




MINERALS PROGRAM INSPECTION REPORT
PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME: Horton Gravel Pit	MINE/PROSPECTING ID#: M-1985-135	MINERAL: Sand and gravel	COUNTY: Larimer
INSPECTION TYPE: Monitoring	INSPECTOR(S): Amy Eschberger, Rob Zuber	INSP. DATE: February 13, 2020	INSP. TIME: 12:30
OPERATOR: Larimer County	OPERATOR REPRESENTATIVE: Justin Hersh	TYPE OF OPERATION: 112c - Construction Regular Operation	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$0.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: March 9, 2020

The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.

INSPECTION TOPIC: Signs & Markers

PROBLEM: The mine identification sign was not posted at the entrance of the mine site. This is a problem for failure to post a mine identification sign as required by Rule 3.1.12(1).

CORRECTIVE ACTIONS: The operator shall, at the entrance of the mine site, post a sign which shall be clearly visible from the access road, with a minimum size equaling 187 square inches, such as 11 inches in height by 17 inches in width, with appropriate font size, including the following: the name of the operator and operation name, a statement that a reclamation permit for the operation has been issued by the Colorado Mined Land Reclamation Board (can be abbreviated to "CMLRB"); and the permit number. By the corrective action date, the operator shall submit photo documentation that a proper sign has been posted.

CORRECTIVE ACTION DUE DATE: April 8, 2020

INSPECTION TOPIC: Gen. Compliance With Mine Plan

PROBLEM: The current mining plan and mining plan map need to be updated pursuant to Rules 6.4.3 and 6.4.4. The operator must provide sufficient information to describe or identify how the operator intends to conduct the operation. Specifically, the operator has installed stormwater management structures (riprap channels, buried culvert), a new access road, and a county staging area, which are not included in the approved mining plan or portrayed on the approved mining plan map.

CORRECTIVE ACTIONS: By the corrective action date, the operator shall submit a Technical Revision, with the required \$216 fee, to update the current approved mining plan and mining plan map to reflect existing and proposed activities at the site, particularly to address the stormwater management structures, new access road, and county staging area constructed at the site.

CORRECTIVE ACTION DUE DATE: May 8, 2020

INSPECTION TOPIC: Gen. Compliance With Reclamation Plan

PROBLEM: The current reclamation plan and reclamation plan map need to be updated pursuant to Rules 6.4.5 and 6.4.6. The operator must describe how reclamation will be achieved on all affected land. Specifically, the operator has installed stormwater management structures (riprap lined channels, buried culvert), a new access road, and a county staging area, which are not included in the approved reclamation plan or portrayed on the approved reclamation plan map.

CORRECTIVE ACTIONS: By the corrective action date, the operator shall submit a Technical Revision, with the required \$216 fee (can be same revision submitted for problem cited above), to update the current approved reclamation plan and reclamation plan map to reflect existing and proposed activities at the site, particularly to address the stormwater management structures, new access road, and county staging area constructed at the site. Any of these features proposed to remain for reclamation shall be portrayed on the updated reclamation plan map.

CORRECTIVE ACTION DUE DATE: May 8, 2020

OBSERVATIONS

This was a normal monitoring inspection of the Horton Gravel Pit (Permit No. M-1985-135) conducted by Amy Eschberger and Rob Zuber of the Division of Reclamation, Mining and Safety (Division). The operator was represented by Justin Hersh during the inspection. The site is located approximately 18 miles north of Fort Collins, CO in Larimer County. Access to the site is from the east off County Road 19. **Photos 1-12** taken during the inspection are included with this report.

This is a 112c operation permitted for 41.90 acres (see enclosed Google Earth image of site) to mine sand and gravel for use in county road construction and maintenance. The affected lands are owned by the county, and the mineral rights are owned by the state. The site is situated on top of a bluff which rises approximately 50 feet above the Box Elder Creek Valley to the north. An irrigation ditch crosses the northeastern portion of the permit area. The main access road to the site crosses this ditch. The operator has an agreement in place with the ditch owner to cross and maintain the portion of the ditch located within the permit area. An underground petroleum pipeline crosses the central portion of the site. The Division's approval of this permit included a stipulation that mining activities must not affect the pipeline until a structure agreement is in place for any damage to or relocation of the pipeline.

The mining plan includes commencing with mining operations in the eastern portion of the site and moving generally westward. The average mining depth will be approximately 35-40 feet. Mined material will be screened on site and temporarily stockpiled in the relatively flat northeastern corner of the permit area. Salvaged topsoil and overburden will be stored separately on site for reclamation. Mining will proceed at approximately two acres per year, with previously disturbed (pit) areas being reclaimed prior to moving into a new area.

The approved post-mining land use for the site is pastureland. The reclamation plan includes grading disturbed land to 3H:1V, replacing 6 inches of topsoil, and revegetating the land with the following seed mixture: Pubescent Wheatgrass, Slender Wheatgrass, Western Wheatgrass, Dahurian Wild Rye, and Russian Wild Rye. The seed mixture was last revised in 2013 through Technical Revision No. 1. The seed will be drilled on contour followed by straw or native hay mulch crimped in and supplemented by fertilizers (as indicated by soil testing). All haul roads will be reclaimed.

At the time of the inspection, the weather was clear and the ground was covered with snow. The permit boundary was delineated with barbed wire fencing. However, the required mine identification sign was not posted at the main site entrance. Therefore, a problem is cited in this report (see page 1) for failure to post a mine identification sign as required by Rule 3.1.12(1). The operator will need to post an adequate sign at the site and provide photographic evidence to the Division this was done by the corrective action date.

The site was not active during the inspection. An open pit that daylights to the northeast is present in the eastern half of the permit area. The southern pit wall is approximately 40 feet in height, and the northern pit wall is approximately 15 feet in height. The pit walls have been graded to the final configuration and appear to be stable with good grass cover. All material stockpiles have been removed from the northeastern portion of the site, and this area also has good grass cover. According to the Division's previous inspection reports, the majority of disturbed land has been reclaimed for some time.

The pit disturbance does not cross the underground petroleum pipeline which crosses the central portion of the site. The Division has no record of a structure agreement ever being reached between the operator and the owner of this pipeline. However, it appears the operation is in compliance with the permit stipulation at this time. If the operator wishes to mine within 200 feet of the pipeline, a structure agreement must first be obtained for this structure and a copy submitted to the Division. The county has not yet determined whether the western

portion of the site will be mined. The Division estimates approximately 14 acres in the western portion of the site have not yet been disturbed by the operation.

In its last inspection report (for September 12, 2012), the Division noted the presence of erosion gullies and ruts on the southern pit slope. The Division also noted ponded water in the eastern portion of the pit. Since that time, the operator repaired the erosion damage, reseeded those areas, and installed riprap lined channels at the northwestern and southeastern edges of the pit. The operator has also installed a buried culvert through the northern pit slope, which drains the pit to the irrigation ditch located north of the pit. According to the operator, a discharge permit has been obtained from the CDPHE, WQCD for this discharge. No ponded water was observed in the pit during the inspection.

The stormwater management structures installed at the site are not included in the approved mining plan or portrayed on the approved mining plan map (see enclosed mining plan map). Therefore, a problem is cited in this report (see pages 1 and 2) pursuant to Rules 6.4.3 and 6.4.4, requiring the operator to submit a Technical Revision (see enclosed form) to update the mining plan and mining plan map to address the stormwater management structures installed at the site. These structures are also not included in the approved reclamation plan or portrayed on the approved reclamation plan map (see enclosed reclamation plan map). Therefore, a separate problem is cited in this report (see page 2) pursuant to Rules 6.4.5 and 6.4.6, requiring the operator to submit, in the same Technical Revision, an updated reclamation plan and reclamation plan map that address the stormwater management structures installed at the site.

The operator has constructed a new (gated) entrance to the site at the southeastern corner of the permit area. The new access road runs along the southern edge of the permit area to a small (approximately 0.75 acre) gravel area being used by the county for storing road and bridge equipment (e.g., culverts, concrete beams). The Division estimates the new access road to be approximately 1,840 feet in length. According to the aerial imagery available in Google Earth, these new features were constructed at the site between 2014 and 2016. The approved permit does not include the additional access road or the equipment storage area. Therefore, the operator will need to provide updated mining and reclamation plans to address the new access road and equipment storage area. These features will also need to be portrayed on the updated mining and reclamation plan maps. These items can be included in the same Technical Revision required for the problems cited above. If the operator wishes to continue using a portion of the site for equipment storage after reclamation, this should be addressed in the updated reclamation plan and reclamation plan map. Also, any haul roads proposed to remain after reclamation should be portrayed on the updated reclamation plan map.

In summary, the following items must be addressed for the site:

- 1) Submit photographic evidence an appropriate mine identification sign has been posted at the main site entrance.
- 2) Submit a Technical Revision to update the approved mining and reclamation plans and maps to include the following:
 - a. Describe the stormwater management structures installed at the site (in the updated mining plan), portray these structures on the updated mining plan map, and if these structures will remain for reclamation, portray them on the updated reclamation plan map. If any of these structures will be reclaimed or modified for reclamation, describe how they will be reclaimed/modified in the updated reclamation plan.
 - b. Describe the new site access and haul road constructed at southern edge of site (in the updated

mining plan), portray these features on the updated mining plan map, and if these features will remain for reclamation, portray them on the updated reclamation plan map. If these features will be reclaimed, describe how they will be reclaimed in the updated reclamation plan.

- c. Describe the county staging area constructed at the site (in the updated mining plan), portray this area on the updated mining plan map, and if this feature will continue to be used by the county after reclamation, portray this feature on the updated reclamation plan map. If this feature will be reclaimed, describe how it will be reclaimed in the updated reclamation plan.

The updated mining and reclamation plan maps must meet the general requirements of Rule 6.2.1(2) by including the following: show name of operator, must be prepared and signed by a registered land surveyor, professional engineer, or other qualified person, give date prepared, identify and outline the permit area, and be prepared at a scale that is appropriate to clearly show all elements that are required to be delineated. The acceptable range of map scales shall not be larger than 1 inch = 50 feet nor smaller than 1 inch = 660 feet. Also, a map scale, appropriate legend, map title, date, and a north arrow shall be included.

This concludes the report.

Any questions or comments regarding this inspection report should be forwarded to Amy Eschberger at the Colorado Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, via telephone at 303-866-3567, ext. 8129, or via email at amy.eschberger@state.co.us.

PHOTOGRAPHS



Photo 1. View looking southwest across western portion of pit, showing slopes stable with good grass cover. No ponded water was observed in pit during inspection.



Photo 2. View looking south across central portion of pit, showing slopes stable with good grass cover. No ponded water was observed in pit during inspection.



Photo 3. View looking southeast across eastern portion of pit, showing slopes stable with good grass cover. No ponded water was observed in pit during inspection.



Photo 4. Closer view of eastern corner of pit where riprap lined channel was installed (circled). This channel was mostly obscured by snow cover.



Photo 5. View looking northeast (from irrigation ditch) at reclaimed northeastern portion of permit area (near main site entrance) which was utilized for material stockpiling.



Photo 6. View looking southeast across irrigation ditch which crosses northeastern portion of permit area. Approximate center line of ditch delineated.



Photo 7. View looking southwest across reclaimed land between pit and irrigation ditch.



Photo 8. View looking northeast across reclaimed pit area in eastern half of site from top of southern pit wall.



Photo 9. View looking northwest across new haul road constructed along southern edge of permit area to access county staging area. Barbed wire fence (at left) marks southern permit boundary.



Photo 10. View looking south across small gravel staging area constructed at south-central edge of permit area for road and bridge equipment storage.



Photo 11. View looking south across small gravel staging area constructed at south-central edge of permit area for road and bridge equipment storage.



Photo 12. View looking southeast at new gated access constructed at southeastern corner of permit area.

GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <u>NA</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>NA</u>
(PW) PROCESSING WASTE/TAILING---- <u>N</u>	(SF) PROCESSING FACILITIES----- <u>N</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>PB</u>	(FW) FISH & WILDLIFE----- <u>N</u>	(RV) REVEGETATION---- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>PB</u>	(SP) STORM WATER MGT PLAN---- <u>N</u>	(RS) RECL PLAN/COMP-- <u>PB</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>Y</u>
(AT) ACID OR TOXIC MATERIALS----- <u>NA</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	

Y = Inspected and found in compliance / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

Inspection Contact Address

Justin Hersh
Larimer County
P.O. Box 1190
Fort Collins, CO 80522

Encls: Google Earth image of site
Approved Mining Plan Map
Approved Reclamation Plan Map
Technical Revision form

CC: Rob Zuber, DRMS
Michael Cunningham, DRMS

M-1985-135 / Horton Gravel Pit / Larimer County

Red Outline = 41.90 acres = Approved Permit Area (location approximated based on approved permit maps)
(Image data from 7/17/2019)



N Co Rd 19

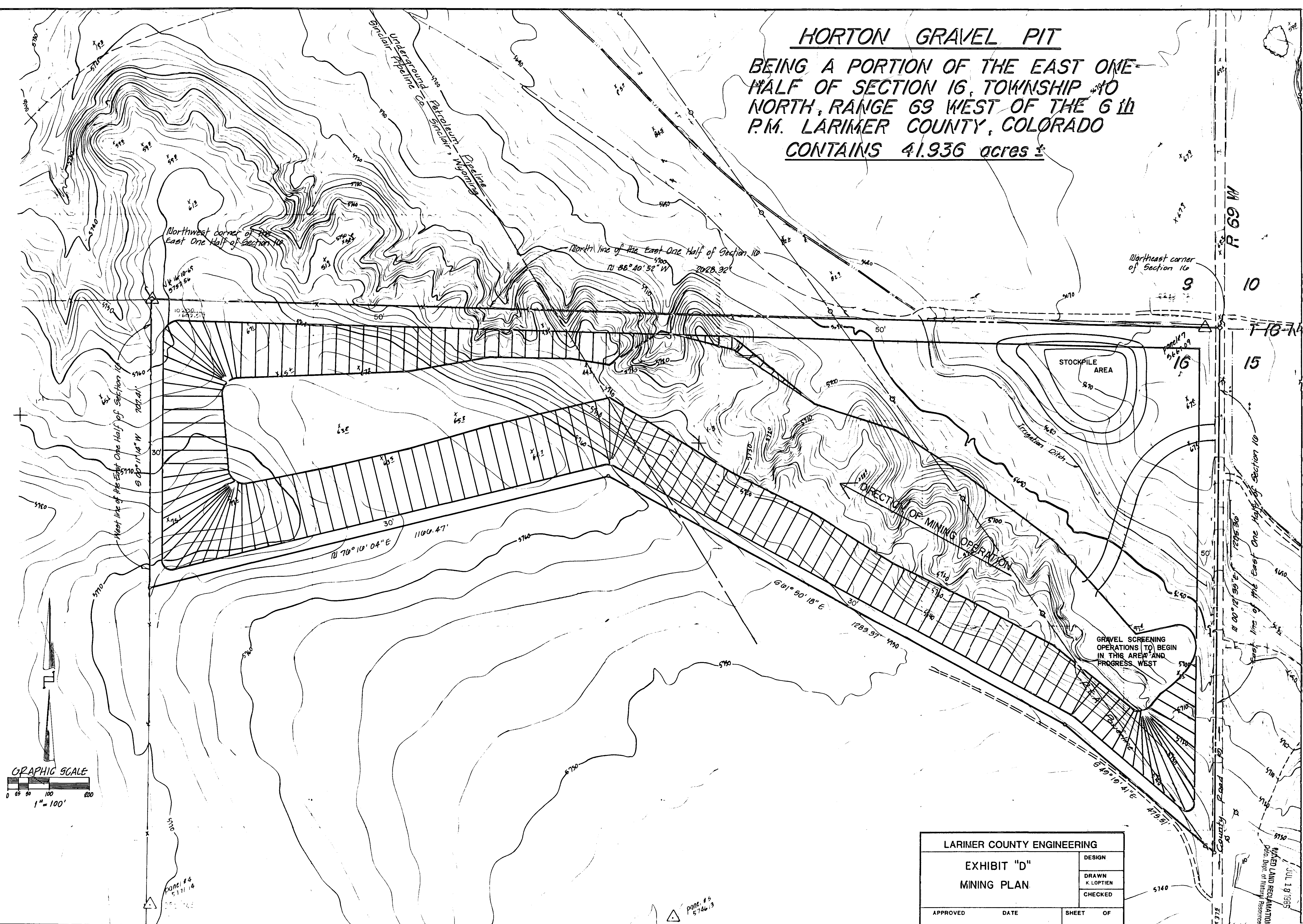
Terry Lake Rd



1000 ft

HORTON GRAVEL PIT

BEING A PORTION OF THE EAST ONE
HALF OF SECTION 16, TOWNSHIP 40
NORTH, RANGE 69 WEST OF THE 6TH
P.M. LARIMER COUNTY, COLORADO
CONTAINS 41.936 acres ±



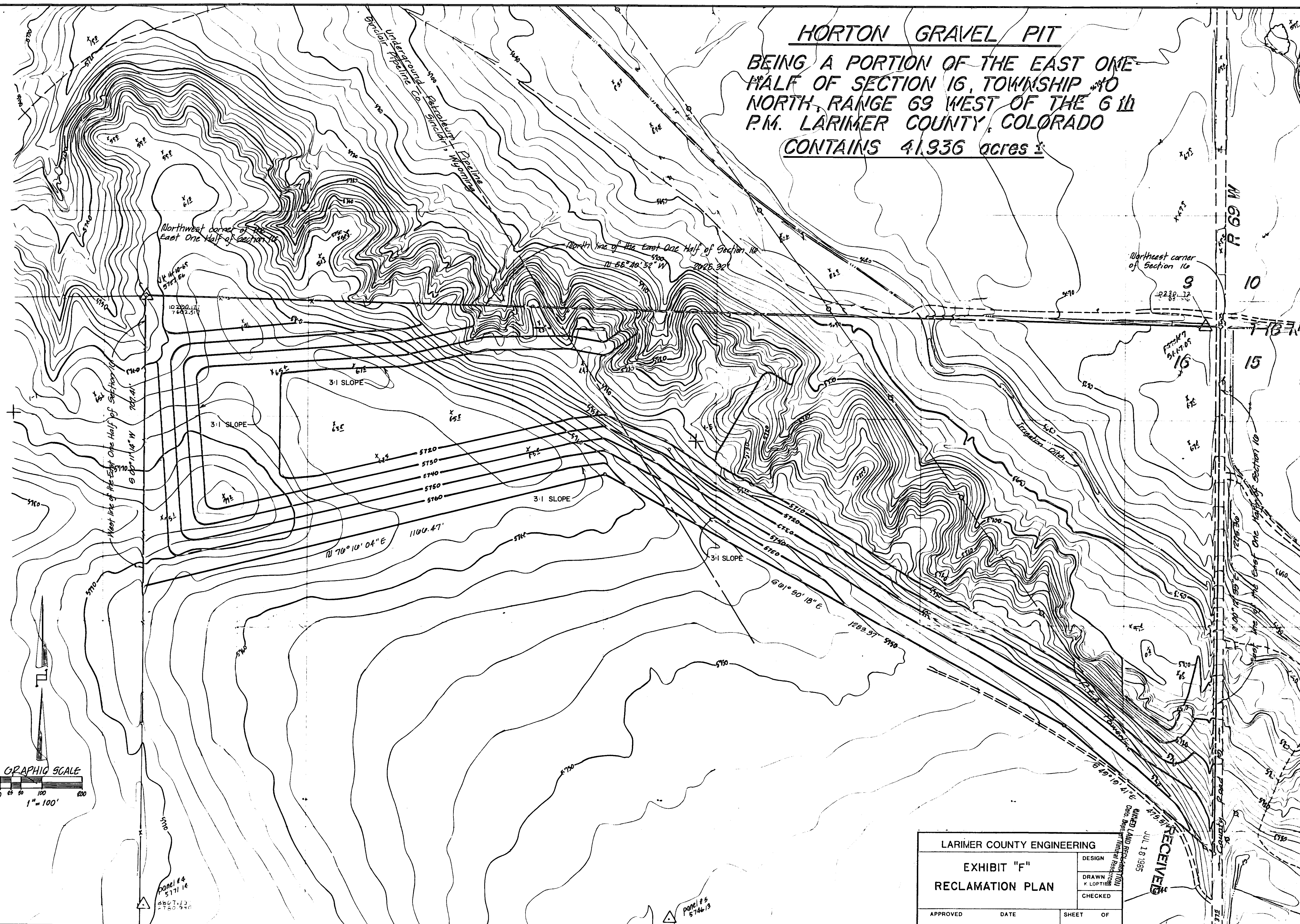
GRAPHIC SCALE
0 50 100 200
1" = 100'

LARIMER COUNTY ENGINEERING			
EXHIBIT "D" MINING PLAN	DESIGN		
	DRAWN K. LOFTEN		
	CHECKED		
APPROVED	DATE	SHEET	OF

RECEIVED
JUL 18 1985
WATER LAND RECLAMATION
Dept. of Natural Resources

HORTON GRAVEL PIT

BEING A PORTION OF THE EAST ONE
HALF OF SECTION 16, TOWNSHIP #10
NORTH, RANGE 69 WEST OF THE 6TH
P.M. LARIMER COUNTY, COLORADO
CONTAINS 41.936 acres ±



GRAPHIC SCALE
0 50 100 200
1" = 100'

LARIMER COUNTY ENGINEERING	
EXHIBIT "F"	
RECLAMATION PLAN	
DESIGN	DRAWN
CHECKED	DATE
APPROVED	SHEET OF

RECEIVED
JUL 18 1985
LAND RECLAMATION
DIVISION
COUNTY ENGINEER



COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY

1313 Sherman Street, Room 215, Denver, Colorado 80203 ph(303) 866-3567

REQUEST FOR TECHNICAL REVISION (TR) COVER SHEET

File No.: M- _____ Site Name: _____

County _____ TR# _____ (DRMS Use only)

Permittee: _____

Operator (If Other than Permittee): _____

Permittee Representative: _____

Please provide a brief description of the proposed revision: _____

As defined by the Minerals Rules, a Technical Revision (TR) is: “a change in the permit or application which does not have more than a minor effect upon the approved or proposed Reclamation or Environmental Protection Plan.” The Division is charged with determining if the revision as submitted meets this definition. If the Division determines that the proposed revision is beyond the scope of a TR, the Division may require the submittal of a permit amendment to make the required or desired changes to the permit.

The request for a TR is not considered “filed for review” until the appropriate fee is received by the Division (as listed below by permit type). Please submit the appropriate fee with your request to expedite the review process. After the TR is submitted with the appropriate fee, the Division will determine if it is approvable within 30 days. If the Division requires additional information to approve a TR, you will be notified of specific deficiencies that will need to be addressed. If at the end of the 30 day review period there are still outstanding deficiencies, the Division must deny the TR unless the permittee requests additional time, in writing, to provide the required information.

There is no pre-defined format for the submittal of a TR; however, it is up to the permittee to provide sufficient information to the Division to approve the TR request, including updated mining and reclamation plan maps that accurately depict the changes proposed in the requested TR.

Required Fees for Technical Revision by Permit Type - Please mark the correct fee and submit it with your request for a Technical Revision.

<u>Permit Type</u>	<u>Required TR Fee</u>	<u>Submitted</u> (mark only one)
110c, 111, 112 construction materials, and 112 quarries	\$216	<input type="checkbox"/>
112 hard rock (not DMO)	\$175	<input type="checkbox"/>
110d, 112d(1, 2 or 3)	\$1006	<input type="checkbox"/>