Notice of Violation No.97-26-7-1
August 21, 1997

Horizon Coal Corporation
Permit No. ACT/007/020
Carbon County, Utah

November 14, 1997

VIOLATION AND ASSESSMENT

STATE OF UTAH
NATURAL RESOURCES
Division of Oil, Gas & Mining

3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

notice of violation

NO. N 97-26-7-1

To the following Permittee or Operator:

Name: Horizon Coal Corporation

Mine: Horizon ☐ Surface ☑ Underground ☐ Other

County: Carbon State: Ut Telephone:

Mailing Address: PO Box 599, Helper, Ut 84526

State Permit No.: Act 007/020

Ownership Category: ☐ State ☐ Federal ☑ Fee ☐ Mixed

Date of inspection: August 21, 1997 19

Time of inspection: 10:00 ☑ a.m. ☐ p.m. to 2:00 ☐ a.m. ☑ p.m.

Operator Name (other than Permittee): Same As Above

Mailing Address:

Under authority of the Utah Coal Mining and Reclamation Act, Section 40-10-1 et seq., *Utah Code Annotated*, 1953, the undersigned authorized representative of the Division of Oil, Gas & Mining has conducted an inspection of above mine on above date and has found violation(s) of the act, regulations or required permit condition(s) listed in attachment(s). This notice constitutes a separate Notice of Violation for each violation listed.

You must abate each of these violations within the designated abatement time. You are responsible for doing all work in a safe and workmanlike manner.

The undersigned representative finds that cessation of mining is ☐ is not ☑ expressly or in practical effect required by this notice. For this purpose, "mining" means extracting coal from the earth or a waste pile, and transporting it within or from the mine site.

This notice shall remain in effect until it expires as provided on reverse side of this form, or is modified, terminated or vacated by written notice of an authorized representative of the director of the Division of Oil, Gas & Mining. Time for abatement may be extended by authorized representative for good cause if a request is made within a reasonable time before the end of abatement period.

Date of service/~~mailing~~: August 21, 1997 Time of service/mailing: 1:30 ☐ a.m. ☑ p.m.

Vicky Bailey
Permittee/Operator representative

Environmental Engineer
Title

Vicky L Bailey
Signature

Wm J Malencik
Division of Oil, Gas & Mining representative

Rec Spec
Title

Wm J Malencik
Signature

8/21/97

#76
Identification Number

SEE REVERSE SIDE

WHITE-DOGM YELLOW-OPERATOR PINK-OSM GOLDENROD-NOV FILE

DOGM/NOV-1

an equal opportunity employer

Rev. 5/92

UTAH
NATURAL RESOURCES
Oil, Gas & Mining

NOTICE OF VIOLATION NO. N 97-26-7-1

Violation No. 1 of 1

Nature of violation

Failure to receive Division Oil Gas & Mining approval before modifying an undisturbed diversion.

Provisions of act, regulations or permit violated

R645-300-143

Portion of operation to which notice applies

Jewkes creek major portion lying within the disturbed area and a small portion within the permit undisturbed area.

Remedial action required (including any interim steps)

(1) Submit plans on modifying the undisturbed diversion for Division approval. (R645-742-323)
(2) Implement plans as approved by the Division.

Abatement time (including interim steps)

(1) September 22, 1997
(2) October 17, 1997.

WHITE-DOGM YELLOW-OSM PINK-PERMITTEE/OPERATOR GOLDENROD-NOV FILE

an equal opportunity employer

WORKSHEET FOR ASSESSMENT OF PENALTIES
DIVISION OF OIL, GAS, & MINING

COMPANY/MINE Horizon Coal Company/Horizon Mine NOV# N-97-26-7-1

PERMIT ACT/007/020 VIOLATION 1 OF 1

ASSESSMENT DATE 09/05/97 ASSESSMENT OFFICER Pamela Grubaugh-Littig

I. HISTORY MAX 25 POINTS

A. Are there previous violations, which are not pending or vacated, which fall within 1 year of today's date?

PREVIOUS VIOLATIONS	EFFECTIVE DATE	POINTS
N-96-26-4-3	11/01/96	3
N-96-35-1-2	11/08/96	2

1 point for each past violation, up to one year
5 points for each past violation in a CO, up to one year
No pending notices shall be counted

TOTAL HISTORY POINTS 5

II. SERIOUSNESS (EITHER A OR B)

NOTE: For assignment of points in Parts II and III, the following apply:

- Based on facts supplied by the inspector, the Assessment Officer will determine within each category the violation falls.
- Beginning at the mid-point of the category, the Assessment Officer will adjust the point up or down, utilizing the inspector's and operator's statements as guiding documents.

Is this an Event (A) or Hindrance (B) violation? A

A. EVENT VIOLATION MAX 45 POINTS

1. What is the event which the violated standard was designed to prevent?

2. What is the probability of the occurrence of the event which a violated standard was designed to prevent?

PROBABILITY	RANGE
None	0
Unlikely	1-9
Likely	10-19
Occurred	20

ASSIGN PROBABILITY OF OCCURRENCE POINTS 20

PROVIDE AN EXPLANATION OF POINTS:

An undisturbed diversion was modified without prior approval from the Division.

3. What is the extent of actual or potential damage? RANGE 0-25

In assigning points, consider the duration and extent of said damage or impact, in terms of area and impact on the public or environment.

ASSIGN DAMAGE POINTS 8

PROVIDE AN EXPLANATION OF POINTS:

There was damage to the undisturbed area below the sediment pond.

B. HINDRANCE VIOLATION MAX 25 POINTS

1. Is this a potential or actual hindrance to enforcement? _ RANGE 0-25

Assign points based on the extent to which enforcement is actually or potentially hindered by the violation.

ASSIGN HINDRANCE POINTS 0

PROVIDE AN EXPLANATION OF POINTS:

TOTAL SERIOUSNESS POINTS (A OR B) 28

III. NEGLIGENCE MAX 30 POINTS

A. Was this an inadvertent violation which was unavoidable by the exercise of reasonable care? IF SO--NO NEGLIGENCE: or was this a failure of a permittee to prevent the occurrence of a violation due to indifference lack of diligence, or lack of reasonable care, or the failure to abate any violation due to the same? IF

SO--GREATER DEGREE OF FAULT THAN NEGLIGENCE.

No Negligence	0
Negligence	1-15
Greater Degree of Fault	16-30

STATE DEGREE OF NEGLIGENCE Ordinary Negligence

ASSIGN NEGLIGENCE POINTS 7

PROVIDE AN EXPLANATION OF POINTS:

The person doing the diversion repairs was not aware of DOGM/MRP design criteria. The repair person was trying to contain the runoff to the reconstructed/ undisturbed diversion.

IV. GOOD FAITH MAX 20 POINTS
(Either A or B)
(Does not apply to violations requiring no abatement measures)

A. Did the operator have onsite the resources necessary to achieve compliance of the violated standard withing the permit area?
IF SO--EASY ABATEMENT
Easy Abatement Situation
Immediate Compliance -11 to -20*
(Immediately following the issuance of the NOV)
Rapid Compliance -1 to -10
(Permittee used diligence to abate the violation)
Normal Compliance 0
(Operator complied within the abatement period required)
(Operator complied with conditions and/or terms of approved Mining and Reclamation Plan)

*Assign in upper or lower half of range depending on abatement occurring the 1st or 2nd half of abatement period.

B. Did the permittee not have the resources at hand to achieve compliance, or does the situation require the submission of plans prior to physical activity to achieve compliance?
IN SO--DIFFICULT ABATEMENT
Difficult Abatement Situation
Rapid Compliance -11 to -20*
(Permittee used diligence to abate the violation)
Normal Compliance -1 to -10*
(Operator complied within the abatement period required)
Extended Compliance 0

(Permittee took minimal actions for abatement to stay within the limits of the NOV or the violated standard of the plan submitted for abatement was incomplete)
(Permittee complied with conditions and/or terms of approved Mining and Reclamation Plan)

EASY OR DIFFICULT ABATEMENT? Easy

ASSIGN GOOD FAITH POINTS 0

PROVIDE AN EXPLANATION OF POINTS:

The plans for modifying the undisturbed diversions have not been submitted to the Division as of this date.

V. ASSESSMENT SUMMARY

NOTICE OF VIOLATION		N-97-26-7-1
I.	TOTAL HISTORY POINTS:	5
II.	TOTAL SERIOUSNESS POINTS:	28
III.	TOTAL NEGLIGENCE POINTS:	7
IV.	TOTAL GOOD FAITH POINTS:	0
	TOTAL ASSESSED POINTS:	40
	TOTAL ASSESSED FINE:	**$600.00**

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DEFINITIONS

"Permit" means a permit to conduct coal mining and reclamation operations issued by the Division pursuant to the State Program. For purposes of the federal lands program, permit means a permit issued by the Division pursuant to the cooperative agreement with the Secretary.

Source: R645. Natural Resources; Oil, Gas and Mining; Coal.
R645-100. Administrative: Introduction.
R645-100-200. Definitions.
Revised November 1, 1996

"Permit Change" means any coal mining and reclamation operations not previously approved by the Division in the Permit or in any previously-approved permit change under R645-303-220.

Source: R645. Natural Resources; Oil, Gas and Mining; Coal.
R645-100. Administrative: Introduction.
R645-100-200. Definitions.
Revised November 1, 1996

"Permit" 1. to allow to do something; 2. to allow to be done or occur; 3. to tolerate, consent to; 4. to afford opportunity for, or admit of; 5. to grant permission, allow a person to do something; 6. to afford opportunity; 7. an authoritative for official permission to do something; 8. a decree granting permission to do something; 9. to let go through, relinquish, allow.

Reference: Random House, Webster's College Dictionary, copyright 1991.

"Disturbed Area" means an area where vegetation, topsoil, or overburden is removed or upon which topsoil, spoil, coal processing waste, underground development waste, or noncoal waste is placed by coal mining and reclamation operations. Those areas are classified as disturbed until reclamation is complete and the performance bond or other assurance of performance required by R645-301-800 is released. For the purposes of R645-301-356.300, R645-301-356.400, R645-301-513.200, R645-301-742.200 through R645-301-742.240, and R645-301-763, **disturbed area will not include those areas (a) in which the only coal mining and reclamation operations include diversion ditches, siltation structures, or roads that are designed, constructed and maintained in accordance with R645-301 and R645-302; and (b) for which the upstream area is not otherwise disturbed by the operator.**

"Diversion" means a channel, embankment, or other man-made structure constructed to divert water from one area to another.

Source: R645. Natural Resources; Oil, Gas and Mining; Coal.
R645-100. Administrative: Introduction.
R645-100-200. Definitions.
Revised November 1, 1996

PHOTOGRAPHS

PREVIOUS CHANNEL AS INSTALLED (100 YEAR STORM EVENT)

ALTERNATE SEDIMENT CONTROL STRUCTURES (AFTER 1st STORM EVENT)

RECLAMATION CHANNEL AS INSTALLED (BELOW BYPASS CULVERT)

ALTERNATE SEDIMENT CONTROL STRUCTURES (AFTER 1st STORM EVENT)

ABATEMENT SUBMITTAL

Horizon Coal Corporation
P.O. Box 599
Helper, UT 84526

RECEIVED
OCT 13 1997
DIV. OF OIL, GAS & MINING

RECEIVED
OCT 13 1997
DIV. OF OIL, GAS & MINING

October 13, 1997

Mr. Bill Malensick
Utah Division of Oil, Gas & Mining
451 East 400 North
Price, UT 84501

Subject: Notice of Violation No. N97-26-7-1

Dear Bill,

The information attached is to address Notice of Violation No. N97-26-7-1, which was issued on August 21, 1997 by the Utah Division of Oil, Gas & Mining to Horizon Coal Corporation. The stated nature of the violation was "failure to receive Division of Oil, Gas & Mining approval before modifying an undisturbed diversion". It is our understanding that the NOV was issued for the channel downstream from culvert UC-1 at the Horizon Mine.

Pages 7-54, 7-64, 7-65, 7-66, and the cover of Plate 7-4 from the approved permit have been included for ease of review.

Revisions to Chapter 9 have been included to clarify the methods used to restore the riparian vegetation downstream from culvert UC-1.

Horizon Coal Corporation requests that Notice of Violation No. N97-26-7-1 be vacated in accordance with the attached information.

Sincerely,

Vicky S. Bailey

Vicky S. Bailey
Permitting Consultant, EarthFax Engineering, Inc.

Horizon Coal Corporation
P.O. Box 599
Helper, UT 84526

September 19, 1997

Mr. Bill Malensick
Utah Division of Oil, Gas & Mining
451 East 400 North
Price, UT 84501

Subject: Notice of Violation No. N97-26-7-1

Dear Bill,

The purpose of this letter is to address Notice of Violation No. N97-26-7-1, which was issued on August 21, 1997 by the Utah Division of Oil, Gas & Mining to Horizon Coal Corporation. The stated nature of the violation was "failure to receive Division of Oil, Gas & Mining approval before modifying an undisturbed diversion" (spelling corrected for clarity). It is our understanding that the NOV was issued for the channel downstream from culvert UC-1 at the Horizon Mine.

As you may be aware, Carbon County intended to realign their road downstream from the Horizon Mine disturbed area during the time that the surface facilities were being constructed at the mine. As part of this alignment, the County was intending to also realign Jewkes Creek downstream from the disturbed area to the point where it flows beneath the Consumers road.

The approved design for the channel downstream from culvert UC-1 is presented on page 7-54 of the Mining and Reclamation Plan. According to this design, an impact pool will be constructed immediately downstream from the culvert, transitioning into the approved base reclamation channel. The impact pool was designed with a minimum bottom width of 10 feet (see Plate 7-4), while the base reclamation channel was designed with a minimum bottom width of 8 feet (see Figure 7-12). Loose-rock check dams (Figure 7-12A) would eventually also be placed in the reclamation channel for the reasons outlined on page 7-65 of the Mining and Reclamation Plan.

At the time culvert UC-1 was installed, the County had not yet completed realignment of either the road or the creek. Construction of the base reclamation channel downstream from culvert UC-1 would, therefore, have resulted in an abrupt change in channel conditions at the downstream end of the reclamation channel until such time as the realigned county channel was constructed. Given the significant precipitation events which were occurring in the area at the time, such an abrupt change would likely cause significant channel erosion and was not

considered appropriate. Therefore, a small amount of temporary riprap was placed downstream from the culvert outlet to provide interim protection until the county channel was completed.

As soon as the County had completed realignment of the road and channel, the approved outlet channel was constructed downstream from UC-1. This constructed channel has a bottom width of 10 feet immediately downstream from the culvert outlet (i.e., in the area of the approved impact pool) and 9 to 10 feet downstream from the impact pool, thereby meeting or exceeding the minimum requirements of the approved plan. Riprap sizing and channel side slopes also meet or exceed the minimum requirements of the approved plan.

Hence, Horizon Coal Corporation did not modify an undisturbed diversion without UDOGM approval. The activity which had occurred downstream from the culvert outlet at the time of the NOV was approved and was completed to connect with the County's completed stream channel realignment. As soon as the County completed their work, the base channel of the diversion was constructed to meet the minimum requirements of the approved plan.

Horizon Coal Corporation therefore requests that Notice of Violation No. N97-26-7-1 be vacated.

Sincerely,

Vicky S. Bailey

Vicky S. Bailey
Permitting Consultant, EarthFax Engineering, Inc.

Michael A. Gipson

Michael A. Gipson
Mine Manager, Horizon Coal Corporation

Culvert UC-2 will receive runoff from Portal Canyon. The 100-year, 6-hour peak flow for this culvert is 8.3 cfs. A 24-inch diameter culvert is planned to be installed at this location. This size is based on inlet control and a headwater to depth ratio of one or less. A trash rack will be installed on the inlet to this culvert, as indicated in Figure 7-8.

Culvert UC-3 will receive runoff from Jewkes Creek. The 100-year, 6-hour peak flow to this culvert is 19.6 cfs. This flow can adequately be handled by a 30-inch diameter culvert, based on inlet control and a headwater to depth ration of one or less.

Discharge at the outlet of culvert UC-1 will have an exit velocity of approximately 10.4 fps (see Appendix 7-4). This will be controlled by installing an outlet channel and impact pool. The outlet channel will have graded riprap on the bottom and along the sides of the channel for an approximate distance of 30 feet downstream from the culvert outlet to a transition to a compound channel with a riprapped low flow channel and vegetated flood plain, as proposed for the final reclamation channel (see Plates 7-4 & 7-6). The riprap in the outlet channel and the low flow channel will have a median diameter of 0.5 foot and will be placed at a thickness of 12 inches. The gradation of the riprap is presented in Table 7-6. A geotextile material will be installed beneath the outlet channel riprap as a filter blanket. A sand filter will be installed beneath the low flow channel riprap.

The outlet channel will act as an impact pool for flows from the culvert or emergency spillway. The impact pool will be created by the transition to the compound channel, due to the shallower depth of the low flow channel versus outlet channel. Under flow conditions, the water will fill the outlet channel and spill to the low flow channel until its capacity is exceeded and then spread out into the flood plain. This will ensure that low flows can be conveyed through the area, while high flows will spread over the flood plain. Additionally, the shallow depth of the low flow channel will ensure the capability of sub-irrigation and seepage into the surrounding flood plain.

By constructing these channels during operations, the area will not need to be disturbed again during reclamation. The riparian area will already be established around the channels and the area will be stabilized. If these channels are not included in the initial disturbance, then the area will be redisturbed upon reclamation.

Calculations contained in Appendix 7-4 indicate that the flow capacity of the unaltered Jewkes Creek upstream from culvert UC-3 is 27.7 cfs. The flow capacity of the unaltered Jewkes Creek downstream from culvert UC-1 is 38.7 cfs. Culverts UC-1 and UC-3 have design capacities of 59 cfs and 40 cfs, respectively. Hence, the capacities of these culverts exceed the capacity of Jewkes Creek in its unaltered state.

As indicated in Appendix 7-4, the capacity of the unaltered Portal Canyon Creek upstream from culvert UC-2 is 13.1 cfs. All of the downstream portion of this creek will be subject to the culverted diversion. Culvert UC-2 has a capacity of 22 cfs. Hence, the capacity of this culvert exceeds that of Portal Canyon Creek in its unaltered state.

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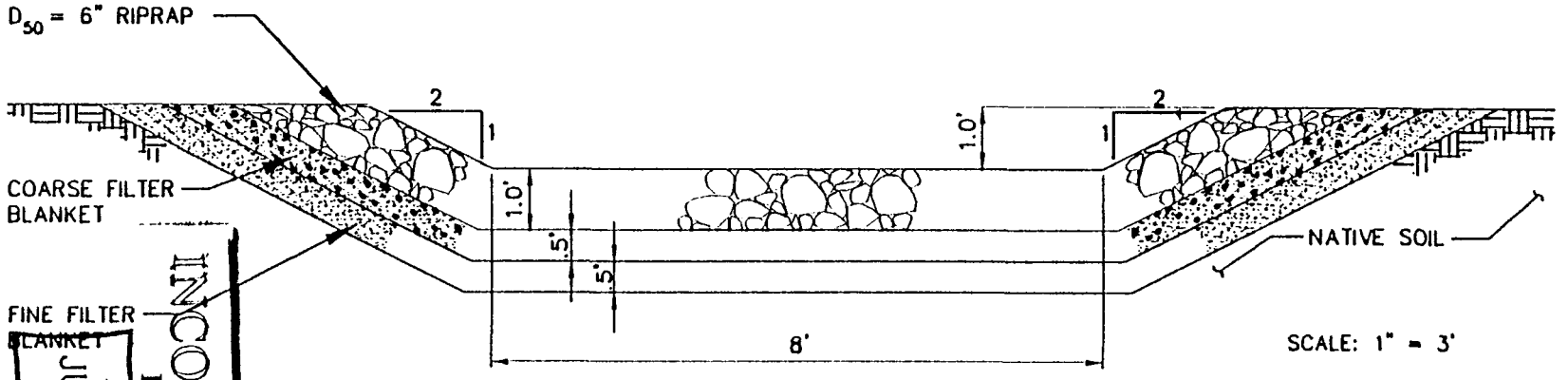
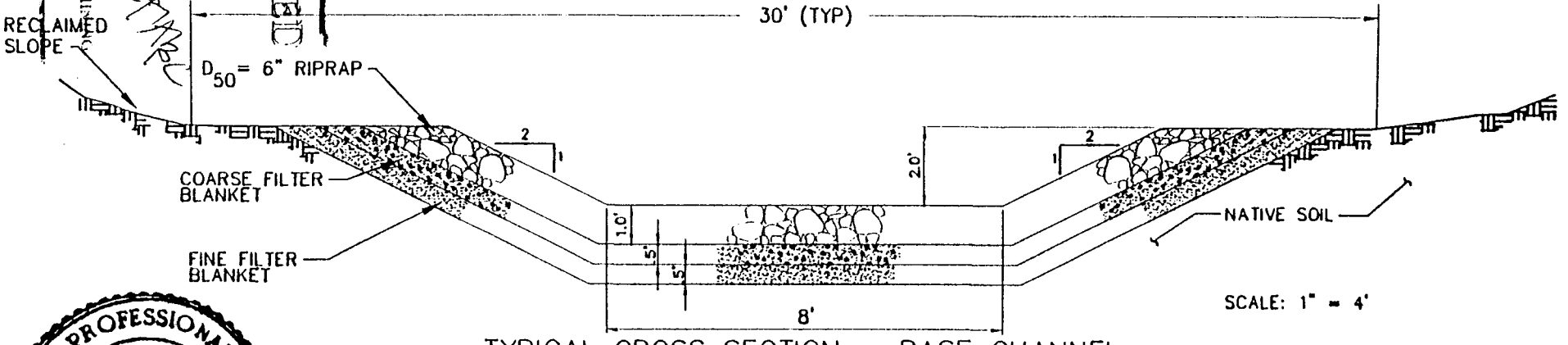
JUL 11 1997
UTAH DIVISION OIL, GAS AND MINING

FIG7-12.DWG UC572-02 6-12-97



PORTAL CANYON CROSS SECTION – RD-1



TYPICAL CROSS SECTION – BASE CHANNEL
RD-2 AND RD-3

UTAH DIVISION OIL, GAS AND MINING
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REGISTERED PROFESSIONAL ENGINEER
No. 7102
RICHARD B. WHITE
6/16/97
STATE OF UTAH

FIGURE 7-12. TYPICAL CROSS SECTIONS FOR RECLAIMED CHANNELS

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Second, loose-rock check dams will be installed at the locations indicated on Plate 3-7 in accordance with Figure 7-12a. These check dams have been designed in accordance with the procedures outlined by Heede (1976) as indicated in Appendix 7-4 and will cause naturally-occurring sediment in the stream to be deposited in the reclaimed channel. This deposited sediment will provide an additional soil base for re-establishment of the riparian/wet meadow vegetation and will also provide a cross section which is more typical of that which currently exists. Nonetheless, should a major storm event occur, the underlying base channel will provide long-term protection against excessive erosion.

The check dams have been designed with a spillway that is capable of passing the peak flow resulting from the 10-year, 6-hour precipitation event. Discharge in excess of that event will flow onto the adjacent flood plain. By spreading this flow, moisture will be provided to the riparian/wet meadow vegetation to assist in its re-establishment. Data included in Appendix 7-4 indicate that the soil in the flood plain will be erosionally stable during runoff resulting from the 100-year, 6-hour rainfall event.

The width of the reclaimed flood plain will be at least equal to that of the current riparian/wet meadow vegetation community, as defined on Figure 2 of Appendix 9-2. The planned width of the reclamation flood plain is indicated on Plate 3-7. Check dams will be installed within the flood-plain sections as indicated on Plate 3-7. Even though the calculations provided in Appendix 7-4 indicate that the flood plain soils will be erosionally stable, a temporary jute matting will be installed in these flood plain areas to provide additional protection for the seeds until vegetation is established.

The flood plain of channel RD-2 will also be trapezoidal in shape and will be constructed with a typical bottom width of 30 feet, 2H:1V sideslopes, and a channel slope ranging from approximately 0.02 to 0.03 foot/foot (see Figure 7-12 and Plate 3-7). Peak flow for this flood plain channel, based on the 100-year, 6-hour event, is 19.75 cfs. Allowing for the capacity of the low flow channel, the flood plain will only be required to handle 10.29 cfs. The channel will be constructed in regraded materials and will be stabilized using a temporary jute mesh erosion control blanket. This blanket will be in place only until the vegetation planting for the flood plain mature and provide natural protection. To handle this event, the flood plain channel will have a maximum flow depth of 0.16 foot and a maximum velocity of 2.32 fps. The velocity is less than the 5.5 fps allowed for jute mesh.

Reclamation channel RD-3 will receive flow from the 551.0 acre Lower Jewkes Creek drainage, below the confluence of Jewkes Creek and Portal Canyon. The reclaimed channel will also be a compound channel. It will consist of a base channel and a flood plain, with loose-rock check dams. The base channel will be trapezoidal in shape and will be constructed with an 8-foot bottom width, 2H:1V sideslopes, and a channel slope ranging from approximately 0.03 to 0.07 foot/foot (see Figure 7-12 and Plate 3-7). Peak flow for this base channel, based on the 100-year, 6-hour event, is 30.21 cfs. The channel will be constructed in regraded materials and will be riprapped to provide a stable stream section. To handle this event, the base channel will have a maximum flow depth of 0.64 foot and a maximum velocity of 6.60 fps. The channel depth is planned to be 2.0 feet, resulting in a freeboard of

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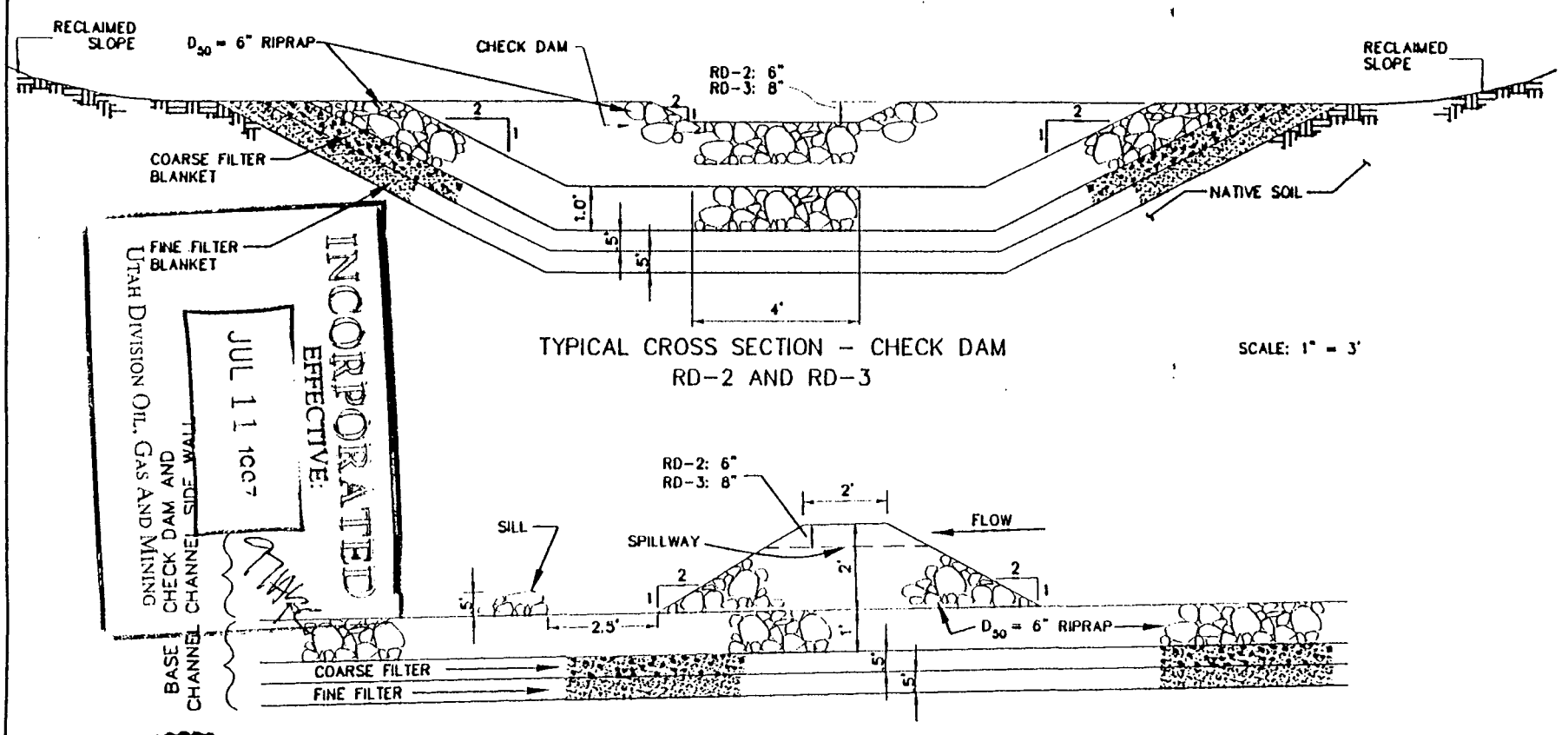
FIG7-12A.DWG UC572-02 6-13-97



UTAH DIVISION OIL, GAS AND MINING
JUL 11 1997
INCORPORATED
EFFECTIVE:

REGISTERED PROFESSIONAL ENGINEER
No. 7102
RICHARD B. WHITE
6/16/97
STATE OF UTAH

FIGURE 7-12A. TYPICAL CHECK DAM CROSS SECTIONS

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JUL 28 1997
DIV. OF OIL, GAS & MINING

LICENSED PROFESSIONAL ENGINEER
No. 168246
RICHARD B. WHITE
7/23/97
STATE OF UTAH

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0' 100' 200'
APPROXIMATE SCALE

REVISION	

PLATE 7-4

DRAINAGE DIVERSIONS

HORIZON No. 1 MINE

HORIZON COAL CORPORATION
P.O. BOX 2560
WISE, VIRGINIA 24273

DRAWN BY: SWF	CHECKED BY: RBW	DATE: 2-6-97
APPROVED BY: VSB	AUTOCAD FILE: PLT7-DRDWG	

BOURQUIN MINERAL ENGINEERING
EarthFax Engineering, Inc.

During the summer of 1997 the Horizon Mine site received extensive precipitation, with several storm events testing the drainage capacity of the culverts within the disturbed area. Runoff from storms on August 4 and 5 blocked or bypassed culverts ranging in size from 18 - 48" within the disturbed and permit boundaries. During the storm events the riparian vegetation above and below the pad area was flattened by runoff and in some places uprooted and carried downstream. The damage to the area included extensive erosion, displacement of culverts, sediment control structures, and the cutting of new stream channels. To prevent additional erosion and damage to the area, a single channel (containing Jewkes Creek) was defined and constructed within the disturbed area boundary as described in Section 7.2.3.2.

The Jewkes Creek channel extends below the disturbed area boundary and joins the North Fork of Gordon Creek. The altered Jewkes Creek channel involves property owned by Hidden Splendor Resources and Carbon County and a commitment has been made to reestablish riparian vegetation in this area (Stream Channel Alteration Permits Numbers 97-91-06SA and 97-91-12SA). Horizon was requested by both parties to assist in the planting of riparian vegetation. Horizon agreed to provide labor, seed, and plants to complete the planting of the entire realigned channel (861 feet) both within (151 feet) and beyond (710 feet) the disturbed area boundary. The channel bottom width is 10 feet within the disturbed area boundary and varies between 6 and 10 feet below the disturbed area boundary. The channel area receiving riparian mitigation outside the disturbed area boundary is approximately 0.13 acre. The reseeded area within the disturbed boundary is 0.034 acre.

The channel was planted in 1997 with the Revegetation Seed Mix (Appendix 3-9) approved by the Division of Water Rights (Stream Channel Alteration Permits Numbers 97-91-06SA and 97-91-12SA). The reclamation riparian seed mix described in Section 3.5.5.2 will be planted in the reclamation channel during final reclamation within the disturbed area boundary.

An area approximately 40' x 60' (0.055 acre) of preconstruction riparian vegetation below the sediment pond on the east side of Jewkes Creek was left as a mitigation requirement of UDOGM. The area is fenced and receives the annual precipitation for the area. However, due to the alteration of Jewkes Creek, the area receives no water from the creek. The planting of riparian vegetation in the altered Jewkes Creek channel outside the disturbed area should compensate for this area in addition to the area (0.068 acre) planned for disturbance in the extension of Culvert UC-3. At the request of UDOGM and the Division of Wildlife Resources and to satisfy mitigation requirements a wetland (approximately 1.5 acres) owned by the Division of Wildlife Resources was fenced by Horizon in Coal Canyon one mile to the west of the mine site.

A threatened and endangered vegetation study of the permit area was done the week of August 21, 1995 by Patrick Collins of Mt. Nebo Scientific.

9.4.1.3 Moderately Disturbed Areas

Some of the areas have had considerable disturbance to the vegetation and the top few inches of soil, but have had relatively little deep, subsurface disturbance. These areas are presently

October 13, 1997

ABATEMENT PLAN

The channel at the outlet of UC-1 was impacted during two consecutive storm event in August of 1997. Due to these impacts a reconstruction of the channel was necessary. According to the Horizon approved permit two options were available to accomplish the reconstruction. For clarification purposes, the flow from the outlet of UC-1 is undisturbed drainage; UC-1 merely provides a bypass through the disturbed area for the flow of Jewkes Creek.

The first option was constructed and in place prior to the August storm events, however the flow was uncontrolled and caused damage and erosion to the properties below the outlet. Reconstruction of the identical channel (Appendix 7-4, page 16) would provide results which Horizon, the Division of Water Rights and Hidden Splendor Resources (landowner) consider inadvisable due to the experiences of 1997.

Description of Diversion after the Storm Events

- 36" culvert containing flow
- Area above culvert 100' wide
- Diversion below culvert 4' wide
- Culvert discharge resulted in an uncontrolled flooding verses a controlled flood that spread out the runoff in a controlled manner
- The diversion constructed by the county controlled the runoff except for the road culvert
- The operator constructed the current diversion to exceed the final reclamation diversion design.

The second option was constructed using the base channel as described in Appendix 7-4, Determination of Peak Flows for Reclaimed Drainages, page 13 and etc (attached). The construction provided a more controlled permanent channel for the flow of Jewkes Creek to the North Fork of Gordon Creek.

The Jewkes Creek channel lies both within (151 feet) and beyond (710 feet) the disturbed area boundary and joins the North Fork of Gordon Creek. The altered Jewkes Creek channel (Stream Channel Alteration Permits Numbers 97-91-06SA and 97-91-12SA) involves property owned by Hidden Splendor Resources and Carbon County. A commitment has been made to the Division of Water Rights to reestablish riparian vegetation in the channel. Horizon was requested by both parties to assist in the planting and eventual establishment of riparian vegetation. Horizon volunteered to provide labor, seed, and plants to complete the planting of the entire realigned channel (861 feet). The channel area receiving riparian mitigation outside the disturbed area boundary is approximately 0.16 acre and 0.034 acre within the disturbed area boundary. The second option furnished a better environment for the restoration of a riparian area, providing a confined area to catch stream flow and a defined area for planting. This option would provide the opportunity to plant riparian vegetation presently and allow the establishment of mature communities during the operation of the mine.

An area approximately 40' x 60' (0.055 acre) of preconstruction riparian vegetation below the sediment pond on the east side of Jewkes Creek was left as a mitigation requirement of UDOGM. The area is fenced and receives the annual precipitation for the area. However, due to the alteration of Jewkes Creek, the area receives no water from the creek. The operator does not have water rights to Jewkes Creek therefore water cannot be diverted from the creek to water this riparian vegetation. The planting of riparian vegetation in the altered Jewkes Creek channel outside the disturbed area should compensate for this bypassed area.

A summary of the advantages associated with the second option follow:

- Extended area for the deposit of sediment
- Less potential for erosion, thus less sediment load in the North Fork of Gordon Creek
- Establishment of riparian environment prior to reclamation
- Control of Jewkes Creek flow during spring runoff and storm events
- Prevention of damage to property not owned or controlled by the mine

Horizon has observed the sediment in Jewkes Creek is sufficient to constitute a soil base for the planting of willows and grasses along the edges and banks of the channel during 1997. These plantings would serve to stabilize the banks, to recreate a riparian environment in the channel, and provide additional opportunity for the restoration of riparian vegetation during the operational life of the mine. Horizon also commits to place supplemental riprap as needed for bank protection.

ABATEMENT

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

November 7, 1997

Vicky Bailey
Horizon Coal Company
P.O. Box 599
Helper, Utah 84526

Re: N97-26-7-1, Channel Configuration, Horizon Coal Company, Horizon Mine, ACT/007/020-97G, Folder #2, Carbon County, Utah

Dear Ms. Bailey:

The Division has reviewed the abatement plans, received on October 13, 1997, for N.O.V N97-26-7-1. Sharon Falvey, Reclamation Specialist for the Division, finds the following deficiency:

R645-301-774.314. 1) Redesign the reclamation channel riprap and check dams to be stable for flow velocities resulting from the flow equal to the maximum channel capacity above and below the site, and 2) Provide a design for the transition area between the reclamation channel and the channel reconstructed by the county.

The abatement time has been extended to allow for resubmittal of revised abatement plans. Please submit new plans by November 26, 1997.

If you have any questions, please call.

Sincerely,

Jene W. Kelley
for Joseph C. Helfrich

Joseph C. Helfrich
Permit Supervisor

tt
Enclosure
cc: Bill Malencik
Sharon Falvey
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State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
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Salt Lake City, Utah 84114-5801
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801-538-7223 (TDD)

November 6, 1997

TO: File

THRU: Joe Helfrich, Permit Supervisor JK for Joe Helfrich

FROM: Sharon Falvey, Senior Reclamation Specialist SKF

RE: N97-26-7-1, Channel Configuration, Horizon Coal Company, Horizon Mine, ACT/007/020-97G, Folder #2, Carbon County, Utah.

Summary:

This submittal incorporates changes to the text on page 9-7. Updated information is contained in the amendment for culvert extension and essentially invalidates the need for changes at this site. With the changes to the county road and resulting stream re-alignment changes to the existing plan are necessary.

Analysis:

The channel at the outlet of UC-1 was impacted during two consecutive storm events in August of 1997 which resulted in erosion downstream of the culvert. Recently the county re-constructed the creek downstream of the disturbed area. The permitted design was initially constructed to tie into the which had different characteristics than the one which presently exists. Currently, there are no designs for the transition area between the reclamation channel and the channel reconstructed by the county. Construction and designs are necessary for the transition area.

The magnitude of the events occurring in 1997 indicates a need to increase the riprap and rock check dam design requirements to be stable. The velocity resulting from the flow equal to the maximum channel capacity above and below the site should be used to design the riprap and rock check dams and must be incorporated into the reclamation channel design.

Findings:

R645-301-774.314. 1) Redesign the reclamation channel riprap and check dams to be stable for flow velocities resulting from the flow equal to the maximum channel capacity above and below

the site, and 2) provide a design for the transition area between the reclamation channel and the channel reconstructed by the county.

Recommendation:

The recommendations under the findings section above should be incorporated into design and constructed in the field where appropriate.

cc: Bill Malencik
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Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1594 West North Temple, Suite 1210
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November 6, 1997

To: File

Thru: Jesse Kelley, Acting Permit Supervisor, Compliance

From: Wm. J. Malencik, Reclamation Specialist

RE: Extension Request, NOV 97-26-7-1, Horizon Coal Company, Horizon Mine, ACT/007/020, Folder #5, Carbon County, Utah

Per our telephone call the request by Horizon Coal Corporation for an abatement extension is being submitted to your office for further action. Recommend it be approved.

In accordance with R645-400-328.300 the extension of the foregoing amendment exceeds the 90 days and my authority.

In addition to the reasons provided in the Bailey letter, believe the work load of the Division prevented a more timely review of the abatement plan.

sd
enclosure
cc: Vicky Bailey, Horizon, Helper, w/o enc

UTAH
NATURAL RESOURCES
Oil, Gas & Mining
3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

MODIFICATION OF NOTICE OF VIOLATION/CESSATION ORDER

To the following Permittee or Operator:

Name Horizon Coal Company

Mailing Address P.O. Box 599 Helper, UT 84526

State Permit No. ACT/007/020

Utah Coal Mining & Reclamation Act, Section 40-10-1 et seq., *Utah Code Annotated* (1953):

Notice of Violation No. N 97-26-7-1 dated Aug. 21, 19 97.

Cessation Order No. C _____ dated _____, 19 ____.

Part 1 of 1 is modified as follows: Abatement date extended to December 8, 1997.

Reason for modification is Administrative Delay

Part ____ of ____ is modified as follows: _____

Reason for modification is _____

Part ____ of ____ is modified as follows: _____

Date of service/mailing Nov. 7, 1997 Time of service/mailing 11:00 X a.m. ☐ p.m.

Date of inspection Aug. 21, 1997

Vicky Bailey
Permittee/Operator representative

Title

Mailed From SLC Office
Signature

Joseph C. Helfrich
Division of Oil, Gas & Mining

Permit Supervisor
Title

Jena W. Kelley for Joseph C. Helfrich
Signature

WHITE—DOGM YELLOW—OSM PINK—PERMITTEE/OPERATOR GOLDENROD—NOV FILE

DOGM/MVC-1

an equal opportunity employer

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