




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: T Bone Stone Quarry	MINE/PROSPECTING ID#: M-2004-030	MINERAL: Stone	COUNTY: Boulder
INSPECTION TYPE: Monitoring	INSPECTOR(S): Amy Eschberger	INSP. DATE: May 17, 2017	INSP. TIME: 12:30
OPERATOR: T Bone Stone, Inc.	OPERATOR REPRESENTATIVE: Bill Tenore	TYPE OF OPERATION: 110c - Construction Limited Impact	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Partial Bond	BOND AMOUNT: \$68,574.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: June 7, 2017	

GENERAL INSPECTION TOPICS

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

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

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

OBSERVATIONS

This was a normal monitoring inspection of the T Bone Stone Quarry (Permit No. M-2004-030) conducted by Amy Eschberger and Wally Erickson of the Division of Reclamation, Mining and Safety (Division). Mr. Bill Tenore represented the operator during the inspection. The site is located approximately 3 miles north of Lyons, Colorado in Boulder County. The site can be accessed either from the north via a private road that crosses through a few other permitted quarries to the north or from the west via Stone Canyon Drive. The affected land is owned by William Tenore and Roberta McLeod Tenore.

This is a 112c operation permitted for 25 acres to mine sandstone for use as construction material. The Division approved a permit conversion on January 2, 2013 which expanded the permitted area to the east and south by a total of 15.1 acres. The approved maximum allowed disturbed area at any time is 14.5 acres. The approved maximum mining depth is 50 feet. The operation began quarrying in the northwestern portion of the site, then opened up a new quarry to the south. The operation excavates the stone mainly by hand then cuts the stone on site using portable machinery. The cut stone is palletized and stored on site for transport. Overburden is to be stored adjacent to the quarries. There is very little to no salvageable topsoil available in the areas to be mined. Therefore, for final reclamation of pits, overburden will be sifted to produce a growth medium.

The approved reclamation plan includes backfilling the pits with an average depth of 10 feet of overburden, replacing growth medium at a depth of four inches, ripping any storage areas to reduce compaction, and revegetating the site with a mixture of native grasses, Ponderosa Pine trees, and Rocky Mountain Juniper shrubs. All disturbed slopes will be graded to 3H:1V or flatter. Existing roads within the permit area will not be reclaimed. The approved post-mining land use is rangeland.

At the time of the inspection, it was partly cloudy and breezy. The Division observed standing water throughout the region due to a recent storm event. The permit boundary was delineated with posts. The site was active during the inspection, including stone working and transportation activities. The Division estimates the operation has disturbed a total of approximately 12.75 acres (see enclosed Google Earth image of site). Disturbance includes two main quarry areas, referred to in this report as north quarry and south quarry. The north quarry is approximately 30 feet deep (**Photo 1**) with overburden stockpiled along its northern and southern edges (**Photos 2 and 3**). Approximately 325 feet of highwall ranging from 5-30 feet in height exist in the north quarry. A loading and storage area is present just east of the north quarry, on the other side of the access road (**Photos 4-6**).

Since the date of the last aerial image available in Google Earth (9/7/2016), the operation has begun opening up the area located east of the loading and storage area in the northern portion of the site (**Photos 7 and 8**). The Division estimates this disturbance to be approximately 0.25 acre in size. This area is included in the total disturbed acreage amount and approximated on the enclosed Google Earth image of the site. Disturbance on site also includes an equipment and fuel storage area located adjacent to the haul road that connects the two quarries (**Photos 9 and 10**). The Division observed that fuel storage tanks were properly bermed for secondary containment.

The south quarry is approximately 15 feet deep with overburden stockpiled along its northern and southern edges (**Photos 11-13**). Approximately 400 feet of highwall ranging from 3-15 feet in height exist in the south quarry. A stone working and storage area is located just east of the south quarry, on the other side of the access road (**Photos 14 and 15**). This area includes portable stone cutting machinery and storage of palletized stone. Overburden is stockpiled mainly along the southern edge of this area (**Photo 16**). Disturbance at the site also includes an overburden storage area and palletized stone storage area adjacent to an existing haul road in the southeastern portion of the permit area. The Division estimates these two storage areas to comprise

approximately one acre of disturbance.

The operation appears to be following the approved mining and reclamation plans. More than enough overburden is available on site for backfilling the quarries, with little to no haul distances. According to the approved mining plan, the quarries could be mined deeper. It should be noted the current disturbance amount of 12.75 acres is only 1.75 acres short of the approved maximum allowed disturbance of 14.5 acres. In expanding the operation eastward, the operation should be very careful not to exceed the maximum disturbance amount for which the Division currently holds a bond. If the operator intends to disturb more than 14.5 acres, a Technical Revision will need to be submitted to increase the maximum allowed disturbed area to more than 14.5 acres (see enclosed form). In review of the Technical Revision, the Division would recalculate the required financial warranty for the proposed increase in disturbance.

No problems were observed during the inspection.

PHOTOGRAPHS



Photo 1. View of north quarry with highwalls of up to 30 feet in height



Photo 2. View of overburden stored along northern edge of north quarry.



Photo 3. View of overburden stored along southern edge of north quarry.



Photo 4. View of loading and storage area present east of north quarry on other side of access road.



Photo 5. View of loading and storage area present east of north quarry on other side of access road.



Photo 6. View of loading and storage area present east of north quarry on other side of access road.



Photo 7. View of area recently disturbed east of loading and storage area in northern portion of site.



Photo 8. View of area recently disturbed east of loading and storage area in northern portion of site.



Photo 9. View of equipment and fuel storage area located adjacent to access road between the two quarries.



Photo 10. View of equipment and fuel storage area located adjacent to access road between the two quarries.



Photo 11. View of south quarry with highwalls of up to 15 feet in height.



Photo 12. View of south quarry with highwalls of up to 15 feet in height. Note overburden stored along northern edge of quarry.



Photo 13. View of south quarry with highwalls of up to 15 feet in height. Note overburden stored along southern edge of quarry. Water visible on pit floor is attributed to recent storm event.



Photo 14. View of stone working and storage area present east of south quarry on other side of haul road. All stone cutting equipment is portable and thus will not require demolition for reclamation.



Photo 15. View of stone working and storage area present east of south quarry on other side of haul road. All stone cutting equipment is portable and thus will not require demolition for reclamation. The white tent houses a bridge saw.



Photo 16. View of overburden stored along southern edge of stone working and storage area located east of south quarry. Foreground shows stacks of extracted stone.

Inspection Contact Address

Bill Tenore
T Bone Stone, Inc.
2337 Emery St
Longmont, CO 80501

Enclosures: Google Earth image of site
Technical Revision form

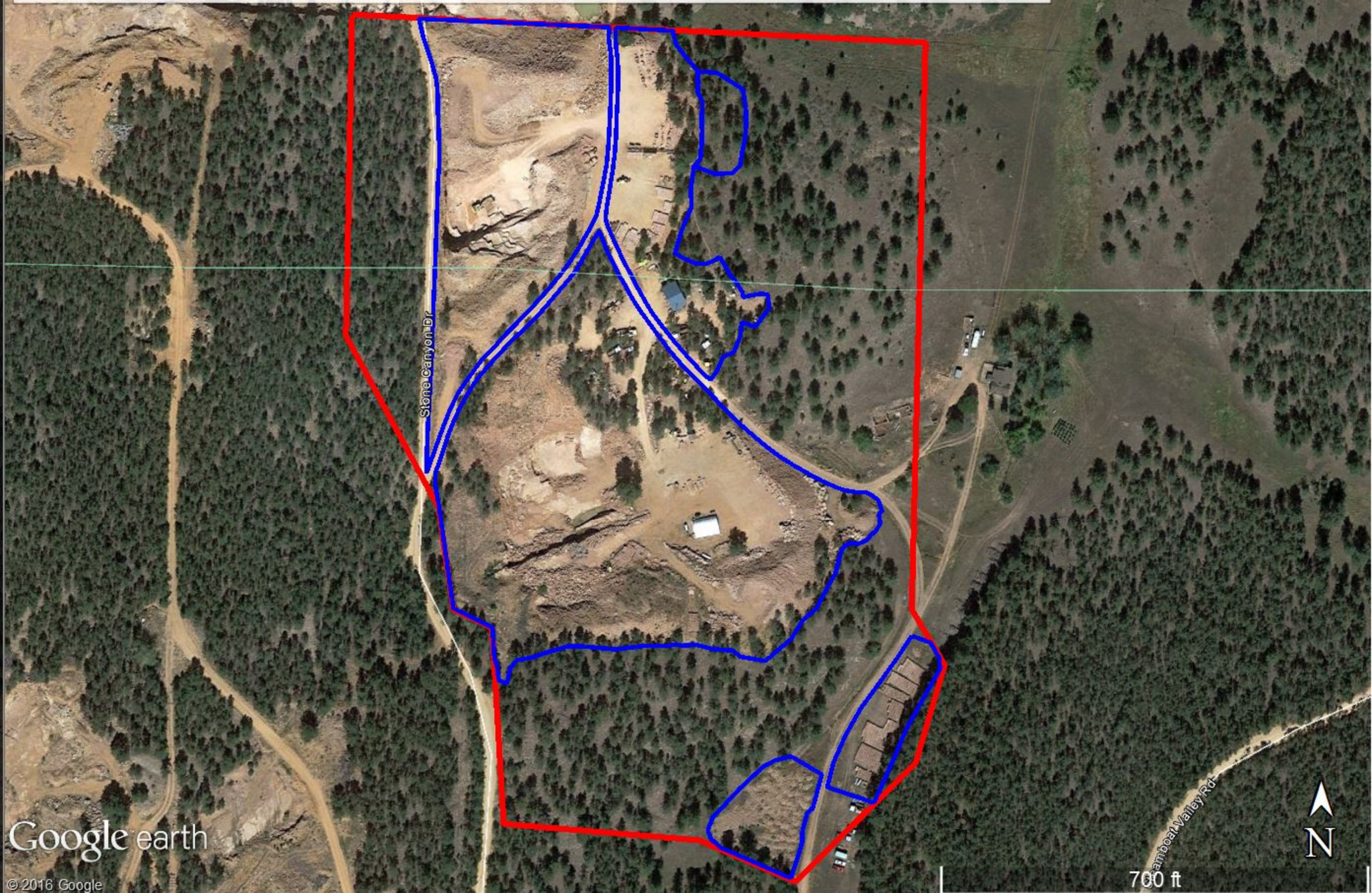
CC: Wally Erickson, DRMS

M-2004-030 / T Bone Stone Quarry / T Bone Stone, Inc.

Red Outline = 25 acres = Approved Permit Area

Blue Outline = 12.75 acres = Total Disturbed Area (0.25 acre in NE portion estimated based on 5/17/2017 inspection)

(Image data from 9/7/2016)





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"/>