

Summary Report

Coal Basin Mine Reclamation Projects

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Introduction

This report provides a brief summary of all reclamation projects that have been conducted by the Colorado Division of Reclamation, Mining and Safety (DRMS), formerly the Division of Minerals and Geology (DMG) at Coal Basin. The report is divided into sections by year. Each yearly summary contains a narrative description of the individual reclamation projects conducted that year. At the end of each yearly summary is a table that provides the acreage and ownership information of the individual projects. Two tables located at the end of the report summarize project acreage and ownership information. The map at the end of the report graphically describes the approximate locations of the project areas in Coal Basin.

Reclamation Overview

The Coal Basin Mine is a formerly permitted mining operation. The operator of the mine, Mid Continent Resources declared bankruptcy in 1992. Subsequently, the Colorado Mined Land Reclamation Board forfeited the operating permit, and revoked the reclamation bond in 1993. As a result of these actions, DRMS assumed the task of accomplishing reclamation of the site in 1994, as provided for in Colorado Surface Mining Control and Reclamation Act.

Field work in support of initial reclamation tasks was conducted during the summer of 1994. Concurrently, a DRMS contractor performed maintenance work on some of the storm water conveyance systems at the site. Reclamation project bid specifications were prepared during the winter of 1994 / 1995, and initial reclamation construction at the site began in the summer of 1995.

During the period between early July, 1994 and late December of that year, DRMS evaluated all of the disturbed areas within the Coal Basin Mine permit area in order to set relative reclamation priorities for the mine site. Reclamation priorities were established based upon an evaluation of reclamation requirements, Notices of Violation issued during the period of time when the operation was permitted, U.S. Forest Service planned land uses at federally managed portions of the basin, and the perceived environmental impacts of specific facilities.

Equal reclamation priority was given to the coal refuse facilities located near the confluence of Coal and Dutch Creeks, and the mine face-up areas. The road system was a slightly lower priority with the rock tunnel (Lamphouse) area, coal stockpiles, warehouse facilities, mine office / coal cleaning areas receiving the lowest priority.

Reclamation work was sequenced based on a number of factors. The reclamation priority of the various facilities was used as the first cut in determining which areas would be reclaimed at specific points in time. The availability of funding was the second tier when determining which areas would be reclaimed in any given year.

Reclamation was substantially funded by proceeds of the Mid Continent Resources bankruptcy proceeding. The bankruptcy plan provided funds for reclamation of the site; however, funds were available only as liquidation of the company assets was completed. As a result, funding for reclamation work was limited, and only became available on a periodic basis. Therefore, areas that were ranked high on the reclamation priority list were not always reclaimed in the order of priority because adequate funding may not have been available to complete the job. For this reason, some sites with a lesser priority, but with a lesser-estimated cost, were reclaimed before areas with a higher priority.

In general, land ownership was not a factor in determining when or how an individual area or facility would be reclaimed. The only time that land ownership became a factor was in determining timing of reclamation of a portion of the privately held property. At one point during the reclamation process, the bankruptcy trustee objected to a proposed reclamation project, and subsequently withheld bankruptcy funds earmarked for reclamation. As a result of a 1997 suit filed in District court, reclamation work was substantially stopped for one construction season. As part of the settlement of the suit, a schedule for completing reclamation of the privately held property was negotiated.

DRMS first began work at Coal Basin in the fall of 1994 when a contractor was hired to maintain drainage ditches at the site in anticipation of spring runoff. Some amount of stormwater management was also accomplished at various mine entry areas and at other site facilities. Reclamation construction began in earnest during the summer of 1995, and was substantially completed by the end of 2001.

Since the completion of the 2001 construction season, only two reclamation projects were undertaken at Coal Basin; one funded by the Inactive Mines Program at a pre-law coal refuse pile located near Mine 5, and one funded by a Non-Point Source grant using forfeited bond money as a match. Excepting these projects, construction at the site between 2002 and 2006 has consisted of maintenance activities.

Completed Reclamation Projects

A brief description of the various reclamation projects is provided below. These brief descriptions provide an overview of the scope of each project in the context of accomplishing reclamation of the entire site.

1995

Spring Maintenance. Snowmelt runoff was extreme in the late spring of 1995. As a result of both the runoff sediment volume and work previously completed by Mid Continent Resources, the Dutch Creek Flume began to fail during the runoff. A

contractor was hired to maintain the flume throughout the duration of the high flows to prevent the flume from failing. Roadside ditches and associated culverts were cleaned to pass flows expected during summer thundershowers. Other on site berms and ditches were maintained as necessary.

Dutch Creek Flume Repair. The Dutch Creek Flume sustained severe damage during the spring runoff. Large holes were punched through the base of the concrete flume, causing water to infiltrate into the adjacent Old Refuse Pile. Repairs to the flume consisted of installing rebar and concrete to the floor of the flume, and reinforcement of the furthest down-stream foundation.

Mine 3 Reclamation. Reclamation of the Mine 3 area impacted the mine entry area as well as the coal loadout, located approximately 500 feet vertically below the mine entries, and the conveyor corridor that connected these two areas and some Mine Bench Outslopes. Previous to the DRMS reclamation work, a structural demolition company employed by Mid Continent Resources sealed all mine entries, and removed all of the metallic debris from the area. All non-metallic structures, foundations and channels were left in-place for DRMS contractors to demolish and remove.

Reclamation work consisted of structural demolition, backfilling and grading, drainage manipulation and revegetation work. Numerous remnant buildings, foundations and beltline foundations were left at the site. All concrete materials were demolished to below ground surface level. The rubble generated at the mine entry area was preferentially placed within the open portions of the mine entries, outby the seals. Excess concrete was placed against the highwall at the entry area, and against the cut slope at the loadout area.

The highwall and the loadout cut slopes were backfilled with earthen materials generated on site. Additionally, a large depression located to the north of the mine entries was backfilled to ensure proper drainage of the backfilled mine bench area. Material from the north facing Mine Bench Outslope was excavated to generate fill material, as was the east-facing slope of the mine bench. The slopes above the loadout cut slope were reduced to generate fill for that area.

The entire area was graded to establish appropriate surface water runoff characteristics. No topsoil was available to support revegetation efforts, so the in-place earthen materials were amended with straw mulch and fertilizer, which were cut into the dirt by dozer. The area was then revegetated using the U. S. Forest Service -approved seed mixture. An attempt to revegetate the steep slopes below the north facing side of the mine entries and the fill slopes located between the switchbacks of Road F was made. These areas were mechanically roughened. Seed and mulch were applied using a truck mounted hydro seeder.

At the time that this work was completed, Mid Continent Resources owned the property at Mine 3. Subsequent to completion of the reclamation work, the property was acquired by the U.S. Forest Service.

Mine 4 Reclamation. Reclamation of the Mine 4 area consisted of reclaiming the mine entry area as well as reclamation of the coal loadout area, located approximately 200 feet vertically below the mine entries, and the conveyor corridor that connected these two areas. Previous to the DRMS reclamation work, a structural demolition company employed by Mid Continent Resources sealed the mine entries, and removed all of the metallic debris from the area. All non-metallic structures, foundations and channels were left in-place for DRMS contractors to demolish and remove.

Reclamation work consisted of structural demolition, backfilling and grading, drainage manipulation and revegetation work. Numerous remnant buildings, foundations and beltline foundations were left at the site. All concrete materials were demolished to below ground surface level. The rubble generated at the mine entry area was preferentially placed within the open portions of the mine entries, outby the seals. Excess concrete was placed against the highwall at the entry area.

The highwall and the loadout cut slope were backfilled with earthen materials generated on site. Material from the north facing Mine Bench Outslope was excavated to generate fill material. The slopes located below the loadout bench were excavated to generate fill material for that area.

The entire area was graded to establish appropriate surface water runoff characteristics. No topsoil was available to support revegetation efforts, so the in-place earthen materials were amended with straw mulch and fertilizer, which were cut into the dirt using a dozer. The area was then revegetated using a U. S. Forest Service approved seed mixture.

An attempt was made to stabilize a small portion of the steep slopes below the east facing side of the mine entries and the fill slopes located above Road C, below the Mine 4 bench, by revegetating them. These areas were hand roughened, and a bonded fiber matrix blanket was applied to the slope.

At the time that this work was completed, Mid Continent Resources owned the property at Mine 4. Subsequent to completion of the reclamation work, the U.S. Forest Service acquired the property.

Waste Piles Project. The Sutey Refuse Disposal Area and a portion of the Old Refuse Disposal Area were reclaimed during this project. Mid Continent Resources had previously reclaimed portions of each facility; however, the majority of the Sutey Disposal Area had not yet been reclaimed. Conversely, only a small portion of the Old Refuse Pile required further work.

Reclamation of the Sutey Disposal Area consisted of demolishing a series of concrete conveyor belt foundations, grading of the coal refuse to achieve a stable landform, application of twenty inches of topsoil, construction of a run-on diversion ditch and five run-off conveyance ditches, and seed, fertilizer and mulch application. Additionally, areas adjacent to the refuse pile were also reclaimed. These areas included two former topsoil stockpile areas and another area cleared of vegetation.

Reclamation of the Old Refuse Disposal Area included removal of remnant concrete conveyor belt foundations, grading of the coal refuse to achieve a stable landform, application of twenty inches of topsoil, and construction of run-off conveyance ditches, and seed, fertilizer and mulch application.

At the time that this work was completed, the Sutey Disposal Area property was owned by Mid Continent Resources. Subsequent to completion of the reclamation work, the U. S. Forest Service acquired this property. The portions of the Old Refuse Disposal Area that were reclaimed by DRMS are public lands managed by the U. S. Forest Service.

1995 Reclamation Summary

<i>Project</i>	<i>Acreage Reclaimed</i>	<i>Current Ownership</i>
Mine 3 Reclamation	17	Public
Mine 4 Reclamation	9	Public
Waste Piles	22	Public / Private
Dutch Creek Flume Repair	0	Subsequently Removed
Spring Maintenance	0	Public / Private

1996

Spring Maintenance. Roadside ditches and associated culverts were cleaned to pass flows expected during summer thundershowers. Other on site berms and ditches were maintained as necessary. A pond located near the northerly margin of the Old Refuse Pile was maintained as the primary spillway had become clogged, threatening the stability of the pond embankment.

Rock Dump Reclamation. The Rock Tunnel Waste Pile is located south of Dutch Creek near the former location of the Rock Tunnels and the Lamphouse. This is an approximately seventeen-acre area that is constructed of waste rock materials generated during construction of the twin Rock Tunnels. The facility also housed a solid waste disposal area near the upper, central portion of the Rock Dump. The solid waste had been covered by waste rock by Mid Continent Resources prior to DRMS beginning reclamation work. Although this facility was constructed in a valley bottom adjacent to Dutch Creek, little topsoil was available on-site for cover. Approximately three acres of this facility had been previously reclaimed by Mid Continent Resources.

Reclamation consisted of grading the pile to facilitate long term geomorphic stability, construction of two run-on diversion ditches, and a run-off conveyance ditch, placement of approximately fifteen inches of a dirt cover, and seed, fertilizer and mulch application.

The waste rock material in the pile was fairly coarse, so a cover material to promote revegetation was desirable. Because little topsoil was available, dirt was imported to the facility. This dirt was cut from the outside (fill) slopes of Road B, as a precursor to the

South Basin Road Reclamation Project (2000). Removing dirt from the outside slopes of Road B served two purposes; it achieved a portion of the goal of the overall road reclamation concept for the site by narrowing the road from an average of sixty feet to about a thirty feet average width, and it generated the dirt used to cover the waste rock pile in preparation for revegetation.

The Rock Tunnel Waste Disposal Facility is located on privately owned property. Some maintenance work was conducted on the facility in 1997. This work included re-seeding and realignment of a runoff conveyance ditch located near the upper margins of the facility.

Rock Tunnel Reclamation Project. The Rock Tunnel is a twin bore mine entry constructed through non-coal bearing shale and sandstone, which eventually intersected the working mines. Coal, personnel and materials were moved between the mine and the surface via the Rock Tunnel. After abandonment, and prior to reclamation, the tunnel drained at a constant rate from one of the twin adits. In 1995, the drainage was observed to shift from the south to north tunnel and back again, apparently as a result of underground blockages.

Reclamation of the Rock Tunnel consisted of placing a four feet diameter vylon (double walled plastic) pipe into each mine entry. The pipe was bedded in a pea gravel bed, and fixed in place using a low concrete footer at each mine entry. The northerly pipe extended out of the entry, and turned south to join the southerly pipe, which extends straight out of the entry. The outlet end of the pipe is anchored to the ground by a concrete wall. A steel grate with a locking access door acts as a barrier at the terminus of the pipe. A drainage ditch was constructed to convey the mine flow from the pipe to the 016 treatment ponds located below the Rock Tunnel Waste Pile.

The outlet portion of the pipes and the westerly portion of the Rock Tunnel entry highwall were backfilled to a 2.5H:1V slope. The backfill material was obtained by excavating an over-steeped fill slope located adjacent to the North Fork of Dutch Creek.

The remaining portion of the highwall was to be backfilled, using the debris generated by demolition of the Lamphouse as a base. However, Mid Continent Resources threatened to sue DRMS if the Lamphouse were demolished. An environmental evaluation of the site by DRMS concluded that there would not be any environmental damage if the Lamphouse were left in place, and if the remaining highwall remnant was not completely backfilled. As a result, DRMS determined to not pursue demolition of the structure, and to not complete highwall backfilling.

Following reclamation, the Rock Tunnel drainage continued to be routed to the nearby 016 sediment ponds for treatment. Subsequent to completion of the DRMS reclamation work, Mid Continent Resources applied to the Colorado Water Quality Control Division, the regulatory authority pertaining to mine water discharges, to abandon the 016 sediment treatment ponds. Ultimately, this approval was received and Mid Continent constructed a

new channel to deliver the Rock Tunnel discharge directly to the North Fork of Dutch Creek.

The entire area was covered with approximately eight inches of dirt obtained from narrowing Road B. The entire area was fertilized, seeded and mulched following completion of dirt work.

The Rock Tunnel and vicinity is located on private property.

Mines 1 and 2 Reclamation. Reclamation of the Mines 1 and 2 areas consisted of reclaiming the mine entry areas as well as reclamation of three access roads, two mine fan entry areas and associated access roads, the Mine 2 coal loadout area, located approximately 500 feet vertically below the mine entry, and the conveyor corridor that connected the mine and loadout. Approximately one half mile was also reclaimed. Previous to the DRMS reclamation work, a structural demolition company employed by Mid Continent Resources sealed the mine entries, and removed all of the metallic debris from the area. All non-metallic structures, foundations and channels were left in-place for DRMS contractors to demolish and remove.

Reclamation work consisted of structural demolition, backfilling and grading, drainage manipulation and revegetation work. Numerous remnant buildings, foundations and beltline foundations were left at the site. All concrete materials were demolished to below ground surface level. The rubble generated at the mine entry area was preferentially placed within the open portions of the mine entries, outby the seals. Excess concrete was placed against the highwall at Mine 1, and against the cut slope at the Mine 2 loadout.

The highwall and the loadout cut slope were backfilled with earthen materials generated on site. Material from the Road D fill slope was excavated to generate fill material for the Mine 1 highwall backfill. Material generated from the outside fill slope of an access road between Mines 1 and 2 was used to backfill the Mine 2 entry area. The slopes located north of the Mine 2 loadout bench were excavated to generate fill material for that area.

Reclamation of the mine fan entries was similar to that employed at the mine entries; concrete debris was placed within the fan entries and along any existing highwall. Earthen material was excavated from the adjacent fill slope below the fan bench, and was used as backfill for the highwall. The access roads were reclaimed by removing culverts, and grading the road so that upon completion the road surface was angled toward the fill slope. Numerous drainage ditches were constructed in order to convey water from the inside of the road surface to the outside of the road to promote natural drainage pattern establishment. The roads were heavily scarified, and seed, fertilizer and mulch were applied.

At each mine, the entire area was graded to establish appropriate surface water runoff characteristics. No topsoil was available to support revegetation efforts, so the in-place

earthen materials were amended with straw mulch and fertilizer, which were cut into the dirt using a dozer. The entire area was then revegetated using a U. S. Forest Service approved seed mixture.

An attempt to revegetate the steep slopes below the south facing side of the Mine 1 entry area was made. Approximately 100 feet of slope length over an approximately 200 feet wide area was mechanically roughened. Seed, fertilizer and mulch were subsequently applied by hand over the roughened slope. A similar treatment was applied to a one quarter acre road outslope near the upper portion of Road D.

The upper most half-mile of Road D was reclaimed following completion of the Mine 1 and 2 reclamation. Reclamation of Road D was identical to the mine fan access road reclamation, except on a much larger scale; drainage ditches were eliminated, the road grade was reversed so that it sloped to the fill slope, all culverts were removed, numerous drainage swales were constructed, and the road surface was severely scarified. Seed, fertilizer and mulch were applied to the reclaimed road surface following completion of all other activities.

At the time of reclamation, Mid Continent Resources owned the mine entry areas. Subsequently, the U. S. Forest Service obtained these properties.

Roads E, F, G Reclamation. Reclamation of Roads E, F and G (including the Mine 5 fan and Mine 3 fan access roads) was undertaken using the same strategy as was employed at the top of Road D; drainage ditches were eliminated, the grade of the road was reversed so that it sloped to the fill slope (outside), all culverts were removed, numerous drainage swales were constructed, and the road surface was severely scarified. Low water crossings were created where the roads intersected significant drainages, such as Oil Well and Coal Creeks. Seed, fertilizer and mulch were applied to the reclaimed road surface following completion of all other activities.

Reclamation maintenance was accomplished on Road G in 2002 at the Oil Well Creek crossing. The crossing was widened at that time to accommodate the passing of high flow events without causing cut slope erosion.

At the time of reclamation, the road system covered both public and private property. Following land trades with the U. S. Forest Service, the lower half of Road E is privately owned, although a public use easement exists on the road. The upper half of Road E and all of Roads F and G are on property managed by the U. S. Forest Service.

1996 Reclamation Summary

<i>Project</i>	<i>Acreage Reclaimed</i>	<i>Current Ownership</i>
Rock Dump Reclamation	14	Private
Rock Tunnel Reclamation	7	Private
Mines 1 and 2 Reclamation	18	Public
Roads E, F, G Reclamation	51	Public / Private
Spring Maintenance	0	Public / Private

1997

Spring Maintenance. Roadside ditches and associated culverts were cleaned to pass flows expected during summer thundershowers. Other on site berms and ditches were maintained as necessary. Over-seeding of the Sutey Waste Disposal Area was accomplished.

Tree Planting Project. A volunteer effort to plant a total of approximately 5,000 trees was undertaken on two occasions in 1997. Trees were planted at the Mine 1 bench area, along the upper quarter mile of portion of Road D, and at the Mine 2 loadout area. Trees were also planted at the Mine 4 bench and at the former location of the powder magazines adjacent to Road B. Groups of volunteers from local schools and public interest groups were supervised by DRMS and U. S. Office of Surface Mining (OSM) staff. Two-year-old seedling trees were planted.

The Tree Planting Project was completed on public property

Mine 4 Revegetation. The purpose of this project was to vegetatively stabilize the Mine 4 outcrops. In order to do this, the surface of the slopes were mechanically roughened using a drum roller fitted with pyramid shaped steel plates. The roller was anchored to a dozer located on the mine bench, and was suspended on the slopes via a cable attached to the dozer.

Following scarification, a Bonded Fiber Matrix containing seed and fertilizer was applied to the slopes from the crest, down slope approximately 100 feet. The lower portions of the slopes were also roughened, and then fertilized, seeded and mulched. Straw mulch and a liquid tackifier were applied to the lower slopes to hold the organic materials in place. Approximately twelve acres of slopes were revegetated during this project.

The Mine 4 Revegetation Project was completed on public property.

Warehouse Vicinity. The Warehouse Vicinity Project was a combination structural demolition and grading project. The warehouse area, the upper and lower coal stockpile areas and the overland conveyor corridor were all reclaimed as a part of this project.

All of the areas addressed in this project contained many large concrete building and beltline foundations and footers. The concrete materials were demolished and hauled to various locations. The concrete debris generated from the overland conveyor and upper coal stockpile area was placed at the base of the coal stockpile cut slope. The debris generated from the lower stockpile area was placed against the cut slope in that area, located below, and south of, Road A. The debris from the warehouse area was hauled to the base of the north facing cut slope behind the former location of the thermal dryer facility. Each area was graded to a geomorphically stable landform. The overland conveyor corridor was graded to drain water to the south for its entire length. The coal stockpile areas were graded to eliminate the highwalls, generally resulting in 2H:1V to 2.5H:1V slopes. Fill to cover the lower stockpile area was generated by pushing the outside of Road A down slope over the concrete rubble, thus reducing the road width from sixty to thirty feet. The warehouse area was graded to drain to the east through a constructed drainage channel. A limited amount of topsoil was available, so it was preferentially placed over the upper coal stockpile backfill, on the floor of the lower coal stockpile area and at the warehouse area. A drainage channel was constructed to convey water from the upper stockpile to the warehouse drainage system. This rock-lined drainage is located on the south side of Road A, near the easterly margin of the upper coal stockpile.

The upper coal stockpile backfill suffered a small slope failure the winter following reclamation. The failure was apparently caused by water being trapped at the junction of the base of the cut slope with the backfill material. The failure was excavated in the summer of 1998, and a rock filled underdrain was constructed. The fill was replaced at the site of the failure, and the area re-seeded.

The areas affected by this project are privately owned.

1997 Reclamation Summary

<i>Project</i>	<i>Acreage Reclaimed</i>	<i>Current Ownership</i>
Tree Planting Project	5,000 *	Public
Mine 4 Revegetation Project	12	Public
Warehouse Vicinity Reclamation	18	Private
Spring Maintenance	0	Public / Private

* Number of trees planted

1998

Spring Maintenance. Roadside ditches and associated culverts were cleaned to pass flows expected during summer thundershowers. Other on site berms and ditches were maintained as necessary. Repairs were made to a slope failure that occurred at a portion of the upper coal stockpile backfill.

Wash Plant Demolition Project. The wash plant demolition project was a large concrete and asphalt demolition and disposal project that was conducted in the facilities area, located near the confluence of Coal and Dutch Creeks. This area formerly housed the thermal drying facilities, wash plant, coal silos, belt lines, parking areas, offices, a warehouse and miscellaneous buildings and facilities. This area was heavily industrialized when the mine was active. Following closure of the mine, a structural demolition company employed by Mid Continent Resources removed all of the metallic debris from the area, leaving concrete foundations and concrete block buildings intact. Approximately 50,000 cubic yards of concrete and asphalt were demolished in this area. The demolished concrete was placed at the toe of the north facing cut slope located south of the former location of the thermal dryer and wash plant.

Eventually, the debris was covered by coal refuse generated during execution of the Huntsman project. Earthen materials, generated during performance of the Facilities Area project, were used to cover the coal refuse and to provide a growth media. These two projects are discussed in detail, below.

Reclamation of both public and private properties was facilitated as a result of this project.

Noxious Weed Control. A noxious weed infestation became apparent in Coal Basin in 1997. The number and variety of noxious weeds potentially posed a threat to the successful long term establishment of vegetation at the reclaimed areas. DRMS entered into a partnership with Pitkin County and the U. S. Forest Service to obtain a weed control grant at Coal Basin from the Colorado Department of Agriculture. The grant was approved, and noxious weed control work was undertaken to relieve the infestation. The work was conducted primarily from the Lamphouse area, easterly through the facilities area, and at the Old Refuse Pile, and the Sutey Refuse Pile. Both public and private properties were treated during this project.

Huntsman / Old Refuse Pile. The Huntsman Project was conducted on a portion of the Old Refuse Pile that, while within the Mid Continent permit area, was exempted from reclamation liability, as it was not affected by mining operations after July 1977. Mining impacted areas that have not been disturbed by an active mining operation subsequent to July, 1977 are not required to be reclaimed by the mining company. These areas, known as “Pre-Law” disturbances, are eligible to be reclaimed by the State using monies set aside by the Federal government for just this purpose. The Huntsman and two other areas within the Coal Basin Mine permit area were eligible for reclamation funding under this pre-law concept.

The Inactive Mines Program using Federal grant money designed, funded and constructed the Huntsman reclamation project. The purpose of the project was to alleviate steep slopes and reduce the potential for a massive failure of a coal waste disposal facility into Coal Creek. The slope of the Old Refuse Pile was reduced to a stable average 2H : 1V configuration. Topsoil was placed over the cut slope, and the project area was scarified, seeded and mulched.

Approximately 53,000 cubic yards of refuse cut from the outlopes of the Old Refuse Pile was hauled and placed over the concrete debris, generated during the Wash Plant Demolition project, at the toe of the north facing cut slope south of the former location of the thermal dryer and wash plant.

The Huntsman Project was conducted on public property managed by the U. S. Forest Service.

Dutch Creek Diversion. DRMS applied for, and received, a grant from OSM to replace the problem-prone Dutch Creek flume with a permanent, naturally functioning channel. The grant mechanism used for this project was a Civil Penalty fund administered by the Office of Surface Mining. The Office of Surface Mining redistributes money it collects from monetary penalties levied against out of compliance coal mining operations. These are provided via grants to various states solely for the purpose of accomplishing reclamation at sites where inadequate funding is available.

The new Dutch Creek channel was designed and constructed so that it mimicked the stream characteristics of the stream above the flume. The channel was constructed in the fall of 1998 to take advantage of low flow conditions, and when completed, diverted the Dutch Creek flow upstream of the flume.

This project was conducted primarily on public property managed by the U. S. Forest Service; however, the upper portion of the diversion channel is located on private property.

1998 Reclamation Summary

<i>Project</i>	<i>Acreage Reclaimed</i>	<i>Current Ownership</i>
Wash Plant Demolition Project	0	Public / Private
Huntsman / Old Refuse Pile	7	Public
Dutch Creek Diversion	8	Public / Private
Noxious Weed Control	0	Public / Private
Spring Maintenance	0	Public / Private

1999

Bear Creek / Old Refuse Pile. The Bear Creek Project addressed two areas, the eastern margin of the Old Refuse Pile and the area located east of the Dutch Creek Diversion, west of the Huntsman Project area, including the Dutch Creek Flume. The portion of the project located on the Old Refuse Pile was conducted in an area that, while within the Mid Continent permit area, was exempted from reclamation responsibility, as it was not affected by mining operations after July 1977. The Inactive Mines Program using Federal grant money funded this portion of the project. The forfeited bond funded the remainder of the project. The slopes of the Old Refuse Pile were reduced and the area was topsoiled and seeded. Following demolition of the Dutch Creek Flume, that area was graded, topsoiled and revegetated. Eight acres of public land managed by the U. S. Forest Service were reclaimed during this project.

Facilities Area. This project addressed the reclamation commitments made by DRMS to Mid Continent Resources during litigation settlement negotiations conducted during the spring of 1999. Completion of this project fulfilled DRMS reclamation obligations on privately held property in Coal Basin.

This project primarily addressed reclamation of the wash plant and associated facilities, the Old Coal Stockpile area located south of the wash plant and ancillary roads and disturbances located between the Sutey Refuse Disposal area and the former warehouse location.

The steep wall located at the toe of the north facing cut slope south of the former location of the thermal dryer and wash plant was cut down to an approximately 2H : 1V slope. Cutting of the slope stabilized that area, while generating earthen material to cover the coal refuse placed at this location during the Huntsman project.

All other areas were graded to an appropriate contour. Topsoil was applied and the ground surface was severely roughened throughout the project area. Seed, mulch and fertilizer were applied.

This fifteen-acre project was conducted primarily on private property located west of the Dutch Creek Diversion; although a small portion of the project area was conducted on public property managed by the U. S. Forest Service.

Rock Tunnel Area Maintenance. This project was designed to alleviate some maintenance issues at the Rock Tunnel Waste Pile, and to complete the final stages of Road E reclamation, begun in 1996.

The upper portions of the Rock Tunnel Waste Pile had experienced erosion following reclamation as a result of water management issues. The drainages at the upper most portion of the facility were redesigned and reconstructed to eliminate this problem.

The twelve feet diameter Road E culvert in the North Fork of Dutch Creek was removed, and replaced with a low water crossing. Side slopes were stabilized and revegetated.

This project was conducted on private property.

North Basin Steep Slope Revegetation. The North Basin Steep Slope Revegetation Project was bid in the summer of 1998; however, construction was delayed until 1999 as a result of litigation initiated by Mid Continent Resources. The goal of this project was to vegetatively stabilize the Mine Bench Outcrops located at Mines 1, 2, 3, and at the Mine 5 fan.

In order to help finance this project, DRMS applied for, and was awarded a Non-Point Source grant from the Colorado Water Quality Control Division.

The project contractor hired a crew to construct small shelves on the mine bench outcrops using hand tools. Each area was seeded as shelf construction proceeded. Fertilizer and mulch were applied from the air using a helicopter. Trees and shrubs were planted at the base of the slopes to slow runoff and retain sediment.

The project was conducted in September and October to take advantage of fall snows. However, an unusually dry fall resulted in a lack of moisture through the early winter. The combination of the lack of moisture and fall winds significantly impacted seed germination potential.

This project was accomplished on public lands managed by the U. S. Forest Service.

Noxious Weed Control. The noxious weed infestation continued in Coal Basin, and threatened the vegetative success at the reclaimed areas. Noxious weed control work was undertaken to relieve the infestation. The work was conducted primarily from the Lamphouse area, easterly through the facilities area, Old Refuse Pile, and the Sutey Refuse Pile. Both public and private properties were impacted during this project.

Fall Maintenance. Rill and gully repair and incidental seeding were accomplished at the Sutey Waste Disposal Area in the fall of 1999. No other maintenance was undertaken.

1999 Reclamation Summary

<i>Project</i>	<i>Acreage Reclaimed</i>	<i>Current Ownership</i>
Bear Creek / Old Refuse Pile	8	Public
Facilities Area	15	Public / Private
Rock Tunnel Area Maintenance	1	Private
North Basin Steep Slope Revegetation	6	Public
Noxious Weed Control	0	Public / Private
Fall Maintenance	0	Public

2000

Ditch 8 Reconstruction. Ditch 8 is a long, steep drainage ditch located at the south easterly most margin of the Sutey Refuse Disposal Area. This drainage channel did not function as designed, so it was rebuilt in 2000. The channel was widened, and a double layered soil retention system designed to hold soil in place at high water velocities was installed. Energy dissipation structures and other water diversions were installed as well. The area was privately owned, but has since been transferred to public ownership.

Pond Reclamation. This project was designed to transform the sediment ponds on private and public lands throughout the mine into maintenance-free water retention structures, while providing benefits to wildlife and other area values. All ponds at the site, excepting those that treat the mine water discharge (016 pond system) were subject to this project.

All of the sediment retention ponds in Coal Basin had been regulated by the Colorado Water Quality Control Division under a National Pollution Discharge Elimination System (NPDES) permit held by Mid Continent Resources. By 2000, the contributing areas to the ponds had been substantially reclaimed, thus sediment contribution to the ponds was minimal. Prior to project implementation, the Colorado Water Quality Control Division terminated the NPDES permit for all but the 016 ponds. In order to facilitate NPDES permit termination, and thus project initiation, DRMS applied for and received a Storm Water permit that covered each of the ponds to be affected by the project. This permit was eventually terminated in 2005. The 016 ponds NPDES permit was terminated at the request of Mid Continent Resources under a separate action at a later date.

The project entailed removal of the corrugated metal pipe (CMP) discharge structures, reducing the slope in the pond embankment caused by CMP removal, and lining of the excavation with rock rip rap. All affected areas were planted at the water line elevation with a wetlands seed mixture and willows. Areas above the water line were planted with an appropriate upland seed mixture.

This project was completed on both public and private properties.

South Basin Road Reclamation. Reclamation of Roads B, C, D and the Huntsman Ridge Road was undertaken using the same general strategy as was employed during reclamation of Roads E, F and G; drainage ditches were eliminated, the grade of the road was reversed so that it slopes to the fill slope (outside), all culverts were removed, numerous drainage swales were constructed, and the road surface was severely scarified. The earthwork was undertaken more aggressively, however, as these roads were somewhat steeper than those previously reclaimed, thus requiring more severe disruption of water velocities. Low water crossings were created where the roads crossed significant drainages, such as at Dutch Creek and Road C intersection. Seed, fertilizer and mulch were applied to the reclaimed road surface following completion of all other activities. These roads are all located on public lands managed by the U. S. Forest Service

Tree Planting. Eighteen thousand seven hundred fifty (18,750) seedling trees were planted at the site. A mixture of Englemann spruce, sub-alpine fir, Colorado blue spruce and Douglas-fir were planted at disturbed areas throughout the mine area. The trees were planted in clumps by species, depending upon species and site characteristics. A contractor planted most of the trees, but schools and community volunteers planted about 1,000 stems.

Noxious Weed Control. The noxious weed infestation at Coal Basin continued, and was very apparent at some of the reclaimed areas. An enhanced treatment was initiated by using a combined chemical and biologic weed control effort in the spring of 2000. Goats were preferentially grazed at weed-infested portions of the Old and Sutey Refuse Disposal Areas. Other areas were chemically treated to reduce weed populations. This project was conducted on both public and private properties.

2000 Reclamation Summary

<i>Project</i>	<i>Acreage Reclaimed</i>	<i>Current Ownership</i>
Ditch 8 Reconstruction	1	Public
Pond Reclamation	13	Public / Private
South Basin Road Reclamation	57	Public
Tree Planting	18,750 *	Public / Private
Noxious Weed Control	0	Public / Private

* Number of trees planted

2001

Bear Creek Fence. Cattle grazing the reclaimed Bear Creek Project area on the Old Refuse Pile were negatively impacting the revegetation of the area. A contractor was

hired to construct a barbed wire fence around the project area to exclude cattle. The area was also over-seeded at the time of fence construction.

Flume Area Reclamation. Demolition of the flume was accomplished during completion of the Bear Creek Project. Additional stabilization of the headward scarp that had formed near the discharge end of the flume was required. Stabilization work conducted as part of the Flume Area Reclamation project included construction of an underdrain system near the toe of the former flume outlet, backfilling and grading of the cut slope, topsoil application, seeding, fertilizing and mulching of the area. A barbed wire fence was constructed around the perimeter of the area to prevent cattle from grazing.

This project was accomplished on public lands managed by the U. S. Forest Service.

Noxious Weed Control. Noxious weed control work was undertaken to relieve the continuing weed infestation. The work was conducted primarily from the Lamphouse area, easterly along road A through the facilities area, Old Refuse Pile, and the Sutey Refuse Pile areas. Both public and private properties were impacted during this project.

Fall Maintenance. Maintenance focused on construction of additional drainage control work on the roads reclaimed in 2000, and repairs to the Sutey Refuse Disposal Area perimeter drainage ditch.

2001 Reclamation Summary

<i>Project</i>	<i>Acreage Reclaimed</i>	<i>Current Ownership</i>
Bear Creek Fence	0	Public
Flume Area Reclamation	2	Public
Noxious Weed Control	0	Public / Private
Fall Maintenance	0	Public

2002

Upper Coal Creek Refuse Pile Reclamation. The Upper Coal Creek Refuse Pile Reclamation project was conducted on a coal refuse pile that, while within the Mid Continent permit area, was exempted from reclamation liability as it was not affected by mining operations after July 1977. This facility was located adjacent to Coal Creek near Mine 5. Coal Creek was shifting toward the south, and as a result was beginning to erode the coal refuse. The Inactive Mines Program, using Federal grant money, funded this project. The purpose of the project was to alleviate steep slopes and reduce the potential for a failure of the facility into Coal Creek. Refuse was cut from the north facing slope of the piles, and was hauled to a disposal location constructed approximately two hundred yards south of the creek. Topsoil salvaged during construction of the disposal area was used to cover the remaining coal in the pile, and the refuse placed in the disposal facility.

The Upper Coal Creek Refuse Pile Reclamation project was conducted on public property managed by the U. S. Forest Service.

2002 Reclamation Summary

<i>Project</i>	<i>Acreage Reclaimed</i>	<i>Current Ownership</i>
Upper Coal Creek Refuse Pile Reclamation	5	Public

2003

Noxious Weed Control. Noxious weed control work was undertaken to relieve the continuing weed infestation. The work was conducted primarily from the Lamphouse area, easterly along road A through the facilities area, Old Refuse Pile, and the Sutey Refuse Pile areas. Both public and private properties were impacted during this project.

Fall Maintenance. The only maintenance accomplished in 2003 was placement of rock rip rap in the Dutch Creek Diversion at a point where the creek was eroding into a cut bank on the east side of the diversion. This work was conducted on public property.

2003 Reclamation Summary

<i>Project</i>	<i>Acreage Reclaimed</i>	<i>Current Ownership</i>
Noxious Weed Control	0	Public / Private
Fall Maintenance	0	Public

2004

Coal Basin Mine Slope Stabilization. The 1999 North Basin Steep Slope Revegetation Project had only been partially successful in stabilizing the targeted slopes. It was presumed that the droughty conditions experienced at the site between 1999 and 2003 were at least partially responsible. Therefore, a second attempt to stabilize the slopes was undertaken in 2004. This project was similar to the 1999 work; however, the seed, fertilizer and mulch were applied from the air. A liquid organic tackifier was used to glue the plant materials to the steep slopes below Mines 1, 3, and Mine 5 fan. Trees were planted at the crest of each mine bench, and shrub plantings were established at the toe of each slope.

This project was conducted on public property managed by the U. S. Forest Service, and was partially funded by a Non-Point Source grant DRMS was awarded by the Colorado Water Quality Control Division.

Noxious Weed Control. Noxious weed control work was again undertaken to relieve the continuing weed infestation. The work was conducted primarily from the Lamphouse

area, easterly along road A through the facilities area, Old Refuse Pile, and the Sutey Refuse Pile areas. Both public and private properties were impacted during this project.

2004 Reclamation Summary

<i>Project</i>	<i>Acreage Reclaimed</i>	<i>Current Ownership</i>
Coal Basin Mine Slope Stabilization	18	Public
Noxious Weed Control	0	Public / Private

2005

Noxious Weed Control. Noxious weed control work was again undertaken to relieve the continuing weed infestation. The work was conducted primarily from the Lamphouse area, easterly along road A through the facilities area, Old Refuse Pile, and the Sutey Refuse Pile areas. Both public and private properties were impacted during this project.

2005 Reclamation Summary

<i>Project</i>	<i>Acreage Reclaimed</i>	<i>Current Ownership</i>
Noxious Weed Control	0	Public / Private

2006

Noxious Weed Control. Noxious weed control work was undertaken to relieve the continuing weed infestation. The work was conducted primarily from the Lamphouse area, easterly along road A through the facilities area, Old Refuse Pile, and the Sutey Refuse Pile areas. Both public and private properties were impacted during this project. Significant progress in weed eradication is observed at the site following the weed control efforts. Thistle species have been virtually eliminated; however, hounds tongue and oxeye daisy are still present at the site.

Dutch Creek Diversion Maintenance. Organic debris choked a portion of the Dutch Creek Diversion channel during the spring run off in 2006. This debris forced the stream flow to shift westerly within the channel, causing the channel to preferentially flow adjacent to the bank. This flow pattern was not desirable in the near-term. Rip rap materials were placed against the eroding bank in order to encourage the stream to re-establish itself in a more central location within the larger channel.

2006 Reclamation Summary

<i>Project</i>	<i>Acreage Reclaimed</i>	<i>Current Ownership</i>
Noxious Weed Control	0	Public / Private
Dutch Creek Maintenance	0	Public

Reclamation Data Tables

The tables presented below provide reclamation information pertaining to various reclamation projects and areas at the Coal Basin Mine. Table 1 provides reclamation information as it pertains to specific facilities at Coal Basin. It is important to note that any one specific area may have been reclaimed during the performance of two or more reclamation projects. Therefore, the completion date noted in the table reflects the completion of the latter project, when appropriate. The information provided in Table 1 describes the date that reclamation of a specific area was completed, ownership of that area, and notes the date that seeding was last completed. Due to maintenance activities, the date of last seeding may not correlate with the year that the reclamation was completed.

Table 2 presents information pertinent to projects that were conducted to either facilitate reclamation, such as a structural demolition project, or that accomplished maintenance of either reclaimed or unreclaimed areas. The name of the project, the year it was completed and a brief comment regarding the project are included in the table.

Table 3 documents the time spent at Coal Basin by the DRMS Project Manager. The time includes only site visits for the purposes of monitoring the site, collecting information to support a reclamation construction project, or supervision of a reclamation project. Office time is not included in this table. Further, time spent by other DRMS representatives or other state and federal employees at the Coal Basin Mine is not included in the table.

Table 1 provides information pertinent to reclamation of mine specific facilities. These are facilities and areas that are clearly distinguishable on mine facilities maps (Map 1, below).

The Table describes when the mine specific facilities were reclaimed, when they were last seeded, the acreage of each divided by current (2007) ownership, and the reclamation contract (project name), under which the reclamation was conducted.

It is important to note that some areas were reclaimed as a result of one or more projects, and that some areas were reclaimed during the course of projects which have a name that does not coincide with the name of the specific facility. As a result, the acreages and names contained in the reclamation project specific tables found in the body of the report will not always coincide with the acreage figures tabulated here for the mine specific facilities.

Table 1. Reclamation of Mine –Specific Facilities by Area, Completion Date, Ownership and Date Last Seeded.

Mine Area	Year Reclamation Completed	Month / Year Last Seeded	Public Property Acreage	Private Property Acreage	Name of Reclamation Project
Mine 3 Vicinity ⁽¹⁾	1995	Sept. 1995	17		Mine 3 Reclamation
Mine 4 Vicinity ⁽²⁾	1995	Sept. 1995	9		Mine 4 Reclamation
Old Refuse Pile (Permitted Portion)	1995	Nov. 1995		2	Waste Piles Reclamation
Sutey Refuse Pile ⁽³⁾	1995	Oct. 1999	20		Waste Piles Reclamation
Rock Tunnel Waste Pile	1996	Oct. 1996		14	Rock Dump Reclamation
Rock Tunnel Area	1996	Nov. 1996		7	Rock Tunnel Reclamation
Mine 1 Vicinity ⁽⁴⁾	1996	Oct. 1996	9		Mines 1 and 2 Reclamation
Mine 2 Vicinity	1996	Oct. 1996	5		Mines 1 and 2 Reclamation
Mine 2 Fan Road	1996	Oct. 1996	4		Mines 1 and 2 Reclamation
Road E ^(5,6)	1996	Oct. 2004	4	5	Roads E, F, G Reclamation

Table 1. Reclamation of Mine –Specific Facilities by Area, Completion Date, Ownership and Date Last Seeded, Continued.

Mine Area	Year Reclamation Completed	Month / Year Last Seeded	Public Property Acreage	Private Property Acreage	Name of Reclamation Project
Road F ^(5,7)	1996	Oct. 2004	15		Roads E, F, G Reclamation
Mine 5 Fan Road	1996	Sept. 1996	4		Roads E, F, G Reclamation
Road G ⁽⁸⁾	1996	Sept. 2002	23		Roads E, F, G Reclamation
Mine 4 Outslopes	1997	Sept. 1997	12		Mine 4 Outslope Revegetation
Warehouse Vicinity	1997	Sept. 1997		5	Warehouse Vicinity Reclamation
Coal Stockpile Areas	1997	Oct. 1997		10	Warehouse Vicinity Reclamation
Overland Conveyor	1997	Oct. 1997		3	Warehouse Vicinity Reclamation
Office Vicinity ⁽⁹⁾	1999	Oct. 1999	6	4	Wash Plant Demolition, Dutch Creek Diversion, Facilities Area
Old Coal Stockpile Area	1999	Oct. 1999		3	Huntsman, Facilities Area, Wash Plant Demolition
Sutey Refuse Pile Upper Access Road	1999	Oct. 1999		3	Facilities Area
Wash Plant Vicinity	1999	Sept. 1999		7	Wash Plant Demolition, Huntsman, Facilities Area
Old Refuse Pile (Inactive Mined Land)	1999	Oct. 1999	15		Huntsman, Bear Creek
Mine 2 Outslope	1999	Oct. 1999	1		North Basin Steep Slope Revegetation
Mine 3 Outslope North ⁽¹⁰⁾	1999	Oct. 1999	5		Mine 3 Reclamation, North Basin Steep Slope Revegetation

Table 1. Reclamation of Mine –Specific Facilities by Area, Completion Date, Ownership and Date Last Seeded, Continued.

Mine Area	Year Reclamation Completed	Month / Year Last Seeded	Public Property Acreage	Private Property Acreage	Name of Reclamation Project
Pond Reclamation	2000	Oct. 2000	5	8	Pond Reclamation
Road B ⁽⁵⁾	2000	Oct. 2004	4		South Basin Road Reclamation
Road C	2000	Oct. 2000	18		South Basin Road Reclamation
Road D ⁽⁵⁾	2000	Oct. 2004	30		South Basin Road Reclamation
Huntsman Ridge Road	2000	Sept. 2000	5		South Basin Road Reclamation
Dutch Creek Flume Outlet Area	2001	Nov. 2001	2		Huntsman, Flume Area Reclamation
Mine 5 Refuse Pile (Inactive Mined Land)	2002	Sept. 2002	5		Upper Coal Creek Refuse Pile
Mine 1 Outslope ⁽¹¹⁾	2004	Oct. 2004	11		North Basin Steep Slope Revegetation, Coal Basin Mine Slope Stabilization
Mine 3 Outslope South ⁽¹¹⁾	1995, 2004	Oct. 2004	3		North Basin Steep Slope Revegetation, Coal Basin Mine Slope Stabilization
Mine 3 Loadout Slope	2004	Oct. 2004	2		Coal Basin Mine Slope Stabilization
Mine 5 Fan Outslope ⁽¹¹⁾	2004	Oct. 2004	2		North Basin Steep Slope Revegetation, Coal Basin Mine Slope Stabilization
TOTALS			236	71	

Table 1 Notes

- (1) – Includes Mine 3 loadout and access;
- (2) – Includes Mine 4 fan and loadout;
- (3) - Sutey reclaimed in 1995, rill and gully maintenance performed in 1999;
- (4) - Includes Mine 1 fan, road, office complex and loadout;
- (5) - Roads B, D reclaimed in 2000, Roads E and F reclaimed in 1996; each re-disturbed to accommodate 2004 Outslope Project. Seed applied to re-disturbed portions fall, 2004;
- (6) - One acre of Road E at North Fork of Dutch Creek crossing reclaimed in 1999 as part of the Rock Tunnel Maintenance Project,
- (7) - Road F acreage includes Mine 3 Fan access road;
- (8) – Road G reclaimed in 1996, creek crossing maintenance performed in 2002;
- (9) – Office Vicinity is 10 acres, total. Eight acres reclaimed during the Dutch Creek Diversion project (Channel at 3 acres, adjacent area at 5 acres), 2 acres reclaimed at Facilities Area project;
- (10) – Upper portion of outslope completed with Mine 3 in 1995, lower portion completed with North Basin Steep Slope Revegetation in 1999.
- (11) – The Mine Bench Outslopes located at Mine 1, Mine 3 south and at the Mine 5 fan were seeded during the 1999 and 2004 construction seasons. 2004 is used here to describe the year reclamation was completed. Acreages reclaimed are tabulated only once, in the 2004 reclamation season.

Table 2 describes construction projects conducted in support of more specific reclamation work. These projects were conducted either to support actual reclamation of mine specific facilities, to maintain then-existing mining related facilities for the purpose of minimizing off-site environmental impacts, or to maintain reclaimed areas. The areas impacted by these projects are not included in the count of acreage reclaimed at Coal Basin, as final reclamation was accomplished during execution of one of the projects listed in the body of the report.

Table 2. Projects Conducted in Support of Reclamation Construction at Coal Basin.

Project Name	Year (s) Undertaken	Public or Private Property	Project Description
Site Maintenance	1994	Both	Storm water drainage maintenance
Dutch Creek Flume Repair	1995	Private	Repair Dutch Creek Flume
Spring Maintenance	1995	Both	Pass spring runoff safely / Unreclaimed area maintenance
Spring Maintenance	1996	Both	Maintain both reclaimed and unreclaimed areas
Tree Planting Project	1997	Public	Plant trees at reclaimed areas
Spring Maintenance	1997	Both	Maintain both reclaimed and unreclaimed areas
Wash Plant Demolition	1998	Both	Demolition of concrete buildings, foundations
Noxious Weed Control	1998	Both	Biologic and spray control of noxious weed infestation
Spring Maintenance	1998	Both	Maintain both reclaimed and unreclaimed areas
Noxious Weed Control	1999	Both	Spray control of noxious weed infestation
Fall Maintenance	1999	Public	Maintain both reclaimed and unreclaimed areas
Rock Tunnel Area Maintenance	1999	Private	Maintenance at reclaimed and unreclaimed areas in Rock Tunnel vicinity
Ditch 8 Reconstruction	2000	Public	Diversion ditch reconstruction
Tree Planting	2000	Both	Plant trees at reclaimed areas

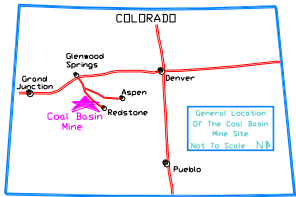
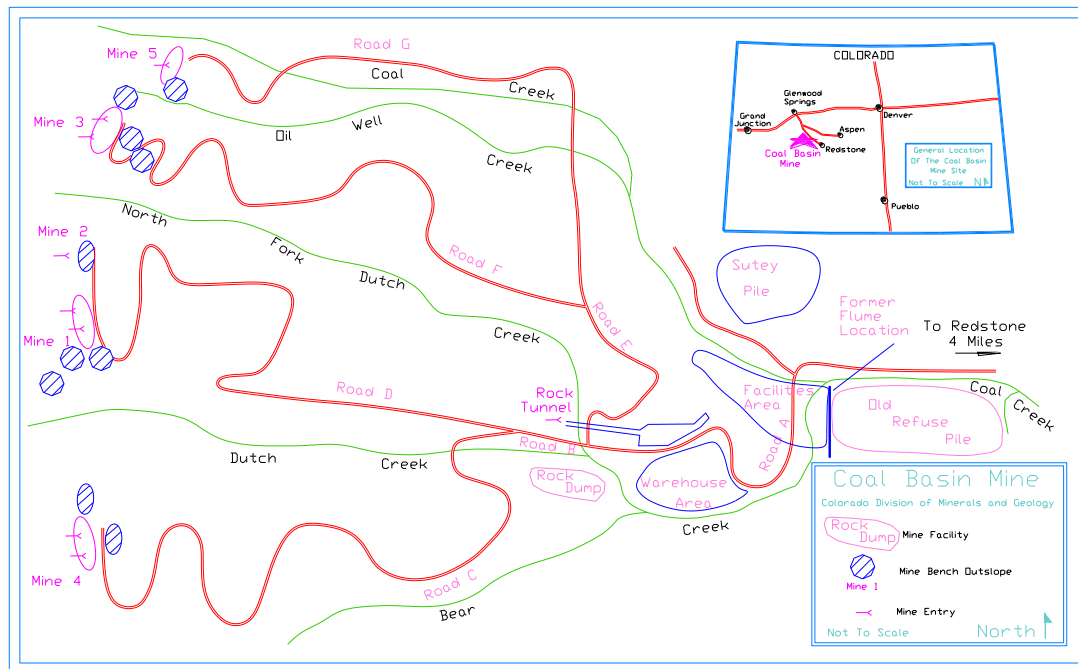
Table 2. Projects Conducted in Support of Reclamation Construction at Coal Basin, Continued.

Project Name	Year (s) Undertaken	Public or Private Property	Project Description
Noxious Weed Control	2000	Both	Spray control of noxious weed infestation
Bear Creek Fence	2001	Public	Exclude cattle from reclaimed area
Noxious Weed Control	2001	Both	Spray control of noxious weed infestation
Fall Maintenance	2001	Public	Maintain reclaimed roads and Sutey Refuse Disposal Area
Noxious Weed Control	2003	Both	Spray control of noxious weed infestation
Fall Maintenance	2003	Public	Maintain section of Dutch Creek Diversion
Noxious Weed Control	2004	Both	Spray control of noxious weed infestation
Noxious Weed Control	2005	Both	Spray control of noxious weed infestation
Noxious Weed Control	2006	Both	Spray control of noxious weed infestation
Dutch Creek Maintenance	2006	Public	Maintain section of Dutch Creek Diversion

Table 3. Site Visit Days by Year

Year	Number of Site Visits *
1994	26
1995	75
1996	92
1997	74
1998	75
1999	38
2000	33
2001	15
2002	16
2003	8
2004	18
2005	4
2006	4

* Site visits (days on site) by Project Manager.
Visits by other State and Federal personnel are not recorded here.



Coal Basin Mine
 Colorado Division of Minerals and Geology

- Rock Dump Mine Facility
- Mine 1 Mine Bench Outslope
- ← Mine Entry

Not To Scale North ↑

