

PRELIMINARY DETERMINATION  
ON PERMIT APPLICATION

Date of Mailing: July 22, 2013

Name of Applicant: Western Energy Company

Source: Surface Coal Mine and Extraction Facility

Proposed Action: The Department of Environmental Quality (Department) proposes to issue a permit, with conditions, to the above-named applicant. The application was assigned Montana Air Quality Permit Application Number 1570-07.

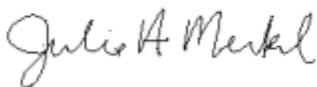
Proposed Conditions: See attached.

Public Comment: Any member of the public desiring to comment must submit such comments in writing to the Air Resources Management Bureau (Bureau) of the Department at the above address. Comments may address the Department's analysis and determination, or the information submitted in the application. In order to be considered, comments on this Preliminary Determination are due by August 6, 2013. Copies of the application and the Department's analysis may be inspected at the Bureau's office in Helena. For more information, you may contact the Department.

Departmental Action: The Department intends to make a decision on the application after expiration of the Public Comment period described above. A copy of the decision may be obtained at the above address. The permit shall become final on the date stated in the Department's Decision on this permit, unless an appeal is filed with the Board of Environmental Review (Board).

Procedures for Appeal: Any person jointly or severally adversely affected by the final action may request a hearing before the Board. Any appeal must be filed by the date stated in the Department's Decision on this permit. The request for a hearing shall contain an affidavit setting forth the grounds for the request. Any hearing will be held under the provisions of the Montana Administrative Procedures Act. Submit requests for a hearing in triplicate to: Chairman, Board of Environmental Review, P.O. Box 200901, Helena, MT 59620.

For the Department,



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JM:DCK  
Enclosure

## MONTANA AIR QUALITY PERMIT

Issued to: Western Energy Company  
P.O. Box 99  
Colstrip, MT 59323

MAQP: #1570-07  
Application Complete: 04/22/2013  
Preliminary Determination: 07/22/2013  
Department's Decision Issued:  
Permit Final:  
AFS #: 087-0004

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Western Energy Company (Western Energy), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740 *et seq.*, as amended, for the following:

### Section I: Permitted Facilities

#### A. Plant Location

Western Energy operates a surface coal mine and extraction facility located in Area C and Area F of the Rosebud Mine. The total estimated coal production for the life of the mine is 241,000,000 tons. Area C is located west of Colstrip in Sections 1-3 of Township 1 North, Range 39 East; Sections 34-36 of Township 2 North, Range 39 East; Sections 1-6, 8-12, and 13-17 of Township 1 North, Range 40 East; and Sections 28, 29, and 31-33 of Township 2 North, Range 40 East in Rosebud County. Area F is located in Sections 3-6, Township 1 North, Range 40 East in Rosebud County, Sections 19, 20, and 27-34 in Township 2 North, Range 40 East in Rosebud County, and Sections 12-14 and 23-25, Township 2 North, Range 39 East in Treasure County. The list of permitted equipment can be found in Section I of the permit analysis.

#### B. Current Permit Action

On April 18, 2013, the Department of Environmental Quality (Department) received an initial application from Bison Engineering, Inc. (Bison), on behalf of Western Energy, for modification of Western Energy's air quality permit to allow expansion to the geographic extent of the mine. The existing MAQP explicitly defined the physical area in which mining activities are permitted. As such, the application requests an expansion of this physical boundary into a new area designated as Area F. No additional coal production capacity was requested, the objective of the expansion is to further extend the life of the mine by replacing areas from which coal has been extracted. Supplemental information and data was received by the Department on June 12, 2013. The current permit action provides for an expansion of the mines operational boundary, incorporates a single *de minimis* action, updates permit language and rule references used by the Department, and updates the emission inventory.

### Section II: Conditions and Limitations

#### A. Emissions Limitations

1. All emissions at the Area C crusher and coal handling facility, including the negative pressure system on the truck dump, shall be vented to a common baghouse. Each of the three transfer points on the overland conveyor shall be controlled by a baghouse (ARM 17.8.340 and 40 CFR Part 60, Subpart Y).

2. Western Energy shall not cause visible emissions of greater than 20% opacity to be discharged into the atmosphere from any coal handling, conveying, crushing, processing, storing or loading system averaged over 6 consecutive minutes (ARM 17.8.308, 304, 340 and 40 CFR Part 60, Subpart Y).
3. Western Energy shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).
4. Western Energy shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppression as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.3 (ARM 17.8.749).
5. The following control measures shall be applied on an as necessary basis (ARM 17.8.752, 749 and 308):
  - a. Chemically stabilize and maintain all active haul and access roads and supplement by watering;
  - b. Apply water to temporary roads such as scraper travel areas;
  - c. Adequately maintain open coal storage and minimize equipment activity on stockpiles;
  - d. Minimize fall/drop distance on all coal and overburden handling activities;
  - e. Minimize area of surface disturbance;
  - f. Promptly revegetate exposed/disturbed areas, including temporary vegetative cover of topsoil stockpiles;
  - g. Minimize emissions from coal and overburden drilling through the use of dust curtains, water sprays, dust collectors, or other appropriate techniques;
  - h. Conduct blasting operations in such a manner as to minimize emissions, prevent overshooting, provide stemming of holes, and minimize area to be blasted;
  - i. Extinguish areas of burning or smoldering coal;
  - j. Restrict and maintain vehicle speeds on haul roads as necessary to minimize emissions; and,
  - k. Other control practices which may be determined by the department to be necessary.
6. Western Energy shall maintain a fugitive dust control plan. Elements of the plan shall include, but not be limited to, the conditions established within Section II.A.1 through II.A.5 (ARM 17.8.749 and 752).
7. Combined annual coal production from Areas C and F shall be limited to 8,000,000 tons per year (ARM 17.8.749).
8. Annual coal production from Area F shall be limited to 4,000,000 tons per year (ARM 17.8.749).

9. Western Energy shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, and notification requirements contained in 40 Code of Federal Regulations (CFR), Subpart Y, *Standards of Performance for Coal Preparation Plants and Processing Plants* (ARM 17.8.340 and 40 CFR 60, Subpart Y).

#### B. Testing Requirements

1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
2. The Department may require testing (ARM 17.8.105).

#### C. Operational Reporting Requirements

1. Western Energy shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis and sources identified in Section I of the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. The information shall include the following and shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505). Western Energy shall submit the following information annually to the Department by March 1, of each year; the information may be submitted along with the annual emission inventory (ARM 17.8.505).

2. Western Energy shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745 that would include the ***addition of a new emission unit***, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change and must include the information requested in ARM 17.8.745 (l)(d) (ARM 17.8.745).
3. All records compiled in accordance with this permit must be maintained by Western Energy as a permanent business record for at least 5-years following the date of the measurement, must be available at the plant site for inspection by the department, and must be submitted to the department upon request (ARM 17.8.749).

#### D. Notification

Western Energy shall provide the Department with written notification of the actual date upon which mining operations commence in the Area F expansion. The notice shall be postmarked or hand-delivered no later than 15 days after the actual operational commencement date of the Area F expansion (ARM 17.8.749).

#### E. Ambient Monitoring

1. Particulate matter within an aerodynamic diameter of ten microns or less (PM<sub>10</sub>) data has been collected at the Western Energy mine since 1992. During the 1992-2000 period, the annual means at all sites were less than 28% of the annual standard. For the 24-hour PM<sub>10</sub>

concentrations, all of the annual, maximum 24-hour values were less than 53% of the 24-hour standard. Therefore, in accordance with the October 9, 1998, monitoring guidance statement developed by the Department, Western Energy may discontinue operation of their ambient air-monitoring network.

2. The Department may require Western Energy to conduct additional ambient air monitoring, if necessary (ARM 17.8.749).

### Section III: General Conditions

- A. Inspection – Western Energy shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (Continuous Emission Monitoring Systems CEMS, Continuous Emission Rate Monitoring Systems (CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Western Energy fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving Western Energy of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401 *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Permit Fees – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Western Energy may be grounds for revocation of this permit, as required by that section and rules adopted there under by the Board.
- H. Duration of Permit – Construction or installation must begin or contractual obligations entered into that would constitute substantial loss within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall expire (ARM 17.8.762).

Montana Air Quality Permit (MAQP) Analysis  
Western Energy Company - Rosebud Mine  
MAQP #1570-07

I. Introduction/Process Description

A. Permitted Equipment

Western Energy Company (Western Energy) operates the following equipment at Area C and Area F of the Rosebud Mine.

1. "Coal handling facilities" include, but are not limited to:
  - a. Truck dump with two 500-ton capacity dump hoppers.
  - b. Two primary crushers with capacities of 1650 ton/hr each.
  - c. Two secondary crushers with capacities of 1650 ton/hr each.

NOTE: Only one dump hopper, primary crusher and secondary crusher will operate at a time, with the other being a redundant system. The crushers and conveyors at the preparation facility are fully enclosed and vented to a central baghouse. The truck dump is equipped with a negative pressure system vented to the central baghouse.

- d. One overland conveyor with a capacity of 1650 ton/hr, approximately 5 miles in length. The conveyor and transfer points are fully enclosed and vented to baghouses. This conveyor transports coal from the Area C preparation facility to the Colstrip power plants, Units 3 and 4.
2. Necessary auxiliaries include, but are not limited to: draglines, coal shovels, trucks, front-end loaders, graders, scrapers, dozers, other mobile units, auxiliary facilities, etc., as applicable.

B. Source Description

Western Energy operates a surface coal extraction facility and mine located in Area C and Area F of the Rosebud Mine. Area C is located west of Colstrip in Sections 1-3 of Township 1 North, Range 39 East; Sections 34-36 of Township 2 North, Range 39 East; Sections 1-6, 8-12, and 13-17 of Township 1 North, Range 40 East; and Sections 28, 29, and 31-33 of Township 2 North, Range 40 East of Rosebud County. Area F is located immediately west of Area C within Sections 3-6, Township 1 North, Range 40 East in Rosebud County, Sections 19, 20, and 27-34 in Township 2 North, Range 40 East in Rosebud County, and Sections 12-14 and 23-25, Township 2 North, Range 39 East in Treasure County

Areas C and F have a combined maximum annual production limit of 8,000,000 tons of coal per year. Annual coal production from Area F is limited to 4,000,000 tons. The total projected coal production for the life of the mine is estimated at 241,000,000 tons. All Coal extracted from Area F will be transported by haul truck to the Area C or Area A truck dump for further processing.

### C. Permit History

**MAQP #1570** was originally issued to Western Energy for Area C of the Rosebud Mine on August 2, 1982. The coal processing facilities, with emissions controlled by baghouses, included primary and secondary crushers and conveyors. Area C coal was used exclusively at the local power generating facilities known as Colstrip Units 3 and 4. An overland conveyor, with baghouse controls at each transfer point, transported coal 5 miles from Area C to the power plants. The original permit contained a coal production limit of 5.6 million tons per year. Overburden was stripped using standard dragline practices and shovel and truck removed coal. Other mine related activities included topsoil handling (primarily with scrapers), drilling and blasting of overburden and coal, vehicle traffic, and reclamation/farming activities.

**MAQP #1570A** was a modification issued on January 6, 1986. The permit action discontinued ambient air monitoring for meteorological parameters and settled particulate matter (a.k.a. dustfall). Total suspended particulate (TSP) monitoring was still required; however, five TSP sites were discontinued, five existing TSP sites continued to operate, and two new TSP sites were added. MAQP #1570A replaced MAQP #1570.

**MAQP #1570B** was a modification issued on December 22, 1988. The annual coal production limit was increased from 5.6 to 6.5 million tons per year. No changes were made to the coal mining methods or coal handling procedures. MAQP #1570B replaced MAQP #1570A.

**MAQP #1570C** was a modification issued on March 22, 1990, that dealt only with ambient air monitoring. A new particulate matter-monitoring site was required near Castle Rock Lake Drive. The description of monitoring sites #12 & #13 were revised to correct a transposition error from an earlier permitting action. Clarifying language was added that explained the Department of Environmental Quality's (Department) policy for future ambient PM<sub>10</sub> monitoring requirements. Lastly, the ambient air monitoring requirements were removed from the body of the permit and placed in an attachment to the main permit (hereafter referred to as Attachment 1). MAQP #1570C replaced MAQP #1570B.

**MAQP #1570-04** was a modification issued on September 1, 1994. The annual coal production limit was increased from 6.5 to 7.5 million tons per year. No other operational changes were made. MAQP #1570-04 replaced MAQP #1570C.

**MAQP #1570-05** was a modification issued on June 15, 2000. The permit action was an administrative change requested by Western Energy on March 30, 2000. Western Energy requested corrections to the site location description in their permit. Additionally, the permit was updated to reflect the current format and language used in permits. MAQP #1570-05 replaced MAQP #1570-04.

**MAQP #1570-06** was a modification issued on July 19, 2001. The Department received a letter, dated April 27, 2001, from Western Energy requesting termination of the ambient air-monitoring network. Following the October 9, 1998, permitting guidance statement, the Department reviewed the ambient air monitoring data. In a letter dated May 23, 2001, the Department agreed to Western Energy's request to terminate their ambient monitoring program, effective July 1, 2001. The permit action updated the monitoring requirements to reflect the termination of the ambient air-monitoring network. MAQP #1570-06 replaced MAQP #1570-05.

#### D. Current Permit Action

On April 18, 2013, the Department received an initial application from Bison Engineering, Inc. (Bison), on behalf of Western Energy, for modification of Western Energy's air quality permit to allow expansion to the geographic extent of the mine. The existing MAQP explicitly defined the physical area in which mining activities are permitted. As such, the application requests an expansion of this physical boundary into a new area designated as Area F. No additional coal production capacity was requested, the objective of the expansion is to further extend the life of the mine by replacing areas from which coal has been extracted. Supplemental information and data was received by the Department on June 12, 2013. The current permit action provides for an expansion of the mines operational boundary. No additional stationary or portable equipment are proposed.

This permit action also incorporates a de minimis action approved by the Department on July 20, 2013, which increased the annual production capacity limit by 500,000 tons to a total of 8.0 million tons per year. In addition this permit action updates permit language and rule references used by the Department, as well as updates the emission inventory. **MAQP #1570-07** replaces MAQP #1570-06

#### E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technologies (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

### II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available upon request from the Department. Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

#### A. ARM 17.8, Subchapter 1 - General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions: This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

Western Energy shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation, or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant which would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.

B. ARM 17.8, Subchapter 2 - Ambient Air Quality, including, but not limited to:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide (SO<sub>2</sub>)
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide (NO<sub>2</sub>)
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide (CO)
5. ARM 17.8.213 Ambient Air Quality Standards for Ozone (O<sub>3</sub>)
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide (H<sub>2</sub>S)
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter (PM)
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standards for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for Particulate Matter with an Aerodynamic Diameter of Ten Microns or Less (PM<sub>10</sub>)

Western Energy must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 - Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308, Particulate Matter Airborne. (1) This rule requires an opacity limitation of 20% for all fugitive emission sources and that reasonable precautions are taken to control emissions of airborne particulate matter. (2) Under this rule, Western Energy shall not cause or authorize the use of any street, road or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.309 Particulate Matter Fuel Burning Equipment. This rule requires that no person shall cause, allow or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.
4. ARM 17.8.310 Particulate Matter Industrial Processes. This rule requires that no person shall cause, suffer, allow, or permit to be discharged into the outdoor atmosphere from any operation, process or activity, particulate matter in excess of the amount shown in this rule.

5. ARM 17.8.322, Sulfur Oxide Emissions-Sulfur in Fuel. This rule requires that no person shall cause, allow or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule
  6. ARM 17.8.324(3) Hydrocarbon Emissions--Petroleum Products. No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule
  7. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). The owner and operator of any stationary source or modification, as defined and applied in 40 CFR Part 60, shall comply with the NSPS.
    - a. 40 CFR Part 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:
    - b. 40 CFR Part 60, Subpart Y – Standards of Performance for Coal Preparation Plants and Processing Plants. Process operations at this facility that meet the definition of affected facilities include any coal processing and conveying equipment, coal storage systems, or coal transfer and loading systems.
  8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This rule incorporates, by reference, 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories. Western Energy shall comply with the requirements of 40 CFR Part 63, as applicable.
- D. ARM 17.8, Subchapter 5 - Air Quality Permit Application, Operation and Open Burning Fees, including but not limited to:
1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an MAQP application. A permit application is incomplete until the proper application fee is paid to the Department. Western Energy submitted the appropriate permit application fee for the current permit action.
  2. ARM 17.8.505, Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an MAQP (excluding an open burning permit) issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air MAQP application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar year basis, including provisions that prorate the required fee amount.

- E. ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including but not limited to:
1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an MAQP or permit modification to construct, modify, or use any air contaminant sources that have the potential to emit (PTE) greater than 25 tons per year of any pollutant. Western Energy has a PTE greater than 25 tons per year of PM, PM<sub>10</sub>, Volatile Organic Compounds (VOC); therefore, an MAQP is required.
  3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the MAQP program.
  4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the MAQP Program.
  5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. Western Energy submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. Western Energy submitted an affidavit of publication of public notice for the April 18, 2013, issue of the *Independent Press*, a newspaper of general circulation in the City of Forsyth in Rosebud County, as proof of compliance with the public notice requirements.
  6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
  7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
  8. ARM 17.8.755 Inspection of Permit. This rule requires that MAQPs shall be made available for inspection by the Department at the location of the source.
  9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Western Energy of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
  10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An MAQP shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
12. ARM 17.8.763 Revocation of Permit. An MAQP may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
13. ARM 17.8.764 Administrative Amendment to Permit. An MAQP may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
14. ARM 17.8.765 Transfer of Permit. This rule states that an MAQP may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 – Prevention of Significant Deterioration (PSD) of Air Quality, including but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to the Federal Clean Air Act (FCAA) that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source since this facility is not a listed source and the source's potential to emit (excluding fugitive emissions) is below 250 tons per year of any pollutant.

G. ARM 17.8. Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any source having:
  - a. Potential to emit (PTE) > 10 ton/year of any single Hazardous Air Pollutant (HAP), PTE > 25 ton/year of total combined HAPs, or lesser quantity as the Department may establish by rule;

- b. PTE > 100 ton/year of any pollutant; or
  - c. Sources with the PTE > 70 ton/year of PM<sub>10</sub> in a serious PM<sub>10</sub> non-attainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #1570-07 for Western Energy, the following conclusions were made:
- a. The facility's PTE is less than 100 ton/year for any pollutant, excluding fugitives.
  - b. The facility's PTE is less than 10 tons/year for any single HAP and less than 25 ton/year of combined HAPs.
  - c. This source is not located in a serious PM<sub>10</sub> non-attainment area.
  - d. This facility is subject to NSPS 40 CFR 60 Subpart Y
  - e. This facility is not subject to any current NESHAP standards.
  - f. This source is not a Title IV affected source, nor a solid waste combustion unit.
  - g. This source is not an EPA designated Title V sources.

Based on these conclusions, the Department has determined that Western Energy will be a minor source of emissions as defined under Title V. Therefore, a Title V operating permit is not required.

### III. BACT Determination

A BACT determination is required for each new or modified source. Western Energy shall install on the new or modified source the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized.

The expansion of mining activities into Area F will result in an increase in fugitive dust from light vehicle and heavy truck traffic. Coal extraction techniques employed within Area F will remain the same as with the rest of the mine. An increase in coal production capacities will not result from this action and the area of disturbed acres from the stages of mining will be equivalent to past activity. As such, emissions from topsoil removal, overburden, removal, coal extraction, coal processing, and reclaim activities are accounted for within the current emission inventory. Coal extracted from Area F will be transported via haul truck to the Area C or Area A truck dump for further processing. Additional activity presented by the Area F expansion is limited the extended access roads distance within the expansion boundary and the haul roads to the existing coal handing facilities at Area C and Area A. Therefore, the only increase in emissions as result of this permit action is that from coal haul trucks and light duty support vehicle traffic.

The following BACT analysis addresses available and proposed methods for controlling fugitive particulate emissions from haul roads and access roads. The Department presents the following BACT determinations.

The application of water and/or chemical dust suppressants represent the most common and readily available method for controlling fugitive dust from haul roads. These practices are addressed within the existing MAQP covering Area C mining activities. Further Western Energy is required to comply with the reasonable precaution requirements prescribed within ARM 17.8.308 for minimizing particulate emissions from access roads, haul roads, and general mine areas.

Western Energy currently maintains a Fugitive Dust Control Plan in accordance to ARM 17.24.761 and the work practice standards established within MAQP, which includes elements utilized in the control of dust from haul roads. Specific elements of the plan which address haul roads include;

- All unpaved roads will be watered or a dust palliative used as needed to reduce fugitive dust.
- Vehicle speeds will be restricted on haul roads to reduce the amount of fugitive dust.
- Unpaved haul and access roads will be chemically stabilized with nontoxic soil cement or dust palliatives mixed into the upper 1 to 2 inches of road surface as necessary.
- All roads will be routinely maintained by means such as, but not limited to, wetting, scraping or surfacing, chemical dust suppression addition, sanding, and replacement of surfacing materials.

Western Energy proposes the ongoing maintenance and implementation of a dust control plan, which includes the aforementioned techniques as BACT for the control of fugitive particulate matter. The control options selected contain control equipment and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards. The Department determined that implementation and maintenance of an formal dust control plan, which includes using water and/or chemical dust suppressant to ensure compliance with the opacity requirements and reasonable precaution limitations, constitutes BACT.

#### IV. Emission Inventory

The following table presents the total emissions from Area C and the proposed Area F expansion. As a result of this permit action the emission inventory for Area C was updated to reflect emission factors and estimation methods currently employed by the Department. All mining activity, coal extraction, and coal processing are accounted for under the Area C emission inventory. A complete emission inventory is available from the Department.

Area C - Potential Emissions Summary

<b>Fugitive Emissions</b>							
Emission Source(s)	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	CO	NO <sub>x</sub>	SO <sub>2</sub>	VOC
Topsoil Removal	74.93	37.46	3.75	--	--	--	--
Topsoil Dumping	2.85	1.35	0.2	--	--	--	--
Overburden Drilling	4.22	0.52	0.05	--	--	--	--
Overburden Blasting Cast Blasting	110.95	57.69	3.33	--	--	--	--
Overburden Removal - Dragline	623.78	120.22	10.6	--	--	--	--
Overburden Handling - Truck/Shovel	250.88	188.16	4.77	--	--	--	--
Overburden Dumping	2.85	1.35	0.2	--	--	--	--
Overburden Handling - Bulldozer	97.8	18.57	10.27	--	--	--	--
Haul Roads - Travel	852.27	227.09	22.57	--	--	--	--
Access Roads - Unpaved	374	101.56	10.16	--	--	--	--

Area C - Potential Emissions Summary

<b>Fugitive Emissions</b>							
Emission Source(s)	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	CO	NO <sub>x</sub>	SO <sub>2</sub>	VOC
Coal Drilling	0.71	0.09	0.01	--	--	--	--
Coal Blasting	40.67	21.15	1.22	--	--	--	--
Coal Removal	0.33	0.11	0.02	--	--	--	--
Explosive Detonation (ANFO)	--	--	--	577.04	146.41	17.23	--
Disturbed Acres - Complete (< 2 yrs.)	39.79	19.89	1.99	--	--	--	--
Disturbed Acres - Partial (< 1 yrs.)	134.06	67.03	6.7	--	--	--	--
Disturbed Acres - Partial (> 1 yrs.)	119.51	59.76	5.98	--	--	--	--
Disturbed Acres - Pits, Peaks, Soil Stripping	1066.13	533.06	53.31	--	--	--	--
<b>TOTAL FUGITIVE EMISSIONS ►</b>	<b>3795.73</b>	<b>1455.06</b>	<b>135.13</b>	<b>577.04</b>	<b>146.41</b>	<b>17.23</b>	<b>0</b>

<b>Non-Fugitive Emissions</b>							
Emission Source(s)	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	CO	NO <sub>x</sub>	SO <sub>2</sub>	VOC
Truck Dump - Coal	0.27	0.1	0.01	--	--	--	--
Coal Crusher	0.8	0.24	0.02	--	--	--	--
Coal Conveyors	0.08	0.03	0.004	--	--	--	--
<b>TOTAL NON-FUGITIVE EMISSIONS ►</b>	<b>1.15</b>	<b>0.37</b>	<b>0.034</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Area F - Potential Emissions Summary

<b>Fugitive Emissions</b>							
Emission Source(s)	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	CO	NO <sub>x</sub>	SO <sub>2</sub>	VOC
Haul Roads - Travel	309.51	82.47	8.2	--	--	--	--
Access Roads - Unpaved	36	9.78	0.98	--	--	--	--
<b>TOTAL FUGITIVE EMISSIONS ►</b>	<b>345.51</b>	<b>92.25</b>	<b>9.18</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

V. Existing Air Quality

The Rosebud Mine is located in areas designated as attainment/unclassifiable for the PM<sub>10</sub> National Ambient Air Quality Standard (NAAQS). MAQP #1570-07 contains emission limits and control measures to limit impacts to existing air quality.

VI. Air Quality Impact Analysis

Based upon an evaluation of historical data, consideration of the activities proposed, and limitations and control measures present within MAQP #1570-07, the Department has determined that impacts to ambient air quality from this permit action will be minor. Furthermore, the proposed expansion into Area F will not result in a violation of ambient air quality standards.

Historical data relates to past PM<sub>10</sub> monitoring results and a review of available production data collected during the monitoring period. Pursuant to permit conditions, Western Energy was required to operate seven PM<sub>10</sub> ambient air quality monitoring sites from 1992 through 2000. These sites were

situated throughout the entire Rosebud Mine complex. Monitoring during the period from 1992-2000 demonstrated that ambient concentrations of PM<sub>10</sub> were well below the NAAQS and Montana Ambient Air Quality Standards (MAAQS). The highest 24-hour average PM<sub>10</sub> concentration recorded from any individual station during the active monitoring period was 80 micrograms per cubic meter (µg/m<sup>3</sup>). The next highest 24-hour average concentration reported was 78µg/m<sup>3</sup>. In turn, the highest annual average PM<sub>10</sub> concentration recorded from any individual site was 14 µg/m<sup>3</sup>. The highest 24-hour and annual average PM<sub>10</sub> are 53% and 28% of the respective ambient air quality standard. Based on an ongoing demonstration of compliance with the PM<sub>10</sub> NAAQS and MAAQS, Western Energy requested authorization from the Department to discontinue ambient monitoring. The request was approved and monitoring ceased in 2001.

A review of production related data from the period in which monitoring was performed (1992-2000) indicates Area C mining activity was generally representative of current activity. Coal production for the years 1994 through 2000 (years of available data during the 1992-2000 monitoring time period) from Area C averaged 6.29 million tons per year, with a high production of 7.52 million tons in 1999. In comparison, coal production during the period 2008 through 2012 from Area C averaged 6.96 million tons per year, with a high production of 7.87 million tons in 2008. As a result, ambient PM<sub>10</sub> concentrations produced during 1992 through 2000 should be representative of current and projected mine activity.

In considering the activities proposed under the current permit action. The expansion into Area F will encompass an additional 6,746 acres, bringing the combined extent addressed by MAQP #1570-07 to 12,817 acres. As proposed the expansion does not entail any additional mining activity or associated emission increase. Emissions concomitant with topsoil and overburden removal and handling, blasting, and coal extraction are accounted for with the existing emission inventory. A portion of this mining activity will be reallocated to the expansion site. Any new or increased sources of emissions will be limited to the extension of access and haul roads necessary to bring coal to the existing truck dump area located in Area C. MAQP #1570-07 will place a restriction on the amount of coal produced from Area F to 4.0 million tons per year. With the coal production limit of 4.0 million tons per year placed on Area F, the continuation of the existing permit-wide coal production limit of 8.0 million tons per year, as well as the effective expansion to the geographic extent of mining activities over a larger area; it is reasonable to consider impacts from this permit action will not create significant additional impacts to air quality.

Concerning particulate emission with an aerodynamic diameter of 2.5 microns or less (PM<sub>2.5</sub>), the Department took derived PM<sub>10</sub> ambient concentrations from past monitoring and applied given PM<sub>2.5</sub> to PM<sub>10</sub> ratios. Several EPA referenced emission factors have been generated from test programs aimed to establish this correlation. Generally accepted estimates from such initiatives consistently present emission fractions of PM<sub>2.5</sub> at a range of 0.1 to 0.15 for unpaved roadways and 0.15 to 0.2 for wind erosion from industrial and construction sites. No specific data is available for western coal mines, however emission factors were developed from sources with similar characteristics, including; large open cut aggregate mines and large-scale construction projects.

Application of the highest PM<sub>2.5</sub> to PM<sub>10</sub> ratio referenced, in conjunction with the highest 24-hour and annual average PM<sub>10</sub> observed concentrations from the previously mention monitoring data, indicates expected PM<sub>2.5</sub> ambient concentration will be well below the prescribed NAAQS and MAAQS. Consequently PM<sub>2.5</sub> emissions resulting from this permit action will not significantly impact air quality.

Therefore, at this time the Department is not requiring Western Energy to present ambient air quality modeling or the operation of ongoing ambient air monitoring systems to demonstrate compliance with the NAAQS/MAAQS.

## VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted the following private property taking and damaging assessment.

YES	NO	
✓		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	✓	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	✓	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	✓	4. Does the action deprive the owner of all economically viable uses of the property?
	✓	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	✓	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	✓	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	✓	7a. Is the impact of government action direct, peculiar, and significant?
	✓	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	✓	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	✓	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

## VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**Permitting and Compliance Division**  
**Air Resources Management Bureau**  
**P.O. Box 200901, Helena, Montana 59620**  
**(406) 444-3490**

**DRAFT ENVIRONMENTAL ASSESSMENT (EA)**

*Issued To:* Western Energy Company  
P.O. Box 99  
Colstrip, MT 59323

*Montana Air Quality Permit (MAQP):* 1570-07  
*Preliminary Determination Issued:* 07/22/2013  
*Department Decision Issued:*  
*Permit Final:*

1. *Legal Description of Site:* Area F is located in Sections 3-6, Township 1 North, Range 40 East in Rosebud County, Sections 19, 20, and 27-34 in Township 2 North, Range 40 East in Rosebud County, and Sections 12-14 and 23-25, Township 2 North, Range 39 East in Treasure County. The list of permitted equipment can be found in Section I of the permit analysis.
2. *Description of Project:* Western Energy Company (Western Energy) proposed an expansion to the geographic extent of the mine. The existing air quality permit explicitly defined the physical area in which mining activities are permitted. As such, Western Energy requested an expansion of this physical boundary into a new area designated as Area F. No additional coal production capacity or stationary or portable equipment are proposed.
3. *Objectives of Project:* the objective of the expansion project is to further extend the life of the mine by expanding areas from which coal will be extracted.
4. *Alternatives Considered:* In addition to the proposed action, the Montana Department of Environmental Quality – Air Resources Management Bureau (Department) considered the “no-action” alternative. The “no-action” alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the “no-action” alternative to be appropriate because Western Energy demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the “no-action” alternative was eliminated from further consideration.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a Best Available Control Technology (BACT) analysis, would be included in MAQP #1570-07.
6. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the environment. The “no-action” alternative was discussed previously.

Potential Physical and Biological Effects							
		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats					✓	yes
B	Water Quality, Quantity, and Distribution			✓			yes
C	Geology and Soil Quality, Stability, and Moisture					✓	yes
D	Vegetation Cover, Quantity, and Quality					✓	yes
E	Aesthetics			✓			yes
F	Air Quality			✓			yes
G	Unique Endangered, Fragile, or Limited Environmental Resource					✓	yes
H	Demands on Environmental Resource of Water, Air, and Energy					✓	yes
I	Historical and Archaeological Sites					✓	yes
J	Cumulative and Secondary Impacts			✓			yes

**SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS:** The following comments have been prepared by the Department. Only off-site impacts created by the release of air pollutants are address. Some inferences are made to the potential physical and biological effects to receptors within the boundary of the project are address.

Department of Environmental Quality (DEQ) officials under the Montana Environmental Policy Act (MEPA), in conjunction with the United States Department of Interior – Office of Surface Mining, Reclamation, and Enforcement (OSMRE) are conducting a formal Environmental Impact Statement (EIS). Any conclusions present within this preliminary assessment are based information available to the Department as the time of this assessment. The conclusions of the EIS will supersede those presented within this draft EA. Department will update this section or provide reference at the time the EIS is final.

A. Terrestrial and Aquatic Life and Habitats:

The proposed expansion would result in increased emissions of fugitive dust and loss of terrestrial habitans by disturbances created by surface mining activities. Conditions which control fugitive dust would be required within MAQP #1570-07 to ensure significant air quality impacts would not occur. Such conditions would include; specific best management practices, requirement to maintain a fugitive dust control plan, as well as, inherit reasonable precautions requirements. No significant sources of surfaces waters are near the project site. Due to the proximity of surface waters to the Western Energy site, any impact to off-site aquatic life and habitant would be expect to be minor.

B. Water Quality, Quantity, and Distribution:

Emissions resulting from this permitting action would likely have a minor or limited effect on the water quality, water quantity, and distribution, as surface waters are not prevalent within the immediate area surrounding the mine site. Particulate matter emissions from disturbance of soils and coal deposits would be deposited at varying distance within the mine boundary or vicinity depending upon particle size, location of release, and wind affects. However, because of pollutant characteristics and generally good dispersion in the area, minor pollutant deposition on surface waters near the project area may occur from surface disturbances and roadways. Air emissions from this source would not likely impact groundwater. Therefore, fugitive dust emissions the project would be expected to have only minor impacts to water quality, quantity or distribution in the area.

C. Geology and Soil Quality, Stability, and Moisture:

This project would be expected to impact the geology and soil properties from land disturbances associated with mining operations and material handling activity. The air quality permit associated with this project would contain limitations and conditions to minimize the effect of the emissions to off-site aspects. However, the potential effects would be determined through the formal EIS.

D. Vegetation Cover, Quantity, and Quality:

The particulate matter, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions from this project would be expected to have an effect on the surrounding vegetation with respect to cover, quantity and quality; however, the air quality permit associated with this project would contain limitations to minimize the impact on the surrounding environment. Overall, this project would expect to have minor effects on the vegetation cover, quantity and quality. The formal EIS will address the overall impact, as well, as require reclamation step to ensure that native vegetation is returned to the site.

E. Aesthetics:

The expansion project would likely have minor impacts on the surrounding property from a visual perspective. However, activity within the expansion area would be similar to current mining operations located adjacent to the proposed project area. The degree of visual impact would be similar to existing impacts from current operations. In addition, depositions of particulate matter species would not likely have any significant impact to other aesthetic aspects of the surround area as only a minor increase in emission would occur as a result of this project. The Department determined minor changes in the aesthetic value of the site would be expected as a result of this project.

F. Air Quality:

The proposed expansion would impact receptors and resources within the proposed project area due to an increase in fugitive emissions of particulate matter, PM<sub>10</sub>, and PM<sub>2.5</sub> from the expanded length of access and haul roads. Emissions of particulate matter from coal extraction and processing, as well as, related overburden and topsoil material handling are accounted for within the existing emission inventory and would not increase as a result the permit action. Emissions of nitrogen oxide (NO<sub>x</sub>), carbon monoxide (CO), volatile organic compounds (VOC), sulfur dioxide (SO<sub>2</sub>), and non-criteria pollutants, generated during blasting of various surface and subsurface layers, are also accounted for within the existing air quality permit and would not increase.

Based on ambient concentration determinations of past monitoring and modeling, the representativeness of the current, as well as, proposed mining activity, and the amount of emission increases from the expansion of the access and haul roads any impact is expected to be minor. The potential for impact is further mitigated when considering the dispersion characteristics of the locale, properties of pollutants, and the conditions established in MAQP #1570-07. The Department has determined that the amount of increased particulate emissions resulting from the proposed project would not cause a significant degradation and any impact to air quality from the proposed project would be expected to be minor as a result of the current permit action.

G. Unique Endangered, Fragile, or Limited Environmental Resources:

In an effort to identify any unique endangered, fragile, or limited environmental resources in the area, the Department contacted the Montana Natural Heritage Program, Natural Resource Information System (NRIS). In this case, the area was defined by the section, township, and range of the proposed location with an additional 1-mile buffer zone. Search results identified the following animal species of concern may be present within the search radius:

- Golden Eagle
- Greater Sage-Grouse
- Burrowing Owl
- Red-headed Woodpecker
- Pinyon Jay
- Hoary Bat
- Pallid Bat
- Greater Short-horned Lizard
- Western Hog-nosed Snake
- Milksnake

Based upon the limited information available at this time, the Department is unable to determine the extent of impacts to unique endangered, fragile, or limited environmental resources created by the proposed project. Upon the conclusion and release of the final EIS the impacts to unique endangered, fragile, or limited environmental will be established.

H. Demands on Environmental Resource of Water, Air, and Energy:

The proposed project would necessitate an increase in the demand for environmental resources of water, air, and energy. Based upon the limited information available at this time the Department is unable to determine the extent of additional demands for these elements. Upon completion of the formal EIS the demand impacts on environmental resources of water, air and energy will be addressed.

I. Historical and Archaeological Sites:

According to cultural resource file search conducted by the State Historic Preservation Office (SHPO), there are multiple recorded cultural sites and previously conducted cultural resource inventories. Based on the findings of the initial file search SHPO recommends that a cultural resource inventory be performed on the expansion site.

At this time the Department is not in the position to stipulate a position with respect to the impact of this project on historical and archaeological sites until a formal cultural resource inventory can be accomplished.

J. Cumulative and Secondary Impacts:

With the exception of any consideration to the impacts for which the Department has determined that insufficient information is available (terrestrial and aquatic life and habitats; geology and soil quantity, stability, and moisture; vegetation cover, quantity, and quality; unique endangered, fragile, or limited environmental resource; demands on historical and archaeological sites; environmental resource of water, air, and energy); the overall cumulative and secondary impacts from the proposed project to the physical and biological receptors in the immediate area due to increase emissions of particulate from the proposed expansion would be expected to be minor. Air pollution from the facility would be controlled by Department-determined BACT, as discussed in Section III of the permit analysis, along with the limitations and conditions in MAQP #1570-07. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as outlined within the air quality permit.

8. *The following table summarizes the potential economic and social effects of the proposed project on the human environment. The “no-action” alternative was discussed previous ly.*

Potential Social and Economic Effects							
		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores				✓		yes
B	Cultural Uniqueness and Diversity				✓		yes
C	Local and State Tax Base and Tax Revenue				✓		yes
D	Agricultural or Industrial Production			✓			yes
E	Human Health			✓			yes
F	Access to and Quality of Recreational and Wilderness Activities			✓			yes
G	Quantity and Distribution of Employment				✓		yes
H	Distribution of Population				✓		yes
I	Demands for Government Services			✓			yes
J	Industrial and Commercial Activity			✓			yes
K	Locally Adopted Environmental Plans and Goals				✓		yes
L	Cumulative and Secondary Impacts			✓			yes

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS: The Department has prepared the following comments.

A. Social Structures and Mores:

The proposed project would not expect a significant disruption to any native or traditional lifestyles or communities (social structures or mores) in the area because the proposed project area is currently undeveloped agricultural or livestock grazing land. Further the expansion area is predominately owned by private entities or individuals. The Department is not aware of any current utilization by native or traditional communities. Therefore no known impact to social structures and mores would be expected.

B. Cultural Uniqueness and Diversity:

As discussed within the aforementioned section the proposed project would not be expected to impact the cultural uniqueness and diversity of the area because the proposed project would be located within area which is currently undeveloped and for the most part under private ownership.

C. Local and State Tax Base and Tax Revenue:

The proposed expansion would not likely result in any increase in production capacity or a need for additional employees; therefore no effect on the local/state tax base or tax revenue would be expected.

D. Agricultural or Industrial Production:

The proposed project would likely displace or otherwise affect agricultural land or practices. Livestock grazing on private lands would require relocation; however, private owners would have understanding of this impact and would have willingly relinquished these rights under the lease contract. Therefore, impact on agricultural or industrial production as a result of the proposed project would be expected to be minor.

E. Human Health:

The proposed project would result in a minor increase in emissions the expansion project. However, MAQP #5707-07 contains limitations and conditions including, but not limited to, the BACT requirements discussed in Section III of the permit analysis, to ensure that the operations would maintain compliance with all applicable rules and standards. These rules and standards are designed to be protective of human health. Any impact to human health from the proposed project would be expected to be minor.

F. Access to and Quality of Recreational and Wilderness Activities:

The majority of the surface lands within the expansion area are under private ownership. A single section and two partial geographic sections are owned by the State of Montana. As a limited area of public land encompasses the mine expansion there would be some impact to access to recreational and wilderness activities. The public lands impacted do not appear to be designated recreational areas with state developed or maintained facilities such as, trails, campsites, day use areas, etc. However, these areas would not be available for public use during the time the area is occupied by Western Energy until completion of the reclamation process. Therefore, minor impacts to access to and quality of recreational and wilderness activities would be expected.

G. Quantity and Distribution of Employment:

According to Western Energy the proposed project would not necessitate the hiring of additional employees, therefore no effect on the quantity and distribution of employment would be expected as a result of the expansion.

H. Distribution of Population:

As no additional employees are expected from this project an impact on the distribution of population would not be expected.

I. Demands for Government Services:

Government services would be required for acquiring the appropriate permits from government agencies and for ongoing interaction with Western Energy. The expansion would not likely increase the need for government service resources beyond the current capacity. As a result of this project demands for government services would be expected to be minor.

J. Industrial and Commercial Activity:

The proposed project would not result in any increase in production from the Western Energy site; however, an expansion of the area of impact of industrial or commercial activity would occur. The geographic expansion into Area F would result in a disturbance of an additional 4,287 acres of land. However, as no additional production would result and any increase in air emissions would result from fugitive emissions from haul roads and access roads. As the majority of the land is under private ownership for which the land owners have willingly relinquished right to any impact to industrial and commercial activity would be expected to be minor as a result of this project.

K. Locally Adopted Environmental Plans and Goals:

The Department is not aware of any locally adopted environmental plans or goals. State and federal air quality standards and air quality plans would apply to proposed site.

L. Cumulative and Secondary Impacts:

Overall, cumulative and secondary impacts from this project would result in a minor to impacts to the economic and social environment in the immediate area. As previously stated, the proposed project would not result in any change to Western Energy personnel and would not result in any increase in ore production at the facility. The Department believes that Western Energy could be expected to operate in compliance with all applicable rules and regulations as outlined in MAQP #1570-07.

Recommendation: No Department-required EIS is recommended.

If an EIS is not required, explain why the EA is an appropriate level of analysis:

The DEQ and OSMRE are conducting a formal Environmental Impact Statement (EIS) for the proposed Western Energy expansion into Area F.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program, DEQ – MEPA Office, and OSMRE.

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program, DEQ – MEPA

EA prepared by: D. Kuenzli

Date: July 18, 2013