUNDARY.
  - PERMIT BOUNDARY.
  - OLD UNDERGROUND MINE WORKINGS.
  - SURFACE DISTURBANCE FROM PREVIOUS MINING.
  - OLD EXPLORATION PIT.
  - OLD EXPLORATION TRENCH.
  - FRAMED HOUSE
  - LOG HOUSE
  - CABIN



SUBJECT REVISIONS			
REV.	DATE	BY	DESCRIPTION
0	0/00	JEH	Original Submittal By Idemitsu Alaska, Inc.
1	4/01	AER	Submittal Update By Usibelli Coal Mine, Inc.
2	7/08	TSV	Update Land Ownership ~ Conveyed To UCM.
3	5/09	TSV	Update Land Ownership ~ Conveyed To UCM.

WISHBONE HILL MINE PERMIT No. 01-89-796

**LAND USE  
& MAN-MADE FEATURES**

Research By: J.E. Helling Compiled & Drafted By: T.S. Venechuk PLS Date Of Plot: May 12, 2009	<b>EXHIBIT No. XII-1</b> Sheet No. 1 Of 1
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