

**Federal Coal Exploration License Plan
for the
NORTH OAK MESA AREA
within
Delta County, Colorado**

Exploration License No. COC-76319

**Submitted by
OXBOW Mining Oak Mesa, LLC
PO Box 535
3737 HWY 133
Somerset, CO 81434**

**September 6, 2013
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**Federal Coal Exploration License Plan for
NORTH OAK MESA AREA
Delta County, Colorado
on Private Lands and Coal Resources Managed by Bureau of Land Management**

Exploration License No. COC-76319

NAME & ADDRESS OF APPLICANT:

Oxbow Mining Oak Mesa, LLC,
P.O. Box 535
3737 Highway 133
Somerset, CO 81434
Contact: Steve Weist, Manager Special Projects
970-929-6461 steve.weist@oxbow.com

NAME & ADDRESS OF PERSON PRESENT DURING EXPLORATION:

Oxbow Mining, LLC,
P.O. Box 535
3737 Highway 133
Somerset, CO 81434
Contact: This will be provided to the BLM contact person upon approval of exploration drilling application and prior to initiation of drilling activities.

NARRATIVE DESCRIPTION:

Coal exploration drilling is needed to determine seam reserve availability for possible development of a new underground coal mine within Delta County, by Oxbow Mining Oak Mesa, LLC. The proposed North Oak Mesa exploration area is located in Delta County to the North of the Oak Mesa Exploration license COC-74911. The exploration drilling will be used to confirm the quality and minable quantity of the coal within this area.

The Exploration License Area: (COC-76319)

Oxbow Mining Oak Mesa, LLC (Oxbow) requests an Exploration License for the North Oak Mesa area located in Delta County on private surface lands and Coal Resources managed by the Bureau of Land Management (BLM). The North Oak Mesa exploration license area is located within the area described as follows and shown on the attached map (Plate 2), Proposed Drilling Location North Exploration Area. This area contains approximately 1,286.95 acres more or less.

Township 13 South, Range 92 West, 6th P.M.

Sec 6, Lots 12-23

Sec 7, Lots 6-11;

Township 13 South, Range 93 West, 6th P.M.

Sec 1, Lots 18-20;

Sec 12, Lots 1-3, 6-8;

Of the approximately 1,286.95 acres of surface described above, 100% of this surface is privately owned.

Exploration drilling activities will be short term and will be conducted over a two year period. Exploration mobilization is expected to begin as soon as approval is given and weather and ground conditions allow. It is expected to be completed within two years.

The Exploration Area and Geology:

The proposed exploration license covers upland areas located between the West Roatcap Creek and Leroux Creek drainages and north of the community of Hotchkiss. The area lies generally North of the

Exploration License area COC-74911. The geology and coal character are anticipated to be similar to the Orchard Valley coal lease tract with at least one seam of recoverable coal, dipping into the mesa at approximately 5 degrees.

Topography:

The surface lands of this proposed exploration area consist of privately owned surface and BLM managed coal resources. The elevation in the exploration area ranges from approximately 8,700ft. above mean sea level (amsl) in the Southeastern portion of the exploration license area to 9,300 ft. (amsl) in the Western portion of the area, to 8840 ft. (amsl) in the Northern portion of the proposed area. Two (2) drill sites are proposed with elevations of 9,120 and 9,160 ft. This area is semi-arid with annual precipitation of approximately 17 inches, mostly as snow.

Hydrology:

Both Leroux Creek and West Roatcap Creek are perennial drainages with minor flows occurring all year long. The flow volumes vary in response to spring snowmelt and runoff from major rainfall events. Flow volumes will also vary depending upon the amount of runoff that is diverted into irrigation channels that run through this area and provide water to local orchards and farm land. There are two other drainages, the Dever, and Jay Creek drainages that are in the area of the proposed exploration drilling activities. These drainages have intermittent flows that varying depending upon runoff available and varying amounts captured by local irrigation canals. Proposed exploration activities will be located no closer than 1,000 ft. to Leroux Creek or West Roatcap drainage channels.

Soils:

The environmental resources and values occurring within the proposed area are projected to be consistent with those of surrounding areas. We do not anticipate any unique values or resources of special concern. Soils on the ridgelines and steep valley sideslopes are generally shallow and rocky with deeper, more developed soils in the valley bottoms. Soils vary in thickness and generally contain a high percentage of rock fragments interbedded with clay and siltstones.

Biology:

Vegetation cover types are projected to be consistent with the terrain and semi-arid climate found on the upland area. Four upland vegetation types are found in this area ranging from Gambel Oak – Mountain Shrub and Aspen communities to minor amounts of Meadow, and Riparian communities. A wide range of wildlife species inhabit the general area, although use and habitat values maybe limited by the semi-arid climate and terrain and vegetative cover types. The area will be evaluated for applicable T&E species. BLM sensitive species will be evaluated per license requirements.

Cultural Resources and National Register of Historic Places

The area will need to be evaluated for cultural resources, both holes will be evaluated before any disturbance or drilling occurs around these holes.

Typical drilling methods and activities that may occur during the exploration drilling process:

Oxbow Mining Oak Mesa, LLC expects to drill 2 exploration drillholes as shown on Table 1 below. This table provides a summary of the proposed exploration holes. The attached map (Plate 2) North Oak Mesa Project; Proposed Drilling Program shows the projected drilling locations.

Once the exploration application and State NOI to drill have been approved, drilling will commence as soon as weather, ground conditions and surface access agreements allow. The drilling season is expected to last from late March to Mid-November, but may vary depending upon weather and surface owner access agreements, and timing of approval of this exploration drilling application. Drilling is projected to consist of at one crew

drilling 10-12 hr. days with four days off. Drilling equipment is projected to consist of a Portadrill TKT sized rig that can complete both rotary and coring activities with the same rig. All drilling equipment will be inspected to ensure that appropriate safety equipment is available should the need arise. Supporting that rig will be a 4000 gal water truck, a flatbed truck with drilling supplies, and an E-log truck for running digital logs of each drill hole and a pickup for crew transportation.

Excavated earth or debris- disposal activities:

Sites, whenever possible, will be accessed using existing available light duty pre-existing ranch roads. When roads are not available, temporary roads will typically be constructed using a grader, which will blade using sidecast methods an approximate 12 foot wide running surface. Road construction estimates are based upon currently available satellite photographs. Drillhole locations maybe adjusted slightly in the field to optimize the placement of the drill pad. Light use roads and road construction distances may be adjusted to represent the more current information.

Most existing road alignments will not require modification, but may require road maintenance consisting of grading the road to provide a smooth operating surface, clean-out and repair of any existing drainage ditches and application of temporary drainage control measures (berms, straw bales, silt fences, gravel surfacing, etc.) as necessary. New road construction will be kept to a minimum and will follow applicable BLM specifications. Following the conclusion of drilling activities, the temporary roads will be obliterated by grading to approximate original contour and distributing the rock, brush, soils, etc. pushed along the sides of the road back across the road corridor. Total estimated disturbance is 1.0 acre for two (2) drill pads and 0.3 acres for roads for a total disturbance of 1.3 acres.

Drilling and Related Activities:

As much as possible drilling will be conducted with minimal site preparation, since the drill rig can be set-up and leveled using self-contained hydraulic jacks. Where site preparation is necessary due to the need to utilize drilling fluids, a pad having maximum dimensions of approximately 180 feet by 120 feet will be established (approx. 0.5 acre disturbance per site). Pad preparation will involve the use of a tracked dozer approximately D6 sized or a utility type backhoe to establish a level drill site and dig a mud pit should the need require it. If topsoil exists, up to 12" will be salvaged and stored in a stockpile along one or more sides of the pad and marked with a "topsoil" sign(s).

Drill holes will be drilled using 8 ¾ inch rotary hole to a depth of up to 200ft. depending upon ground conditions. This hole will be cased with a resulting hole diameter of 6 ½ inches the remainder of the rotary drilling will be with a 6 ¼ inch drill to the desired depth above the coal seam where a 3 inch core drill will recover portions of the material above and below the coal seam, and the coal seam. See Table 1 for the approximate rotary and core depths and total hole depth.

In order to avoid potential sample contamination, drill holes will be completed to the extent possible with air, air-foam, or water as the circulation medium. If we have difficulty keeping drillholes open and sample contamination minimized, it may be necessary to use drilling muds to maintain circulation and drillhole integrity. In that event polymer muds that are free of metallic compounds will be utilized. It is estimated that approximately 5,000 gallons of water will be used for each drillhole under normal drilling conditions.

Drill mud pit(s) for the containment of drilling fluids and cuttings will be excavated with a backhoe within the pad area. The pit will be approximately 20 feet in length, 8 feet in width and 8 feet deep (47.4 cubic yards each). This material may be used to assist in preparing a drillpad.

All drilling and related operations will be conducted by experienced exploration drillers in such a way as to minimize potential environmental impacts, and will be supervised by a qualified geologist. During drilling

operations, water levels and flows in the drill holes (if any) will be closely monitored in order to characterize hydrologic conditions in the seams intersected. Samples of immediate roof and floor rock materials and of each coal seam intersected will be logged and may be collected during drilling for subsequent analysis. Drillholes will be logged by the geologist as drilling occurs and will be e-logged to provide appropriate information for the geologist to use in developing a geologic model of the exploration area. Transportation of these crews will be by one or two pickups per shift. One for the crew and one for the geologist.

During drilling, Oxbow will control dust from drilling and related activities, divert and control both natural runoff from disturbed areas and fluid loss from drilling, and will clean-up any trash or debris. If air is utilized as the circulation medium, dust from drilling will be controlled by a flexible shroud at the drill collar. Drill cuttings and portable pits or excavated mud pits will effectively contain drilling fluids as discussed above.

Hole Completion:

Neither of these exploration holes will be completed as a water monitoring well.

Table 1
Proposed North Exploration Drillholes
 (rev. 10/22/2013)

Drillhole ID*	Northing	Easting	Collar Elevation	Existing Road	Temporary New Road	Temporary disturbance	Township	Range	Section	Water Haul	Estimated Rotary drilling depth	Estimated Core Drilling	Rollins Sandstone Top Structure Elevation	Total drillhole depth
			(ft.)	(Miles)	(Miles)	(Acres)				(Miles)	(ft.)	(ft.)	(ft.)	(ft.)
OM-YR-45	1412539	2366718	9,158	0.77	0.03	0.55	13	93	1	6.94	2,390	250	6,518	2,640
OM-YR-46	1413345	2370061	9,129		0.81	1.88	13	92	6	7.75	2,509	250	6,370	2,759
Total				0.77	0.84	2.43					4,899	500		5,399

*Note:

The YR notation within the drillhole identifier will later be changed to reflect the year drilling was completed.

Drillhole coordinates are in NAD 83 format.

Site Reclamation:

Upon completion of drilling and related activities, all drill holes will be backfilled, sealed and abandoned. During drilling, fluid return will be monitored to identify the depth and extent of any water-producing zones. Upon abandonment, in accordance with Drill Hole Plugging Procedures agreed to by BLM and CDRMS, bentonite chips, bentonite plug gel or similar seal will be established in the bottom of the hole, extending to within ten feet of the surface. A cement plug will be set in the hole ten (10) feet below the ground to within three (3) feet of the surface. Accumulations of drill cuttings and mud will be backfilled into and buried in the mud pit (if any) or otherwise buried.

All trash and debris will be removed from drill sites for disposal. Excavations, including mud pits, will be backfilled. Where mud pits are necessary, they may be temporarily fenced and allowed to dry and/or backfilled with drill cuttings and/or previously excavated material. During backfilling, the material will be mixed and compacted as it is replaced, by running the equipment over the backfilled area during placement of successive lifts. Following backfilling, disturbance areas will be graded to their approximate original configuration and surface drainage re-established. Any salvaged topsoil materials will be re-spread onto the regraded surface and reseeded of the areas (pads and roads) will take place using the following seed mixture. A metal post with tag will be placed in the vicinity of the hole as a permanent marker.

Table 2
Seed Mix for Oakbrush/Aspen Zone

<u>SPECIES</u>	<u>PLS/pound</u>	<u>#/Acre</u>
Western Wheatgrass	110,000	2.50
Slender Wheatgrass	160,000	3.00
Mountain Brome	90,000	2.50
Canby Bluegrass	926,000	1.50
Mountain Mahogany	43,000	0.75
Green Needlegrass	181,000	0.50
Muttongrass	890,000	0.75
Blue Flax	278,000	1.50
<u>Rocky Mountain Penstemon</u>	<u>592,000</u>	<u>0.50</u>
Total application rate for incorporated seed		13.50 #/acre

Seed application rates will be doubled if aerial broadcast methods are used.

Seeding will take place in the fall or early spring. Periodic monitoring of re-seeding efforts and weed control will occur for a couple of field seasons to determine stand success, or until vegetation sustainability allows for Bond release of each drilling sites disturbance.

Estimated amounts of coal to be removed during exploration

During the exploration drilling process an estimated 0.38 tons of coal will be recovered from this area. This coal will occur in the form of coal core that is recovered, so that it can be analyzed to determine its physical, chemical, and energy related properties, this will allow for the determination of whether it is of sufficient quality and quantity to allow Oxbow to apply for a coal lease in this area. Coal tonnages removed were calculated by estimating the volume of coal to be removed from each exploration drillhole, times the typical weight of coal at 80 #/cu. ft. as shown below:

$$\text{Volume of coal removed: } V = \pi r^2 h$$

$r = 3$ inches, $h = 12$ ft. ave. per seam assume 2 seams of coal encountered.

Estimated tonnage = 0.38 tons of coal removed during exploration drilling process.

Miscellaneous Project-Specific Plans and Parameters:

Exploration activities are expected to be completed before winter weather makes roads impassable, however they may be extended depending upon when the exploration permit is approved.

Water hauled to the exploration sites will be obtained from local sources in accordance with existing Colorado water rights.

All trash, debris, oily waste, filter waste, hazardous waste, etc. will be removed from the drill site for proper disposal offsite. No RCRA hazardous waste materials are anticipated to be used on the project.

All drilling equipment will be provided with fire extinguishers and shovels which will be available for fighting small fires if necessary. Drilling crews will be available to control very small fires associated with drilling activities but are not equipped or trained to fight larger rangeland fires.

The exploration program will otherwise comply with the requirements of Coal Rule 2.02 of the Regulations of the Colorado Mined Land Reclamation Board and the CDRMS rules 3.05, 4.03.3, 4.07.3,4.21 and any other stipulations or regulations required upon approval of the BLM's exploration application and the States NOI to drill permit.

Reclamation Bonding:

As soon as the Exploration Application has been approved, all appropriate State and Federal Bonds will be obtained before drilling occurs.

Use of Data:

Oxbow will retain for 1 year, unless a shorter time is authorized by the authorized officer, all drill and geophysical logs and shall make such logs available for inspection or analysis by the authorized officer if requested.

Surface Owner and Oxbow's right to enter their surface to explore for Federal coal

Below are listed the surface owners of record that overlie the Federal coal within this area. Oxbow claims the right to enter this surface based upon the Act of December 29, 1916 (39 Stat., 862), in which the coal was exempted from the land patent for the United States, and provides for prospecting or exploration of this coal upon approval by the BLM.

Surface Owner Information
Based upon Delta County
Assessor Property Records as of August 28, 2013

Surface Owner Contact Information

Surface Owners with proposed drilling on their surfaces:

Nick R. Hughes
708 1250 Rd.
Delta, CO 81416
(970)201-1476
Approximate acres: 364.37 acres, Conservation Easement
Projected drillholes: 1

Roatcap Cattle Co. LTD
30538 North Rd.
Hotchkiss, CO 81419-3110
Approximate acres: 604.07 acres
Projected drillholes: 1

Surface Owners within the proposed exploration area, but without drilling activities:

James Patterson Family Trust c/o(Jeanie Stroh)
32496 J Road
Hotchkiss, CO 81419
(970)872-2133
Approximate Acres: 318.51 acres
Projected drillholes: 0

Total Acres Affected: 1,286.95 acres (see Plate 2 Surface Owners)

**Coal Mineral Owner Information
Based upon GLO Records
as of August 28, 2013**

Mineral Owner Contact Information

Mineral Owners within and adjacent to proposed exploration area:

BLM Uncompahgre Field office
Land and Real estate div.
2465 S. Townsend Ave.
Montrose, CO 81404

Appendix A
Notice of Invitation

**Appendix A – Application
Application for Federal Coal Exploration License
North Oak Mesa Coal Exploration Plan
Delta, Colorado
Sept. 2013**

In accordance with Title 43 of the Code of Federal Regulations, Part/Subpart 3410, §3410.2-1, the Applicant:

Oxbow Mining Oak Mesa, LLC
PO Box 535
3737 Hwy 133
Somerset, Colorado 81434
Contact: Steve Weist, (970) 929-6461

Hereby applies for a license to explore for coal on un-leased Federal coal lands in the North Oak Mesa Area of Delta County, Colorado. Following is the legal description of the requested lands:

Location and Description of Lands

Township 13 South, Range 92 West, 6th P.M.

Sec 6, Lots 12-23;
Sec 7, Lots 6-11;

Township 13 South, Range 93 West, 6th P.M.

Sec 1, Lots 18-20;
Sec 12, Lots 1-3, 6-8;

Containing approximately 1,286.95 acres more or less.

These lands can be found on USGS Quadrangle Map: Gray Reservoir, CO.

Attachments

Three copies of the North Oak Mesa Coal Exploration Plan compiled in accordance with 43 CFR 3482.1(a) with Maps 1 through 4 depicting location, topography, surface and coal ownership, existing and proposed drill hole locations, access roads, and preliminary geology.

The Filing Fee of \$320.00 required by 43 CFR 3473.2(b) is enclosed.

A Notice of Invitation will be published in the Delta County Independent in accordance with 43 CFR 3410.2-1(c)(1) as soon as Oxbow Mining Oak Mesa, LLC receives notification from the BLM that this application is complete for the purposes of filing.

**Notice of Invitation for Federal Coal Exploration License Application
Oxbow Mining LLC, Oak Mesa Coal Exploration Plan**

Pursuant to the Mineral Leasing Act of February 25, 1920, as amended, and to Title 43, Code of Federal Regulations, Subpart 3410, members of the public are hereby invited to participate with Oxbow Mining LLC in a program for the exploration of un-leased coal deposits owned by the United States of America in the following described lands located in Delta, Colorado.

Township 13 South, Range 92 West, 6th P.M.

Sec 6, Lots 12-23;
Sec 7, Lots 6-11;

Township 13 South, Range 93 West, 6th P.M.

Sec 1, Lots 18-20;
Sec 12, Lots 1-3, 6-8;

The area described contains approximately 1,286.95 acres more or less.

The application for federal coal exploration license is available for public inspection during normal business hours under serial number COC-76319 at the BLM Colorado State Office, 2850 Youngfield Street, Lakewood, CO 80215 and at the BLM Uncompahgre Field Office, 2465 S. Townsend Ave, Montrose, CO 81401.

Written Notice of Intent to Participate should be addressed to the attention of the following persons and must be received by them within 30 days after publication of the Notice of Invitation in the Federal Register:

Kurt M. Barton
Solid Minerals Staff, Division of Energy, Lands and Minerals
Colorado State Office, Bureau of Land Management
2850 Youngfield Street
Lakewood, CO 80215

And

Oxbow Mining Oak Mesa, LLC
PO Box 535
3737 Hwy 133
Somerset, CO 81434
Attention: Steve Weist

Any Party electing to participate in this program must share all costs on a pro rata basis with the applicant and with any other party or parties who elect to participate.

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment, including your personal identifying information may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.