

July 22, 2022

Lucas West
Division of Reclamation, Mining, and Safety
1001 E 62nd Ave Room 215
Denver, CO 80216
(303) 866-3567

RE: Skelton Pit, File No. M-2022-019, Construction Materials Regular (112), Application Adequacy Review

Mr. West:

Please accept this letter on behalf of United Companies as the response to the Adequacy Review, dated June 15, 2022 for the Skelton Pit. Outstanding items and questions are addressed below.

1. **Introduction:** *The introduction lists the Proposed Permit Area at 26.7 Acres, however most other materials including the application form and maps list the Proposed Permit Area as 25 Acres. Please correct the introduction to coincide with all other application materials and references.*

Please see the revised permit text and maps, provided with this letter, with those discrepancies addressed. The permit area is 25 acres.

2. **Exhibit C- Pre Mining and Mining Plan Map(s)-Rule 6.4.3:** *Map C-1 "Baseline Condition" did not include the type of vegetation covering the affected lands. Though discussed and documented with photographs in Exhibit J, Please revise Map C-1 to include this information pursuant to Construction Materials Rule 6.4.3(e).*

Please see the revised Map C-1 with the vegetation coverage and type documented.

3. **Exhibit D- Mining Plan- Rule 6.4.4:** *It is stated that mining will occur in 13 Acre phases with concurrent reclamation. Within the 13 acre phases please identify the average height and length of highwall to exposed at any given time in accordance with Construction Materials Rule 6.4.4(e)(ii).*

During both 13 acre phases, the average height of highwall that will be exposed at any time is 23 feet over an average length of 900 feet.

4. **Exhibit E- Reclamation Plan- Rule 6.4.5**
 - a. *In conjunction with Item 1 of this review, the introduction to the Reclamation Plan lists the total Proposed Permit Area as 26.7 Acres whereas the application form, maps and other references state the Area at 25 Acres. Please clarify the total Proposed Permit Area and update all applicable references to ensure consistency.*
 - b. *Section 4 of the Reclamation Plan identifies the possibility of drill, broadcast or hydroseeding. Please specify which seed application method will be used to ensure*

- c. *an accurate Reclamation Cost Estimate. Also it is stated that mulch will be applied at a rate of 2,000 lbs./acre. Please specify the type of mulch proposed, if the seed application method is to be hydroseeding, a hydro mulch application may be appropriate.*

Please see the revised text with the discrepancies in acreage resolved. The seeding method that is currently planned to be used is drilling with a certified weed free hay mulch. However, this may change to the other seeding methods or type of mulch as described in the permit at the applicant's discretion. If such changes occur with the seeding/mulching method, the Division will be notified and the bond will be adjusted if deemed appropriate.

5. **Exhibit F- Reclamation Plan Map- Rule 6.4.6:** *Map F-1 appears to show 3 post-reclamation drainage basins however no such details are included in the narrative of Exhibit E. Please discuss these features in the narrative including their use, size and location. If these features are incorrectly included in the Reclamation Plan Map and are not to be considered post-reclamation features, please revise Map F-1 to remove them.*

Each map shows the drainage conditions for the site at that stage. As there is only one drainage basin, each map only shows the drainage conditions for that one basin. A table has been added to Exhibit G comparing the drainage conditions onsite before, during, and after mining for CDRMS convenience.

Note that the drainage basins delineated on each map are not stormwater control structures. They are the bounded area that drains into or through the site. Stormwater control berms are drawn and labelled separately on Map C-2.

6. **Exhibit S- Permanent Man-Made Structures- Rule 6.4.19:** *Three Permanent Man-Made Structures are listed but no signed structure agreements were included. A reference is made to the Geotechnical Stability Exhibit however that exhibit provides a demonstration of the Factor of Safety of the slopes and is not applicable to the structures. Pursuant to Construction Materials Rule 6.4.19, please provide a notarized structure agreement for each of the listed structures. Also please provide documentation of delivery of the Structure Agreement, so that in the event the agreement cannot be obtained, and engineering evaluation of each structure can be performed in accordance with Construction Materials Rule 6.4.19(b). In the instance of the buried pipeline owned by San Miguel County, please see Rule 6.4.19(c) for requirements pertaining to buried utilities.*

These structure agreements have been sent. Certified mailings notices will be provided to CDRMS as soon as available. To facilitate CDRMS review, United requests an extension of the decision date to September 22, 2022.

Regards,



Ben Langenfeld, P.E.
Lewicki & Associates, PLLC
benl@lewicki.biz
(720) 842-531, ex. 1

Attachments

Permit text revised pages.

Map C-1

Map C-2

Map C-2A

Map F-1

2

1

MIN. 2.0'

↓

↑

Drainage Basin Labels

Basin

46.278.8

Area

1

Composite Curve Number

Basin Destination

1

Drainage Basin 1

Site Condition	Area (acres)	Curve Number	100-YR 24-HR Runoff (ac-ft)	Sump Capacity (ac-ft)*
Base	25.5	79	2.4	N/A
Mine	25.5	89	3.9	51.0
Rec.	25.5	79	2.4	N/A

* 2-ft of detention depth behind stormwater berm as a minimum

C-2 Mining Extents

Skelton Pit

DRMS Permit Number: M-1988-037

United Companies

Mine Entry Location:

Latitude: 38.1544

Longitude: -108.2523

State: CO

County: Montrose

Nearest Town: Norwood

Section: 13

Township: 45N

Range: 13W

PM: 10

Major Watershed:

San Miguel River

MSHA ID: ##

Map Scale: 1" = 100'

0

100

200

↑

Map Georeferencing Information:

Datum: NAD83

Projection: CO SOUTH

Survey Source: Drone Flight

Drawn by: SC

Date: 03/01/22

Imagery Source: Google

Checked by: BEL

Date: 03/15/22

Survey Date: 2020

Approved by: BEL

Date: 03/15/22

Imagery Date: 06/14/14

File Name: Norwood Pit 220222

L

Lewicki & Associates

3375 West Powers Circle

Littletton, CO USA 80123

(303) 346-5196

info@lewicki.biz

LEGEND

BOUNDARIES

County or equivalent

BUILDINGS AND RELATED STRUCTURES

Building

Fence

BASELINE CONTOURS

Index

Approximate of indefinite

Intermediate

Approximate of indefinite

Supplementary

LAND SURVEYS

Public Land Survey System

Range or Township line

Range or Township labels

Section line

Section numbers

Mining claim or property boundary

Mining claim or property monument

BASELINE MINES AND CAVES

Gravel, sand, clay, or borrow pit

ROADS AND RELATED FEATURES

Light duty road, gravel

Unimproved road

RIVERS, LAKES, SHORELINES, AND CANALS

Intermittent stream/ditch

Perennial lake/pond

Waterwell

Drainage Basin

VEGETATION

Woodland

WETLANDS (USFWS National Wetland Inventory)

Freshwater Emergent

MINING FEATURES

DRMS Permit Boundary

Fixed Structures

Mobile Structures

Mining Phases

Berm/windrow

POST-MINING CONTOURS

Index

Approximate of indefinite

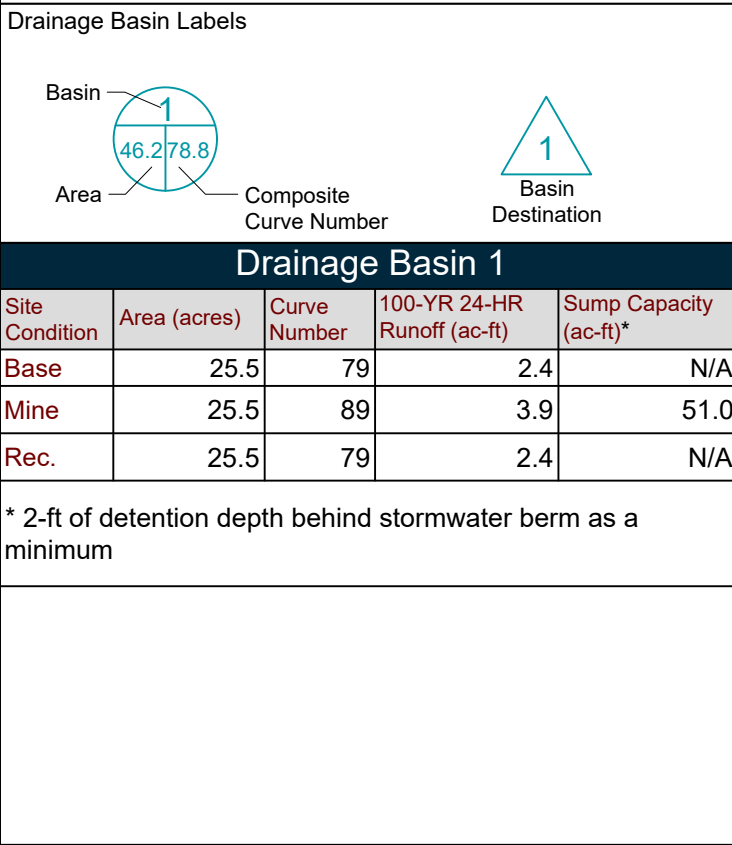
Intermediate

Approximate of indefinite

Supplementary



C-2A Mining Snapshot		United Counties
Skelton Pit		
DRMS Permit Number: M-1988-037		
Main Entry Location:	Latitude: 38.1544	Longitude: -108.2503
State: CO	County: Montrose	Nearest Town: Norwood
Section: 13	Township: 43N	Range: 13W PM. 10
Major Watershed:	San Miguel River	MSHA ID: ###
Map Scale: 1" = 100'		
Map Georeferencing Information:		
Date: NAD83	Projection: CO SOUTH	
Survey Source: Drone Flight		
Imagery Source: Google	Drawn by: BC	Date: 03/01/22
Survey Date: 2020	Checked by: BEL	Date: 03/15/22
Imagery Date: 06/14/14	Approved by: BEL	Date: 03/15/22
File Name: Norwood Pit 22022		
3575 West Powers Circle Littleton, CO USA 80123		
(303)-346-5196		info@lewicki.biz



Drainage Basin 1				
Site Condition	Area (acres)	Curve Number	100-YR 24-HR Runoff (ac-ft)	Sump Capacity (ac-ft)*
Base	25.5	79	2.4	N/A
Mine	25.5	89	3.9	51.0
Rec.	25.5	79	2.4	N/A

* 2-ft of detention depth behind stormwater berm as a minimum



LEGEND

BOUNDARIES

- County or equivalent

BUILDINGS AND RELATED STRUCTURES

- Building
- Fence

BASELINE CONTOURS

- Index
- Approximate of indefinite
- Intermediate
- Approximate of indefinite
- Supplementary

LAND SURVEYS

- Public Land Survey System
- Range or Township line
- Range or Township labels
- Section line
- Section numbers
- Mining claim or property monument
- Mining claim or property monument

BASELINE MINES AND CAVES

- Gravel, sand, clay, or borrow pit

RANGES AND RELATED FEATURES

- Light duty road, gravel
- Unimproved road

RIVERS, LAKES, SHORELINES, AND CANALS

- Intermittent stream/ditch
- Perennial lake/pond
- Waterwell
- Drainage Basin

VEGETATION

- Woodland

WETLANDS (USFWS National Wetland Inventory)

- Freshwater Emergent

MINING FEATURES

- DRMS Permit Boundary
- Fixed Structures
- Mobile Structures
- Mining Phases
- Berm/window

POST-RECLAMATION CONTOURS

- Index
- Approximate of indefinite
- Intermediate
- Approximate of indefinite
- Supplementary



F-1 Reclamation Plan

Skelton Pit
 DRMS Permit Number: M-1988-037 United Companies

Mine Entry Location:	Latitude: 38.1544	Longitude: -108.2533
State: CO	County: Montrose	Nearest Town: Norwood
Section: 13	Township: 45N	Range: 13W PM: 10
Major Watershed:	San Miguel River	MSHA ID: ###

Map Georeferencing Information:		Datum: NAD83	Projection: CO SOUTH
Survey Source: Drone Flight	Drawn by: SC	Date: 03/01/22	
Imagery Source: Google	Checked by: BEL	Date: 03/15/22	
Survey Date: 2020	Approved by: BEL	Date: 03/15/22	
Imagery Date: 06/14/14			

File Name: Norwood Pit 220222



Lewicki & Associates

3375 West Powers Circle
Littleton, CO, USA 80123

📞 (303)-346-5196

info@lewicki.bi

Introduction

The Skelton Pit is located 1.75 to the northeast of Norwood, CO in San Miguel County at an elevation of 7000 ft. The operation will consist of one mining area with access from the old United/Norwood Pit to the north. Construction materials sand and gravel mining will occur on site. Processing will be completed in the United/Norwood Pit to the north of the mining area.

The total permit area is 25 acres.

EXHIBIT E

RECLAMATION PLAN

1. General Reclamation Plan

The total disturbed area to be reclaimed under this permit is 25 acres. Reclamation plans can be viewed on Map F-1. The post-mining land use will be rangeland. Pre mine land use has been rangeland. The site is zoned as Wrights Mesa Rural Agricultural land, and therefore the post mine land use fits in with local land use plans. No state land plans are known for the site. All slopes will be reclaimed to 3H:1V or shallower. As described in the mining plan, reclamation will occur concurrently with mining.

Topsoil and overburden stockpiled prior to mining will be used to reclaim mined out areas. Six to 14 inches of topsoil will be replaced on all graded areas for an average depth of nine inches. Slopes will be mined to the final reclaimed condition. Concurrent mining will minimize the acreage that is unreclaimed which will make the worst-case reclamation smaller and thus, the bond will be smaller.

2. Reclamation Timetable

The time for reclamation is shown below – Table E-2. Exhibit L: Reclamation Costs describes the worst case bond scenario.

Table E-2 Reclamation Timetable

Activity	Time
Initial stripping to develop first 13 acres	Year 1
Mining first half	Years 1-13
Mining remaining deposit, reclamation of first half	Years 13-25
Final reclamation of site	Years 25-26

5. Post-Reclamation Site Drainage

Following reclamation of the site, drainage directions will be mostly east to west. The site is predominantly flat. This will be the reverse of pre mine drainage direction but not overall grade. See the drainage directions shown on Map F-1. No stormwater control structures will be kept onsite following reclamation. See Exhibit G for water discussion, including stormwater/surface water controls.

6. Weed Control

The operator will survey the site for county and state listed noxious weeds every April and October. Any weed infestations that are identified will be sprayed within an appropriate herbicide within 120 days of identification. Infestations found during topsoil stripping will be buried in the reclamation topsoiling process. If weed infestations persist following spraying or burial, San Miguel County Weed and Pest Department and the local Natural Resource Conservation Service office will be consulted for additional steps to be taken.

7. Revegetation Success Criteria

These areas will be deemed adequate when vegetation has been established in order to control erosion and noxious weeds are not present in any significant amounts and all of the conditions of Rule 3.1.10 have been met.

2.1. Sump Capacity

Hydrology Report			
Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc.		Monday, Apr 5 2021	
Skeleton Pit - Mining Conditions			
Hydrograph type	= SCS	Peak discharge (cfs)	= 59.17
Storm frequency (yrs)	= 100	Time interval (min)	= 1
Drainage area (ac)	= 25.500	Curve number (CN)	= 89
Basin Slope (%)	= 2.00	Hydraulic length (ft)	= 1000
Tc method	= Lag	Time of conc. (min)	= 16
Total precip. (in)	= 2.90	Storm Distribution	= Type II
Storm duration (hrs)	= 24	Shape factor	= 484
Hydrograph Volume = 169,606 (cuft); 3.894 (acft)			

The area of the pit that drains to the west sump is 25.5 acres. With a two foot stormwater berm, there is a minimum of 51 acre-ft of storage. This more than sufficient to contain the entire 3.9 acre-ft of runoff that drains to this area. The table below compares the drainage basin stormwater conditions before, during, and after mining.

Drainage Basin 1				
Site Condition	Area (acres)	Curve Number	100-YR 24-HR Runoff (ac-ft)	Sump Capacity (ac-ft)*
Base	25.5	79	2.4	N/A
Mine	25.5	89	3.9	51.0
Rec.	25.5	79	2.4	N/A
* 2-ft of detention depth behind stormwater berm as a minimum				