



STATE OF ALABAMA SURFACE MINING COMMISSION

Page 1 of 2

Permit Number:P- 3949-39-16-S

License Number:L- 805

PERMIT TO ENGAGE IN SURFACE COAL MINING OPERATIONS

Pursuant to The Alabama Surface Mining Control and Reclamation Act of 1981, as amended, ALA. Code Section 9-16-70 et. seq. (1975) a permit to engage in Surface Coal Mining Operations in the State of Alabama is hereby granted to:

RIVERVIEW DEVELOPMENT LLC
5395 ALABAMA HWY. 117
FLAT ROCK AL 35966
(RIVERVIEW MINE)

Such operations are restricted to 44 * acres as defined on the permit map and located in: (See Condition #3)

SW/SE, SE/SE OF SECTION 9; SW/SW, SE/SW, NE/SW, NW/SW, SW/NW
OF SECTION 10; NE/NE OF SECTION 16, TOWNSHIP 3 SOUTH, RANGE 8
EAST, JACKSON COUNTY, ALABAMA

This permit is subject to suspension or revocation upon violation of any of the following conditions:

1. The permittee shall conduct Surface Coal Mining and Reclamation Operations in accordance with the plans, provisions and schedules in the permit application.
2. The permittee shall conduct operations in a manner to prevent damage or harm to the environment and public health and safety and shall notify ASMC and the public in accordance with ASMC Rule 880-X-8K-16 of any condition which threatens the environment or public health and safety.

CONDITIONS TO BE PLACED ON PERMIT P-3949-39-16-S

3. Surface coal mining operations are restricted to those areas for which sufficient bond has been posted with ASMC. On the date of issuance of this permit, bond was posted only for increments #1 and #2 consisting of 44 acres as defined on the permit map.
4. No mining disturbance is to occur on any part of the permit on which legal "right of entry" has not been obtained. When such rights are "pending" the applicant shall submit acceptable evidence, to the Director, that such rights have been obtained according to ASMC Regulation 880-X-8D-.07.
5. No disturbance is to occur on any properties on which land use comments from legal owners of record are "pending" prior to the applicant providing acceptable comments.
6. No disturbance is to occur in the 300' setback area to any occupied dwelling prior to the applicant providing acceptable evidence to ASMC of its having secured a waiver of each subject area signed by the owner of the dwelling.
7. No mining disturbance shall occur within the 100' setback of any public road or the relocation of any public road prior to the applicant providing acceptable evidence, to the Director, of its having secured approval for a waiver from the appropriate jurisdictional authority and specific written waiver from ASMC.
8. The permittee shall notify the ASMC and seek consultation with the US Fish and Wildlife Service if:
 - a. The permit is modified in any way that causes an effect on species or Critical Habitat listed under the Endangered Species Act of 1973.
 - b. New information reveals the operation may affect Federally protected species or designated Critical Habitat in a manner or extent not previously considered or
 - c. A new species is listed or Critical Habitat is designated under the Endangered Species Act that may be affected by the operation.
9. The permittee shall contact the ASMC and consult with the Alabama Historic Preservation Officer if the permit is modified or if previously unknown archaeological or historic resources are discovered on the permit area. Upon discovery of previously unknown artifacts or archaeological features the permittee shall cease operations until the Alabama Historic Preservation Officer approves resumption of operations.

EFFECTIVE DATE: JUNE 23, 2011

DATE ISSUED: JUNE 23, 2011

EXPIRATION DATE: JUNE 22, 2016

/ns

cc: I & E, Permit File



Randall C. Johnson, Director

FINDINGS

FINDINGS P-3949-39-16-S PAGE #1

The ASMC, acting by and through its Director, hereby finds, on the basis of information set forth in the application or from information otherwise available, that --

1. The permit application is complete and accurate and the applicant has complied with all requirements of the Act and the regulatory program.
2. The applicant has demonstrated that reclamation as required by the Act and the regulatory program can be accomplished under the reclamation plan contained in the permit application.
3. The proposed permit area is:
 - (a) Not within an area under study or administrative proceedings under a petition, filed pursuant to Chapter 880-X-7 to have an area designated as unsuitable for surface coal mining operations;
 - (b) Not within an area designated as unsuitable for mining pursuant to Chapter 880-X-7 or subject to the prohibitions or limitations of Section 880-X-7B-.06 and Section 880-X-7B-.07 of this chapter; or
4. For mining operations where the private mineral estate to be mined has been severed from the private surface estate, the applicant has submitted to the Regulatory Authority the documentation required under Section 880-X-8D.07 and Section 880-X-8G-.07 of this chapter.
5. The Regulatory Authority has made an assessment of the probable cumulative impacts of all anticipated coal mining on the hydrologic balance in the cumulative impact area and has determined that the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area.
6. The applicant has demonstrated that any existing structure will comply with Section 880-X-2B-.01, and the applicable performance standards of Chapter 3 or 10.

7. The applicant has paid all reclamation fees from previous and existing operations as required by 30 C.F.R., Subchapter R.
8. The applicant has satisfied the applicable requirements of Subchapter 880-X-8J.
9. The applicant has, if applicable, satisfied the requirements for approval of a long-term, intensive agricultural, postmining land use, in accordance with the requirements of 880-X-10C-.58(4) and 880-X-10D-.52(4).
10. The operation will not affect the continued existence of endangered or threatened species, or result in destruction or adverse modification of their critical habitats, as determined under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.).
11. The Regulatory Authority has taken into account the effect of the proposed permitting action on properties listed or eligible for listing on the National Register of Historic Places. This finding is supported in part by inclusion of appropriate permit conditions or changes in the operation plan protecting historic resources, or a documented decision that the Regulatory Authority has determined that no additional protection measures are necessary.
12. For a proposed remining operation where the applicant intends to reclaim in accordance with the requirements of Section 880-X-10C-.56 or 880-X-10D-.49, the site of the operation is a previously mined area as defined in Section 880-X-2A-.06.
13. Surface coal mining and reclamation operations will not adversely affect a cemetery.
14. After application approval but prior to issue of permit, ASMC reconsidered its approval, based on the compliance review required by Section 880-X-8K-.10(2)(a) in light of any new information submitted under 880-X-8D-.05(8).
15. The applicant has submitted the performance bond or other equivalent guarantee required under Chapter 880-X-9 of the ASMC Rules prior to the issuance of the permit.

16. For mining operations where a waiver is granted from the 100' setback from a public road according to 880-X-7B-.07, the interests of the public and affected landowners have been protected.
17. The Regulatory Authority has taken into account the effect of the proposed permitting action on properties listed or eligible for listing on the National Register of Historic Places. A site survey performed by Jacksonville State University dated July 2010, found no sites potentially eligible for listing on the National Register of Historic Places located on this proposed mine site. The State Historic Preservation Officer concurred with these findings by letter dated August 24, 2010. This finding is supported in part by inclusion of appropriate conditions or changes in the operation plan protecting historic resources, or a documented decision that the Regulatory Authority has determined that no additional protection measures are necessary. Concerns for unknown resources which might be discovered during mining, have been made conditions of the permit.
18. The US Fish and Wildlife Service (FWS) provided comments dated September 16, 2010 on the proposed operation. The FWS found no likely impacts to federally listed species. The US Army Corps of Engineers determined that the activities under this permit would not require Department of the Army authorization by letter dated November 1, 2010. The ADCNR provided comments dated July 19, 2010 indicating that the nearest occurrence of species of concern is 2.2 miles from the permit area. Concerns and recommendations of the ADCNR have been addressed in the permit. The ASMC finds that the proposed operation will not jeopardize the continued existence of endangered or threatened species or critical habitat thereof.
19. The proposed permit area is:
 - (a) Not within an area under study or administrative proceedings under a petition, filed pursuant to Chapter 880-X-7 to have an area designated as unsuitable for surface coal mining operations;
 - (b) Not within an area designated as unsuitable for mining pursuant to Chapter 880-X-7 or subject to the prohibitions or limitations of Section 880-X-7B-.06 and Section 880-X-7B-.07 of this chapter.

BASED ON THESE FINDINGS, I RECOMMEND THAT THIS PERMIT BE ISSUED.

DATE: JUNE 23, 2011

/ns

cc: I & E, Permit File



Robert Armes, Permit Manager

CUMLATIVE HYDROLOGIC IMPACT ASSESSMENT

**Permit Number P-3949
Riverview Development, LLC**

**NPDES AL0080853
Riverview Mine 40 Acre Tract**

As required under Federal Public Law 95-87, Section 510(b)(3), the Alabama Surface Mining Commission (ASMC) must find in writing the following proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area. The applicant must submit a determination of probable hydrologic consequences of mining and reclamation operations in Part II.H of the permit application for areas both on and off the mine site. This determination will allow the ASMC to assess probable cumulative impacts of all anticipated mining activities on the surface and ground water hydrology of the permit and adjacent areas as stated in Federal Public Law 95-87, Section 507(b)(11) and ASMC Regulation 880-X-8E-.06 (1)(g). The following assessment and findings are intended to fulfill the above:

I. GENERAL INFORMATION

The Riverview Development LLC – Riverview Mine 40 Acre Tract will consist of a coal fines (washer reject) recovery operation. The typical recovery procedures will be to excavate existing fines and transport them to a local coal washing facility.

The existing fines were stored at the site by TVA in association with a surface mining and coal washing facility, located both within and adjacent to this permit area.

The site is located in part of Section 16 Township 3 South, Range 8 East Jackson County, Alabama as seen from the 1983 photo revised Stevenson, Alabama USGS 7.5 minute Quadrangle.

II. Cumulative IMPACT Area (CIA)

The Cumulative Impact Area (CIA) is that area, including the permit area, within which impacts resulting from the proposed operation may interact with the hydrologic impacts of all other past, current and anticipated coal mining on the surface and groundwater systems.

The CIA for surface water for Permit P-3949 has been defined as the area that encompasses Riverview Mine 40 acre Tract. This will include area on an unnamed tributary to Warren Smith Creek. See Map No. 1 for the surface water CIA.

The CIA for groundwater for this permit is limited to the proposed permit. The CIA has been selected based upon the Commission's assessment of the possible hydrologic impacts, which may occur as a result of mining operations. The subsurface hydrologic components considered in this assessment include all significant water-bearing units in, and within the vicinity of, the proposed permit and adjacent areas (See Map No. 1). However, this area has been previously disturbed resulting in a changed aquifer system regime. The mass disturbance in the area has led to lowered water quality and cumulative impacts have already occurred.

Active or Proposed Mines

At this time it is not known of any future mining operations in the area. This is a coal fines (washer reject) recovery operation.

A. Geologic/Hydrogeologic Information

i. Geology

The proposed P-3949 permit area is located in the Plateau Coal Region of the Warrior Coal Field in the Appalachian Plateaus. According to "Geology of Alabama", Special Report No. 14 of the Geological Survey of Alabama, the Appalachian Plateaus include a number of detached or partly detached high areas, such as Lookout, Blount and Sand Mountains, and a number of high knobs, mainly in Jackson and Madison Counties. The coal fines to be recovered are of the Upper Cliff coal seam, which were stored at the site by the TVA in association with a surface mining and coal washing facility.

Previous mining has occurred adjacent to the permit area, which includes pre-law surface disturbance, and ASMC permitted mines. These include GTM Mining Corporation – Mine No. 3 (ASMC Permit P-3889), Saunders Coal Co., Inc.'s – Fabius Coal Washer (ASMC Permit P-3544) and Soniclean Coal of Alabama, Inc.'s – Fabius No. 1 (ASMC Permit P-3557).

ii. Potentially Acid- and Toxic-Forming Materials

Geochemical analysis was conducted on five composite samples from excavations of cover material and coal fines. The analysis was run to determine the potential for acid- and toxic-forming properties. Potentially acid- and toxic-forming materials are those that exhibit a pH of less than 4.0 s.u. or a deficiency in calcium carbonate equivalent of at least 0 tons per 1,000 tons of material (T/KT) or greater. Samples were analyzed for pH (paste), total sulfur, potential acidity, neutralization potential and fizz rating.

iii. Surface Water

Surface runoff from the site drains into Warren Smith Creek, which becomes Dry Creek, which drains into Coon Creek, which drains into the Tennessee River. The use of Warren Smith Creek is to support the local wildlife. The mine site lies in sub-watershed 160 of hydrologic unit code 06030001 as defined by the USDA Soil Conservation Service (as of 2008).

To characterize the existing quality and quantity of water within the above-mentioned stream, baseline data was obtained and submitted in the permit application. Surface water monitoring RD4ASW-1 is located downstream on Warren Smith Creek and was used as an area representative site, and surface water site RD4ASW-2 is located upstream of the mine site.

An additional downstream site, RD4ASW-3 will be used as the downstream monitoring site once operations begin.

Baseline data from current monitoring is shown in Table 1.

Post-Mining water quality and quantity estimates are based on several factors:

1. Baseline surface water quality
2. Estimated impact during mining
3. Size of the permit area compared to the impacted watershed
4. Amount of previous mining within the watershed

Table 2 at the end of this assessment shows the post mining water quality projections.

iv. Ground Water

According to the Geohydrology and Susceptibility of Major Aquifers to Surface Water Contamination in Alabama; Area 4; USGS Water Investigations Report 88-4177 Area 2, the major aquifers are the Pottsville aquifer, the Tuscumbia-Fort Payne Aquifer and the Knox-Shady aquifer. In the study area all three aquifers crop, however due to the folded and faulted geology they are not always continuous from one area to another.

All three aquifers are recharged throughout their outcrops, which is affected by land surface, slope, surface drainage and the character of the surface material. A large part of the recharge is naturally discharged to springs and streams. Many streams that drain the Pottsville aquifer are intermittent and indicate that ground-water discharge from the Pottsville aquifer often cannot sustain stream flow through rainless periods. Ground water discharge from the Pottsville aquifer is approximately 2 inches per

year.

According to Geohydrology and Susceptibility of Major Aquifers to Surface Water Contamination in Alabama; Area 3; USGS Water Investigations Report 88-4120, which discusses the Pottsville aquifer in greater detail, groundwater in the Warrior Basin occurs in fractures and along bedding planes in the Pottsville Formation. The sandstone beds within 250 to 350 ft. of the surface generally contain the most productive water-bearing openings. Regionally, the primary source of recharge to groundwater is rainfall, which averages 55 inches per year. The Pottsville aquifer is tightly cemented and has small primary porosity and permeability, and the yields of public water for wells completed in this aquifer are less than 0.15 Mgal/d (million gallons per day). This aquifer is also commonly high in iron. Locally groundwater within and adjacent to the Riverview Mine exists in the Pottsville Formation.

Previous mining on the Upper Cliff Seams have altered the shallow aquifer system leaving a large, dissected post mine spoil aquifer.

Domestic Wells

A well inventory was conducted in July 2010 which revealed only one residence within a ½ mile radius of the permit. This resident utilizes municipal water from the North Jackson water Authority. There are no legitimate users of groundwater in the post mine spoil aquifer system.

Company Installed Wells

To characterize existing groundwater conditions at the site, four monitoring wells were drilled specifically for this permit area. All four groundwater monitoring sites monitor the characteristics of the aquifer underlying the Upper Cliff pit floor.

No groundwater monitoring wells were installed in the post mine spoil aquifer because this operation will not disturb any strata that was not previously disturbed, the coal fines at the site are currently hydraulically connected to the groundwater overlying the Upper Cliff pit floor, and there are no legitimate users of groundwater for this interval.

Monitoring site RD4AMW-1 is drilled to a depth of 83 feet into a sandstone unit below the Upper Cliff Coal Seam. It is cased to approximately 27 feet. The average depth to water was 23.82 feet below surface during baseline monitoring.

Monitoring site DRD4AMW-2 is drilled to a depth of 60 feet into sandstone. It is cased to a depth of 27 feet. The average depth to water

was 27.96 feet below surface during baseline monitoring.

Monitoring site RD4AMW-3 is drilled to a depth of approximately 60 feet and cased to a depth of 27 feet. The average depth to water was 15.14 feet below surface during baseline monitoring.

Monitoring site RD4AMW-4 is drilled to a depth of approximately 60 feet and cased to a depth of 17 feet. The average depth to water was 3.48 feet below surface during baseline monitoring.

There are no known wellhead protection zones or public water supply wells in or within 1,000 feet of the proposed permit area.

B. Coal Processing Waste

Coal processing waste (gob and slurry) will not be generated or disposed of at the site.

C. Material Damages

With respect to the CHIA, material damage to the hydrologic balance means the changes to the hydrologic balance caused by surface mining and reclamation operations to the extent that these changes would significantly affect present and potential uses as designated by the regulatory authority. This includes the hydrologic impact that results from the cumulation of flows from all coal mining sites in a cumulative impact area. Examples of material damage are: permanent destruction of a major regional aquifer; temporary contamination of an aquifer in use that cannot be mitigated; and solute contributions to streams above receiving stream standards.

A CHIA is based on the best currently available data and is a prediction of mining-related impacts to the hydrologic balance. Permittees (and permit applicants) are required to monitor water quality and quantity. Exceeding material damage thresholds might also cause significant reduction of the capability of an area to support aquatic life, livestock and wildlife communities.

IV. FINDINGS

Based on the information presented above, the following findings have been made relative to the proposed permit area.

A. Historical Coal Mines

With regard to the historical surface mines in, and within the vicinity of, the proposed site, the possible cumulative effect of the previous mining along

with the proposed operations on surface and ground water quality/quantity will be discussed in detail in the following Surface Water and Ground Water sections.

B. Potentially Acid- and Toxic-Forming Materials

Laboratory analyses of the cover material show that the spoil at the Riverview Mine 40 Acre Tract contains an average of -0.78 (tons CaCO_3 /1000 tons overburden) excess neutralization potential acidity. According to the "Coal Mine Drainage Prediction and Pollution Prevention in Pennsylvania" publication by the Pennsylvania Department of Environmental Protection, excess neutralization potential most likely produces alkaline drainage. A neutralization of zero or lower may result in acid mine drainage.

This project consists of removing cover material (mine spoils) to uncover coal fines. This material has no neutralization potential, and as such the material will be limed prior to revegetation. The calculated amount of lime needed to neutralize all the excess acidity of 200.77 tons calcitic lime over 37 acres, approximately 5.43 tons per acre.

C. Surface Water

Laboratory analyses of the samples collected from Dry Creek shows neutral pH, higher conductivity, low iron and manganese. Sulfates are high, which is an indication of disturbance in the area, however this area has been greatly disturbed. According to the Alabama Department of Environmental Management the receiving streams' use classification as "Fish and Wildlife."

Although the existing quality of the waters within the waterways of coal mining areas is evidence of the effect mining can have on the hydrologic components in an area, the proposed mining operations will utilize improved management practices and techniques that were not employed during the historical mining operations. Changes in the quantity and quality of the waters in the streams draining the site are expected to be minimal due to the proposed project activities. During mining, runoff from the disturbed areas will be diverted into sediment basins that have been designed to retain the runoff and allow sediment to settle out prior to discharging. Effluent from the sediment basins will be monitored by the permittee in accordance with National Pollution Discharge Elimination System (NPDES) permit requirements issued by the Alabama Department of Environmental Management. The effluent will be chemically treated, if necessary, in accordance with the NPDES permit. The basins will be monitored quarterly through final bond release in order to characterize and

document any effects the mining may have on the surface-water hydrologic balance.

Because this is a coal fines recovery operation in which the material present helps to contribute to the lower quality of the receiving streams, once this material is removed and the cover material limed and replaced, this area should help improve the water quality.

D. Ground Water

Laboratory analyses of samples collected from the monitoring wells reveal the ground water within the bedrock strata below the Upper Cliff seam is slightly acidic. The water in the monitoring wells is mineralized with elevated levels of (at a minimum) iron, sulfates and conductivity. For a summary of the baseline data collected from the bedrock wells, please refer to Table 3 at the end of this assessment.

The proposed operations are not expected to have a permanent adverse impact on the overall quality of the ground water at the site or surroundings. The shallow groundwater has been affected by previous mining in the area. No long-term impact is anticipated to the ground water quality for the aquifer below the Upper Cliff Seam since no new hard rock disturbance is to occur. A groundwater-monitoring waiver has been approved for this permit.

IV. CONCLUSION

The assessment of probable cumulative impacts of the Riverview Development LLC Riverview Mine 40 acre Tract (P-3949) finds the proposed operations have been designed to prevent material damage to the hydrologic balance outside the proposed permit area.

Table 1
Ranges/Averages of Surface-Water Quality/Quantity
Stream Points Baseline
P-3949

Parameter	GTMM3SW1 Dry Creek US	RD4ASW-1 Dry Creek DS
Discharge Rate (cfs)	4.17 (10.16)	3.55 – 6.75 (5.0)
Acidity (mg/L)	4.0 – 8.0 (5.8)	6.0 – 8.0 (6.4)
Alkalinity (mg/L)	10.0 – 40.0 (26.5)	10.0 – 24.0 (16.4)
Conductivity (µmhos)	173.0 – 398.0 (269)	160.0 – 286.0 (218.6)
Total Iron (mg/L)	0.33 – 0.72 (0.48)	0.50 – 0.77 (0.63)
Total Manganese (mg/L)	0.07 – 0.63 (0.31)	0.44 – 1.52 (0.86)
pH (s.u.)	6.33 – 7.57 (6.62)	6.78 – 6.97 (6.86)
Sulfate (mg/L)	65 - 150 (99.9)	61.0 – 80.0 (66.4)
TSS (mg/L)	0.50 – 6.0 (1.)	2.0 – 4.0 (4.0)

Average values are set in parentheses.
Averages calculated as geometric means.
pH calculated in logarithmic means.
ds = downstream
us = upstream

Table 2
Post Mining Water Quality Estimates for Surface Water
P-3949
Average Event, Post Mining

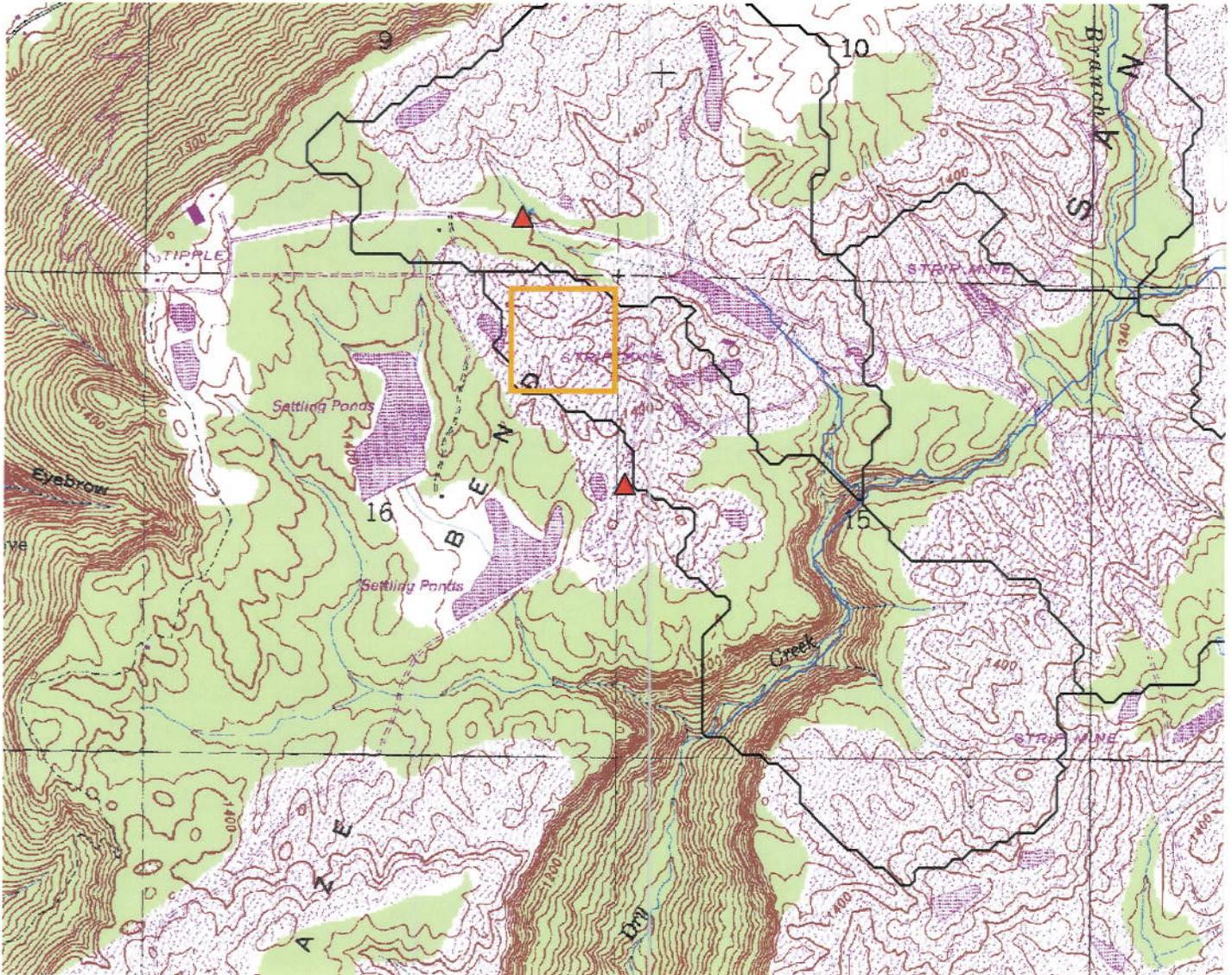
Parameter	RD4ASW-1
pH (S. U.)	6.72
Total Suspended Solids (mg/L)	1.5
Total Iron (mg/L)	0.461
Total Manganese (mg/L)	0.437
Specific Conductance (u-mhos/cm)	242
Sulfates (mg/L)	86.6

Table 3
Ground Water Baseline Data
P-3949

Parameter	RD4AMW-1	RD4AMW-2	RD4AMW-3	RD4AMW-4
Water Level (feet below surface)	22.40 – 23.80 (23.82)	25.5 – 29.3 (27.96)	14.3 – 16.4 (15.14)	32.0 – 4.20 (3.48)
Acidity (mg/l)	62.0 – 70.0 (66.40)	38.0 – 48.0 (42.4)	20.0 – 24.0 (23.6)	26.0 – 34.0 (29.6)
Alkalinity (mg/l)	14.0 – 22.0 (18.4)	4.0 – 16.0 (12.4)	2.0 – 14.0 (5.6)	12.0 – 22.0 (15.20)
Field pH (S. U.)	6.11 – 6.45 (6.28)	5.35 – 5.94 (5.70)	4.85 – 6.4 (5.26)	5.93 – 6.31 (6.05)
Total Iron (mg/L)	20.8 – 28.6 (23.56)	1.43 – 7.08 (2.76)	2.14 – 10.54 (7.14)	0.37 – 5.93 (2.25)
Total Manganese (mg/L)	0.84 – 1.71 (1.33)	0.69 – 1.19 (0.89)	0.24 – 0.86 (0.59)	0.13 – 0.39 (0.27)
Specific Conductivity 25 °C (µmhos/cm)	211 - 241 (231)	223.0 – 349.0 (287.4)	63.0 – 155.0 (88.2)	54.0 – 85.0 (62.0)
Sulfates (mg/L)	52.0 – 74.0 (57.8)	95.0 – 180.0 (147.0)	19.0 – 36.0 (30.2)	2.0 – 39.0 (29.6)

Average values are set in parentheses.
Averages calculated as geometric means.
pH calculated in logarithmic means.

Map No. 2
Sub-watershed Delineation
P-3949
Riverview Mine 40 acre Tract



Stevenson USGS Quadrangle Map

-  Approximate Permit Boundary
-  Sub-Watershed Delineation
-  Delineation Points
-  Surface Water Monitoring Sites

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