

SB 89-181 Annual Report 2024

This annual report to the Water Quality Control Commission (WQCC) is required under the provisions of SB 89-181 and the Memorandum of Understanding (MOU) adopted by the Mined Land Reclamation Board (MLRB) and the WQCC. The Division of Reclamation, Mining and Safety (DRMS) is an implementing agency under the provisions of SB 89-181. As such, DRMS is responsible for ensuring that mine operators comply with state ground water quality standards. It is the responsibility of the WQCC to classify waters of the state and set standards for those classified waters.

If the WQCC has not set site specific ground water standards, DRMS uses the numeric protection levels, referenced in the WQCC adopted narrative groundwater standards, to set appropriate permit conditions to protect groundwater.

Active Mines / Minerals Program

DRMS analyzes all operations that have the potential to be classified as Designated Mining Operations (DMO) to ensure that their operations are protective of groundwater. All DMO sites are inspected at least annually. DRMS also requires non-DMO mining operations, including some aggregate operations, to initiate groundwater sampling where there is a potential for impacts to groundwater quality. Those found to have issues are added to this list.

As of this reporting period, the Minerals Program requires 41 mine sites to conduct some type of groundwater quality monitoring. Of these sites, 23 are hard rock mining operations, and 18 are construction material extraction operations.

Please see the attached activity status, summaries and table for specific information about these sites for the 2024 reporting period.

Active Mines / Coal Program

The Colorado Coal Program currently regulates a total of 22 coal mines, of which six were actively producing in 2024. The producing mines are both surface (2) and underground (4) operations. The remaining 15 mines are in various phases of reclamation or temporary cessation. The Coal Program also oversees the long term stability following reclamation of 4 sites that had their permits revoked and reclamation bonds forfeited. Approximately 70 percent of Colorado's coal production comes from underground mining operations. The predominant method of underground mining is longwall mining.

During the 2024 reporting period, the Coal Program accomplished the following functions:

- The Coal Program’s current requirements for ongoing monitoring and detailed pre-disturbance permitting will continue to provide proper groundwater quality protection.
- Conducted analyses regarding Points of Compliance at all of its active operations and all operations in current reclamation or cessation.
- Conducted reviews of Annual Hydrologic Reports submitted by operators. This allows for timely identification of hydrology sampling anomalies and deficiencies, in addition to water quantity and quality trends.
- Continued to focus on coal mine permitting activities regarding minimization of impacts to the hydrologic balance and prevention of material damage. These activities included the ongoing review and update of Cumulative Hydrologic Impact Analyses (CHIAs).
- Continued to conduct regular coal mine field inspections and monitoring activities regarding minimization of impacts to the hydrologic balance and prevention of material damage.

Please see the attached table for specific information about these sites.

Abandoned Mine Land Program

Nonpoint Source and Water Quality Improvement Projects

During 2024, final reclamation construction work was completed on two legacy mining-related water quality improvement projects in southwestern Colorado, and investigations and/or design is ongoing at eleven other sites. Mine sites that underwent reclamation construction in 2024 included:

- Thunder Mine, Montezuma Co.
- Frisco Bagley, San Juan Co.

The eleven mine site projects that underwent investigation, characterization, and/or development of final reclamation designs:

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| ● Sherman Mine, Lake Co. | ● Nelson Tunnel Remedial Investigation, Mineral Co. |
| ● Perigo Mine, Gilpin Co. | ● Bonita Peaks Mining District, San Juan Co. |
| ● New Dominion, San Miguel Co. | ● East Mancos Headwaters, Montezuma, Co. |
| ● Mancos River Watershed Study, Montezuma Co. | ● Conger Mine, Boulder Co. |
| ● Ruby Mine, Pitkin Co. | ● Minnesota Mine, Clear Creek Co. |
| ● Dinero Mine, Lake Co. | |

In addition to these on-the-ground projects, DRMS continues to provide technical assistance to watershed groups and federal agency partners, and provides matching funds for additional projects sponsored by those groups. DRMS is actively engaged in the Colorado Mixed Ownership Group, which provides a unique perspective on legacy mine related issues.

DRMS is in early discussions with Trout Unlimited and National organizations including the National Association of Abandoned Mine Land Programs (NAAML) and the Interstate Mining Compact Commission (IMCC) on implementation of the newly passed pilot Good Sam legislation. Engagement in these early collaborative discussions will help to guide successful execution of the Program.

Hard Rock Mining Operations

December 2024

Company-Mine Name-Permit #	Site Conditions	2024 Activity
COLORADO MILLING COMPANY, LLC CASH AND WHO DO MINES (Permit No. M-1983-141) Boulder County (HR01) 1	<p>The approved water monitoring plan consists of:</p> <ul style="list-style-type: none"> • 1 monitoring well • 1 point of compliance well • Sampling of Cash Mine Pool from 3rd Level Adit • Sampling of Cash Gulch • Samples are collected quarterly • Water quality data is submitted quarterly <p><u>Narrative:</u> The water monitoring program is designed to detect impacts to water quality from the Cash Mine. The sampling program includes an upgradient well and a downgradient well.</p>	<ul style="list-style-type: none"> • The site was last inspected on October 8, 2024. • No problems or violations related to water quality have been issued during the reporting period. • The second term of Temporary Cessation ended in 2018; however, no mining or reclamation activities have occurred since that time. • The operation is currently in compliance with the approved water monitoring plan.
COLORADO MILLING COMPANY, LLC GOLD HILL MILL (Permit No. M-1994-117) Boulder County (HR02) 2	<p>The approved water monitoring plan (2024) consists of:</p> <ul style="list-style-type: none"> • 4 monitoring wells • 1 point of compliance well • 2 surface water sampling locations • Samples are collected quarterly • Water quality data is submitted quarterly <p><u>Narrative:</u> The groundwater monitoring program is designed to detect impacts to water quality from the tailings impoundment. All of the monitoring wells are located downgradient of the tailings impoundment.</p>	<ul style="list-style-type: none"> • The site was last inspected on October 8, 2024. • On February 7, 2024 the Division approved the conversion application to change the permit from a 110(2) to a 110d to allow milling at the site. The required financial warranty was accepted by the Division in January 2025. • No problems or violations related to water quality have been issued during the reporting period. • The second term of Temporary Cessation ended in 2018; however, no mining or reclamation activities have occurred since that time. • The operation is currently in compliance with the approved water monitoring plan.

<p>CLIMAX MOLYBDENUM COMPANY</p> <p>HENDERSON MINE AND MILL (Permit No. M-1977-342)</p> <p>Clear Creek and Grand Counties (HR03)</p> <p>3</p>	<p>The approved groundwater monitoring plan consists of:</p> <p>40 monitoring and extraction wells</p> <p>Mill - 37 active wells</p> <p>Mine - 3 active wells</p> <p>3 point of compliance wells</p> <p>Mill - 2 POC wells</p> <p>Mine - 1 POC well</p> <p>Groundwater samples are collected three times per year.</p> <p>Water quality data is submitted annually.</p> <p>Narrative:</p> <p>This site is a Designated Mining Operation (DMO) The groundwater monitoring program is designed to detect impacts to water quality from the tailings impoundment and mine facility. The monitoring wells are located downgradient and upgradient of the tailings impoundment and mine facility.</p>	<p>The site was last inspected on November 7, 2024</p> <p>MNGW-1 is the POC well for the Henderson Mine affected land.</p> <p>Hydrologic monitoring in 2024 continues to show pH levels below the NPLs. The Operator maintains the low pH conditions at the well are consistent with historic pH levels at this monitoring location. A second well was installed in 2024 to determine if surface water is influencing the pH measurements.</p> <p>MLGW-15, MLGW-17 and MLGW-37 are POC wells for the Henderson Mill.</p> <p>The Ute Park Extraction Wellfield collects seep water downgradient of the tailings storage facility. The Operator added two additional extraction wells in 2024.</p> <p>Mining and milling activities are on-going.</p>
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<p>BATTLE MOUNTAIN RESOURCES INC.</p> <p>SAN LUIS PROJECT (Permit No. M-1988-112)</p> <p>Costilla County (HR04)</p> <p>4</p>	<ul style="list-style-type: none"> • The site has 21 total groundwater monitoring wells • 4 of those wells are Compliance Wells • Sampling is conducted monthly and quarterly for respective items • Reporting is submitted Quarterly and Annually for respective items. <p><u>Narrative:</u> This site is a DMO. The ground water monitoring program requires monitoring at twenty-one wells, including several water wells located outside the permit area.</p> <p>Groundwater monitoring is conducted at this site to verify containment of cyanide solution at the lined mill tailings facility and to assess the progress of groundwater management in the West Pit. West Pit groundwater quality is managed by pumping to prevent contact with polluting strata. The pumped water is then treated and discharged as regulated by the WQCD. The primary treatment is for fluoride and manganese.</p>	<ul style="list-style-type: none"> • The site is in full reclamation, • The site was last inspected on August 24, 2023. • No problems were cited nor violations issued • No Permit revision related to water quality have been issued in the reporting period • The operation is currently in compliance with all applicable water quality standards.
<p>CAREUS CROSS TIMBERS LLC*</p> <p>COLONY OIL SHALE PROJECT (Permit No. M-1980-047)</p> <p>Garfield County (HR05)</p> <p>5</p>	<ul style="list-style-type: none"> • 2 groundwater monitoring wells and 1 surface water sample point, • 22 additional groundwater wells not historically monitored • No required sampling or reporting for compliance • Last samples taken Q4 2017 for Metals, Anions and Organics. No change in levels for 20+ years. Voluntarily provided sampling results. <p><u>Narrative:</u> No water quality reporting required by the permit. Historically the operator has elected to sample and provide the Division with results. The site is in final reclamation, all wells will be abandoned or wells converted for alternative use.</p> <p>*SO-2 in progress transferring site to QB Energy Operating, LLC</p>	<ul style="list-style-type: none"> • Last inspected November 18, 2024 • No recent Problems cited/Violations issued related to water quality. • Site remains in final reclamation-TR-18 is working towards updating the reclamation plan, including but not limited to repurposing existing disturbances, reclamation release and updating bond. • The operation is currently in compliance with all applicable water quality standards.

<p>OCCIDENTAL OIL SHALE, INC.</p> <p>LOGAN WASH (Permit No. M-1977-424)</p> <p>Garfield County (HR06)</p> <p>6</p>	<ul style="list-style-type: none"> • 2 monitoring wells • 1 compliance well • Sampling occurs semi-annual (usually May and October) • Data reported annual through Annual Report <p><u>Narrative:</u></p> <p>Final reclamation of the main facilities began during summer 2003 and continued through 2008. Discharge of mine water to an approved infiltration trench. Retort water discharges to an evaporation pond. Mine water from the lower portal and from the research portal are monitored for flow rate</p> <p>Two wells, Well LWCW-1A and Well LW-22A, have been sampled for water quality on a semi-annual basis. Well LW-22A, was dropped from the sampling program in 2020. Well LWCW-1A will remain in place as a monitoring well until final permit closure.</p> <p>Four wells (LW-32, LW-45, LW-103, and LW-116) remain in place but will be scheduled for abandonment in the future.</p> <p>Additional surface water quality and quantity samples taken of the mine water, retort water, and evaporation pond samples. The analytical results for samples collected during the reporting period do not indicate an improvement of retort water quality compared to past sampling events.</p>	<ul style="list-style-type: none"> • Last inspected May 12, 2023 • No recent Problems cited/ Violations issued • Acreage Reduction (AR-3) approved on October 31, 2022 which reduced the permit acreage from 47.65 ac to 26 ac. All other land will remain as long as sampling and water treatment is required. • The Site is in full reclamation. Remaining features are associated with treatment of retort water and sampling • The operation is currently in compliance with all applicable water quality standards <p>Mine water and retort water are monitored monthly at the portal locations for flow rates when accessible. The retort water discharges to an evaporation pond. These flows can generally be measured year round.</p>
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<p>LKA INTERNATIONAL, INC.</p> <p>GOLDEN WONDER MINE (Permit No. M-1978-091UG)</p> <p>Hinsdale County (HR07)</p> <p>7</p>	<ul style="list-style-type: none"> • Mine water discharge reports to a treatment system, • Primary water quality concerns are pH average of 2.5 at a flow rate of 1 gallon per minute. <p><u>Narrative:</u> This site is a DMO. The water monitoring program for this site is for surface water. The surface water sampling and reporting outfalls are related to their storm water and industrial discharge permits respectively. No groundwater is sampled, or reported for this site other than at the pre-treatment location.</p>	<ul style="list-style-type: none"> • The site was last inspected on September 25, 2024. • No mining activities were reported in 2023-2024. • The WQCD Discharge permit is in Administrative Extension. • The water treatment system has been operational and the Operator has been managing water in accordance with the DRMS Permit.
<p>SUNRISE MINING LLC</p> <p>MAY DAY IDAHO MINE COMPLEX (Permit No. M-1981-185)</p> <p>La Plata County (HR08)</p> <p>8</p>	<ul style="list-style-type: none"> • The site has 3 monitoring wells • 1 Compliance well • Sampling is conducted quarterly • Reporting is done annually <p><u>Narrative:</u> This site is a DMO. The permit was updated as part of AM-2 in 2016-2017. The groundwater and surface water monitoring program continued through 2019, with no exceedances until 2019 when the site was placed in Temporary Cessation. Water quality monitoring was suspended during TC and is currently not being sampled as the site is still in TC.</p>	<ul style="list-style-type: none"> • The site was last inspected on August 29, 2023. • No problems were cited nor violations issued • No revisions related to water quality were conducted during the reporting period • The site is in its second term of Temporary Cessation • At the conclusion of monitoring in 2019 the site was in compliance with all water quality standards.
<p>RESURRECTION MINING CO.</p> <p>BLACK CLOUD MINE (Being Reclaimed under a Consent Decree File No. M-2008-083)</p> <p>Lake County (HR09)</p>	<p>The approved groundwater monitoring plan consists of:</p> <ul style="list-style-type: none"> • 6 monitoring wells • 1 surface water sampling station • 1 point of compliance well • Groundwater samples are collected quarterly • Water quality data is submitted annually <p><u>Narrative:</u> The approved groundwater monitoring plan specifies quarterly monitoring of wells</p>	<ul style="list-style-type: none"> • The site was last inspected October 18, 2022 • No problems were cited or violations issued • There were no permit revisions in 2024 • Reclamation activities at the site were completed in 2014. Only monitoring and minor maintenance activities have occurred since then. Quarterly groundwater and surface water samples were collected on January 24, May 15, August 10 and October 22, 2024.

09	<p>and the surface water sampling station cross gradient and downgradient from the tailing impoundment. The point of compliance is established down gradient of the impoundment and numeric protection levels are established. The Black Cloud Mine pool is pumped and piped to the Yak Tunnel Water Treatment Plant.</p>	<ul style="list-style-type: none"> • The operation is currently in compliance with all applicable water quality standards
<p>ENERGY FUELS RESOURCES CORPORATION, INC.</p> <p>WHIRLWIND MINE (Permit No. M-2007-044)</p> <p>Mesa County (HR10)</p> <p>10</p>	<ul style="list-style-type: none"> • 1 monitoring wells • 1 compliance wells • Sampled and Reported quarterly <p><u>Narrative:</u> This site is a DMO. This site is located entirely on BLM. The mine is in active status as of June 2022 after being in temporary cessation for nearly 10 years. Extensive safety rehab work and dewatering of mine workings is required prior to further development of on site resources. The Operator has submitted TR-2 for a new (add-on) water treatment facility which is anticipated to be installed in 2025 after all necessary permitting approvals from the various agencies.</p> <p>Groundwater sampling is required to be conducted and submitted to DRMS on an annual basis. The mine has a water treatment and discharge permit through WQCD. No treatment or discharge occurred in 2024.</p>	<ul style="list-style-type: none"> • Site last inspected October 30, 2024 • No recent Problems cited/Violations issued • No additional safety rehab work of existing tunnels performed in 2024. No production or further ore development has been conducted. Prior to further development of mine workings, the mine will need to be dewatered which will require upgrading/replacing the current water treatment system on site. • The operation is currently in compliance with all applicable water quality standards.

<p>RIO GRANDE SILVER, INC.</p> <p>BULLDOG MINE (Permit No. M-1977-215)</p> <p>Mineral County (HR11)</p> <p>11</p>	<ul style="list-style-type: none"> • The site has 4 monitoring wells • None of the wells are designated as compliance wells • The wells are sampled and reported annually. <p><u>Narrative:</u> This site is a DMO. Rio Grande Silver (RGS) has an Environmental Protection Plan (EPP) which includes a water sampling and monitoring program. RGS has been voluntarily sampling surface water throughout their unpatented claim area. Groundwater is monitored and reported annually. In November of 2021 the site returned to an active status, and dewatering operations as well as exploration activities were conducted in 2022. Discharged water went into retention ponds for evaporation and there is no discharge. In 2023 the Operator applied for a CDPHE discharge permit to dewater the mine and discharge to surface in Windy Gulch. They are awaiting approval from CDPHE and are not dewatering at this time.</p>	<ul style="list-style-type: none"> • The site was last inspected on September 25, 2024 • No recent problems have been cited nor violations issued • Technical Revision (TR-25) conditionally approved on September 27, 2023 which added surface infrastructure to dewater the mine and discharge to Windy Gulch. The operator is awaiting their CDPHE discharge permit and final approval of the TR is dependent on approval of the CDPHE permit. • The mine returned to an active status on December 1, 2021 • The operation is currently in compliance with all applicable water quality standards
<p>COTTER CORPORATION</p> <p>JD-7 PIT (Permit No. M-1979-094HR)</p> <p>Montrose County (HR12)</p> <p>12</p>	<p><u>Narrative</u> This mine is a DMO. DRMS has the required Environmental Protection Plan (EPP). The site is currently in permanent cessation. Reclamation activities are slated to begin in 2025.</p>	<ul style="list-style-type: none"> • The site was last inspected on October 2, 2024 • No problems were cited nor violations issued
<p>COTTER CORPORATION</p> <p>JD-9 MINE (Permit No. M-1977-306)</p> <p>Montrose County (HR13)</p> <p>13</p>	<p><u>Narrative</u> This mine is a DMO. DRMS has the required Environmental Protection Plan (EPP). The site is currently in permanent cessation. Reclamation activities are slated to begin in 2025.</p>	<ul style="list-style-type: none"> • The site was last inspected on October 2, 2024 • No problems were cited nor violations issued

<p>CALDERA MINERAL RESOURCES, INC.</p> <p>CAMP BIRD MINE (Permit No. M-1982-090)</p> <p>Ouray County (HR14)</p> <p>14</p>	<ul style="list-style-type: none"> • The site has no groundwater or compliance wells • all surface water monitoring is conducted quarterly • water quality data is submitted annually <p><u>Narrative:</u> After several years of reclamation activity, the operator has filed a Notice of Intent to Conduct Prospecting Operations for limited surface exploration and the installation of three Groundwater Monitoring Wells. Those wells were installed and quarterly data is being collected currently.</p>	<ul style="list-style-type: none"> • The site was last inspected on August 23, 2021. • No problems were cited nor possible violations issued • An NOI Application was filed on the property for additional Groundwater Monitoring Wells to characterize the hydrologic balance. • No mining activities have occurred, surface reclamation including reseeded was conducted in September 2021. • The operation is currently in compliance with all applicable water quality standards
<p>THORIN RESOURCES, LLC.</p> <p>REVENUE MINE (Permit No. M-2012-032)</p> <p>Ouray County (HR15)</p> <p>15</p>	<ul style="list-style-type: none"> • The site has 6 monitoring wells • The site has no compliance well, compliance is monitored at their surface water outfall • Water quality samples are taken quarterly • Water quality reporting is conducted annually <p><u>Narrative:</u> This site is a DMO. The main portal discharges water that is piped to a lined settling pond, to reduce suspended zinc before it is piped to a passive bioreactive treatment system which then discharges at a surface water discharge point. Operator is required to monitor surface and groundwater and implement a mine water handling plan. Sampling plan includes six locations for groundwater and four locations for surface water.</p>	<ul style="list-style-type: none"> • The site was last inspected on July 23, 2024. • No problems were cited or violations issued related to water quality • The site is listed as active however no mining activity has taken place in 2024. • The operation is currently in compliance with all applicable water quality standards for surface and groundwater.

<p>AMERICAN SODA LLC</p> <p>YANKEE GULCH PROJECT (Permit No. M-1999-002)</p> <p>Rio Blanco County (HR16)</p> <p>16</p>	<p><u>Narrative:</u> This site is a DMO. American Soda ceased production in 2004 and started reclamation of the site. <u>Site is under full reclamation.</u> All wells have been plugged and abandoned and reclaimed. Site is in full final reclamation, vegetation continues to be monitored for reclamation success.</p>	<ul style="list-style-type: none"> • Last inspected September 25, 2024 • No problems were cited or violations issued related to water quality • The operation is currently in compliance with all applicable water quality standards.
<p>NATURAL SODA, LLC.</p> <p>NAHCOLITE PROJECT (Permit No. M-1983-194)</p> <p>Rio Blanco County (HR17)</p> <p>17</p>	<ul style="list-style-type: none"> • 25 of monitoring wells • 25 of compliance wells • Sampling frequency is well specific-monthly, quarterly, and annually or a combination • Data is reported annually through annual report <p><u>Narrative:</u> This mine is a DMO. The groundwater monitoring plan has 25 active monitoring wells located at the mine with water quality samples obtained from discrete zones. A total of seven wells are equipped with continuous water level measurement transducers and data acquisition and storage systems. Groundwater monitoring includes water levels and over 50 water quality parameters.</p> <p>An annual monitoring report is submitted to DRMS, the BLM and the EPA.</p>	<ul style="list-style-type: none"> • Last inspected September 25, 2024 • No problems were cited or violations issued related to water quality • No production or monitoring wells were permitted or abandoned in 2024 • The operation is currently in compliance with all applicable water quality standards.

<p>PINON RIDGE MINING, LLC</p> <p>SUNDAY MINE (Permit No. M-1977-285)</p> <p>San Miguel County (HR18)</p> <p>18</p>	<p>This site is part of the Sunday Mine Complex, Operated and monitored collectively.</p> <ul style="list-style-type: none"> • The Sunday Mine Complex has 4 monitoring wells • 1 compliance well • Groundwater samples are collected semi-annually • Water quality data is submitted annually <p><u>Narrative:</u> This mine is a DMO. Lower portions of the underground workings accumulate groundwater. No pumping or other water management is currently occurring. Accumulation of mine pool water has apparently equilibrated, during several years of temporary cessation, and the flooded portion of the workings is not expanding.</p>	<ul style="list-style-type: none"> • The site was last inspected on November 13, 2024 • No problems were cited nor violations issued • No permit revision related to water quality have been issued during the reporting period • All mines associated with the Sunday Complex are listed as active, work includes surface and underground development above groundwater levels • The site is not currently impacting groundwater, therefore in compliance with all applicable water quality standards.
<p>PINON RIDGE MINING, LLC</p> <p>WEST SUNDAY MINE (Permit No. M-1981-021)</p> <p>San Miguel County (HR19)</p> <p>19</p>	<p>This site is part of the Sunday Mine Complex, operated and monitored collectively.</p> <p>This mine is a DMO.</p>	<ul style="list-style-type: none"> • The site was last inspected on November 13, 2024.

<p>CLIMAX MOLYBDENUM COMPANY</p> <p>CLIMAX MINE (Permit No. M-1977-493)</p> <p>Summit, Lake, and Eagle Counties (HR20)</p> <p>20</p>	<p>The approved groundwater monitoring plan consists of:</p> <ul style="list-style-type: none"> • 17 monitoring wells • 5 point of compliance wells • Groundwater samples are collected quarterly • GW#2, located in the Tenmile Drainage, is monitored monthly for pH • Water quality data is submitted annually <p><u>Narrative:</u> The groundwater monitoring program is designed to detect impacts to water quality from the mining and milling operations. The operation has the potential to affect 3 distinct drainages. POC wells are located downstream of the operation in each of the 3 drainages. DRMS and CDPHE staff continue discussions on water quality issues with the operator.</p>	<ul style="list-style-type: none"> • The site was last inspected October 30, 2024 • No problems were cited or violations issued • One permit revision related to water quality was processed in 2023. TR36 added a seepwater collection system below 5 Dam. • The site is active • The operation is currently in compliance with all applicable water quality standards
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<p>CRIPPLE CREEK & VICTOR GOLD MINING COMPANY</p> <p>CRESSON PROJECT (Permit No. M-1980-244)</p> <p>Teller County (HR21)</p>	<p>The approved water monitoring plan consists of:</p> <ul style="list-style-type: none"> • 29 monitoring wells • Samples are collected quarterly • Water quality data is submitted quarterly • Monthly sampling and reporting is currently required for the following locations in Grassy Valley: Two East Cresson Overburden Storage Area (ECOSA) seeps, 34 monitoring wells including GVMW-25, Point-of-Compliance Wells GVMW-26A/B, and five surface water monitoring locations along Grassy Creek. Monthly monitoring is required due to seasonal spikes observed in GVMW-25 and the on-going seepage at the toe of the ECOSA. <p><u>Narrative:</u> This mine is a DMO. The groundwater monitoring program is designed to detect impacts to water quality from the mining operation. CC&V collects groundwater samples from 29 monitoring wells around the site on a quarterly basis. The monitoring wells are located downgradient in multiple drainages surrounding the mining operation which include:</p> <ul style="list-style-type: none"> • 7 monitoring wells in Grassy Valley • 4 monitoring wells in Poverty Gulch • 6 monitoring wells in Maize Gulch (formerly Squaw Gulch) • 2 monitoring wells in Vindicator Valley • 2 monitoring wells near Wilson Creek • 8 monitoring wells in Arequa Gulch. <p>The Division continues to receive exceedance notifications as required by Rule 3.1.7(9).</p>	<ul style="list-style-type: none"> • The site was last inspected on December 19, 2024. • TR-139 was submitted in November of 2023 to update the site-wide QAPP and relevant sections of Exhibit G and was approved in January 2024. • TR-141 was submitted in December 2023 to install 13 new groundwater monitoring wells in Grassy Valley. The revision was approved in April 2024 and all wells were installed between July and October 2024. • In May 2024 TR-144 was submitted to allow for improvements to the seep water collection system located at the toe of the ECOSA. It was approved in September 2024 with construction to begin as soon as weather conditions allow. • In December 2024 the Division entered into a stipulated agreement with CC&V for a violation pertaining to impacts to the hydrologic balance. The agreement included the development of a groundwater pumpback system, a \$50 million dollar bond increase specifically for the system, and a schedule for the long-term reclamation of source areas. • The permit is Active. Constant mining and processing occurred during the reporting period. • Results from the quarterly groundwater sampling show up to 15 monitoring wells had exceedances. Analytes that were frequently exceeded were fluoride, manganese, sulfate, and pH. Other analytes that were less frequently exceeded were aluminum, beryllium, cadmium, cobalt, copper, nickel, selenium, uranium, zinc and nitrate in various forms in the same wells. The Division and CC&V continue to evaluate the potential sources of the
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		exceedances and paths to address the issue.
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<p>VENTURE RESOURCES, INC.</p> <p>HUKILL GULCH MILLSITE (PERMIT NO. M-2009-076)</p> <p>Clear Creek County (HR22)</p> <p>22</p>	<p>The approved water monitoring plan consists of:</p> <ul style="list-style-type: none"> • 2 monitoring wells • 1 point of compliance well • Samples are collected quarterly • Water quality data is submitted quarterly <p><u>Narrative:</u> This mine is a DMO. The groundwater monitoring program is designed to detect impacts to water quality from the tailings impoundment. The monitoring wells are located upgradient and downgradient of the tailings impoundment.</p>	<ul style="list-style-type: none"> • The site was last inspected on September 13, 2024. • No problems or violations related to water quality have been issued during the reporting period. • No permit revisions related to water quality have been issued during the reporting period. • The site was inactive during the reporting period. • The operation is currently in compliance with the approved water monitoring plan.
<p>GRAND ISLAND RESOURCES LLC</p> <p>CROSS GOLD MINE (Permit No. M-1977-410)</p> <p>Boulder County (HR23)</p>	<p>The approved water monitoring plan consists of:</p> <ul style="list-style-type: none"> • 2 surface water monitoring locations one upgradient and one down gradient of mine, • 3 groundwater monitoring wells, • 1 point of compliance well, • 2 mine portal effluent locations, • Samples are collected quarterly and, • Water quality data is submitted quarterly <p><u>Narrative:</u> A water treatment program consists of routing the water through a series of lined settling ponds prior to water treatment. Water treatment consists of filtering water through a series of 5 micron filters to remove TSS and then the water is treated through a polishing medium to remove TDS prior to discharge at a CDPHE approved discharge point on Coon Track Creek.</p>	<ul style="list-style-type: none"> • The site was last inspected on November 15, 2024. • The MLRB Board lifted the Ordered Cease and Desist Order on January 18, 2023. However any work must be approved by the Division for impacts to the hydrologic balance and is prohibited from performing any underground activities unless approved by the Division in writing. • In January 2024 the Operator submitted TR14 to reduce the monitoring frequency from monthly to quarterly. TR14 was approved in February 2024. • In August 2024 the Operator submitted TR15 to reduce the analyte list for groundwater samples. The Division approved TR15 in September 2024. • The Operator continues to collect quarterly groundwater data to determine baseline groundwater quality conditions for the site. • The site has been in compliance with their monthly CDPHE discharge requirements. • The operation is currently in compliance with the approved water monitoring plan.

23		<ul style="list-style-type: none"> In December 2024 the Operator submitted the required Designated Mining Operation application. At the time of update the application was still incomplete.
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Construction Materials Operations

December 2024

Company-Mine Name-Permit #	Site Conditions	2024 Activity
CEMEX, INC. LYONS QUARRY (Permit No. M-1977-208) Boulder County (CM01)	<p>The approved water monitoring plan consists of:</p> <ul style="list-style-type: none"> 2 monitoring wells 1 point of compliance well Sampling of C-Pit (CKD disposal pit) Samples are collected quarterly Water quality data is submitted quarterly <p><u>Narrative:</u> The permit authorizes the on-site operation of a cement manufacturing plant and on-site disposal of Cement Kiln Dust (CKD) generated by the plant (into the C-Pit).</p> <p>The water monitoring program is designed to detect impacts to water quality from the C-Pit. All three wells (including one alluvial well and two bedrock wells) are located downgradient of C-Pit.</p> <p>Groundwater protection requirements include: backfilling the C-Pit with overburden and shale from ongoing quarry operations to reduce ponded water in C-Pit to less than one-half acre, and lining portions of the Boulder Feeder Canal near C-Pit to reduce seepage into the pit.</p>	<ul style="list-style-type: none"> The site was last inspected on February 13, 2023. No problems or violations related to water quality have been issued during the reporting period. No permit revisions related to water quality have been issued during the reporting period. Mining at the site is complete. The operation is currently in compliance with the approved water monitoring plan.
24		
HOLCIM US, INC. PORTLAND LIMESTONE	<p>Holcim continues to monitor groundwater to evaluate potential release of contaminants from cement kiln dust (CKD) stored on site. Three wells are</p>	<ul style="list-style-type: none"> The quarry site was last inspected on November 2, 2023. Data is collected and submitted to DRMS annually.

<p>(Permit No. M-1977-344)</p> <p>Fremont County (CM02)</p> <p>25</p>	<p>designated as compliance and monitoring wells to be monitored for TDS, sulfate (SO₄), potassium (K), sodium, K:Na ratio, total iron (Fe) and manganese (Mn). DRMS has stipulated that when two consecutive parameters exceed the NPL by more than 10%, during the reporting year as analyzed in MW-7 & MW-13, semi-annual sampling for those parameters would commence.</p> <p>The required parameters and numeric protection levels for MW-7 and MW-13, respectively are:</p> <ol style="list-style-type: none"> 1) TDS (mg/L): 3918, 4026 2) SO₄ (mg/L): 2080, 2200 3) K (mg/L): 17, 13 4) Na: K ratio: 0.5 5) Fe (mg/L): 4.5, 0.13 6) Mn (mg/L): 0.88, 0.30 	<ul style="list-style-type: none"> Exceedances reported in 2024 were for sulfate in MW-13 at 2330 mg/L, less than 10% over the 2200 mg/L DRMS NPL. An increased frequency in sampling was not required as no analytes exceeded NPLs by 10%, pursuant to the DRMS letters dated February 24, 2009 and November 27, 2012, stating resampling of the monitoring wells on a semi-annual basis is only required when two parameters exceed the 10% threshold. TSS was added to the list of analytes in 2021 to monitor the correlation of concentrations of suspended solids and total iron.
<p>HOLCIM, INC.</p> <p>BOETTCHER LIMESTONE QUARRY (Permit No. M-1977-348)</p> <p>Larimer County (CM03)</p>	<p>The approved water monitoring plan consists of:</p> <ul style="list-style-type: none"> 8 monitoring wells Samples are collected semi-annually Water quality data is submitted semi-annually <p><u>Narrative:</u></p> <p>The water monitoring program is designed to detect impacts to water quality from the cement kiln dust (CKD) disposed of on site in unlined pits (A2 Pit, A2-A Pit, and Dry Fill CKD Pit).</p> <p>The groundwater monitoring program includes one well installed in the CKD disposal area, 5 wells located downgradient of the CKD disposal area, and 2 “background” wells installed outside of the CKD disposal area, one of which (MW-8) was installed in 2020 per Technical Revision No. 11 (TR-11).</p> <p>Per TR-11, depending on the results of water quality data collected from the new background well (MW-8), the operator may install a compliance monitoring well</p>	<ul style="list-style-type: none"> The site was last inspected on November 1, 2023. No problems or violations related to water quality have been issued during the reporting period. No permit revisions related to water quality have been issued during the reporting period. Mining ceased in 2002; the site is in final reclamation. The operation is currently in compliance with the approved water monitoring plan. Groundwater monitoring plan has been discontinued with TR-12.

<p>26</p>	<p>(MW-9), the location of which will be addressed in a separate revision.</p> <p>Due to the low hydraulic conductivities at the site, it is anticipated that at least six rounds of the semi-annual groundwater sampling of MW-8 will be needed in order to have sufficient data representative of in-situ conditions to analyze. To date, the operator has provided six semi-annual monitoring reports that include data from MW-8. The Operator intends to submit a technical revision in early 2024 to present an analysis of all data collected thus far, including a demonstration that the groundwater quality observed downgradient of the CKD is representative of natural conditions, and not of CKD impacts.</p> <p>The site has been largely reclaimed, and the CKD disposal area has been capped and revegetated.</p> <p>The Operator submitted a technical revision (TR-12) requesting the approval of the demonstration that existing and reasonably potential future uses of groundwater are protected and a discontinuation of the groundwater monitoring plan. The Division approved TR-12 on July 15, 2024.</p>	
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<p>GRAND JUNCTION PIPE SUPPLY CO.</p> <p>DELTA PAVING GRAVEL PIT (Permit No. M-1998-105)</p> <p>Delta County (CM04)</p> <p>27</p>	<p>The approved water monitoring plan consists of:</p> <ul style="list-style-type: none"> • 1 monitoring well (GW-1) • 1 point of compliance well • Samples will be collected quarterly • Water quality data will be submitted annually with AR. <p><u>Narrative:</u> Groundwater monitoring requirements were added as a condition of AM-01 in January 2023. The water monitoring program is designed to detect impacts to water quality from future mining, namely Phases 3 and 4. Baseline data must be collected for five quarters.</p>	<ul style="list-style-type: none"> • The site was last inspected on August 11, 2022. • No problems or violations related to water quality have been issued during the reporting period. • Monitoring data has not been submitted, as of December 2024.
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<p>GCC RIO GRANDE, INC.</p> <p>PUEBLO CEMENT PLANT AND LIMESTONE QUARRY (Permit No. M-2002-004)</p> <p>Pueblo County (CM05)</p> <p>28</p>	<p>The approved groundwater plan monitoring plan consists of:</p> <ul style="list-style-type: none"> • 20 monitoring wells, 5 of which are dry • 1 point of compliance (POC) • Groundwater wells are sampled quarterly • Groundwater quality data is submitted quarterly • Groundwater quality data and analysis is submitted annually <p><u>Narrative:</u></p> <p>The groundwater monitoring program is designed to provide a spatial distribution of site water quality monitoring (upgradient and down gradient of mining and reclamation activities) and allow for the determination of groundwater flow and gradient across the site.</p> <p>Over the past year there have been exceedances of the State Agricultural Standards for Manganese (Mn) for two wells, including at the POC. Boron (B) exceedances occurred in seven wells. The standards for Mn and B are in effect where groundwater may be used for irrigation water at pH levels greater than 6 or of irrigation of certain crops. No groundwater from the site is used for irrigation. Selenium (Se) exceedances have occurred in two wells. According to the Operator, the increased Se can be attributed to natural effects of the geochemistry associated with the Niobrara Formation. Exceedances in Fluoride (F-) occurred in three wells. According to the Operator, the increased F- can be attributed to low calcium concentrations as fluoride bearing minerals become more soluble in water with low alkalinity. According to the data provided, the increased F- correlates with decreasing alkalinity.</p>	<ul style="list-style-type: none"> • The site was last inspected November 17, 2023 • No problems or violations related to water quality have been issued in the reporting period. • The additional 10 wells approved with TR-12 were installed throughout the year and reported on as they were installed. • Mining is ongoing at the site with concurrent reclamation also being performed. • The 2024 annual report is due to DRMS on January 31, 2025. • At the time of this review, the Operator is in compliance with their approved groundwater monitoring plan.
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<p>ALBERT FREI & SONS</p> <p>AFS-BENNETT PIT (Permit No. M-2001-038)</p> <p>Adams County (CM06)</p> <p>29</p>	<p>The approved groundwater monitoring plan consists of:</p> <ul style="list-style-type: none"> • 4 monitoring wells • 1 groundwater well is sampled quarterly for water quality • Groundwater quality data is submitted annually <p><u>Narrative:</u> This operation is currently not approved for excavating below groundwater level. The monitoring program is designed for possible excavation into the groundwater table in the future along with lining portions of the pit excavation. The Operator is collecting baseline groundwater level data at 4 well locations and water quality data at one location on the southeast side of the permit area. The Operator will need to submit an Amendment application prior to lining portions of the pit or mining into the groundwater table.</p>	<ul style="list-style-type: none"> • The site was last inspected on May 21, 2024 • No problems or violations related to water quality have been issued in the reporting period. • Mining is ongoing at the site with concurrent reclamation also being performed. • The site is approved to accept inert fill. • The operation is currently in compliance with all applicable water quality standards .
<p>Ready Mixed Concrete Co, LLC.</p> <p>NIX SAND and GRAVEL MINE (Permit No. M-2001-046)</p> <p>Weld County (CM07)</p> <p>30</p>	<p>The approved groundwater monitoring plan consists of:</p> <ul style="list-style-type: none"> • 8 monitoring wells • 4 point of compliance wells • Samples are collected quarterly • Groundwater quality data is submitted annually 	<ul style="list-style-type: none"> • The site was last inspected on November 20, 2024 • The operation is currently collecting baseline water quality data. • Slurry walls to be installed prior to exposing GW

<p>Asphalt Specialties Co. Inc.,</p> <p>CHAUVERS MINING RESOURCES (Permit No. M-2015-030)</p> <p>Weld County (CM08)</p> <p>31</p>	<p>The approved groundwater monitoring plan consists of:</p> <ul style="list-style-type: none"> • 5 monitoring wells • 2 point of compliance wells • Samples are collected quarterly • Groundwater quality data is submitted annually 	<ul style="list-style-type: none"> • The site was last inspected on April 5, 2023. • No problems or violations related to water quality have been issued in the reporting period. • Mining is ongoing at the site with concurrent reclamation. • The site is approved to accept inert fill for backfilling. • The Operator collected eight consecutive quarters of baselines data in 2022-2023 • The operation is currently in compliance with all applicable water quality standards .
<p>Loveland Ready-Mix Concrete, Inc.</p> <p>Knox Pit (Permit No. M2017-036)</p> <p>Larimer County (CM09)</p> <p>32</p>	<p>The approved water monitoring plan consists of:</p> <ul style="list-style-type: none"> • 14 monitoring wells • Samples are collected semi-annually • Water quality data is submitted annually <p><u>Narrative:</u> TR-2, approved in May 2024, reduced the groundwater analyte list and sampling frequency. Samples are collected during the first and third quarters, and the monitoring results are submitted with the annual report.</p>	<ul style="list-style-type: none"> • The site was last inspected on September 24, 2024 • Monitoring wells were inspected and documented during the inspection • Water quality data was actively being collected at the time of inspection • Monitoring data was last submitted on February 8, 2024, along with the annual report
<p>Coulson Excavating Co. Inc.,</p> <p>AMEN AGGREGATE RESOURCE (Permit No. M-2019-025)</p> <p>Weld County (CM10)</p> <p>33</p>	<p>The approved groundwater monitoring plan consists of:</p> <ul style="list-style-type: none"> • 10 monitoring wells • 5 point of compliance wells • Groundwater samples are collected quarterly. • Water quality data is submitted annually 	<ul style="list-style-type: none"> • The site was last inspected on July 23, 2019 • The operation is currently collecting baseline water quality data

<p>Monarch Mountain Minerals and Aggregates, LLC</p> <p>MONARCH DENM MINE (Permit No. M-2022-009)</p> <p>Weld County (CM11)</p> <p>34</p>	<p>The approved groundwater monitoring plan consists of:</p> <ul style="list-style-type: none"> • 7 piezometers for water levels • 4 piezometers for water quality monitoring • Water levels measured monthly during mining • Water quality wells sampled prior to mining and semi-annually for life of mine • Reports submitted annually • Notification to Division after exceedances of standards, large fluctuations in water levels, or complaints from owners of nearby wells 	<ul style="list-style-type: none"> • The permit was issued in July 2022. • The site is currently collecting quarterly samples to establish baseline conditions. A baseline conditions monitoring report will be submitted in May 2025. • The site is currently in compliance.
<p>Martin Marietta Materials, Inc.</p> <p>WINDSOR EAST MINE (Permit No. M-2022-042)</p> <p>Weld County (CM12)</p> <p>35</p>	<p>The approved groundwater monitoring plan (2024) consists of:</p> <ul style="list-style-type: none"> • 5 monitoring wells • 1 point of compliance well • Groundwater samples are collected semi-annually • Water quality data is submitted annually • Five quarters of baseline water quality data have been collected, a Technical Revision (TR1) has been approved for the site's long term monitoring plan. 	<ul style="list-style-type: none"> • The site was last inspected on November 28, 2022 • In November 2024 the Operator submitted TR1 to establish baseline conditions at the site and to transition the site from quarterly sampling to semi-annual (twice a year) sampling and reduce the analyte list. TR1 was approved in December 2024. • The operation is currently in compliance with all applicable water quality standards.
<p>L.G. Everist, Inc.</p> <p>WEST FARM RESERVOIRS (Permit No. M-2022-048)</p> <p>Weld County (CM13)</p> <p>36</p>	<p>The approved groundwater monitoring plan consists of:</p> <ul style="list-style-type: none"> • 14 monitoring wells • 3 point of compliance wells • Groundwater samples are collected quarterly • Water quality data is submitted annually 	<ul style="list-style-type: none"> • The site was last inspected on December 21, 2022 • The operation is currently collecting baseline water quality data. • No mining activity has commenced at the site. • Slurry walls to be installed prior to exposing groundwater.

W.W. Clyde & Co. Bernhardt Sand and Gravel Permit No. M-2023-025 Weld County (CM14) 37	The approved groundwater monitoring plan consists of: <ul style="list-style-type: none"> • 4 monitoring wells • 3 point of compliance well • Groundwater samples are collected quarterly • Water quality data is submitted annually 	<ul style="list-style-type: none"> • The site was last inspected on August 28, 2024. • The operation is currently collecting baseline water quality data. • Slurry walls to be installed prior to exposing groundwater.
BURNCO Colorado, LLC EWING GRAVEL PIT (Permit No. M-2023-033) Weld County (CM15) 38	The groundwater monitoring plan is currently under review as part of the permit application. Currently the groundwater monitoring plan consists of: <ul style="list-style-type: none"> • 7 monitoring wells • 3 point of compliance wells • Groundwater samples are collected quarterly • Water quality data is submitted annually 	<ul style="list-style-type: none"> • The site was last inspected on December 20, 2023 • Slurry walls to be installed • The operator submitted baseline water quality data in 2024. • In April 2024, the Operator submitted TR1 to establish baseline conditions at the site. The TR was approved in May 2024. • No mining activity has commenced at the site.
Asphalt Specialties Co. Inc. Marcovich Mining Resource Permit No. M-2024-034 Weld County (CM16) 39	The approved groundwater monitoring plan consists of: <ul style="list-style-type: none"> • 4 monitoring wells • 1 point of compliance well • Groundwater samples are collected quarterly • Water quality data is submitted annually 	<ul style="list-style-type: none"> • The site was last inspected on August 28, 2024. • The operation is currently collecting baseline water quality data. • Slurry walls to be installed prior to exposing groundwater.
Front Range Aggregates, LLC Parkdale Quarry (Permit No. M-1997-054) Fremont County (CM17) 40	The site has collected baseline groundwater quality data from upgradient and downgradient monitoring wells. <ul style="list-style-type: none"> • 3 monitoring wells • 0 point of compliance • Groundwater samples are collected semi annually 	<ul style="list-style-type: none"> • The site was last inspected on August 9, 2021. • Baseline was established and approved with TR-8. • Sampling was reduced from quarterly to semi annual with the approval of TR-8. • The Operator has not yet started mining activities in the expanded area of where groundwater is being monitored. • The Operator is in compliance with their groundwater monitoring plan.

<p>Fremont Paving & Redi - Mix, Inc.</p> <p>Two Rivers (Permit No. M-1998-038)</p> <p>Pueblo County (CM18)</p> <p>41</p>	<p>Groundwater monitoring plan was approved with AM-1 on September 3, 2024. The Operator committed to submitting a TR when monitoring wells will be installed and sampling begins to establish baseline. The plan calls for the following:</p> <ul style="list-style-type: none"> • 3 monitoring wells • 2 compliance wells • Sampled quarterly • Reported quarterly 	<ul style="list-style-type: none"> • Last inspected August 21, 2024. • The Operator is in compliance with the approved groundwater monitoring plan.
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Colorado Coal Mines – Activity Status

December 2024

Colowyo Mine (Producing) – C-1981-019

Moffat and Rio Blanco Counties

Company Name: Colowyo Coal Company L.P.
Mine Name: Colowyo Coal Mine
Mine Type/Status: Surface/Federal/Active
FY 23-24 Production: 2,141,724.00 tons
No. Miners: 160
Permit Acres: 26,173.14 (3,481.67 federal surface and 21,778.47 federal coal)
Affected Acres: 6,931.70
Disturbed Acres: 5,419.60
Bond Amount: Required - \$117,425,977; Actual Held - \$119,000,000

Mining operations began in 1976 with the East Pit, a multi-seam coal operation with eight coal seams. Extraction of coal from the East Pit was terminated in 2006, and currently the only ongoing operation in the East Pit is reclamation of the final cut, including backfilling and grading of the pit and highwall reduction. Coal extraction from the multi-seam West Pit, including highwall mining, concluded in 2015. In 2006, Colowyo expanded the permit boundary by approximately 6,000 acres to the west and south into the South Taylor/Lower Wilson area. Mining, including highwall mining, in the South Taylor Pit concluded in 2023. Permit Revision PR-04 approved mining in the new Collom Pit. The initial box cut for the Collom Pit was started in early 2019. With the South Taylor Pit completely mined, all remaining production is currently coming from the Collom Pit.

Coal from the Colowyo Coal Mine is shipped to the Craig Station in Craig, Colorado. Its coal is used in Units 2 and 3. Tri-State Generation and Transmission announced that both units will be retired in 2028.

There are five groundwater points of compliance for the Colowyo Coal Mine. Two points of compliance are for the South Taylor, East, West and Section 16 Pits and the remaining three are for the Collom Pit.

Deserado Mine (Producing) – C-1981-018

Moffat and Rio Blanco Counties

Company Name: Blue Mountain Energy, Inc.
Mine Name: Deserado Mine
Mine Type/Status: Underground/Federal/Active
FY 23-24 Production: 2,389,120 tons
No. Miners: 170
Permit Acres: 13,645.01 (13,325.01 federal surface and 13,645.01 federal coal)
Affected Acres: 8,216.71
Disturbed Acres: 655.67
Bond Amount: Required - \$10,628,162.00; Actual Held - \$10,642,916.00

The Deserado Mine is an underground longwall mine that is currently mining in the B-Seam. All coal mined from Deserado Mine is shipped by train directly to the Bonanza Power Plant located near

Bonanza, Utah. The Bonanza Plant is scheduled to be retired in 2030. The Deserado Mine continually drills into their current longwall workings to allow nitrogen to be pumped into the mine as a fire preventative measure.

There is one groundwater point of compliance for the Deserado Mine. The POC is located down dip of the facilities area and coal refuse piles. It has been continually monitored since 2006.

Foidel Creek Mine (Producing) – C-1982-056

Routt County

Company Name: Twentymile Coal, LLC
Mine Name: Foidel Creek Mine
Mine Type/Status: Underground/Federal/Active
FY 23-24 Production: 1,332,220.88 tons
No. Miners: 218
Permit Acres: 22,647 (6,070 federal surface and 8,484.8 federal coal)
Affected Acres: 20,007.93
Disturbed Acres: 838.75
Bond Amount: Required - \$12,937,652; Actual Held - \$13,260,344

The Foidel Creek Mine is an underground longwall mine located near Oak Creek, Colorado. Mining at the Foidel Creek Mine has historically occurred in the Wadge seam. During 2015 and 2016, the company ramped down to, and conducted development mining in, the Wolf Creek seam. Longwall mining in the Wadge seam ended in June 2016. Longwall mining in the Wolf Creek seam began in September 2016.

There are five groundwater points of compliance at the mine. Three of these POCs are alluvial wells and two are bedrock wells. All of these wells have data from long-term monitoring.

King Coal Mine (Producing) – C-1981-035

La Plata County

Company Name: GCC Energy, LLC
Mine Name: King Coal Mine
Mine Type/Status: Underground/Federal/Active
FY 22-23 Production: 637,888 tons
No. Miners: 76
Permit Acres: 3,102.90
Affected Acres: 2,118.68
Disturbed Acres: 54.17
Bond Amount: Required - \$1,286,335; Actual Held - \$1,286,335

The King Coal Mine, permitted by GCC Energy, LLC (GCC), is an underground mine west of Durango in La Plata County. Mining at the original mine (King I) was completed in 2009 and those portals have been sealed. Expansion to the King II Mine was approved in 2006 and coal extraction began in 2007. The King II mine's surface facilities were constructed in 2008. Coal is mined from the A-Seam using conventional room-and-pillar methods.

There are currently no points of compliance at the King II Mine. In 2015 and 2016 the operator drilled several well clusters to better characterize the groundwater. It is anticipated that one or more

of these wells will become a POC or it will help locate a better location for a potential POC.

New Elk Mine (Not Producing) - C-1981-0012

Las Animas County

Company Name: New Elk Coal Company, LLC
Mine Name: New Elk Mine
Mine Type/Status: Underground/Private/Active
FY 23-24 Production: 0 tons
No. Miners: 10
Permit Acres: 4,213.60 (0.00 federal surface and 0.00 federal coal)
Affected Acres: 2,910.81
Disturbed Acres: 234.20
Bond Amount: Required - \$5,218,954; Actual Held - \$5,218,954

The New Elk Mine, located approximately 25 miles west of Trinidad, is an underground mine that has temporarily ceased production in June, 2023. The mine was producing high quality metallurgical coal for steel production. New Elk has submitted Permit Renewal No. 8 (RN8) and is working on responding to the Division's adequacy concerns. The decision date for RN8 is set for January 31, 2025.

There are no groundwater points of compliance at the New Elk. This status continues to be evaluated with ongoing permitting actions.

Trapper Mine (Producing) - C-1981-010

Moffat County

Company Name: Trapper Mining, Inc.
Mine Name: Trapper Mine
Mine Type/Status: Surface/Federal/Active
FY 22-23 Production: 1,525,192 tons
No. Miners: 93
Permit Acres: 11, 293.79 (0.00 federal surface and 5,540.43 federal coal)
Affected Acres: 3,696.21
Disturbed Acres: 3,445.11
Bond Amount: Required - \$41,175,626; Actual Held - \$38,550,205

The Trapper Mine, permitted by Trapper Mining, Inc., is a surface mine located south of Craig. Draglines, excavators, loaders and trucks are used to mine coal. Coal is trucked directly to the Craig Power Station Power Plant located adjacent to the mine site. In October 2016, Tri-State Generation and Transmission, the company that operates the Craig Power Plant, announced that Unit No.1, the oldest unit, would be retired by December 31, 2025.

There are two points of compliance (POC) for water quality at the Trapper Mine. One POC is a bedrock well and one POC is an alluvial well. DRMS conducts monthly inspections of the site. Other inspections include bond release inspections, occasional oversight inspections with OSM, and inspections for specific permitting actions. 38 sediment ponds capture runoff and are monitored on a monthly basis for constituents as per the NPDES permit in place.

West Elk Mine (Producing) - C-1980-007

Delta and Gunnison Counties

Company Name:	Mountain Coal Company, LLC
Mine Name:	West Elk Mine
Mine Type/Status:	Underground/Federal/ Active
2024 Production:	3,702,937 tons
No. Miners:	220
Permit Acres:	19,854.90 (13,358.40 federal surface and 15,395.00 federal coal)
Affected Acres:	16,112.96
Disturbed Acres:	547.37
Bond Amount:	Required - \$11,311,193; Actual Held - \$15,000,000

The West Elk Mine is an underground longwall mine that produces coal from the E-Seam. In 2024 the operator continued development mining for future longwall panels in the B-seam, as well as retreat mining pillars in the E-seam development workings that are no longer needed to be kept open for access or ventilation. The existing coal wash plant and refuse pile are expected to provide sufficient capacity for the remaining life of mine. The operator continues to reclaim mine ventilation boreholes (MVBs) and their associated drill pads and light-use roads. No new MVBs were constructed in 2024.

There are no groundwater points of compliance at the West Elk Mine. It has not been considered necessary to date due to the fact that groundwater resources are limited and discontinuous and the potential impacts to groundwater have been considered insignificant.

**Colorado Coal Mines
December 2024**

Permit #	Mine	Total Permitted Acreage	Inspections Required
	Active		
C-1980-007	West Elk Mine*	19,854.90	12
C-1981-010	Trapper Mine*	11,293.79	12
C-1981-012	New Elk Mine	4,213.60	12
C-1981-018	Deserado Mine*	13,645.01	12
C-1981-019	Colowyo Mine*	26,173.14	12
C-1981-022	Elk Creek Mine	15,676.51	12
C-1981-035	King Coal Mine*	3,102.90	12
C-1982-056	Foidel Creek*	22,647.00	12
C-1983-059	Terror Creek Load Out	20.00	12
	TOTAL ACTIVE	116,626.85	108
	Reclamation and Cessation		
C-1980-004	McClane Canyon Mine (Temporary Cessation)	3,561.40	4
C-1981-008	New Horizon Mine	335.45	12
C-1981-028	Keenesburg Mine	225.55	12
C-1981-038	Bowie No. 1	5,035.20	12
C-1981-041	Roadside Portals	317.00	12
C-1981-044	Williams Fork Mines	6,363.00	12
C-1982-057	Seneca IIW Mine	3,878.50	12
C-1992-081	H-G Loadout	391.20	12
C-1994-082	Yeast Mine	2,318.30	12
C-1996-083	Bowie No. 2 (Temporary Cessation)	10,987.40	4
C- 1996-084	Lorencito Canyon Mine	384.00	12
C-2009-087	Peabody Sage Creek Mine	10,164.00	12
C-2010-089	New Horizon North Mine	231.20	12
	TOTAL RECLAMATION AND CESSATION	44,205.71	140
	Revoked		
C-1981-015	Fruita No. 1 & 2	16.00	4
C-1981-014	Southfield Mine	1.45	2
C-1981-033	Bear Mine	1,108.40	4
C-1981-037	GEC Strip Mine	890.00	2
	TOTAL REVOKED	2,015.85	12
	New		
C-2006-085	Northfield Mine (pending bond)	1,157.00	0
	TOTAL NEW	1,157.00	0
	Total	164,005.41	260

* Actively Producing Mines		
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**COLORADO ABANDONED MINE LAND PROGRAM
NONPOINT SOURCE AND WATER QUALITY IMPROVEMENT PROJECTS
December 2024**

SAN JUAN RIVER WATERSHED

Project and Summary	Status	Partners
<p>Ute Mountain Ute - Mancos River Watershed Studies</p> <p>Synoptic sampling planned for the West Mancos River, additional sampling of the East Mancos River and downstream sites on the Ute Mountain Ute tribal property on the Mancos River. A Final report will be complete in 2025.</p>	<p>Sampling completed in 2023 and 2024, final reporting will be completed in 2025</p>	<p>MSI, Ute Mountain Ute, USFS, Mancos Conservation District, Southwest Hydrologic, Mesa Verde National Park, and EPA.</p>
<p>East Mancos Headwaters - USGS Doyle Group Study</p> <p>A cooperative project between DRMS, USGS, and EPA to determine the amount of loading from mine sources in the East Mancos headwaters. The project will help make reclamation decisions about the Doyle Group waste rock piles.</p>	<p>Sampling completed in 2023, initial results presented to DRMS and MSI. Final reporting from USGS expected in 2025. Results have already been useful in project planning for 2025.</p>	<p>DRMS, USGS, USFS, EPA, MSI (Mountain Studies Institute)</p>
<p>Thunder Mine - East Mancos River Watershed</p> <p>Ute Mountain Ute, Mancos Conservation District, United States Forest Service, Mountain Studies Institute, Mesa Verde National Park, Environmental Protection Agency, and Division of Reclamation, Mining and Safety have proposed a project to the Water Improvements and Infrastructure Act for the Nation (WIIN Act) Board for funding Thunder Mine Reclamation and continued metals monitoring in the Mancos River watershed.</p>	<p>WIIN Act Funding awarded to Ute Mountain Utes, DRMS and UMU executed an agreement to complete the work in early 2024, construction completed in October of 2024 of the Thunder WIIN Act mine waste project.</p> <p>Some water sampling happened in 2022 and 2023 for pre Thunder remediation data. Post monitoring of Thunder and the East Mancos will continue through 2026.</p>	<p>Ute Mountain Ute, USFS, WIIN Act, Mancos Conservation District, MSI, Mesa Verde National Park, and EPA.</p>
<p>Bonita Peak Mining District</p> <p>The Bonita Peak Mining District (BPMD) was designated as a Superfund site by EPA following the 2015 Gold King event and renewed focus on impacts by “legacy” mines to the Animas River. DRMS is currently</p>	<p>Monitoring, Analysis, Design and Technical Assistance - Ongoing.</p> <p>Goals 2 & 3 field surveys completed in 2021, reporting completed in</p>	<p>DRMS, BLM, USFS, EPA, CDPHE, ARSG, MSI, USGS</p>

<p>providing technical assistance to BLM, USFS, EPA, CDPHE and other partners within the BPMD. DRMS has been given funding by BLM, USFS, CDPHE, and EPA to provide technical assistance, reclamation project design, and potential implementation of reclamation projects on Private, BLM and USFS managed mine sites. DRMS is involved in the Hydrogeologic Workgroup, Characterization Workgroup, coordinating cultural clearances, collecting mine map information, facilitating safe entry into underground mines, and utilizing the legacy site knowledge to help inform the superfund partners. DRMS anticipates continued CDPHE funding to provide technical assistance, design and implementation of additional mine reclamation projects within the BPMD.</p>	<p>2022. Goals $\frac{2}{3}$ re-surveys completed in 2024. Planning for 2025 Goals $\frac{2}{3}$ sampling underway.</p> <p>Campground 7 completed in 2021</p> <p>Campground 4 completed in 2022</p> <p>Vermillion, Columbus, Mountain Queen construction completed in 2023.</p> <p>Grand Mogul work canceled.</p> <p>Frisco Bagley construction completed in 2024 in coordination with CDPHE.</p> <p>Tom Moore portal shed work planned for 2025.</p> <p>Bulkhead Inspections completed in 2022, 2023, and 2024.</p> <p>Redcloud Safety Closures and Hydrologic Controls Project Construction - canceled by BLM</p> <p>Mineral Creek Gauge Stations - 2022 to 2023 - continuous streamflow data for USFS.</p> <p>SJCHS Map Scanning Grant - to scan important maps for mines - ongoing - Contracting completed in 2023.</p>	
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<p>Bullion King - AML BMP Site</p> <p>DRMS was awarded a 319 grant to assess the effectiveness of different reclamation BMP's at sites across the State of Colorado. The Bullion King was selected as one of the sites to study. The project includes sampling and analysis of the Bullion King Mine site and Porphyry Gulch during high and low flow in 2022 to determine the effectiveness of the Bullion King waste rock reclamation project. The project dovetails with a project that CDPHE commissioned to determine the effectiveness of reclamation through the sampling of aquatic macroinvertebrates with Mountain Studies Institute.</p>	<p>Sampling completed in 2022</p> <p>Reporting completed on 9/30/23</p>	<p>DRMS, TU, MSI, CPDHE, EPA</p>
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LOWER COLORADO RIVER WATERSHED

Project and Summary	Status	Partners
<p>Governor Basin Project, Uncompahgre Watershed</p> <p>DRMS staff providing technical assistance for a project utilizing CDPHE Idarado Natural Resource Damage Funds in assistance with Ouray Silver Mines and Uncompahgre Watershed Partnership (UWP) to cap and cover acidic and oxidized waste rock with buffered non-oxidized waste rock in Governor Basin. Provide runoff/runoff controls and revegetation. Trout Unlimited (TU) is also assisting with the design and EPA is considering implementation using a Time-Critical removal action. TU awarded contract to Reams Construction for project implementation but never implemented. Ouray Silver Mines in receivership mid 2022. Thorin Resources bought the property at auction 8/23. Project implementation status unknown.</p>	<p>Design – Ongoing, EPA/FS negotiating with Thorin ASAOC</p> <p>Construction - potential for 2025</p>	<p>USFS, Thorin Resources, Alpine Environmental Consultants, Trout Unlimited, DRMS, EPA</p>
<p>Carbonero Mine, Howards Fork/San Miguel River Watershed</p> <p>Ongoing water quality monitoring assistance with San Miguel Watershed Coalition to determine legacy mining impacts in the Howard Fork of the San Miguel River.</p> <p>The Carbonero Mine closure is clogging with debris and mine precipitates. The wooden shed to provide protection to the flume is collapsing preventing entry to determine flow restrictions and potential for shed removal and future cleanout.</p> <p>USFS conducted a cadastral survey in 2022 and confirmed the portal/shed are on private land owned by Glen Pauls. Contacted Mr. Pauls and received consent but will defer to EPA due to mine discharge.</p>	<p>Monitoring and Analysis - Ongoing</p>	<p>DRMS, EPA, CDPHE, USFS, San Miguel Watershed Coalition, Town of Ophir</p>
<p>Prayer 9 Waste Rock Pile, La Sal Creek, Dolores River Watershed</p> <p>The Prayer 9 uranium mine site is located in Montrose County at the top of a cliff</p>	<p>Prayer 9 Waste Rock regrade project completed fall of 2021 by Reams Construction</p>	<p>DRMS, CDPHE, UMETCO, BLM, DOE</p>

<p>overlooking La Sal Creek. During heavy storm events in 2017 a significant amount of the waste rock pile was washed down the cliff and deposited in an actively used irrigation diversion and pasture. The Program was contacted by the landowner requesting assistance to address the problem. A reclamation project was completed in 2018-2019 in which mine waste was removed from the irrigation diversion and pasture to an onsite consolidation area and revegetated. Prayer 9 Waste Rock regrade project completed fall of 2021 by Reams Construction in partnership/funding from DOE DRUM program, UMETCO and BLM. Runon/off ditches and erosion control benches were constructed and the entire site hydromulch/seeded.</p>	<p>Monitoring - fall of 2022 site held up during heavy monsoon season, revegetation looking good</p> <p>BLM reported monitoring summer 2024 site still stable</p>	
<p>Centennial/Suncup Maintenance, Dolores River Watershed</p> <p>The inactive Centennial and Sun Cup Uranium Mines are located on U. S. Bureau of Land Management (BLM) managed lands in Disappointment Valley, seven miles east of the town of Slick Rock in western San Miguel County. The waste rock piles are located in or adjacent to drainages. Erosion of the waste rock was transporting selenium bearing and radioactive materials downstream. In 2016, the Program in cooperation with numerous partners relocated and consolidated a significant amount of waste rock, and worked to stabilize slopes through regrading and revegetation. Maintenance projects conducted in 2019 and 2020 included additional revegetation and sediment control. BLM reported inspection reports in 2022, no issues.</p>	<p>Ongoing Maintenance and Monitoring</p> <ul style="list-style-type: none"> - Need stormwater detention pond inspection 2024 - Detention pond full of sediment but not from reclamation work, potential to defer to BLM 	<p>DRMS, CDPHE, BLM</p>

<p>Matterhorn Mill Repository, Lake Fork/San Miguel River Watershed</p> <p>The historic Matterhorn Mill located near San Bernardo in San Miguel County Colorado was structurally stabilized and mill wastes removed in 2019. The mill was the site of an on-site tailings impoundment. The lower settling pond located on San Miguel County property and areas adjacent to the tailings impoundment were excavated and approximately 5,000 cubic yards were placed on the footprint of the existing impoundment and a 3-layer impervious liner was placed over the repository. A runoff control diversion ditch was constructed around the impoundment to prevent surface water from eroding the repository. The penstock from Trout Lake for the historic Ames hydropower plant owned by Xcel Energy is located above the repository. A two foot soil cap was placed on the liner and the entire site was hydromulched/seeded. The project was completed with funding from the U.S. Forest Service Grand Mesa, Uncompahgre, Gunnison (GMUG) office, Norwood District in cooperation with San Miguel County.</p> <p>The U.S. EPA redelegated the Agency's cleanup response and enforcement authority under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) to the U.S. Department of Agriculture (USDA) at the Matterhorn Mill site in San Miguel County, Colorado. Site work in 2022 included wetlands restoration and decommissioning/revegetation of repository access road. Additional wetland plugs and willow transplants were installed spring 2023 by Horizon Environmental.</p>	<p>Repository constructed in 2021 by McCollum's Excavating.</p> <p>Ongoing monitoring, needs weed mitigation 2025</p>	<p>DRMS, USFS, EPA, San Miguel County, Xcel Energy</p>
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<p>Irene Mine - Red Mtn. Creek/Uncompahgre River</p> <p>DRMS in partnership with the Forest Service completed the Irene Waste Rock Consolidation Project. The project consisted of consolidation of three waste rock piles into an onsite geomembrane lined repository. The repository was capped with rock and all excavated areas were topsoil and revegetated. Project funded with Tronox settlement funds, \$163,818.23 funds remain.</p>	<p>Construction completed in 2022</p> <p>Monitoring-possible additional revegetation at upper waste rock pile</p> <p>FS assessing other Tronox related projects.</p>	<p>DRMS, USFS</p>
<p>New Dominion - Howards Fork/San Miguel River</p> <p>Grand Mesa, Uncompahgre, Gunnison, Norwood District, Forest Service completed EECA for non-time critical removal action September 2020. (previous site assessment 2006/ draft time critical action memo 2018). Two draining adits approx. 150 gpm flow into a previous tailings impoundment that is now a beaver pond. Flow crosses Ophir Pass Road (San Miguel County R&B) and is a mixed ownership site with the Town of Ophir. TU working on preliminary design to create hydrologic controls/improvements for mine drainage. Currently discharges into a series of wetlands down gradient from site. DRMS received SPA funds to complete a waste rock repository at the upper mine site. Working with the FS to determine final design partnering with the FS to conduct all water diversion activities.</p>	<p>EECA completed September 2020.</p> <p>Task Order with Respec final design expected completed spring 2025.</p> <p>Continue planning/MOA with the with Town of Ophir</p>	<p>FS, TU, DRMS, Town of Ophir, San Miguel County</p>

<p>Daisy Mine, Slate River/Gunnison River Watershed</p> <p>The Daisy mine is the largest anthropogenic source of metals loading into Redwell Creek, Oh Be Joyful Creek, and the Slate River. High levels of Pb, Zn, As, Cu, and Cd run-off the waste rock area and contaminate the receiving streams. Low pH conditions within the waste rock dumps and draining adit facilitates the transport of metals from the site. 2019 site work included exploratory drilling to identify the presence or absence of impounded water behind the collapsed (draining) portal. The drilling was completed in October 2019, and identified approximately 4' of impounded water behind the portal collapse. One pressure transducer was installed within the well to monitor pool elevation.</p> <p>2020 data download revealed a steady 4' of water impounded behind the collapse. Seasonal fluctuations were minimal.</p> <p>2021 work included a visit with EPA and DRMS to discuss possible 2022 reclamation. EPA flew the site to assess aerial extent, road conditions, and repairs necessary for mobilizing equipment to the site..</p>	<p>Monitoring and Analysis – Ongoing</p> <p>No significant changes in water level have been measured. DRMS continues to monitor the water levels yearly, and replaces the desiccant as needed.</p> <p>Potential Good Sam site, if EPA willing to handle portal water.</p>	<p>DRMS, CDPHE, EPA, CCWC</p>
<p>Standard Mine Superfund Site, Coal Creek/Gunnison River Watershed</p> <p>DRMS has been providing technical assistance to CDPHE, EPA, and their contractor with respect to implementation of the Record of Decision for the Standard Superfund site. DRMS involvement included review of design documents, quality assurance with respect to construction of various remedies, and input on O&M items. DRMS continues to provide yearly monitoring for CDPHE and EPA.</p>	<p>Monitoring and Analysis - Ongoing</p> <p>Underground maintenance planned for 2024, initial bid results exceeded funding available.</p> <p>Rebid fall 2024, waiting for approval of additional CDPHE funds and bid opening spring 2025</p>	<p>CDPHE, EPA</p>

<p>Standard Mine Level 98 and 5, Coal Creek/Gunnison River Watershed</p> <p>DRMS has partnered with USFS for Level 5 and Level 98 work at the Standard Mine. These levels were not included in the Standard Mine Superfund Project. Work includes diversion of Level 5 drainage, trench closure, waste consolidation, and wetland restoration at Level 98, and revegetation at both Level 5 and 98.</p> <p>The large drainage at Level 98 had erosion issues. Maintenance was completed to repair damage, and additional seeding was completed in fall 2020. Additional maintenance needed to repair this area which continues to erode.</p> <p>Monitoring completed in 2021, 2022, and 2023</p>	<p>Monitoring and Analysis-Ongoing</p> <p>Maintenance planned for 2025 for underground workings, and levels 5 and 98. Sent SOW to USFS waiting for USFS funds</p>	<p>DRMS, USFS, CDPHE</p>
<p>Mt. Emmons Mine, Coal Creek/Gunnison River Watershed</p> <p>DRMS is providing reclamation design and implementation of mine waste reclamation on Freeport owned property at the Mt. Emmons site. DRMS is working under an agreement with Freeport McMoran to implement reclamation activities.</p> <p>2019 work included closure of the 2160 Ore Pass, grading and revegetation at 2000 Level, drainage work at 2000 and 2160, water bar installation at Standard Mine road turn, and maintenance at 1370. Construction was completed in 2019 by Trout Unlimited with DRMS providing oversight on the ore pass closure.</p> <p>2020 work included supporting TU reclamation efforts below the 2160 tailings impounds, development of revegetation test plots, and design and implementation of the 1920 level portal closure.</p> <p>2021 work included installation of a finger drain system on Dam 3 to effectively drain standing water and near surface groundwater from the surface of the Dam and divert the</p>	<p>Construction completed 2018, 2019, 2020, 2021, 2022.</p> <p>Gossan initial stormwater control work to begin in 2025.</p>	<p>DRMS, FMI, TU</p>

<p>water into the exciting decant system. Additional work included an adit closure above the 1370 level, in-situ revegetation between Dam 1 and 2 and along the toe of Dam 4. Cut/fill/grade operations completed in 2022 for Dams 1, 2, and 4. TU completed several surface water diversions, in 2021 and 2022.</p> <p>TU completed additional diversion work in 2024 and has plans to continue diversion work in 2025.</p> <p>No revegetation maintenance is recommended at this time. MEMC is continuing to plan reworking of the impoundments</p> <p>Assessment of the gossan is on-going for potential 2025 stormwater improvements. 2024 Gossan work included developing a contract and team for the design/implementation, site visits with team, test pits, and soil sampling and analysis. Phase 1 will likely begin in 2025.</p>		
<p>Hough Mine and Palmetto Gulch - AML BMP</p> <p>DRMS was awarded a 319 grant to assess the effectiveness of different reclamation BMP's at sites across the State of Colorado. The Hough Mine was selected as one of the sites to study. The project includes high and low flow water quality sampling in 2022 and data analysis in 2023.</p>	<p>Sampling completed in 2022</p> <p>Reporting completed on 9/30/23.</p> <p>Data set organization is being completed by DRMS and EPA in 2025 under the Post Monitoring Subgroup</p>	<p>DRMS, TU, MSI, CDPHE, and EPA</p>

UPPER COLORADO RIVER

Project and Summary	Status	Partners
<p>Peru Creek/Snake River Watershed</p> <p>DRMS continues to provide in-kind technical assistance to the various agencies and groups investigating impacts to Peru Creek and the Snake River from the Pennsylvania Mine and other Legacy sites within the watershed.</p>	<p>Monitoring and Analysis - Ongoing</p>	<p>DRMS, EPA, CDPHE, USFS, USGS, Summit County Open Space</p>
<p>Pennsylvania Mine, Peru Creek/Snake River Watershed + AML BMP</p> <p>Following completion of bulkheads on both Level F and Level C of the Pennsylvania Mine, DRMS has provided monitoring of mine pool conditions and assisted with water sampling. Efforts are ongoing to determine the long term effectiveness of the installed bulkheads.</p> <p>DRMS was awarded a 319 grant to study the effectiveness of reclamation at sites across the state. The project includes high and low flow sampling above and below the Penn Mine to determine the effectiveness of reclamation at the site.</p>	<p>Monitoring and Analysis - Ongoing</p> <p>Sampling completed in 2022</p> <p>Reporting completed on 9/30/23</p>	<p>DRMS, TU, EPA, CDPHE, USFS, USGS, Summit County Open Space</p>
<p>Saints John Mine, Snake River Watershed + AML BMP</p> <p>DRMS continues to monitor flow through a flume that was installed in 2019. Water quality results associated with sampling in 2020 have been delayed.</p> <p>DRMS was awarded a 319 grant to study the effectiveness of reclamation at sites across the state. The project includes high and low flow sampling above and below the Sts. John reclamation site to determine the effectiveness of reclamation at the site.</p>	<p>Monitoring - Ongoing (flow only)</p> <p>Data Analysis, Metal Load Evaluation - Pending</p> <p>Sampling completed in 2022</p> <p>Reporting completed on 9/30/23</p>	<p>DRMS, EPA, USGS, TU, CDPHE</p>

<p>Ruby Mine/Lincoln Creek:</p> <p>DRMS in cooperation with the Mixed Ownership group provided technical assistance, field sampling and data analysis related to the Ruby Mine and Lincoln Creek in Pitkin County. A reported fish kill in 2022 noted by CPW appeared to be connected to historic mine sites in the upper Lincoln Creek watershed. This initiated an evaluation by DRMS and other partners into the cause and possible connection of degraded water quality to abandoned mine lands. Investigations and evaluations were conducted during 2022 and 2023, with a final report by EPA set for community discussion in February 2024.</p>	<p>Data collection and evaluations completed 2023</p> <p>Final report and community discussion 2024</p>	<p>EPA, CDPHE, CPW, CDRMS, USFS, USGS, TU, Pitkin County, Local NGOs</p>
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SOUTH PLATTE RIVER WATERSHED

Project and Summary	Status	Partners
<p>Conger Mine Site-Sherwood Creek- Mud Lake Open Space (Boulder County)</p> <p>DRMS is cooperating with Boulder County Parks and Open Space to daylight approximately 400 linear feet of Sherwood Creek that is currently blocked by an impoundment consisting of mine waste related to the historic Conger tungsten mine. RESPEC has provided engineering and design service for the new channel alignment and restoration of the riparian corridor (300 linear feet). In addition, several beaver analogs will be constructed upstream of the site.</p> <p>A 30 % design was submitted to Boulder County planning in January of 2024. DRMS has obtained a limited use permit to complete the restoration activities.</p> <p>DRMS obtained a 300K grant from the Colorado Water Conservation Board (CWCB) as part of the CWCB Wildlife Ready program.</p> <p>EPA assisted DRMS and Boulder County with water and waste pile sampling in the Sherwood Creek</p>	<p>Investigation and sampling/analysis completed 2024.</p> <p>Construction in 2025.</p>	<p>DRMS, Boulder County, CWCB, EPA</p>
<p>Black Rose Mine-Boulder County</p> <p>The Black Rose mine is located approximately two miles southwest of the Town of Jamestown, Colorado in Boulder County. The site is situated in an ephemeral drainage, Gillespie Gulch, which is a tributary to Little James Creek. The mine has been intermittently active since 1879. The site was illegally mined in 2008 creating most of the present disturbance. The site contains an adit with impounded water, tanks, debris, a trailer and a mine waste pile. The portal is located on private property currently owned by Jamestown West Inc. The waste pile, tanks and rail are located public lands managed by the United States Forest Service (USFS). The mine was historically accessed from Jamestown via</p>	<p>Site cleanup of debris, trash and trailer was completed in the summer of 2024 using TRONOX funds. The adit will be dewatered and waste pile reclaimed in the summer of 2026.</p>	<p>DRMS, EPA, USFS and Trout Unlimited</p>

<p>USFS Road # 331. The road was impassable due to damage caused by the flood of 2013 and access to the site is now from Gold Lake Ranch.</p> <p>EPA, DRMS and Trout Unlimited sampled the waste pile and adit discharge in 2022. Testing indicated that the waste pile contains elevated levels of heavy metals including Arsenic and Lead. The PH of the adit discharge ranges from 3.5 to 4.0.</p>		
<p>Loder Smelter-Boulder County</p> <p>The Loder smelter site is located adjacent to Lefthand Creek near the town of Ward. The smelter operated for a brief period of time in the late 1800's. Slag and mine waste left from historic mining operations is currently located directly adjacent to Lefthand Creek. This material erodes into the creek during spring runoff and snow melt. Previous sampling indicates that the slag contains elevated levels of Lead. The site is located on lands owned by Boulder County and other private landowners.</p>	<p>EPA, DRMS, Boulder County and the Watershed Center will be conducting sampling of the site and Lefthand Creek in 2025</p>	<p>DRMS, EPA, Boulder County, Watershed Center</p>
<p>Perigo Mine, Gamble Gulch, Gilpin County</p> <p>DRMS is contracting with USGS to investigate groundwater movement around Perigo Mine crosscut to determine viability of bulkhead installation.</p>	<p>Monitoring Well Installation, geophysics, sampling and analysis Ongoing 2023-present. Final report anticipated in 2025</p>	<p>DRMS, EPA, CDPHE, USFS, USGS</p>

ARKANSAS RIVER WATERSHED

Project and Summary	Status	Partners
<p>Chalk Creek / Mary Murphy Mine, Golf Tunnel Hydrologic-Bulkhead - Arkansas River Watershed</p> <p>DRMS continues to coordinate with the USFS and EPA in addition to other stakeholders regarding ongoing monitoring and long-term data collection within Chalk Creek. Future work within Chalk Creek may entail the construction of a hydrologic bulkhead seal on the 1400 Level of the Mary Murphy to address discharge associated with the Golf Tunnel mine pool.</p>	Monitoring - Ongoing	DRMS, EPA, CDPHE, USFS
<p>Sherman Mine - Arkansas River Watershed</p> <p>The Sherman Mine is located at the base of Mount Sherman in Lake County. The waste pile is composed mostly of fine-grained dolomitic rock prone to severe erosion during spring runoff and storm events. In 2022, NRD funding was received through the Upper Arkansas Comprehensive Watershed Restoration Project. In the fall of 2024, DRMS issued an RFP for design-build proposals to stabilize the stream channel and mitigate downstream sedimentation. Proposals will be evaluated and awarded in 2025 with construction planned for summer 2026.</p>	<p>RFP issued in 2024</p> <p>Construction planned for 2026</p>	DRMS, BLM, FMI, NRD

<p>Dinero Mine - Arkansas River Watershed</p> <p>Following the installation of a hydrologic bulkhead in 2009, water quality monitoring indicated degraded conditions at several connected sites due to the increase in elevation of the mine pool formed behind the bulkhead. In 2021, DRMS partnered with the USGS and was awarded NRD funding through the Upper Arkansas Comprehensive Watershed Restoration Project. The Dinero Mine Tunnel Project seeks to improve water quality in the Dinero mine pool using passive treatment technology to meet zinc standards and improve downstream aquatic habitat. Geophysical investigations to delineate the mine pool and water quality sampling were conducted in 2023-2024. Installation of a monitoring well and additional sampling is planned for 2025.</p>	<p>Ongoing -</p> <p>Water quality sampling and geophysics 2023-2024</p> <p>Monitoring well installation and sampling 2025</p>	<p>DRMS, USGS, BLM, TU, ARWC</p>
<p>Little Frying Pan Gulch - AML BMP</p> <p>DRMS was awarded a 319 grant to study the effectiveness of reclamation at sites across the state. The project includes high and low flow sampling above and below the Tiger & Venture Mines to determine the effectiveness of reclamation at the site.</p>	<p>Sampling completed in 2022</p> <p>Reporting completed on 9/30/23</p>	<p>DRMS, TU, CDPHE, EPA</p>

RIO GRANDE RIVER WATERSHED

Project and Summary	Status	Partners
<p>Nelson Tunnel Superfund Site:</p> <p>DRMS continues to provide technical assistance during the IROD implementation and ongoing data collection.</p> <p>Future tasks for DRMS may involve the facilitation of additional underground investigations, review and analysis of existing data, development of additional cost analysis for installation of multiple bulkheads, facilitation and cooperation with potential sampling well installations, and development of potential source control remedies.</p>	Ongoing	DRMS, EPA, CDPHE, USFS

STATEWIDE MINING NPS INITIATIVES

Project	Status	Partners
<p>Mixed Ownership</p> <p>In 2018, DRMS received an interagency agreement from CDPHE to provide technical assistance and field work related to Legacy Mine Mixed Ownership sites throughout the State. This work is continuing through 2019 and 2020, and also includes assessment of USFS Tronox sites in the GMUG National Forest.</p> <p>Technical assistance from DRMS includes in office and onsite field assessment of various AML Mixed Ownership sites as determined by the Mixed Ownership Group. The onsite activities may include, but are not limited to, waste pile and adit discharge sampling, site mapping, discharge and flow rate measurements. DRMS staff will also attend mixed ownership meetings and phone calls to discuss results of data collection, site prioritization, reclamation alternatives, and future project planning.</p> <p>Subgroups include:</p> <ul style="list-style-type: none"> • Post Monitoring Subgroup - To assess the effectiveness of reclamation at mine sites • COMBLO - Colorado Mine Blowout - To determine the best way to manage and minimize unplanned releases from mine sites 	<p>Ongoing</p> <p>The Post Monitoring Subgroup is assisting with the AML BMP 319 Project</p> <p>Data templates are being developed to house long term data.</p> <p>Continue to develop sampling plans for 2025 sites.</p>	<p>CDPHE, EPA, USFS, USGS, TU</p>
<p>AML BMP 319 Project</p> <p>This project is assessing the effectiveness at reclamation sites across the state of Colorado that were previously funded through the 319 NPS program. The project will also assess operation and maintenance needs at sites and guide future best management project selection at mine sites. The project is being completed cooperatively with Trout Unlimited.</p>	<p>Sampling was completed in 2022</p> <p>Reporting completed on 9/30/23</p>	<p>TU, DRMS, CPDHE, EPA</p>

