A list of subsidiaries of Peabody Energy Corporation, which hold, have held, or have pending coal mining permits within the United States within the past five years is provided in Exhibit 42a. Included are the regulatory authority permit numbers and MSHA numbers.

All surface owners of record within and immediately adjacent to the permit area are shown on Map 1. All coal owners of record within and immediately adjacent to the permit area are shown on Map 2. Their addresses are as follows:

SURFACE AND COAL OWNERSHIP

Axial Basin Ranch Co.
c/o Colowyo Coal Co.
5731 State Highway 13
Meeker, Colorado 81641

Colorado Department of Transportation
4201 E. Arkansas Avenue
Denver, Colorado 80222

Sage Creek Holdings, LLC
701 Market Street
St. Louis, MO 63101

State of Colorado
Board of Land Commissioners
1127 Sherman Street - Suite 300
Denver, Colorado 80203

U.S. Bureau of Land Management
Little Snake Resource Area
455 Emerson
Craig, Colorado 81625

SURFACE OWNERSHIP

Dugan, Joseph, Revocable Trust
7228 Stormson Drive
Las Vegas, NV 98145

Ellgen, Larry & Gary (Family Trust)
530 5th Avenue West
Craig, Colorado 81625

Ellgen, Gary & Martha
530 5th Ave W
Craig, Colorado 81625

Hogue, John M. and Danita G.
PO Box 1297
Craig, Colorado 81626

Lux, Francis P. and Louise M.
PO Box 682
Craig, Colorado 81626

Mitchell, James Jeffery & Kathleen C et al.
867 Langford Dr.
Craig, Colorado 81625

Powell, Jerry R.
PO Box 93
Hamilton, Colorado 81638

Raftopoulos, John
351 School Street, #1
Craig, Colorado 81625

Timmer, Jacob & Stacy
595 Steele Street
Craig, Colorado 81625

Trapper Mining Company
P.O. Box 187
Craig Colorado 81626

COAL OWNERSHIP

Cook, Dale A. and Danna E.
398 Skyler Street
Grand Junction, Colorado 81501

Entrust Freedom, LLC (Former Martin Property)
C/O Keith Owens
1520 Royal Palm Square Blvd. – Suite 320
Fort Meyers, Florida 33919

Greeley Land & Coal Co. (Terminated April 1, 2003)
PO Box 443
Greeley, Colorado 80543

Haubrich Family Trust
C/O Charles E. and Janet M. Haubrich – Trustees
8074 Shadowood Court
Granite Bay, California 95746

Haustein, R. Bruce and Godley, Karen A.
1214 Main Street
Pella, Iowa 50219

Herrick, Jeffery D.
2-1-15 Nishiai
Ibaraki, Osaka, Japan 567-8502

Herrick-Juarez, Adriana
1885 West 7265 South
West Jordan, Utah 84084

2.05.4 RECLAMATION PLAN

MCM has consolidated the permit information for all of its existing and proposed facilities, operations, and reclamation activities. Of the three underground mines; much of No. 5 Mine has been mined out, and the No. 5 Mine Portals have been sealed and reclaimed; the No. 5A/6 Mine portals have permanent seals in place and backfilling of thee portal area is proceeding; and the No. 9 Mine workings are mined out and the No. 9 Mine portals have been sealed and the associated facilities reclaimed. The mine access, operations, and status are detailed in Section 2.05.3 Operations Plan-Permit Area.

Final reclamation plans for the Williams Fork Strip Pit are included in Exhibit 24, Williams Fork Strip Pit Reclamation Plans. Backfilling, grading, soil replacement, and revegetation seeding of the Williams Fork Strip Pit area have been completed. The Utah Tract was previously reclaimed by Utah International, as part of the Trapper Mine operations. MCM will apply for phased bond release for these reclaimed areas. Reclamation of the Town Loadout has also been completed, and final bond release has been obtained.

Reclamation Plan - Methodology and Major Steps

The following is a discussion of the general sequence of events, followed during reclamation of various mine disturbance areas. Site-specific plans for each major area are detailed later in this section. The major reclamation steps are as follows:

- Removal of structures and facilities
- Sealing of underground openings and covering of coal seams
- Sealing of monitoring wells
- Backfilling and grading
- Redistribution of soil materials
- Revegetation to appropriate land use(s)

Removal of Structures and Facilities

The first major step in the reclamation plan is removal of all structures and facilities. For each portal area, as well as the coal handling and storage facility, all fans, electrical substations, conveyors, and all other structures associated with the mining operation will be dismantled and removed from the mine site. In general, scrap steel and other materials will be removed from the site, but concrete demolition debris will be placed either in the abandoned underground openings prior to sealing of the portals or in excavated portal areas prior to backfilling. Mining equipment may be left underground if conditions warrant. Hydraulic fluids and oils will be removed from the equipment prior to leaving it underground. When operations ceased in 1995 and the Mine was put in Temporary Cessation status, the longwall system that was operating in the No. 6 Mine had reached the end of its useful life, so all fluids were drained from the equipment to drums or totes and removed from the Mine for disposal, and the longwall equipment was left in place when the Mine was temporarily sealed to prevent unauthorized access.

Given that the Williams Fork Mines have been inactive for a period of several years, MCM periodically evaluates all existing facilities and structures, and has removed and reclaimed any structures and areas which are not critical to support potential future operations. To date, MCM has removed and reclaimed or is proceeding with reclamation of the associated disturbance areas for the following structures and facilities; Old Mine Office Building, Women's Bathhouse, Visitor Bathhouse, and No. 5 Mine Substation – 1996-1998; Men's Bathhouse, Laboratory Trailer and Sample Shed, two Rock-Dust Tanks, Brazell-Simms Building, No. 9 Mine Warehouse, and Reclamation Storage Building, - 2008-2009; and No. 5A/6 Portal Structures, Coal Handling System, Stacking Tube, Storage Silo, Warehouse/shop, all pump housings, substation and powerlines, Railroad Spur, Williams Fork Bridge, and Track-Scale Building – 2016-Present. Those structures and facilities which remain are generally structurally sound, and would have value relative to either potential future mining operations or alternative postmining land uses, if all or portions of the property were converted to another use at some future time.

Facilities projected to remain in-place following permanent cessation of all mining operation and site reclamation to support the planned postmining land use include the main haulroad leading from State Highway 13 to the No. 5 portal;

old Highway 13, which provides access to the No. 5A/6 portals; and a portion of road at Williams Fork Strip Pit. If there is interest from the County, Old Highway 13 may be returned to Moffat County. The roads to remain after mining are shown on Map 29. Dependent on economic conditions and potential opportunities, MCM may consider alternative postmining land uses for certain portions of the Permit Area, as appropriate. As part of this consideration, MCM will also evaluate the value and utility of certain facilities, including but not limited to the Multi-Services Building, MCM acknowledges that any change in postmining land use and approval for permanent retention of facilities will require submittal and approval of a revision to the existing approved Permit.

Sealing of Underground Openings and Covering of Coal Seams

The next step in the reclamation plan is the sealing of all mine entrances and covering of all coal seams exposed during the mining operations. All mine openings will be sealed in accordance with approved MSHA plans and regulations. This will involve backfilling and sealing, through the use of approved seals, to close all portals and entrances to the underground areas. A typical seal plan is presented on Figure 57, Typical Portal Seal Plan. All exposed coal seams will be covered with a minimum of four feet of inert material. To date, MCM has sealed and covered the exposed coal seams for the No. 5 (1997) and No. 9 Mine Portals (1987/2008-2009).

Sealing of Monitoring Wells

When monitoring wells are no longer required, they will be sealed in accordance with Section 4.07. Any monitoring well that is to be mined-through will be sealed in accordance with Section 4.07 prior to mining through the well.

Backfilling and Grading.

The next step in the reclamation plan involves backfilling and grading of the portal areas as well as other facility areas to establish a stable configuration, reestablish effective drainage, and blend with the surrounding terrain. Areas requiring backfill are included on Table 63, Overburden Redistribution. The volumes included in this Table were developed by comparing the existing topography with the topography to be achieved through reclamation. Disturbed areas will be rough graded to the approximate contours shown on the Reclamation Plan Map (Map 29). Post- disturbance cross-sections for the various disturbed areas are presented in Exhibit 20, Post-Disturbance Cross-Sections. To date, MCM has backfilled and graded the following mine disturbance areas; No. 9 Mine Portal area and Refuse Disposal Area – 1987/2008-2009; No. 5 Mine Portal area – 1997-1998; Old Mine Office, Women's/Visitor's/Men's Bathhouse, Lab Trailer and Sample Shed, Brazell-Simms Building, No. 9 Mine Warehouse, and Reclamation Storage Building, - 2008-2009.

Redistribution of Soil Materials

The next step in the reclamation plan will be the redistribution of soil or plant growth media. In any areas where there is evidence (soil staining) or reasonable potential for petroleum contamination (shop, equipment parking, and petroleum storage), soil samples will be collected and tested for the presence of petroleum residues. If petroleum residues are detected for a sample(s), excavation and testing of soils in the corresponding area will occur, and any petroleum contaminated soils will be removed and hauled off-site for land-farming or disposal by a qualified contractor. The soil materials or best available plant growth media, will be redistributed by scrapers or small end-dump trucks and spread with dozers or graders. The rough-graded backfill surface will reduce the potential for slippage and promote rooting and moisture infiltration, and equipment operations will be conducted to minimize or mitigate compaction.

Many of the disturbed areas associated with the Williams Fork operations were previously disturbed by past mining and related activities. These operations occurred prior to implementation of current reclamation regulations. As such, no topsoil was salvaged from many of these areas. MCM's predecessor companies, in cooperation with the CMLRD completed sampling programs for some of these areas to identify the best available plant growth media. Results of the

Area-Specific Reclamation Plans

The following discussions detail site-specific reclamation plans and reclamation status for distinct mine areas:

- No. 5 Portal Area
    - No. 5A Portal Area
    - Coal Storage/Loading Silo
    - Overland Conveyor
    - No. 9 Portal Area
    - Waste Disposal Site (approved)
    - No. 5 and No. 6 Mine Water Handling Systems
    - Wastewater Treatment Facility
    - Fresh Water System
    - Red Rock Crusher
    - Old Shop Area (Empire Village)
    - Utah Tract
    - Miscellaneous Areas
    - Multi Service Building
    - Solid Waste Disposal Area

No. 5 Mine Portal Area

The No. 5 Mine Portal Area was initially disturbed in the early 1970's, prior to promulgation of SMCRA. As such, surface facility development and construction did not include salvage of soil materials for later reclamation. This soil material deficiency was addressed by salvaging additional topsoil during subsequent construction of the mine drainage and sediment control system. In addition, up to 24 inches of soil material was salvaged during construction of the shop, wastewater treatment facility, and the No. 5 and No. 6 mine water handling system. Please refer to Table 58, Topsoil Replacement - No. 5 Portal and General Area, for soil replacement volumes. The additional soil material volumes salvaged during these construction activities is summarized in Table 68, No. 5 Portal - Recent Topsoil Salvage Volumes.

Reclamation of the No. 5 Mine Portal Area will follow the general steps outlined at the beginning of this section, modified as follows. All structures and facilities will be removed from the site. This will include, but not be limited to the removal of: railroad tracks, scale-house, coal silo, coal conveying system, rotary breaker, screening plant, reclaim tunnel, all offices, shop/warehouse, laboratory, bathhouses, rock dust tanks, electrical substation, fencing, and the 48-inch overland conveyor, and associated structures. Mobile trailers, including the administration office trailer, which were used as offices have been removed from the site. Any coal remaining in the stack-tube stockpile area will be removed, loaded into trucks, and hauled to the Foidel Creek Mine. Dependent on the nature and extent of ongoing and anticipated future activities, facility removal may be phased, with appropriate facilities remaining in place to support these activities. The value and utility of individual facilities to support ongoing and anticipated future operations or postmining uses will be evaluated prior to demolition and removal, and if appropriate, any request for permanent retention of facilities will be submitted as a revision for CDRMS approval.

The No. 5 Mine Portals were permanently sealed in 1996-1998 by placing an MSHA-approved seal in each of the entries, covering any exposed coal seams, and backfilling the portal cut using non-toxic, non-combustible material. The No. 5 Mine Substation and Women's and Visitor Bathhouses were also removed and associated disturbance areas reclaimed at this time. The remainder of the No. 5 Portal face-up area was backfilled with excess borrow material from the spur track extension, the adjacent coal stockpile pad area, railcar loading/unloading ramps, and excess material from the No. 9 portal excavation. The backfilled face-up area was sloped at approximately 3H:1V to assure a stable configuration and blend with the adjacent undisturbed slopes. Trucks and front-end loaders, graders and dozers were used in the backfilling operation. Placement of the backfill material in lifts and equipment traffic during backfilling operations provided for adequate compaction of the fills. Final grading focused on achieving the design postmining topography and left the surface in a roughened condition.

A second facilities reclamation effort was completed during 2008-2009, with demolition and reclamation of a number of additional buildings and structures and their associated disturbance areas in the No. 5 Portal area, including; the Men's Bathhouse; Laboratory Trailer and Sample Storage Shed; rock-dust tank; and miscellaneous buildings and facilities (Compressor House and Guard-Shack and Warehouse fencing). Future facilities removal and backfilling and grading of the remaining portions of the No. 5 Mine Portal Area will balance material cuts and fills, utilizing existing materials to achieve the design postmining topography, create stable landforms, and promote effective drainage.

In order to stabilize reclaimed areas and promote plant growth, approximately 6 inches of soil material or best available plant growth media has been or will be replaced on all reclaimed facility areas. The redistributed materials will be analyzed to assess fertility and determine if amendments are required. The replaced materials will be analyzed for nitrogen, phosphorus, and potassium. As shown on the Reclamation Plan Map (Map 29), portions of the No. 5 Portal Area will be revegetated to one of two land uses: 1) Rangeland/wildlife habitat; or 2) Pastureland (hayland). Sloped areas, such as the No. 5 Portal face-up area, will be returned to rangeland/wildlife habitat and flatter areas will be returned to a pastureland (hayland) land use. Generally, revegetation seeding will be completed using a rangeland seed drill. If it is necessary to broadcast seed, the seeding rate will be doubled. Straw mulch, applied at the rate of two tons per acre, was applied over the seeded areas, and either crimped in or applied with a tackifier to minimize wind loss. For all future reclamation, cover crop seeding will be used to stabilize re-soiled areas and provide a stable seedbed. For those facilities and associated disturbance areas reclaimed in both 1996-1998 and 2008-2009, soil material replacement and revegetation seeding were completed at the time of reclamation.

The sediment ponds and associated drainage structures will remain in-place until final release, and will then be removed. Soil materials salvaged from the pond areas will be used to reclaim the ponds. The ponds will be graded to blend into the natural topography and seeded with the pastureland (hayland) seed mixture.

No. 5A/6 Mine Portal Areas

The No. 5A Mine Portal was developed off a highwall from an abandoned surface strip mine to access the "F" Coal Seam. Subsequent development of rock slopes and shafts within the mine provided access to the lower "E" Seam workings of the No. 6 Mine. When operations ceased, and the Mine was placed in Temporary Cessation status in 1995, temporary seals were placed on all mine openings to prevent unauthorized access. The previous surface mining predated the present laws and regulations. As such, surface facility development and construction did not include salvage of soil materials for later reclamation. This soil material deficiency was addressed by conducting an overburden-sampling program (developed in consultation with the CMLRD) to determine if any of the overburden materials would be suitable plant growth media. The results of the overburden-sampling program are provided for reference in Exhibit 27, No. 5A Portal Overburden Sampling Results. The results indicated that the top six inches of weathered overburden could be removed and stockpiled for later use as suitable plant growth media.

All surface structures and facilities have been demolished and removed with the exception of the multi-services building. This included the removal of the ventilation fans, electrical substations, fuel island, compressor building and any miscellaneous materials. Generally, salvageable materials and any non-inert wastes will be removed from the site for salvage or disposal, as appropriate. Inert wastes, including concrete demolition and other debris is being placed either in the No. 5A underground workings near the portal or at the toe of the face-up area prior to backfilling. The portal entries have been sealed consistent with the approved MSHA sealing plans. No toxic or combustible materials will be used as sealing materials.

The portal face-up area will be backfilled with the material from the facilities pad and by grading in the highwall. Prior to initiating backfilling and grading operations, the upper 6 inches of vegetated overburden will be salvaged and temporarily stockpiled adjacent to the site for replacement as suitable plant growth media. On completion of backfilling, the portal area will be rough graded to establish a stable configuration. Contour ditches or furrows will be constructed on the reclaimed slope to reduce erosion and provide for effective drainage. These ditches or furrows will be approximately 20 to 50 feet apart and have check-dams placed at periodic intervals. The ditches will be maintained until the vegetation becomes established. It is anticipated that the ditches would fill with sediment in the initial years

following vegetation establishment.

The regraded surface will be left in a roughened condition to minimize slippage and promote root growth and moisture infiltration. The postmining topography of the area is shown on the Reclamation Plan Map (Map 29). Suitable plant growth media will be redistributed over the regraded area, and the reclaimed area will then be planted with a cover crop, and subsequently drill seeded with the rangeland/wildlife habitat seed mixture. If it is necessary to apply the seed by the broadcast method, the seeding rate will be doubled.

The sediment ponds and associated drainage structures will remain in-place until final release, and will either be permitted as a permanent livestock pond or be removed. If needed, soil materials salvaged from the pond areas will be used to reclaim the ponds. The ponds will be graded to blend into the natural topography and seeded with the rangeland/wildlife habitat seed mixture.

Coal Storage/Loading Silo

The coal silo has been demolished and the tracts have been removed. Given the close proximity to the Williams Fork River, special measures were implemented to protect the river. Measures to protect the nearby Williams Fork River during demolition included temporary placement of a protective barrier between the silo and river, and controlled demolition to direct demolition debris away from the river. It should be noted that the main channel of the river is separated from the silo area by both a substantial river bar and a small side channel.

Controlled demolition practice (explosive) was used to bring down and demolish the silo structure. There is a large open area to the west-northwest of the silo which allowed demolition debris to be directed away from the river. Given the importance of protecting the river, MCM selected and worked with a qualified and experienced demolition contractor to develop specific plans for the silo demolition. The resulting concrete and other debris from the silo demolition were placed at the toe of the face-up highwall at the portal area prior to backfilling. Once demolition of the silo and removal of the resulting debris was completed, the associated surface disturbance area was reclaimed as part of the No. 5 Portal area reclamation, as previously described.

Overland Conveyor

All of the overland conveyor systems and facilities were dismantled or demolished, including supports and footings. The removal of the conveyor segments which cross over State Highway 13 and the Williams Fork River required special measures, including coordination with the Colorado Department of Transportation, temporary closure of the highway during conveyor removal operations, and the use of one or more high-lift cranes to remove, lift, and transfer the individual conveyor segments to trucks for removal from the site. This was completed in the spring of 2017. All material capable of being salvaged was salvaged. Any unsalvageable inert materials was placed at the toe of the face-up highwall at the portal area prior to backfilling and/or placed in the 5A underground workings near the portal entries. Similar to other pre-law disturbance areas, topsoil salvage was limited, so the upper weathered overburden material will be recovered prior to backfilling and used as suitable plant growth media in reclaiming the site.

The affected areas will be backfilled and graded using adjacent spoil materials from the previous surface mining operations and material from conveyor and stockpile pads. The backfilling and grading operations will leave the regraded surface in a roughed condition to minimize slippage and promote root growth and moisture infiltration. Contour ditches or furrows will be constructed on reclaimed slopes to reduce erosion and provide for effective drainage. These ditches or furrows will be approximately 20 to 50 feet apart and have check-dams placed at periodic

intervals. The ditches will be maintained until the vegetation becomes established. It is anticipated that the ditches would fill with sediment in the initial years following vegetation establishment. Therefore, no reclamation will be necessary. On completion of backfilling and grading operations, the salvaged plant growth media will be redistributed over the area. The postmining topography of the area is shown on the Reclamation Plan Map (Map 29).

The regraded areas will be planted with a cover crop and subsequently drill-seeded with the appropriate seed mixture (rangeland/wildlife for sloping areas and pastureland for flatter areas). The seed will be applied with a rangeland drill at the rate of 17.25 pounds PLS/acre for the rangeland/wildlife mixture and 17.0 pounds PLS acre for the pastureland mixture. Where it is necessary to broadcast the seed, the seeding rate will be doubled.

No. 9 Mine Portal Area and 7-North Angle Well

As previously discussed in Section 2.05.3, Operation Plan - Permit Area, an additional coal refuse disposal site was established in the No. 9 Mine Portal Area. Prior to establishment of the refuse disposal area, electrical equipment, surface coal haulage equipment (conveyor belt system), ventilation equipment, and miscellaneous mining scrap located in the portal excavation were dismantled and removed from the site, the portal entries, located at the bottom of the portal excavation were sealed and covered with 15 feet of material, and all exposed coal seams were covered with a minimum of four feet of inert backfill material. In conjunction with coal refuse placement activities, a monitoring well was established adjacent to the coal refuse disposal area. The well is monitored on a quarterly basis, consistent with schedule and parameters outlined in Exhibit 29.

Once the initial backfilling was completed, waste material including coarse reject was hauled to the waste area and placed and compacted in 2-foot lifts. Placement continued until the refuse reached a level four feet below the planned reclaimed surface. In 2008, as part of a larger site reclamation project, the No. 9 Portal Warehouse Building was demolished, a solid waste disposal site was permitted and established in the portal backfill area, and the remainder of the portal excavation and refuse area were backfilled and covered with a minimum of four feet of suitable material using materials stockpiled from the original portal excavation. The reclaimed areas were then graded to blend with the surrounding terrain and to reestablish effective drainage consistent with the design postmining topography (Refer to the Reclamation Plan Map, Map 29). The regraded surface was left in a roughened condition to minimize slippage and promote root growth and moisture infiltration. Soil material, which was temporarily stored adjacent to the No. 9 Portal Area, was redistributed over the regraded area to a depth of approximately 6 inches.

The No. 9 Dewatering Installation below old County Road 13 (7-North Angle Well) is no longer needed to support ongoing or anticipated future operations and reclamation has began. The building and facilities have been removed, and plugging and sealing of the dewatering borehole is planned for 2022, consistent with applicable State Engineer requirements. The power have not been disconnected and will remain in place for the time being. On completion of sealing the well, the facilities area will be regraded. The No. 9 Dewatering Installation will be returned to a postmining land use of pastureland. The reclaimed areas either have been or will be reseeded with a cover crop and the appropriate reclamation seed mixture using a rangeland seed drill. Where necessary to apply the seed by the broadcast method, the seeding rates are doubled. It is anticipated that the area to be planted to pastureland or rangeland.

No. 9 Coal Refuse Disposal Area

Given the sloping topography of the refuse disposal area, initial pile construction began at its southern limits, with the initial lifts progressing to the north until the pile surface is level. Once the pile was level, construction was generally from north to south. Lift thicknesses was about 24 inches and each lift was compacted to 90 percent of maximum dry density determined by T-99 procedures. Pile construction specifications are presented in Exhibit 21, Waste Disposal Site.

Once an area of the pile reached the design elevation, a minimum of 2.0 feet, and up to 3.5 feet of suitable non-toxic material was placed as cover on that area. Because the No. 9 Mine portal excavation was filled with waste material, the excavated material in the berm around the pit (approximately 185,000 cubic yards) was used as the source for the non-toxic cover on the waste pile. Following cover material placement, soil or suitable grow media was placed and spread over the reclaimed area to a depth of 6 to 12 inches. Following completion of reclamation for the entire waste pile, any material remaining in the berms was distributed evenly over the No. 9 Mine yard area.

After redistribution of soil and growth media, the soil materials were sampled and analyzed, and any necessary amendments were added to assure adequate soil fertility for revegetation. The area will be returned to a land use of rangeland/ wildlife habitat by seeding with a cover crop and then the rangeland/wildlife seed mixture at a rate of 17.25 pounds/acre if a rangeland drill is used. Reclamation of the Refuse Disposal Area was completed in 2021.

Solid Waste Disposal Facility

Any non-hazardous debris resulting from demolition of mine buildings and facilities, and/or other materials, as defined in Rule 4.11.4, Disposal of Non-Coal Waste, may be disposed of in a permitted Solid Waste Disposal Facility. The proposed solid waste disposal area covers approximately 4.5 acres in Section 32, adjacent to the existing coal refuse pile and No. 9 Portal Area, as shown on Map 25, Structures and Renewable Resources.

The facility was constructed and reclaimed in accordance with applicable provisions of Rule 4.11.4, Disposal of Non-Coal Waste. The disposal area was excavated, as-needed, to provide for effective waste containment and to assure that sufficient material is available to cover the non-coal waste material with a minimum of two feet of soil material. The excavation maintained at least an eight foot barrier of soil material between the adjacent coal refuse waste pile and the non-coal disposal area, and excavation depth was limited so that the bottom of the excavation is well above the natural ground water table in the area. The reclamation of the waste disposal area was finished in 2009

The total area for this facility was approximately 4.5 acres, however, only a portion of the area was in active use at any given time. Waste materials were placed, spread, and compacted to assure long-term stability. If the waste disposal area was used for non-coal wastes that could be subject to wind-loss or vector infestations, or which may be flammable, sufficient cover material will be maintained in stockpile to both meet applicable final cover requirements, and provide for temporary cover requirements. Surface drainage is controlled by the ditch and pond system already in-place, as shown on Map 26, Drainage and Sediment Control Plan.

The final cover placement consisted of a minimum of two feet of suitable, non-toxic cover material, including spoil or other cover material and topsoil or best available plant-growth media (in accordance with Rule 4.11.4). These areas were then be revegetated by seeding with a cover crop and then the pastureland seed mix as the approved postmining land-use as shown on the Reclamation Plan Map (Map 29).

Postmining Discharge – No. 9 Mine

The “P” seam was mined in the No. 9 Mine from March 1985 to August 1988. The mine was driven northward in a downdip direction. The approximate elevation of the bottom of the No. 9 mine portal entry was 6,305 ft., and present ground surface is approximately 6,350 ft. No significant full-extraction mining was performed in the mine.

The water level in the Twentymile Sandstone is estimated to be approximately 6,260 ft., at its highest level in the area

underlying the No. 9 Mine. This estimate is based on the water level contour map for water levels measured in November 1995 (1995 Annual Hydrology Report, Permit C-81-044, Figure 12). The Twentymile Sandstone lies approximately 350 ft. below the "P" seam. Historic water levels in the Twentymile Sandstone have apparently not been effected by mining in the area, as they have remained relatively constant since 1981 (ibid., Figure 10) indicating a limited hydrologic connection between the aquifer and the mine.

The maximum piezometric level of the White Sandstone is estimated to be approximately 6,300 feet where it overlies a location in the No. 9 Mine where measurable flow was encountered. This is based on the mine inflow study (Eagle No. 9 Mine Inflow Study, Map IV-11a, 5/8/83) and the December 1985 water level measurements (1985 Annual Hydrology Report, Permit C 81-044, Figure 17). In addition, the maximum projected piezometric level of the White Sandstone where it overlies any portion of No. 9 Mine is less than 6,320 feet; however, this is at the White Sandstone's outcrop area where it is probably not saturated. The White Sandstone overlies the mine by approximately 125 feet and outcrops approximately 1,000 feet north of the portal. Historic water levels in the White Sandstone were not significantly affected by the mining (refer to 1985 Annual Hydrology Report, Permit C-81-044, Figures 12 –14), again indicating that there is not a good hydrologic connection between the aquifer and the mine.

The indicated vertical groundwater gradient, based on a comparison of the piezometric surfaces in the overlying and underlying sandstones, is downward in the No. 9 Mine area. Even if there were a good hydrologic connection between the aquifers and the mine, the groundwater gradient indicates that the mine would not fill to the surface. Instead, it would refill to an equilibrium level corresponding to the potentiometric surface of the upper (White Sandstone) aquifer.

None of the historic underground mines in the area are known to discharge. This includes the Wise Hill No. 4 Mine, which was accessed by a portal in the "bottom area" and had gradually filled with discharge the No. 5 Mine. It discharged briefly when water from the No. 5 Mine was injected; however, when injection stopped, the discharge ceased. The following summarize key hydrologic considerations:

- The piezometric surface in the aquifer below the mined seam is lower than the portal elevation
- The piezometric surface in the aquifer above the mined seam is lower than the ground surface at the portal site
- Where there was measured inflow to the No. 9 Mine, the highest piezometric head in the overlying aquifer was lower than the portal elevation
- The vertical component of the gradient in the area is downward
- The mine was driven in a down-dip and down-gradient direction
- The mine portal is located at the crop line
- There are no historic springs in the area

None of the historic underground mines in the area are known to discharge, and the No. 9 Mine Portal is at a higher elevation than any of the old mines

Effects of Seepage from No. 9 Portal Backfill

The No. 9 Mine portal backfill will have surface area of approximately five acres. Using an infiltration rate of three-inches per year, the annual infiltration will be less than 1 gpm. This amount is insignificant and will, therefore, have no measurable effect on nearby aquifers. Also, the backfill area is stratigraphically separated from the nearest aquifer, the Twentymile Sandstone, by 360 feet of very low permeability interbedded claystone, siltstones, and sandstones.

No. 5 and No. 6 Mine Water Handling System

The No. 5 and No. 6 mine water handling system was removed and associated disturbance areas reclaimed as it is no longer needed to support ongoing or anticipated future operations. The area in which the ponds and dewatering boreholes were located was returned to the hay cropland land use.

The first step, as in all reclamation activities, was the removal of all-surface structures and facilities. This will include the electrical substation; chemical feed station, and borehole surface casing and enclosures. These structures and facilities will be removed from the site and salvaged or scrapped.

The pumps will be pulled from the dewatering boreholes and all piping was removed from the ponds. The boreholes will be plugged and sealed, consistent with the requirements of Rule 4.07, Sealing of Drill Holes and Underground Openings, and in compliance with applicable State Engineer requirements. The ponds were dried out, and then the pond embankments were pushed in to backfill the pond basins. .

The access road leading to the site will be retained as permanent to allow access to the Williams Fork River. This access may be used for access to the river for the use of water rights for irrigation post mining for the hay cropland.

Stockpiled soil material was redistributed to a depth of 6 to 12 inches over the entire reclaimed area. After redistribution of the soil, the material was analyzed to determine if any amendments are necessary. Reclaimed areas were seeded with a cover crop and then the pastureland/hay cropland seed mixture. A drill was used for seeding. Given the proximity of the facilities to the Williams Fork River, it is possible that reclamation may affect a small area of the adjacent streambank.

Wastewater Treatment Facility

The wastewater treatment facility treated the effluent coming from the bathhouses, laboratory, offices, and shop. The facilities are no longer needed, the treatment facility was reclaimed in 2018.

The first step in the reclamation process was to remove the surface structures. The surface structures include; fence, blower building, control box for the lift station, and the control box for the flow meter. These facilities were salvaged or scrapped. The next step was to remove all airlines and associated materials from the ponds. All fill material covering the pond liner, the liner itself, and the retaining walls were removed. Finally, the chlorinator, manhole, all pumps, and the support structure were removed and the area backfilled. The pond embankment material will be used as backfill. Any excess embankment material was used to supplement backfilling operations at the facility areas.

The area was then topsoiled. The topsoil was redistributed to a depth of 6 inches over the area. Topsoil was analyzed after placement and prior to seeding, and no immediate amendments were necessary. The area was seeded with a cover crop and then the cropland hayland seed mixture.

Fresh Water System

The fresh water system is no longer needed to support the mining operations, the associated disturbed areas were reclaimed. The overland water line was disassembled and removed from the site. The pipe and all fittings were salvaged or scrapped. Minimal disturbance resulted from the removal of the line and there was no need for seeding. The wells will remain as a permanent features (Wise Hill wells #5 & 5A) to benefit the postmining agriculture activities and aid in property value. The storage tank was removed and scrapped. The area was then, re-topsoiled, planted with a cover crop, and seeded with the hayland seed mixture.

Red Rock Crusher

The crusher has been removed from the site and the only features remaining are the rock stockpiles. The rock from these stockpiles will be removed and the site reclaimed consistent with the following plans.

The upper bench and access road leading into to the site will be ripped to a depth of 24 inches and disced to provide a suitable seed bed. The site will then be seeded with a cover crop, and subsequently with the rangeland/wildlife seed mixture. Prior to seeding, the soil will be analyzed to determine if any soil amendments are necessary. It is anticipated the seed mixture will be planted utilizing a rangeland drill. In the event the mixture is broadcast seeded, the seeding rate will be doubled.

The entire length of the cut will be regraded to a slope of 3H:1V to blend the entire length of the cut into the natural topography. The regraded area will then be revegetated as discussed above.

Any additional material that remains after regrading will be spread over the lower bench area. The lower bench area will be retopsoiled with plant growth media stockpiled from the No. 5A portal area. Prior to redistribution of the plant growth media, the lower bench will be ripped to a depth of 18 to 24 inches. After redistribution of the plant growth media, the material will be analyzed to determine if soil amendments are necessary. The area will then be re-seeded.

The magazine site located adjacent to the red rock crusher was reclaimed. The site was reclaimed by removing the fence, magazines and cement pads. The stockpiled topsoil was redistributed over the site. After redistribution, the soil was analyzed to determine if soil amendments were necessary. The area was drill-seeded with the rangeland/wildlife seed mixture.

Old Shop Area (Empire Village)

The Old Shop was located at the now abandoned Empire Village. The Old Shop and associated bone-yards were established prior to any of the present-day mining laws and regulations. As such, no topsoil was available for redistribution over the site. In order to compensate for the topsoil deficiency, the overburden was analyzed to determine if soil amendments were necessary. The results of the analysis dictated what, if any, amendments will be added to the material to be used as a top dressing.

The shop building was torn down and removed from the site. Any mining materials stored in the area were also removed from the site. The area was then be graded to blend with the surrounding terrain. Once grading of the site was completed, the area was covered with the best available plant growth media, as determined above. The site was then drill-seeded with the rangeland/wildlife seed mixture. The area was then straw mulched with the mulch applied at the rate of two tons/acre. Once bond is released for this area, the associated sediment ponds will be graded to blend in with the natural topography. Topsoil salvaged during the construction of the ponds will be used during the reclamation. The ponds will then be drill-seeded with a cover crop and then the rangeland/wildlife seed mixture.

Utah Tract

The Utah Tract is an area of reclaimed surface mine spoils overlying portions of MCM's underground mining areas. The area was regraded, topsoiled, seeded, and mulched between 1979 and 1983 by Trapper Mining or its predecessor, Utah International. The postmining topography of the area is shown on the Vegetation Map (Map 20) and Structures and Renewable Resources Map (Map 25). When this area was acquired by MCM's predecessor company, the acquisition included assumption of responsibility for completion of reclamation and revegetation success and bond release. The area was drill-seeded with the rangeland/wildlife seed mixture, with straw mulch applied and crimped at a rate of 2 tons per acre. Revegetation success sampling was completed in 2005, which indicated that vegetative reestablishment would generally meet the applicable revegetation success standards. MCM applied in 2020 for Phase I, II, & III bond release for this area, and was granted release in 2021.

Williams Fork Strip Pit

Reclamation plans for the Williams Fork Strip Pit are detailed in Exhibit 24, Williams Fork Strip Pit Reclamation Plan. The Williams Fork Strip Pit has been reclaimed, and revegetation success sampling was completed in 2005, which indicated that vegetative reestablishment would generally meet the applicable revegetation success standards. MCM applied in 2020 for Phase I, II, & III bond release for this area and was granted release in 2021.

Miscellaneous Areas

Miscellaneous disturbed areas, associated with the Williams Fork Mines were also reclaimed. These areas include, but are not limited to; the No. 5A powder magazine and various rock dust tanks. Various light-duty roads, and drainage and sediment control ponds and ditches will not be reclaimed until revegetation success has been achieved.

All structures and facilities associated with these areas will be removed from the site including all scrap mining material. The areas will be regraded to the approximate original topography. The best available plant growth media will be used to cover the regraded areas to a depth of approximately 6 to 12 inches. The areas will then be planted with a cover crop and subsequently revegetated to the appropriate land use as shown on the Reclamation Plan Map (Map 29).

Multi-Service Building

MCM s proposing to leave the Multi-Service Building as permanent structure for post mining land use. The 100,000 gallon water storage tank and the large propane storage tank were removed and scraped. Any remaining inert material was placed in the portal area prior to backfilling. Grading, topsoiling, and seeding for the areas associated with these structures are discussed under the 5A portal and Red Rock Crusher sites.

Roads and Permanent Roads

All of the roads, except those identified on Map 29 as permanent postmining roads, will be removed on completion of mining and reclamation activities. Road surfacing materials will be removed, as appropriate, and placed in the solid waste disposal area, the road surface will be ripped and the road area graded to blend with the surrounding terrain, then graded areas will be topsoiled and planted with a cover crop, then seeded with the appropriate seed mixture.

The permanent roads will be reduced in width to approximately 20 feet, and the shoulders ripped and seeded. When the roads are narrowed, surfacing materials will be pulled back from the sections to be reclaimed onto the permanent road surface. All permanent roads will have a similar configuration (cross-section and profile) to a designed access road to assure that the roads remain stable and serviceable after the mining and reclamation are completed.

Table 63
OVERBURDEN REDISTRIBUTION

Area	Volumes to be Backfilled	Source
No. 5 Portal	50,000 cy	Railroad grade, shop, wastewater treatment facility (**completed 2018-2020)**
No. 5A Mine	290,000 cy	Downslope from Portals - prior strip mine
No. 9 Portal	418,950 cy	Berm surrounding portal and coal waste area (**completed 1987/2008**)
Old Shop	13,090 cy	Pad around shop (at Empire Village, **completed 2008-2009**)