



## 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.

<b>MINE NAME:</b> Boettcher Sandstone Quarry	<b>MINE/PROSPECTING ID#:</b> M-1977-345	<b>MINERAL:</b> Sandstone (silica, stone, quartzite)	<b>COUNTY:</b> Larimer
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Amy Eschberger	<b>INSP. DATE:</b> August 31, 2022	<b>INSP. TIME:</b> 10:45
<b>OPERATOR:</b> Holcim (US) Inc.	<b>OPERATOR REPRESENTATIVE:</b> Mike Toelle	<b>TYPE OF OPERATION:</b> 110c - Construction Limited Impact	

<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> None	<b>BOND AMOUNT:</b> \$10,100.00
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None
<b>WEATHER:</b> Clear	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> September 23, 2022

### 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>N</u>	(SF) PROCESSING FACILITIES----- <u>N</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>	(RS) RECL PLAN/COMP-- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>N</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	

Y = Inspected / 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 Boettcher Sandstone Quarry (Permit No. M-1977-345) conducted by Amy Eschberger of the Division of Reclamation, Mining and Safety (Division). The operator was represented by Mike Toelle and Tom Newman during the inspection. The site is located approximately 5 miles north of LaPorte, CO in Larimer County. The site can be accessed by turning west off of Kremers Lane onto a private gravel road, then travelling approximately ¼ mile to the site entrance. **Photos 1-10** taken during the inspection are included with this report.

This is a 110c operation permitted for 9.9 acres (see enclosed Google Earth image of site) to mine sandstone for use in the operator's cement plant located in LaPorte, CO (now closed). The site is situated on the east-facing slope of a ridge. The permit area includes the quarry area and a portion of the access road (see enclosed site map, dated September 30, 1977). The affected lands are mostly owned by the operator, with a small northern portion lying on a claim managed by the U.S. Bureau of Land Management (BLM). Mining was completed at the site many years ago, and the site has been in reclamation since 2015/2016.

The quarry was never mined to its full extent, resulting in insufficient overburden available to reclaim slopes in accordance with the initially approved reclamation plan. The Division approved Technical Revision No. 1 (TR-1) on November 24, 2015, which revised the reclamation slope configuration and seed mixture for the site. TR-1 allowed the operator to use all available material on site to backfill the quarry highwalls to a 2H:1V final slope configuration. The top section of the western highwall (approximately 40 feet in height) will remain at an approximate 1H:1V slope gradient. The top of the backfill area will have an approximately 20 foot wide bench. Once sloped, any redisturbed areas will be retopsoiled and seeded with a rangeland seed mixture recommended by Larimer County. This reclamation work was completed in 2016. The earlier disturbed southern portion of the site was reclaimed many years previously (late 1990's or early 2000's). During its May 23, 2016 inspection, the Division confirmed the reclamation earthwork and initial seeding had been completed.

The Division conducted an inspection on August 16, 2017 to evaluate reclamation success at the site. At that time, the reclaimed slopes appeared to be stable with no erosion issues, and some grasses were growing in the newly seeded northern half of the site (mainly along the base of the slope and the pit floor). However there were a significant amount of weeds observed in the northern area, including state-listed noxious weed species such as Scotch thistle, Common mullein, and Leafy spurge. The operator has an agreement with the Larimer County weed control program to help manage weeds at all Holcim sites within the county. The operator submits annual summary reports provided by the county. According to the 2016 report, the weather patterns experienced that year created optimal conditions for the weeds to mature at a rapid pace. The report acknowledged that the Boettcher Sandstone Quarry in particular was seeing heavy regrowth and also some new growth in Scotch thistle, and moderate regrowth of Leafy spurge. However, there was a considerable amount of earthwork occurring that year (as the operator was backfilling the western highwall in accordance with TR-1), which limited the county's access to the quarry for weed control. Since the reclamation earthwork was completed in 2016, the weed management program has continued interrupted.

During the current inspection, the Division observed a good cover of grasses and shrubs growing across the northern half of the quarry. Additionally, a few pine trees have volunteered into the reclaimed area. The backfilled portion of the western highwall, which was mostly bare during the Division's last inspection in 2017, is now covered with established grasses and rangeland shrubs. Even the steeper upper portion of the western highwall (above the backfill area), which was not included in the revegetation plan, is filling in with shrubs and some grasses. The reclaimed ground surface of the quarry was left rough and rocky per the approved reclamation plan. All reclaimed slopes appeared to be stable with no erosion issues observed. The southern half of the quarry which was previously reclaimed has remained stable with a good grass and shrub cover. The

topography and vegetation of the reclaimed quarry blend well with the surrounding lands.

While there were some weeds observed growing in reclaimed areas, it is clear the weeds are being managed regularly. Also, the weeds did not appear to be hindering the growth of the desired vegetation. According to the operator, the county continues to manage the weeds at the site, generally visiting the site twice per year (once in the spring and again in the fall). Per the Colorado Department of Agriculture (CDA), the noxious weeds observed at the site, leafy spurge and common mullein, are considered List B and List C species, respectively. According to the CDA, List B species require the development and implementation of a noxious weed management plan designed to stop the continued spread of these species. List C species require the development and implementation of a noxious weed management plan designed to support the efforts of local governing bodies to facilitate more effective integrated weed management on the lands. For this site, a noxious weed management plan has been developed in coordination with the local government (Larimer County) and is implemented at the site every year.

The Division believes the site has been reclaimed in accordance with the approved reclamation plan, and recommends the operator submit a Full Release request as soon as possible. If the request is submitted within 60 days of the date of this inspection (by October 30, 2022), an additional inspection will not be necessary.

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](mailto:amy.eschberger@state.co.us).*



### PHOTOGRAPHS

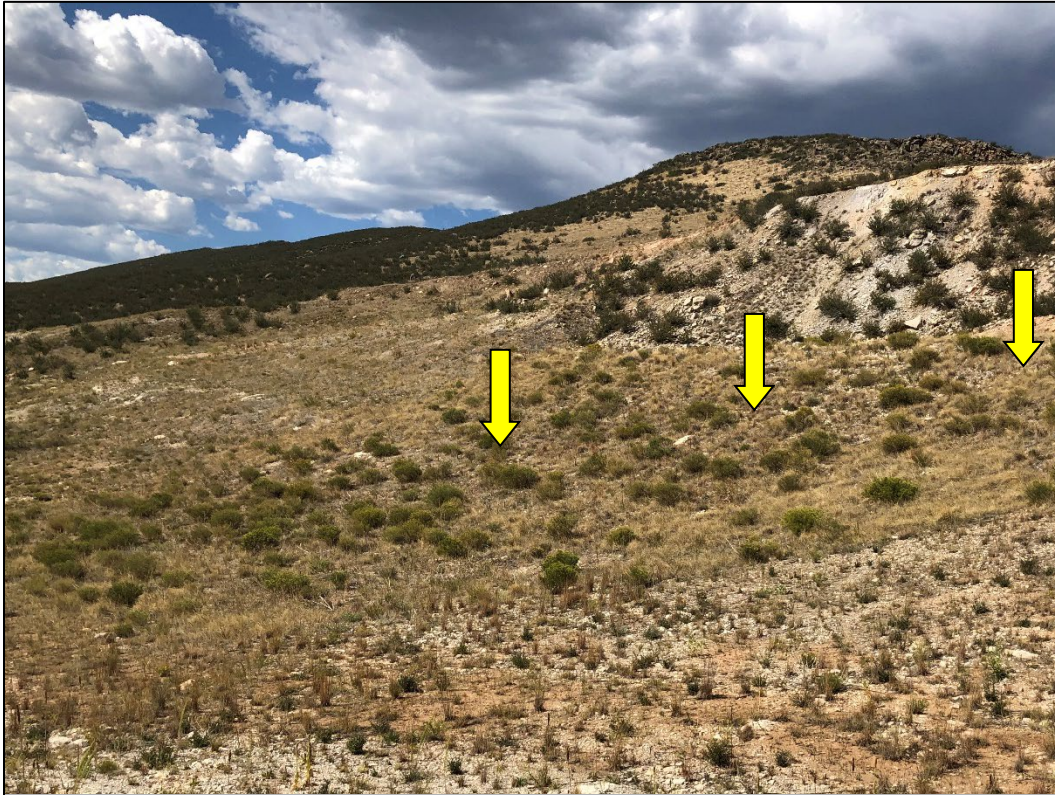


**Photo 1.** View looking north across northern edge of quarry, showing site reclaimed with stable slopes and vegetative cover consisting of grasses and shrubs.



**Photo 2.** View looking west across western edge of quarry, showing site reclaimed with stable slopes and vegetative cover consisting of grasses and shrubs.





**Photo 3.** View looking southwest across portion of western highwall backfilled in 2016 (indicated), showing site reclaimed with stable slopes and vegetative cover consisting of grasses and shrubs.



**Photo 4.** View looking south across central portion of quarry, showing site reclaimed with stable slopes and vegetative cover consisting of grasses and shrubs (and a few volunteer pine trees).





**Photo 5.** View looking east across eastern edge of quarry, showing slopes stabilized with grasses and shrubs. Common mullein in this area was treated earlier this year and will continue to be managed.



**Photo 6.** View looking east across eastern edge of quarry, showing site reclaimed with stable slopes and vegetative cover consisting of grasses and shrubs.





**Photo 7.** View looking west across western edge of quarry, showing site reclaimed with stable slopes and vegetative cover consisting of grasses and shrubs.



**Photo 8.** View looking south across western edge of quarry, showing site reclaimed with stable slopes and vegetative cover consisting of grasses and shrubs (and a few volunteer pine trees).





**Photo 9.** View looking south across previously reclaimed southern edge of quarry. Note reclaimed surface left rocky per approved plan, with good establishment of grasses and shrubs.



**Photo 10.** View looking southwest across previously reclaimed southern edge of quarry. Note reclaimed surface left rocky per approved plan, with good establishment of grasses and shrubs.



**Inspection Contact Address**

Mike Toelle  
Holcim (US) Inc.  
3500 Highway 120  
Florence, CO 81226

Encls: Google Earth image of site  
Site map, dated September 30, 1977

CC: Travis Weide, Holcim (US) Inc.  
Michael Cunningham, DRMS

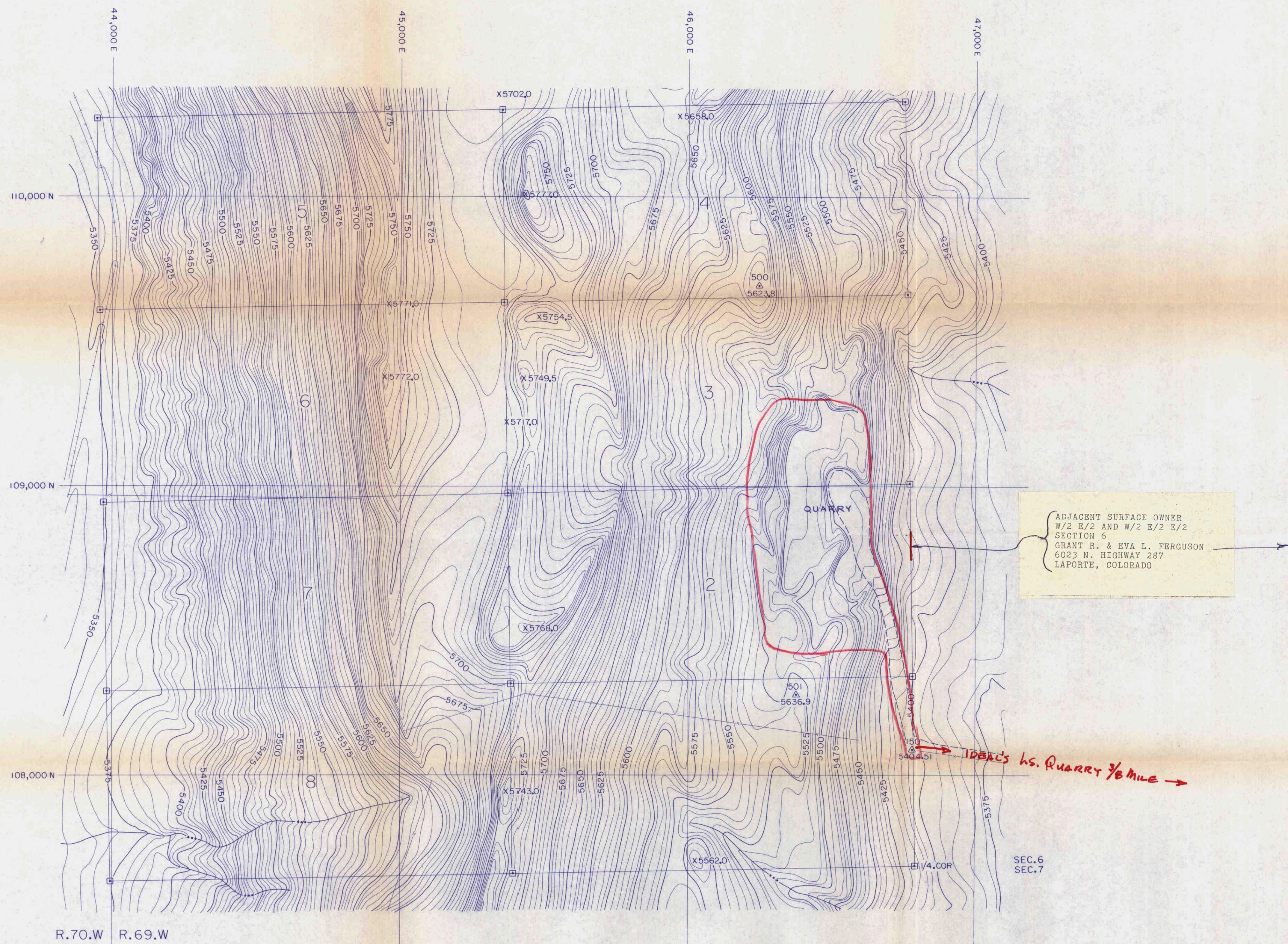


# M-1977-345 / Boettcher Sandstone Quarry / Holcim (US) Inc.

Red Outline = 9.9 acres = Approved Permit Area (location approximated based on permit maps)  
(Image data from 6/11/2021)







# LEGEND

- X SPOT ELEVATIONS
- △ SURVEY POINT BY IDEAL SURVEYORS
- ==== ROADS
- TRAILS
- ~~~~~ EDGE OF WOODED AREA
- x-x- FENCE
- INTERMITTENT STREAM
- ===== PROPERTY BOUNDARY, IDEAL



CONTOUR INTERVAL 5 FEET  
DATUM MEAN SEA LEVEL  
PHOTOGRAPHY DATED DEC. 1976

REVISION F	REVISION E	REVISION D	REVISION C	REVISION B	REVISION A

M-1977-345 9.30.1977 application S.W. 1/4 SEC. 6, T. 8 N. - R. 69 W.

**IDEAL CEMENT COMPANY**  
DIVISION OF IDEAL BASIC INDUSTRIES, INC.

ENGINEERING DEPARTMENT

DENVER, COLORADO

ISSUE	TOPOGRAPHY	DRAWN
SUPERSEDES DRAWING	JOANNE SANDSTONE CLAIMS	CHECKED
DRAWING bcc-1034	BOETTCHER PLANT	APPROVED
DATED 8-5-1965		SCALE 1"=200'
		bcc-1368

Marked 9-'77  
R.E. Marsh

21309