

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CASPER FIELD OFFICE

ENVIRONMENTAL ASSESSMENT

NO. WY-070-02-127

FOR

NORTH ROCHELLE

COAL LEASE MODIFICATION

March 2002

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lease. Approving the proposed modification will allow for the uninterrupted recovery of coal that would be otherwise by-passed by the North Rochelle mining operation during the next ten years or longer. This would result in the loss of this coal for the foreseeable future.

CONFORMANCE WITH LAND USE PLANS

The BLM's principal authority to manage public lands is established by the Federal Land Policy and Management Act of 1976 (FLPMA). Through this authority, the BLM is responsible for managing resources on public lands in a manner that maintains or improves them. The BLM planning regulations are set forth in 43 Code of Federal Regulations (CFR) 1600. The *Approved Resource Management Plan for Public Lands Administered by the BLM Buffalo Field Office, April 2001* is the plan that governs the management of lands and minerals in Campbell County, Wyoming. The BLM office in Buffalo administers public land in Campbell, Johnson, and Sheridan counties. The Proposed Action is in conformance with the plan even though it is not specifically provided for because it is clearly consistent with the following decisions (objectives, terms, and conditions) and, if applicable, implementation plan decisions:

The modification is in an area of high coal development potential. None of the lands located in the modification were found unsuitable for leasing or were unacceptable due to multiple use conflict, or unavailable based on surface owner consultation; therefore, the tract is available for further lease consideration.

REGULATORY AUTHORITY AND RESPONSIBILITY

The BLM is the lead agency responsible for leasing federal minerals under the Mineral Leasing Act of 1920 as amended; Multiple-Use Sustained Yield Act of 1960; National Environmental Policy Act of 1969 (NEPA); Federal Coal Leasing Amendments Act of 1976 (FCLAA); Federal Land Policy and Management Act of 1976 (FLPMA); and the Surface Mining Control and Reclamation Act of 1977 (SMCRA). This environmental assessment has been prepared to evaluate the potential impacts that could be expected to occur if the proposed lease modification is granted.

PUBLIC INVOLVEMENT

BLM received the application for the lease modification on February 9, 2001. Public notice of the opportunity to provide scoping comments and information was announced in late May and comments were accepted through June 30, 2001, during which time BLM received two written comments. The comments related to threatened and endangered species and cultural resources.

The DNA was completed and distributed to the public on July 31, 2001. A Notice of Availability of the DNA and notice of Public Hearing was published in the *Gillette News Record* weekly for

two weeks prior to the hearing. A similar notice was submitted for publication in the *Federal Register*. DNA availability and the public hearing were also announced in an August 1 press release to all regional newspapers and news media.

There was a 30-day comment period on the DNA, with comments accepted until August 31, 2001. A formal public hearing was held on August 14, 2001, at the Clarion Western Plaza Hotel in Gillette, Wyoming, to solicit public comment on the DNA, the proposed modification, and the fair market value and maximum economic recovery of coal in the proposed tract. The transcript of the formal hearing is on file in the BLM offices in Casper and Cheyenne. There was no comment at the hearing beyond a written statement by Triton Coal Company LLC. Two written comments were received on the DNA. One letter is from the US Fish and Wildlife Service dated October 26 discussing threatened and endangered species. The second is from the State of Wyoming Office of Federal Land Policy. That letter and the attached state agency letters either indicated no comment or in the case of the State Historic Preservation Officer, reinforced the need for survey, evaluation, and protection of significant historical and archeological sites prior to any disturbance.

ALTERNATIVES, INCLUDING THE PROPOSED ACTION

This EA address three alternatives:

- Alternative A: Proposed Action (approve the lease modification);
- Alternative B: No Action (deny the lease modification); and,
- Alternative C: delay the proposed action until the CBM resource can be removed.

Alternative A: Proposed Action

The Proposed Action is to modify an existing federal coal lease at the North Rochelle Mine. The modification area lies between federal coal lease WYW127221 and the Reno county road right-of-way (see map). Thunder Basin Coal Company LLC controls the surface above the lease modification area, and Triton has certain surface rights to those same lands. Based on the latest mine plan for the North Rochelle mine, coal removal on the lease modification area will occur in conjunction with the existing lease and would be completed by 2010. The coal removal is consistent with the currently approved resource recovery and protection plan for the North Rochelle mine (on file at the Casper Field Office) and the North Rochelle mining permit amendment application pending before the Wyoming Department of Environmental Quality, Land Quality Division (WDEQ/LQD).

If the lease is modified, the mining and reclamation permit would be modified to include coal recovery from the lease modification area. The modification would allow for the maximum coal that could be

INSERT MAP

MAP 1: FEDERAL COAL LEASES AND COAL LEASE APPLICATION

recovered using the surface methods planned for the mine and would allow for lateral support and protection of the Reno county road right-of-way. The federal coal in this modification would be

recovered in conjunction with the existing lease. Recovery of these reserves will add to federal and state royalty and tax revenues and will contribute to the economy in this area.

Alternative B: No Action

Under this alternative, the BLM would deny the lease modification. Almost 156 acres containing 13 million tons of federal coal would not be mined for the foreseeable future. Income from the bonus bid, future royalties, and taxes on the coal would be forfeited. The surface of the proposed modification area would be disturbed due to overstripping to allow coal to be recovered from the existing contiguous coal leases.

Alternative C: Delay the Action Until the CBM Resource is Removed

The eastern portion of the lease modification area is federally administered oil and gas and is currently not leased for oil and gas; the western part is privately held oil and gas rights. Under Alternative C approval of the lease modification and removal of the underlying coal resources would be denied until the party or parties holding private oil and gas rights drill for and produce coal bed methane gas which resides in the coal within the modification area.

THE AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter addresses both the affected environment and the environmental consequences of each alternative. The lease modification area is entirely within the area analyzed in the FEIS for the North Rochelle coal lease application (BLM 1997). That document contains a complete detailed description of the affected environment. Several other documents describe the existing and affected environment in the area. These documents also contain analyses of the impacts to be expected as a result of surface coal mining and other mineral development activity in this area.

The relevant publications are as follows:

Draft and Final Environmental Impact Statement (FEIS) for the North Rochelle Coal Lease Application (BLM 1997).

Proposed Mining and Reclamation Plan EIS, North Rochelle Mine, Campbell County, Wyoming (OSM 1982).

Coal Development Status Check Powder River Federal Coal Region Montana & Wyoming Data Tables (BLM 1996).

Draft Environmental Impact Statement for Round II Coal Lease Sale in the Powder River Region (BLM 1984.).

Draft Powder River Regional Coal Environmental Impact Statement, (BLM 1981).

Draft Environmental Impact Statement, Eastern Powder River Coal, (BLM 1979).

Final Environmental Impact Statement, Eastern Powder River Basin of Wyoming (BLM 1974).

Alternative A: Proposed Action

Under Alternative A, approving the lease modification area would not change the production rate or employment at the North Rochelle mine. The rate at which the surface is disturbed and reclaimed would not change. About six to eight months would be added to the estimated 20 years of mining remaining for the North Rochelle mine. The additional 155.899 acres would not be entirely disturbed due to safety and lateral support setbacks from the Reno county road. There would be no additional surface disturbance added to what is planned under the existing mining plan for federal coal ease WYW127221.

If the lease modification is approved, it would allow for a more efficient recovery of coal in a narrow area of the current lease. The natural progression of mining is in the direction of the modification area. This area would logically be recovered as part of the planned operations on the existing lease. This alternative will allow for the recovery of coal that would be otherwise by-passed by the North Rochelle mining operation during the foreseeable future, and possibly forever.

The total impacts to soil, vegetation, wildlife habitat, and existing land uses from the addition of would not increased over what is planned under the mining plans for the existing federal coal lease. Levels of air quality (dust and emissions), visibility, noise, transportation, water impacts, and socioeconomics would be the same as the current activity at the mine.

Environmental baseline information and potential environmental impacts for the surface area of the lease modification have been addressed in the documents mentioned previously as well as in the current permit. The soils and vegetation resources on the lease modification have been mapped and are typical of the soils and vegetation found on the North Rochelle mine area. The lease modification area is primarily comprised of mixed grass prairie or big sagebrush shrublands and fine sandy loams soils. All suitable topsoil would be salvaged prior to mining. After removal of the coal, the area would be backfilled, topsoil respread, and the area revegetated with a grass prairie or shrubland vegetation type. The final topography of the lease modification area would resemble the approximate original contours of the premining area.

There are neither conventional oil and gas wells nor CBM wells on the lease modification area. The eastern portion of the lease modification area is not leased for oil and gas; the western part is privately held oil and gas rights.

The entire lease modification area and a buffer zone that includes all proposed areas of

disturbance (280 acres) was inventoried for cultural resources to Class III level in 1999. The lease modification area is located in the upper reaches of the Cheyenne River drainage system. Trussler Creek, an ephemeral tributary of Little Thunder Creek, flows northward through the area where it is joined by Olson Draw and two ephemeral streams. Little Thunder Creek is a tributary of Black Thunder Cree, which empties into the Cheyenne River about 30 miles east-southeast of the area. The topography within the area is gently rolling terrain dissected by several drainages. The area was homesteaded in the past, and most of the level portions of the area have probably been cultivated with potential for disturbing and obscuring the prehistoric remains.

While no traditional cultural properties or resource collection sites are know in the lease modification area, the archeological evidence documents 5,000 years of occupation. Two sites and one isolated find were encountered with the inventoried area during the survey. One site was previously recorded in 1980 and contained historic artifact scatter and lithic scatter. The other site contained homestead remains. The isolated find consisted of a hole-in-top can. No sites with ceremonial attributes are know in the site inventory for the lease modification area. However, sites with ceremonial values and areas of traditional cultural practices may not be recognized by archeological inventory methods. Ethnographically, the area is situated within the High Plains environmental zone. Within the historic period, this area has been occupied by the Crow, Arapaho, Cheyenne, and Lakota peoples, and may also have been used by the Shoshone, Kiowa, Gros Ventres, Blackfeet, and Missouri River Basin peoples. None of the sites are presently listed or eligible to be listed on the National Register of Historic Places. Sites that are determined to be eligible and sites of undetermined eligibility require protection or further evaluation before mining can occur. Full consultation with the State Historic Preservation Office is required before a mining plan is approved. There are no known sites of Native American religious or cultural importance known to occur on the lease modification area.

The Endangered Species Act (16USC1531-1543) protects plant and animal species that are listed as threatened and endangered (T&E) as well as their critical habitats. Endangered species are defined as those that are in danger of extinction throughout all or a significant portion of their range. Threatened species are those that are likely to become endangered in the foreseeable future throughout all or a significant portion of their range. Candidate species include species for which the US Fish and Wildlife Service (FWS) has sufficient data to list as T&E but for which listing is precluded by a higher priority action.

In a letter dated June 20, 2001, the FWS advised the BLM that the following threatened, endangered, proposed and candidate species may be present in the area of the proposed lease modification: bBlack footed ferret (endangered), bald eagle (threatened), mountain plover (proposed), Ute ladies'-tresses (threatened), and black tailed prairie dog (candidate). Powder River Eagle Studies, Inc. has conducted wildlife monitoring and consulting services for Triton at the North Rochelle mine since 1984. These wildlife monitoring and consulting services included the evaluation of potential occurrence and impacts to T&E species as a result of approving the permit to mine coal for the North Rochelle mine. In 1999 additional wildlife

studies were conducted for a permit amendment to the North Rochelle mine permit which included all the lands within the proposed lease modification. In February, 2001 Triton submitted information at the request of the FWS and WDEQ/LQD addressing the black footed ferret, bald eagle, mountain plover, and black tailed prairie dog. The submittal stated that no appropriate habitat for any T&E animal species (including proposed or candidate species) is present in the modification area. The study was approved by the FWS and has been incorporated into the WDEQ/LQD mining permit for the North Rochelle mine. In 1999, Intermountain Resources conducted premining vegetation surveys on the permit amendment area including all the lands with the proposed lease modification. Plant species of concern to state or federal agencies due to rarity were not observed on the permit amendment area. The area does not contain any perennial streams or subirrigated sites that would provide prime habitat for the federally listed threatened Ute ladies'-tresses orchid (*Spiranthes diluvialis*). This species was not observed during any of the seasonal field surveys. Based on the evaluations, modifying lease WYW127221 at the North Rochelle mine is not likely to adversely affect these species or their habitat.

If the lease is modified as proposed, the lessee may be required to conduct additional surveys and other evaluations as part of the mining and reclamation permit application and approval processes to assure compliance with the Endangered Species Act. It will be important to confirm the potential, or lack of potential, for impacts to any threatened, endangered, proposed, candidate, or other special status plant/animal species before proposed surface-disturbing activities can begin. Coordination with the FWS during the permit application review process should resolve any potential impacts that are confirmed. If the impacts cannot be satisfactorily resolved, the WDEQ/LQD would condition any resulting permit to mine coal with species-specific protective measures. The permit application and approval process would be based on the most current survey information and an actual detailed site-specific mining and reclamation proposal. The special stipulations in appendix A will be attached to the lease to inform/remind the lessee of the potential for additional survey and evaluation activity before mining.

Alternative B: No Action

Under this alternative, the BLM would deny the lease modification. Mining would continue as described in the current mine plan for the North Rochelle coal mine.

If this coal is not mined with the current operation almost 156 acres of coal would not be economically recoverable by another operator in the future. All or part of the 13 million tons of recoverable coal on the lease modification area could potentially be permanently bypassed. Based on a spot market price prediction for this type of coal over the next five years, the coal would be worth about 70 million dollars. Bypassing the coal would cost the State of Wyoming and the federal government a loss in revenues estimated at between 12 to 15 million dollars.

Overstripping resulting from existing approved mining would still disturb the entire modification

area (approximately 156 acres) in order to recover all of the coal from the existing lease. Deeper oil and gas would not be affected by this alternative. Impacts to CBM resources would be the same as those described for Alternative C below.

Alternative C: Delay the Action Until the CBM is Removed

Under this alternative, the lease modification would be denied and not approved until the CBM resource in the coal in the lease modification has been depleted (drilled for and produced).

The FEIS that was prepared to evaluate the impacts of issuing federal coal lease WYW127221, which is the federal coal lease that would be modified under the Proposed Action and alternative C, was issued in April 1997. At that time, there was no CBM production in this area, but the EIS recognized the potential for CBM development in this area, and that CBM associated with the coal would be irretrievably lost when the coal was mined.

Well spacing for CBM in the area of the proposed lease modification is set by the rules and regulations of the Wyoming Oil and Gas Conservation Commission (WOGCC). Under these rules (Chapter 3, Section 2, Paragraph (d)), only one well per 80 acres is allowed. No more than two wells could physically be drilled on the privately owned oil and gas in the lease modification area. Information from the WOGCC indicate that neither of these possible wells have been permitted, although four wells were permitted in the N/2 of section 7, about one quarter mile west of the proposed lease modification. Those permits expired without any drilling operations on February 7, 2002.

Enough data are present in this area for a generalized volumetric estimate of original CBM in place on the lease modification area. That estimate, which was prepared by the BLM, Wyoming State Office Reservoir Management Group, indicates original premining technically recoverable CBM resources in place was about 64.8 million cubic feet of gas (mmcfg) or an estimated 5.6 standard cubic feet (scf) per ton gas-in-place. Mining activity in the area since 1980 has allowed the water table in the coal to drop resulting in depletion of hydrostatic pressure and loss of the CBM resources within the lease modification lands. Data provided by Triton Coal Company from several holes drilled in the vicinity of the parcel in 1999 show that water levels had declined by approximately 47 feet resulting in an approximate 30% pressure loss. There are not sufficient data presently available to compute the continued losses since that time. Revised calculations based on these data show that about 56.1 mmcf of methane gas, or about 3.66 scf per ton of coal would have remained in place at that time. Based on these figures, the estimated remaining (as of 1999) amount of gas in each of the two 80-acre spacing units containing the privately owned gas rights in the lease modification acreage would have been approximately .028 billion cubic feet (bcf). Economic analyses using the average posted gas price for 1997-2001 (spot gas price for Opal, Wyoming as quoted in the Oil and Gas Journal), and reasonable estimated drilling, completion and operating costs show that these reserves would not support economic wells. The analyses yield negative net revenues of less than \$48,000 per well on an 80-acre spacing unit basis. Approximately .054 bcf of reserves would be required for an

economic CBM well in an 80 acre spacing unit. The price used for this calculation includes the large natural gas price increase of April 2000 through May 2001 and may be somewhat optimistic. It would take almost 1.66 times the amount of technically recoverable gas that was originally present and nearly double the amount remaining in 1999 to just reach the break even point economically. Based on this analysis, BLM's conclusion is that the development of CBM in this area would not be economically justified by the amount of technically recoverable CBM resources that are present without a large and sustained increase in natural gas prices. Since economically viable CBM wells cannot be drilled, this alternative would result in an indefinite delay of the Proposed Action.

If the Proposed Action were to be delayed, the coal would be bypassed for the foreseeable future. If it is not mined as proposed, it would not be recovered and sold to provide 200-225 trillion Btus of heat energy for electric generation. The potential income from the bonus bid, future royalties, and taxes on 13 million tons of coal would be foregone. Based on a spot market price prediction for this type of coal over the next five years, the coal would be worth about 70 million dollars and would result in revenues to the State of Wyoming and the federal government of 12 to 15 million dollars.

It would not be economically recoverable by another operator in the future. All of the 13 million tons of recoverable coal on the lease modification area could potentially be permanently bypassed. Both the energy and the revenues derived from mining and selling this coal would not be realized. Even if the coal were ultimately leased and mined at an unknown future date, the value at that time would be speculative and substantially diminished when discounted to present value.

There would be no impacts on the existing operations because mining would continue as discussed in the current mine plan. Overstripping from existing mining would still disturb the 156-acre modification area. Deeper oil and gas resources would not be affected by this alternative.

CUMULATIVE IMPACTS

NEPA requires that cumulative as well as site-specific impacts of proposed federal actions be considered as part of the decision-making process. According to the Council of Environmental Quality (CEQ), *cumulative impact* is the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative actions can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

Under Alternative A, the Proposed Action, if lease WYW127221 were modified this would not cause a cumulative change in daily impacts because it is an extension of an ongoing operation and mining disturbance is progressive with reclamation proceeding contemporaneously. There

would be no major

cumulative impacts related to mining the tract. Cumulative impacts are discussed in detail in the FEIS for North Rochelle coal lease application and most recently in the Powder River Basin regional oil and gas EIS (BLM 2002).

The No Action alternative means that approximately 156 acres of coal reserves would not be added to the existing lease. However, the approved mining operations for the existing North Rochelle mine would continue. Coal removal would not occur on the approximately 156 acres associated with the Proposed Action. However, in order to allow coal to be recovered from the existing contiguous coal leases, overstripping would still disturb the modification area. The economic benefits would not be realized. The potential income from the bonus bid, future royalties, and taxes on the 13 million tons of coal contained within the modification area would be lost. Not approving the modification may also result in a bypass of the federal coal for the foreseeable future.

If Alternative C was selected, cumulative impacts would be the same as those described for the Proposed Action or the No Action alternative since already approved mining would continue.

MITIGATION MEASURES

The purpose of many of the requirements of SMCRA, as well as Wyoming laws governing surface coal mining, is to ensure that surface coal mining impacts are mitigated. As a result, mitigation of impacts caused by surface coal mining are routinely resolved during the mine permitting process. Additional mitigation measures are not generally necessary due to the reclamation requirements of SMCRA and Wyoming state statutes. If impacts are identified during the leasing process that cannot be mitigated during the permitting process within the range of authority of SMCRA or state statutes, stipulations designed to mitigate these impacts can be attached to the lease by BLM. Mitigation measures that would be required for the Proposed Action are in appendix A.

RESIDUAL IMPACTS

Residual impacts are unavoidable impacts that cannot be mitigated and would remain following mining and reclamation. Under the Proposed Action, the residual impacts on the topography, geology, soils, water resources, vegetation, wildlife habitat, and unmitigated cultural resources would be expected to be similar in nature and scope to the residual impacts for existing mining because the modification area would be mined in much the same way. An estimated 64.8 million cubic feet of methane gas would be irretrievably lost in connection with coal removal. This volume of CBM is not economic to drill and produce.

Residual impacts under Alternative B (No Action), would be that the surface of the modification area would still be disturbed from overstripping by the adjacent mining. From 200 to 225 trillion Btus of heat energy for electric generation would be lost. The State of Wyoming and the federal government would lose 12 to 15 million dollars of revenue from about 13 millions tons of

coal.

Since BLM's evaluation under Alternative C indicates that it would be economically unfeasible to drill for and produce the CBM on the modification area, and since the coal would not be mined, both the methane gas and the coal would remain in place, although the CBM could potentially be lost through venting when the existing coal lease is mined. The modification area would still be disturbed from overstripping by the adjacent mining.

CONSULTATION AND COORDINATION

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REFERENCES

Office of Surface Mining Reclamation and Enforcement.

1982 *Proposed Mining and Reclamation Plan Environmental Impact Statement, North Rochelle Mine, Campbell County, Wyoming.* Denver, CO.

United States. Department of the Interior. Bureau of Land Management.

2002 *Draft Environmental Impact Statement and Draft Planning Amendment for the Powder River Basin Oil and Gas Project.* Buffalo Field Office. Buffalo, WY.

2001 *Approved Resource Management Plan for Public Lands Administered by the BLM Buffalo Field Office.* Buffalo Field Office. Buffalo, WY.

- 1997 *Draft and Final Environmental Impact Statement for the North Rochelle Coal Lease Application (WYW127221)*. Casper District Office. Casper, WY.
- 1996 *Coal Development Status Check Powder River Federal Coal Region Montana & Wyoming Data Tables*. Casper District Office, Casper, Wyoming.
- 1984 *Draft Environmental Impact Statement for Round II Coal Lease Sale in the Powder River Region*.
- 1981 *Final Powder River Regional Coal Environmental Impact Statement*. Casper District Office. Casper, WY.
- 1979 *Final Environmental Statement, Eastern Powder River Coal*. Casper District Office. Casper, WY.
- 1974 *Final Environmental Statement, Eastern Powder River Basin of Wyoming*. Casper District Office. Casper, WY.

APPENDIX

Special Stipulations

In addition to observing the general obligations and standards of performance set out in the current regulations, the lessee shall comply with and be bound by the following stipulations.

These stipulations are also imposed upon the lessee's agents and employees. The failure or refusal of any of these persons to comply with these stipulations shall be deemed a failure of the lessee to comply with the terms of the lease. The lessee shall require his agents, contractors, and subcontractors involved in activities concerning this lease to include these stipulations in the contracts between and among them. These stipulations may be revised or amended, in writing, by the mutual consent of the lessor and the lessee at any time to adjust to changed conditions or to correct an oversight.

(a) Cultural Resources

(1) Before undertaking any activities that may disturb the surface of the leased lands, the lessee shall conduct a cultural resource intensive field inventory in a manner specified by the authorized office of the BLM or of the surface managing agency, if different, on portions of the mine plan area and adjacent areas, or exploration plan area, that may be adversely affected by lease-related activities and which were not previously inventoried at such a level of intensity. The inventory shall be conducted by a qualified professional cultural resource specialist (i.e., archeologist, historian, historical architect, as appropriate), approved by the Authorized Officer of the surface managing agency (BLM, if the surface is privately owned); and a report of the inventory and recommendations for protecting any cultural resources identified shall be submitted to the Assistant Director of the Western Support Center of the Office of Surface Mining, the Authorized Officer of the BLM, if activities are associated with the coal exploration outside an approved mining permit area (hereinafter called Authorized Officer), and the Authorized Officer of the surface managing agency, if different. The lessee shall undertake measures, in accordance with instructions from the Assistant Director or Authorized Officer, to protect cultural resources on the lease lands. The lessee shall not commence the surface disturbing activities until permission to proceed is given by the Assistant Director or Authorized Officer.

(2) The lessee shall protect all cultural resource properties within the lease area from lease-related activities until the cultural resource mitigation measures can be implemented as part of an approved mining and reclamation plan or exploration plan.

(3) The cost of conducting the inventory, preparing reports, and carrying out the mitigation measures shall be borne by the lessee.

(4) If cultural resources are discovered during operations under this lease, the lessee shall immediately bring them to the attention of the Assistant Director or Authorized Officer, or the Authorized Officer of the surface managing agency. The lessee shall not disturb such resources except as may be subsequently authorized by the Assistant Director or Authorized Officer. Within two (2) working days of notification, the Assistant Director or Authorized Officer will evaluate or have evaluated any cultural resources discovered and will determine if any action may be required to protect or preserve such discoveries. The cost of data recovery for cultural resources discovered during lease operations shall be borne by the surface managing agency unless otherwise specified by the Authorized Officer of the BLM or of the surface managing agency, if different.

(5) All cultural resources shall remain under the jurisdiction of the United States until ownership is determined under applicable law.

(b) Paleontological Resources

If a paleontological resource, either large and conspicuous and/or of significant scientific value, is discovered during any surface disturbing activities, the find will be reported to the Authorized Officer immediately. Surface disturbing activities will be suspended within 250 feet of said find. An evaluation of the paleontological discovery will be made by a BLM approved professional paleontologist within five (5) working days, weather permitting, to determine the appropriate action(s) to prevent the potential loss of any significant paleontological value. Operations within 250 feet of such a discovery will not be resumed until written authorization to proceed is issued by the Authorized Officer. The lessee will bear the cost of any required paleontological appraisals, surface collection of fossils, or salvage of any large conspicuous fossils of significant interest discovered during the operation.

(c) Threatened, Endangered, Candidate, or Other Special Plant and Animal Species

The lease area may contain habitat for the following threatened, endangered, candidate, or other special status plant and animal species: black-footed ferret, bald eagle, mountain plover, Ute Ladies'-tresses, and black-tailed prairie dog. If surveys performed during the permit application process or future permit revisions indicate that any threatened, endangered, candidate, or other special status plant/animal species could be impacted by proposed coal mining and reclamation operations located on this lease and the potential impacts to that species cannot be satisfactorily resolved through coordination with the U. S. Fish and Wildlife Service (FWS), the proposed coal mining and reclamation operations could be restricted or constrained by the State regulatory authority.

(d) Multiple Mineral Development

Operations will not be approved which, in the opinion of the Authorized Officer, would unreasonably interfere with the orderly development and/or production from a valid existing mineral lease issued prior to this one for the same lands.

(e) Oil and Gas/Coal Resources

The BLM realizes that coal mining operations conducted on Federal coal leases issued within producing oil and gas fields may interfere with the economic recovery of oil and gas just as Federal oil and gas leases issued in a Federal coal lease area may inhibit coal recovery. BLM retains the authority to alter and/or modify the resource recovery and protection plans for coal operations and/or oil and gas operations on those lands covered by Federal mineral leases so as to obtain maximum resource recovery.

(f) Resource Recovery and Protection

Notwithstanding the approval of a resource recovery and protection plan (R2P2) by the BLM, lessor reserves the right to seek damages against the operator/lessee in the event (1) the operator/lessee fails to achieve maximum economic recovery (MER) (as defined at 43 CFR 3480.0-5(21)) of the recoverable coal reserves, or (2) the operator/lessee is determined to have caused a wasting of recoverable coal reserves. Damages shall be measured on the basis of the royalty that would have been payable on the wasted or unrecovered coal.

The parties recognize that under an approved R2P2, conditions may require a modification by the operator/lessee of that plan. In the event a coalbed or portion thereof is not to be mined or is rendered unminable by the operation, the operator/lessee shall submit appropriate justification to obtain approval by the Authorized Officer to leave such reserves unmined. Upon approval by the Authorized Officer, such coalbeds or portions thereof shall not be subject to damages as described above. Further, nothing in this section shall prevent the operator/lessee from exercising its right to relinquish all or a portion of the lease as authorized by statute and regulation.

In the event the Authorized Officer determines that the R2P2, as approved, will not attain MER as the result of changed conditions, the Authorized Officer will give proper notice to the operator/lessee as required under applicable regulations. The Authorized Officer will order a modification if necessary identifying additional reserves to be mined in order to attain MER. Upon a final administrative or judicial ruling upholding such an ordered modification, any reserves left unmined (wasted) under that plan will be subject to damages as described in the first paragraph under this section.

Subject to the right to appeal hereinafter set forth, payment of the value of the royalty on such unmined recoverable coal reserves shall become due and payable upon determination by the Authorized Officer that the coal reserves have been rendered unminable or at such time that the operator/lessee has demonstrated an unwillingness to extract the coal.

The BLM may enforce this provision either by issuing a written decision requiring payment of the MMS demand for such royalties, or by issuing a notice of noncompliance. A decision or notice of noncompliance by the lessor that payment is due under this stipulation is appealable as allowed by law.

(g) Public Land Survey Protection

The lessee will protect all survey monuments, witness corners, reference monuments, and bearing trees against destruction, obliteration, or damage during operations on the lease areas. If any monuments, corners, or accessories are destroyed, obliterated, or damaged by this operation, the lessee will hire an appropriate county surveyor or registered land surveyor to reestablish or restore the monuments, corners, or accessories at the same location, using surveying procedures in accordance with the *Manual of Surveying Instructions for the Survey of Public Lands of the United States*. The survey will be recorded in the appropriate county records, with a copy sent to the Authorized Officer.