

**MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
COAL AND URANIUM PROGRAM
CHECKLIST ENVIRONMENTAL ASSESSMENT
FOR MINOR REVISION TO THE PERMIT**

PERMITTEE: Western Energy Company

PROJECT : Minor Revision MR84

PERMIT ID: C1985003C

COUNTY: Rosebud

SITE: Rosebud Mine – Area C

LOCATION: T1N, R40E, Sec 2, 3, 9, 10, 11

DATE: May 29, 2012

PROPERTY OWNERSHIP: Private

TYPE AND PURPOSE OF ACTION:

Western Energy Company (Western) applied to the Montana Department of Environmental Quality (Department) for a minor revision to the Rosebud Mine Area C surface mining permit (the permit). This minor revision request proposes the following changes to the permit: 0.6% increase in surface disturbance area (52 acres), 3.7% increase in the minable coal reserve (7 million tons or 176 acres of coal removal), re-calculation of the performance bond to account for current practices and conditions (4.2% increase from \$53,798,150 to \$56,037,752), and changes to the post mine topography (PMT) to better approximate pre-mine conditions (slope, aspect, drainage basin size). The additional proposed disturbance and mining would occur within the center of converging approved mine passes. Performance bond associated with the additional proposed disturbance and mining would be an insignificant portion of the before mentioned 4.2% increase in bonding.

As coal is removed, the operator would proceed with reclamation according to the requirements of the Reclamation Plan, as described in Section 17.24.313 of the currently approved permit. Topsoil would be removed prior to mining and either direct-hauled to areas graded to the approved PMT or stockpiled. Soil stockpiles would be marked with an identification sign and stockpiles would be protected from erosion. Currently approved permit maps depicting vegetation plans would need to be reviewed and updated as a general course of permit renewal, mid-permit review or an additional minor revision to the permit. Regardless of future permit revisions, the vegetation plan would be monitored over time and adjusted as necessary to achieve successful establishment of plant communities which would support the approved post-mine land use.

IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special	[Y] Soils identified for salvage would be salvaged in two lifts. Approximately 12 inches of surface soil would be salvaged and direct applied or stockpiled as “A” lift soil, and the next 12 inches of subsoil would be salvaged and direct applied or stockpiled as “B” lift soil. In the case of tree soil, all available soil material would be salvaged as one lift. Soil stockpiles would be protected from erosion and soil loss.

IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
reclamation considerations?	
<p>2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?</p>	<p>[N] The proposed new mine passes are located within an area adjacent to approved mine passes. The area is tightly confined by existing mine pits above and below the undisturbed wedge where the proposed cuts are located. The Rosebud and McKay coal seam aquifers in this location have been dewatered by and remain cut off from upgradient recharge by the surrounding mine pits. Therefore, no additional impacts to groundwater would be anticipated by the proposed additional passes. Removal of the Rosebud coal in the proposed cuts may result in more uniform recharge and down gradient movement of groundwater in the post-mine backfilled pit, during the creation of a spoil aquifer. The additional area of spoil aquifer created by mining the proposed cuts would not be expected to change the anticipated spoil water quality in Area C-East nor increase the length of time for recovery of water levels and quality to that approximating pre-mine.</p> <p>The affected drainage basins (Stocker Creek, East Fork Armells Creek, West Fork Armells Creek) would be comparable in size, orientation and gradient after reclamation to their pre-mine configuration. As the area is already surrounded by disturbance associated with open pits, roads and reclamation, the existing approved traps and ponds are adequately sized to contain sediment from the additional disturbance that would be created by the additional passes.</p> <p>No additional changes to the hydrologic balance on or off the permit area would be anticipated with the approval of this minor revision and material damage outside the permit area would be prevented.</p>
<p>3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?</p>	<p>[N] Proposed changes would not affect conditions anticipated in the original assessment and as observed during operation of the mine. Dust would be generated during the mining and reclamation operations; however, Western must operate within the confines of the approved Air Quality Permit.</p>
<p>4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?</p>	<p>[Y] An additional 52 acres would be disturbed. Vegetation communities would be removed and vegetation resources would be impacted in the short term. Reclamation commitments in the permit are designed to mitigate the community loss and provide for the approved post-mine land uses of grazing and wildlife habitat. One reclamation commitment is for a PMT that approximates the pre-mine condition. Changes proposed to the PMT would help mitigate impacts to vegetation because the changes would better</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
	<p>approximate pre-mine conditions.</p> <p>No threatened plants or vascular species of concern are known to inhabit the area.</p>
<p>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?</p>	<p>[N] The proposed new disturbance would be adjacent to and surrounded by currently approved operations and would result in approximately 52 acres of additional disturbance. No impacts above those addressed in previous environmental assessments would be expected.</p>
<p>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?</p> <p> </p>	<p>[N] No known listed, threatened or endangered species or important habitat would be impacted by the proposed activities. Bald eagles (threatened) may use the area for hunting and during migration; however, no concentration/roosting habitats or breeding territories have been identified within the Rosebud Mine area. The yellow-billed cuckoo (candidate species) has been observed on the Rosebud Mine; however, none have been seen since 1993. Thirty-eight species of concern have been observed within the Rosebud Mine wildlife monitoring area. Of these, three were mammals, twenty-seven were birds, three were amphibians, and five were reptiles. Based on habitat use and availability, there is a potential for some of these species to be found within the proposed areas of additional disturbance or in adjacent habitats. Since only a few of the species of special concern are observed on a regular basis, the majority of the species would be considered migrants or occasional visitors. The limited amount of habitat available for the remaining species would restrict their use of the area and minimize the potential impacts to one or more of the species. No wetland habitats have been identified within the proposed area of additional mining.</p>
<p>7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p>	<p>[N] The proposed minor revision would result in no adverse effect upon the known cultural, archeological and paleontological resources, and the operator's approved cultural resource memorandum of agreement (MOA) for Area C protects incidental discoveries. No changes in the Area C MOA are necessary and Western accordingly remains in Section 106 compliance for Area C.</p>
<p>8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?</p>	<p>[N] Additional mining disturbance would be in a remote area and not located near prominent topographic features. The project area would not be visible from populated or scenic areas. The nearest community, Colstrip, Montana, is located approximately six air miles from the project area. No noise above that associated with ongoing operations would occur.</p>
<p>9. DEMANDS ON ENVIRONMENTAL</p>	<p>[N] The area to be included for mining is surrounded by active mining and reclamation operations. The project is not expected to create demands on</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?</p>	<p>limited resources. Coal from this mine area is used to fuel two of the four coal-fired power plants located in Colstrip. Lower quality coal from this mine area is also used to fuel a smaller coal-fired power plant north of Colstrip.</p>
<p>10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?</p>	<p>[N] Other impacts to environmental resources are not anticipated.</p>

IMPACTS ON THE HUMAN POPULATION

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?</p>	<p>[N] Heavy equipment, trucks, loaders, and blasting would create hazards; however, the operator must comply with all MSHA and OSHA regulations. The operator currently utilizes proper precautions to enhance safety and would continue in the best interest of its employees. Public access would be controlled by the operator. The proposed operation would not add or reduce the affects to human health or safety.</p>
<p>12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?</p>	<p>[N] The project would add an additional 7 million tons to the minable reserve base. At current rates of consumption, the additional mining would extend the life of the Rosebud Mine approximately one year.</p> <p>Historically, the area within the permit area and the expanded mine area was pastureland, grazing land, and wildlife habitat. The final reclamation plan is designed to return the area to its previous use, with equal to or greater vegetation production than pre-mining. There would, however, be a short-term loss of vegetative production during mining and reclamation of the proposed additional area.</p>
<p>13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.</p>	<p>[N] The proposal is not expected to create new jobs; however, if permitted the additional mining would continue jobs presently in place for a longer period of time.</p>
<p>14. LOCAL AND STATE TAX BASE AND TAX REVENUES:</p>	<p>[N] The project would create added coal severance tax revenue due to additional coal recovery. The proposed project should not eliminate any tax</p>

IMPACTS ON THE HUMAN POPULATION

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
Will the project create or eliminate tax revenue?	revenues. It is expected that the mine would sustain production at current levels or at a somewhat increased level and not change the state or local tax base resulting from mine production.
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] No changes would occur as a result of the proposed action.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N] No locally adopted environmental plans and goals would change as a result of the proposed action.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N] The proposed mine area is not located in or adjacent to any wilderness or recreational areas. Recreation potential within the site is limited due to current operations.
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] The project is not expected to significantly affect local populations. Neither population increase nor residential decrease would be incurred by approving the project
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N] Inspection by the Department confirmed that the area is remote from most human activities and communities. Disruption of lifestyles is not expected since there is minimal human activity within or near the proposed project area.
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N] Field inspection by the Department confirmed that the area is remote and the proposed work would not affect or shift any unique quality of the area.
21. PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a	[N] This is not applicable.

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	
22. PRIVATE PROPERTY IMPACTS: Does the proposed regulatory action restrict the use of the regulated person's private property? If not, no further analysis is required.	[N] This is not applicable.
23. PRIVATE PROPERTY IMPACTS: Does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives.	[Y] The Department has a level of discretion in its permitting decisions.
24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N] No other social and economic circumstances would be expected.

25. Alternatives Considered:

- a) No Action: Under the "No Action" alternative, the Department would deny approval for additional mining. This alternative would decrease the amount of disturbance, decrease the amount of coal produced and thereby, shorten the potential life of the mine by limiting development to the currently approved mine area. Additional mining would not be conducted. The mineral owners and mine operator would not utilize the resource. The potential use of this coal reserve would not be realized.
- b) Approval: If approved, an estimated 7,000,000 tons of recoverable coal would be added to the mine plan and extend the life of the Rosebud Mine approximately one year. An additional 52 acres of surface area and 176 acres of coal aquifer would be affected by mining. The performance bond would be adjusted incrementally to account for increased costs of

reclamation. The post mine topography would better approximate the pre-mining condition.

- c) Approval with Modification: The Department found no need to modify the proposed revision from what was presented in the amendment application.

26. Public Involvement: No public involvement is required.

27. Other Governmental Agencies with Jurisdiction: There is no other governmental jurisdiction considered necessary.

28. Magnitude and Significance of Potential Impacts: The magnitude of impacts would be small given the size of additional disturbance. Potential impacts would be insignificant given requirements for reclamation of all disturbances and the reclamation performance bond.

29. Cumulative Effects: None

Recommendation for Further Environmental Analysis:

EIS

More Detailed EA

No Further Analysis

EA Checklist Prepared By: Angela McDannel-Groundwater Hydrologist, Chris Yde-Program Supervisor, Bob Smith-Permit Coordinator, Peter Mahrt-Engineer