

October 26, 2023

Colorado Division of Reclamation, Mining, and Safety 1313 Sherman St, Rm 215 Denver, CO 80203

Delivered Via Email RE: Anderson Pit, File No. M-2005-021, Technical Revision No. 2 (TR-02) Application, Preliminary Adequacy Review

Robert Zuber,

Please accept this response on behalf of United Companies for the preliminary adequacy review letter dated September 29, 2023. The outstanding items are addressed below.

1. Irrigation ditches that pass through the site and those within 200 feet of the affected area must be shown on Map C-2 along with the owner's name (per Rule 6.4.3).

Please see the revised Map C-2 with the ditches labelled.

2. Structure agreements must be obtained for irrigation ditches within 200 feet of the affected area, or (if the agreements cannot be obtained) an engineering analysis must show that the structures will not be harmed by the mining operations (per Rule 6.4.19). Please provide a) these agreements or proof that an effort was made to obtain agreements and an engineering analysis.

Structure agreements have already been obtained in the original permit. The Graff and Fredlund Ditches to the southwest of the Anderson Pit are owned by John Anderson, while the McGrath Ditch previously owned by Marlyn McGrath is now owned by Oldcastle Southwest Group Inc. The John Anderson structure agreement is provided with this letter.

3. Exhibits D and E must state if the settling ponds are designated as permanent or if they will be reclaimed. Also, please provide the approximate depths of these ponds.

Please refer to the revised Exhibit D and E text stating that the settling ponds are not permanent.

4. Per Rule 6.4.13, Oldcastle SW Group, Inc. must obtain a well permit for the operation from the State Engineer's Office. Please submit this to the Division. If this has already been obtained, please provide documentation.

A well permit has already been obtained for the groundwater exposure at the Anderson Pit. It is provided with this letter.



Please feel free to contact me with any questions.

Regards,

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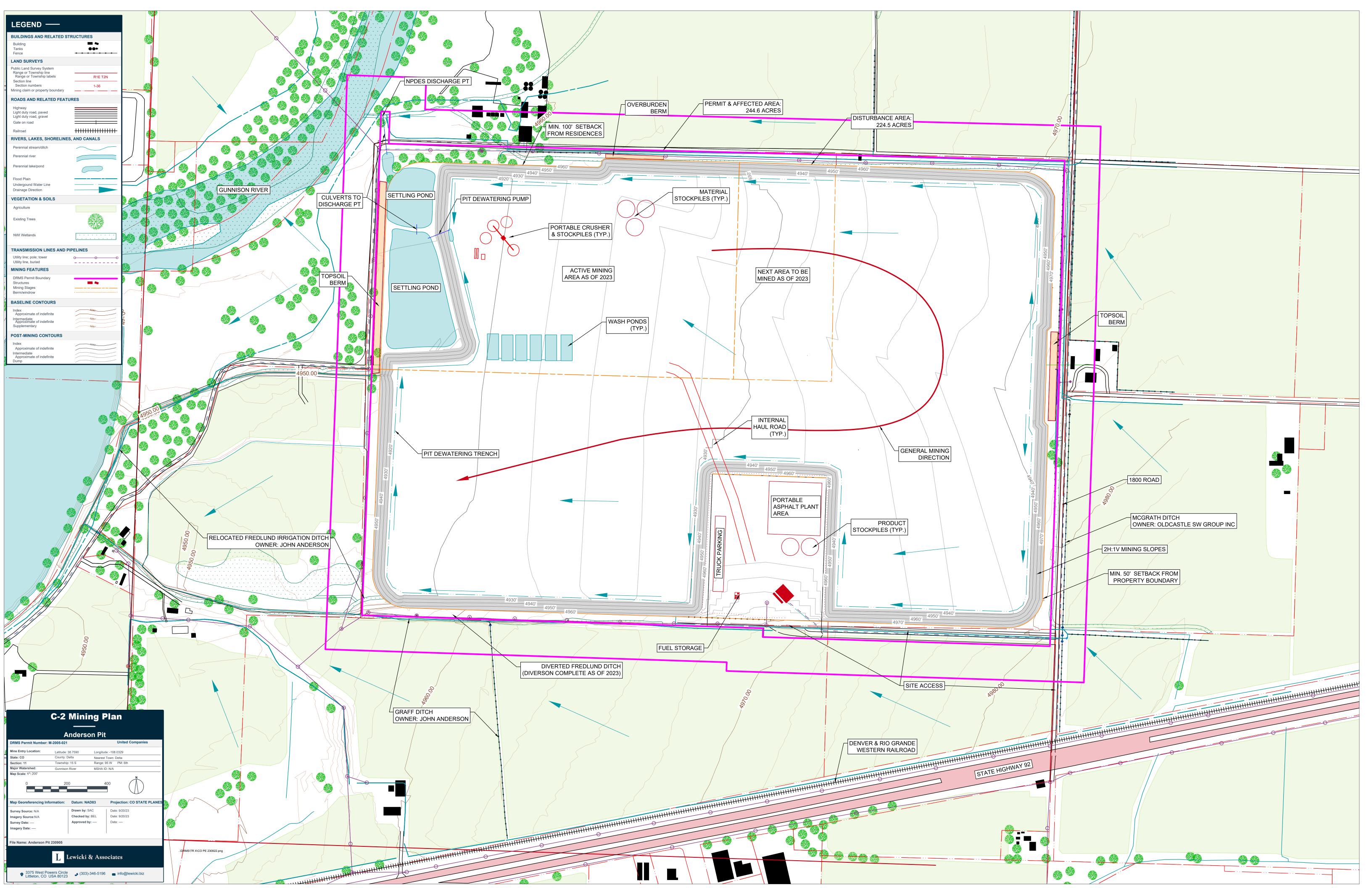
Sydney Connor Lewicki & Associates, PLLC (719) 323-9867 sydney@lewicki.biz



#### **Attachments**

- Exhibit C •
- Exhibit D •
- Exhibit E •
- John Anderson Structure Agreement •
- Gravel Well Permit •





# Mining Plan

# 1. General Mining Plan

The property boundary has been surveyed on site and the permit area will be surveyed prior to any site disturbance. Map C-2 shows the mining plan.

The gravel zone is approximately 40 feet thick in an alluvial deposit. It is overlain by 2 inches of topsoil and overburden ranging from 4 to 15 feet thick. In general, the area will be mined by first excavating soil/overburden with front end loaders, dozers, or other appropriate earth moving equipment. This material will be stored for use in reclamation, to backfill slopes, and to build the peninsulas and potential island. The topsoil and overburden will be stockpiled separately on the site. Any stockpiles to be in place longer than 90 days will be seeded and vegetated to prevent erosion. The reclamation plan depicting how these materials will be used is shown on Map F-1. Due to the abundance of overburden at the Anderson property, it is feasible to build the peninsulas and island with this excess material. It should be noted that the peninsula configuration depicted on Map F-1 is approximate and may vary when executed. Exhibit E addresses more on reclamation and the construction of these peninsulas.

Resource extraction activities are expected to occur for 3 to 5 months per typical year. However, processing of materials will occur year-round. Processing activities include crushing, screening, washing, and producing concrete and asphalt. Mining will proceed roughly from north to south, as the order shown on Map C-2. The order of mining and size of new mining areas may vary from what is depicted.

Mining will occur to the limits shown on Map C-2 with appropriate setbacks from structures and easements. Disturbance boundaries will be staked prior to mining in new areas. The total disturbance will be 224.5 acres. Mining will proceed to 2 feet above the bedrock, and will have an approximate active slope of 0.5H:1V to near vertical to maximize gravel recovery. Highwall mining at this slope will progress to the mid-slope point of the final mining slopes shown on Map C-2. This will allow for the highwall to be knocked down via dozer to a 2H:1V slope. The highwall will then be backfilled with excess overburden to the reclaimed 3H:1V slopes, and peninsulas will be constructed. Slope details are shown on Map C-3.

The maximum permitted tonnage to be sold from the Anderson Pit is 378,750 tons. However, typical annual production is estimated to be around 252,500 tons. The raw aggregates will be sold for use as construction materials such as concrete, asphalt, road base, etc. The anticipated production breakdown is shown below:

Product	Tons Sold	% Reject Rate	Tons Mined
Road Base	200,000	0%	200,000
Concrete	37,500	10%	41,667



Asphalt	15,000	40%	25,000
Total	252,500	5%	266,667

A temporary sediment pond will be present in the northwest corner of the permit area to use for dewatering. This is shown in Map C-2, and has already been constructed as of September 2023. The sediment pond will be used for pit dewatering purposes as mining will take place below the water table. Water from the pit bottom will be pumped to the sediment pond for sediment settling. The water will either infiltrate or evaporate prior to release after 72 hours to the permitted discharge point. This pond will be removed during reclamation. The discharge point diverts water through a 20" culvert under the county road to a small ditch. The pit dewatering system is shown on Map C-2 and has already been constructed as of September 2023. More information on hydrology is located in the existing permit's Exhibit G, and should be unchanged from this revision. The active pit will serve as the sediment pond in the case of a large storm event.

The site is accessed by an easement from 1800 Road. This road will be retained after reclamation for the easement owner, Teddy Graff. Therefore, this road does not need to be included in the permit area. Documentation of this agreement has already been submitted to the Division in the existing permit. The access is shown on Map C-2.

No toxic or acid-producing materials will be encountered by mining. If any are encountered, it will be covered with overburden and/or topsoil, and the mining plan will be adjusted to avoid these materials.

# 2. Mining Timetable

Mining operations at the Anderson Pit are anticipated to take 36 years since the start of mining in May 2005. As of 2023, there is an estimated 18 year mine life remaining. This may vary based on the rate of mining which is dependent on demand for the aggregate products. The permitted production level is 378,750, however, actual production levels will tend to be around 252,500 tons per year.

Table D-1 - Mining Timetable shows the mining sequence and the amount of time for each step.

Description	Time Required
Initial stripping of new mining areas.	1 month (repeated throughout the mine life as new mining areas are opened)
Mine and reclaim pit according to approved plans. Reclamation occurs as mining has reached its maximum extents in an area.	18 years
Total	18 years

### Table D-1 - Mining Timetable



### 2.1. Equipment Mine Facilities and Operation

The Anderson Pit will contain the following facilities and equipment. Approximate quantities of equipment are provided but are subject to change as needed to complete mining and reclamation.

### Facilities:

- Portable asphalt plant 14,000 gallon diesel tank
- Concrete batch plant
- Truck scales
- Mine office (portable)
- Portable crusher 8,000 gallon diesel tank
- Portable wash plant 3,000 gallon diesel tank
- Fuel farm various diesel tanks
- Portable QC lab
- Truck shop for repairs and maintenance

### Equipment:

- 2-3 Front end loaders
- Bulldozer
- Motor grader
- Water truck
- 2-3 Off road haul trucks
- 2-3 On road haul trucks

Only a loader and scale will be located on site full time, as most of the year the pit will not need to be running at full production. Equipment needed to produce material during the construction season will all be portable, and only present for the time needed to satisfy demands at the time. United will provide portable toilets and bottled water to employees on site during operations.

### 2.2. Lighting

No night mining will take place at the Anderson Pit. However, portable lighting may be used for emergency equipment repairs. All lights will be downcast.

### 2.3. Blasting

No blasting will take place at the Anderson Pit.

# 3. Topsoil and Overburden Handling

Topsoil and overburden at the site are estimated to be 2 inches and 4-15 feet thick respectively. All topsoil and overburden will be stripped prior to mining and stored in various stockpiles, berms, or used for reclamation. These materials will be stored separately. The berms and typical stockpiles are shown on Map C-2. All stockpiles will be at a slope no greater than 2H:1V. Any long-term



stockpiles will be vegetated to prevent erosion. There is more than enough overburden and topsoil to meet reclamation needs. In areas where mining is complete, reclamation work on creating the peninsulas will be undertaken using the stored overburden.

# 4. Water Handling

An existing ditch that used to run through the property has been rerouted in accordance with previous permits. Water will be used in processing and dust control. Water for these consumptive uses is procured through very senior water rights from the Bona Fide Ditch. These rights allow for 263 acre-feet of water per month at 65 cfs. This amount of water is more than adequate for the consumptive uses in processing and dust control, as well as for augmentation water for evaporative losses from the pit. Water handling in general is unchanged from this revision.

# 5. Delta County Impacts and Environmental Impacts

The Delta County land use permit has been approved by the Delta County Board of County Commissioners. This permit addresses the impacts the operation will have on the local citizenry.



# **Reclamation Plan**

# 1. General Reclamation Plan

The total disturbed area to be reclaimed under this permit is 224.5 acres. The post-mining land use for the entire permit area will be wetlands, a groundwater pond, residential on the peninsulas, and dry rangeland on the flat areas around the perimeter of the lake between residential areas. Map F-1 shows the post-mining topography and identifies the various areas of reclamation.

Reclamation will occur concurrently with mining. Topsoil and overburden from the current mining phase will be used to reclaim any areas where mining has been completed. It will also be used to create the peninsulas as shown on Map F-1. Topsoil will be replaced on all graded areas except those that are greater than 10 feet below the anticipated groundwater pond water level. Concurrent reclamation will reduce the overall disturbance and reduce the transportation and rehandling of topsoil and overburden for storage or reclamation.

Reclamation will consist of backfilling and grading the mining slopes from a 2H:1V to 3H:1V slope using overburden as backfill material. The slopes will be compacted to prevent erosion and for stabilization purposes. No more than 1,000 feet of active mining highwall will exist at any time without being regraded to reclamation slopes. Peninsulas will also be constructed in a manner similar to shown on Map F-1 using excess overburden. All disturbed areas will be retopsoiled with 2 inches of topsoil, ripped, mulched, and seeded for revegetation. All berms and stockpiles will be flattened and their materials dispersed throughout the site. All structures will be removed from the site, all being portable and not requiring demolition. The sediment pond will be filled, graded, and revegetated.

The peninsulas shown on Map F-1 depict what the typical peninsula configuration would be for reclamation. The actual configuration of these peninsulas may vary slightly. In order to meet the standards for these peninsulas to be used as residential lots, the fill material will be documented and certified to a compaction of 95%. This will ensure that no settling occurs in the filled material upon completion.

Map F-1 shows the final contours and reclamation planned for the site. The access road will be left intact for the landowners' use, and will not require reclamation.

Table E-1 shows the volumes needed to reclaim as well as the estimated volumes of topsoil and overburden that will be removed prior to mining.

<u>Phase</u>	<u>Topsoil</u>	<u>Overburden</u>	<u>Topsoil</u>	Overburden Backfill
	Stripped (CY)	Stripped (CY)	Required (CY)	Required (CY)
Total Disturbance – 224.5	60,370	3,440,800	30,720	374,210

#### Table E-1 – Reclamation Volumes

\* Backfill requirements calculated as minimum amount to fill slopes from 2H:1V to 3H:1V. Excess will be used to create peninsulas.



# 2. Topsoil Replacement

Topsoil will be replaced in a single 2-inch lift across all disturbed areas at the Anderson Pit. It will be directly placed via loaders and haul trucks. This will follow the regrading and backfilling of slopes and will be part of the concurrent reclamation. All areas will be disced following the topsoil replacement to aid in root penetration.

## 3. Site Access

Total

The site access will remain in place after reclamation for use by the landowner. No reclamation work is required for the access road.

## 4. Reclamation Timetable

The sequence and timing of reclamation activity can be seen in Error! Reference source not found. below. This schedule is dependent on the rate of mining, which will fluctuate with market demands. The operator will reclaim areas of the site as mining moves on to ensure limited disturbance. Some areas of the site have already been partially reclaimed.

Description	Time Required
Develop and mine remaining mining areas, reclaiming concurrently.	18 years
Backfill, topsoil, and revegetate remainder of the site that is unreclaimed	1 year
Vegetation monitoring	2 years

#### Table E-1 – Reclamation Timetable



21 years

## 5. Revegetation Plan

For both the dryland and wetland areas, the soil will be disced to loosen the soil. Due to the mild grade, seed can be drilled into both regions. The drylands areas will be seeded with the NRCS recommended seed mix. Certified weed free mulch will be crimped into the surface at 2000 lbs per acre. The wetlands will be seeded with a specially designed mix. Fertilizer may be added as determined by a soil test at the time of seeding. It should be noted that the flat bench areas seeded with Dryland Seed Mix will be utilized as residential sites and not dry rangeland.

The seed mixes are as follows.

### 5.1. Dryland Seed Mix

<u>Species</u>	Pounds of pure live seed per acre (drilled)
Four Wind Saltbush	0.25
Rabbitbrush	0.25
Skunkbush Sumac	0.25
Yellow Sweetclover	1.5
Fairway Wheatgrass	1.5
Thickspike Wheatgrass	3.0
Streambank Wheatgrass	3.0
Total	9.75

### 5.2. Wetland Seed Mix

<u>Species</u>	Pounds of pure live seed per acre (drilled)
Slender Wheatgrass	3.0
Basin Wildrye	1.5
Inland Saltgrass	1.0
Alkali Sacaton	1.0
Timothy	1.0
Redtop Grass	1.0
Carex Sedge	1.0
Common Reedgrass	0.5
Canadian Reedgrass	0.5
Total	10.5

Broadcast seeding will be done at double the drill rate.



# 6. Post-Reclamation Site Drainage

Map C-2 and F-1 show drainage arrows which indicate the direction of surface water drainage throughout the site during and after mining. In general, the site will drain internally to the groundwater pond.

# 7. Revegetation Success Criteria

Revegetation will be deemed adequate when erosion is controlled, the vegetation cover matches neighboring rangeland areas, and when it is considered satisfactory according to Division standards. This will be monitored in the two years following the completion of reclamation.

# 8. Weed Control

### This weed control plan is unchanged from the existing DRMS permit:

United Companies will take measures to ensure that the land affected by the mining operation is free of weed infestations. Currently there are several problematic weeds which are present within the general area where the permit will apply identified by Delta County Weed Control. The two species are Russian knapweed and whitetop. Any infestations of these weeds will be removed prior to mining and will be monitored after reclamation has occurred.

During all phases of the mining operation the permit area will be monitored closely every year which the permit is active to determine if there are any additional weeds invading the area. Weed control will again be initiated if the problem becomes serious. The Division will be consulted regarding any additional weed infestation area and any control measures prior to their initiation. If infestations of similar weeds as are present now is experienced the current weed control plan will continue to be used If any new species of weeds are found Delta County Weed Control. Authority and the Division will be consulted in order to formulate the best plan for the new Infestation. The plan does not contemplate total weed removal on the property. Past experience shows that some initial weed cover in the first year following topsoiling is beneficial to the reclamation effort. Weeds tend to provide shade for new grasses are a means of holding snow on the seedbed longer and protect it from wind and water erosion until the planted species have taken hold.

# 9. Monitoring Reclamation Success

Monitoring reclamation on an ongoing basis will allow minor revisions to assure efficient and successful reclamation. The operator plans to use the local NRCS office to assist in determining the ability of the reclaimed land to control erosion. If minor changes or modifications are needed to the seeding and reclamation plan, revision plans will be submitted to the Division as required. It is hoped that the Division will provide assistance in evaluating the success of ongoing reclamation process. All areas disturbed and reclaimed and any other important items regarding reclamation will be submitted in the annual reports to the Division. Delta County and the Division of Parks and Wildlife will also be consulted on the progress of the reclamation.



# **Reclamation Plan Map**

Exhibit F

Map F-1 Reclamation Plan



# **Reclamation Costs**

# Exhibit L

Reclamation will be completed concurrently with the progression of mining. No more than 1000 feet of active highwall at a near vertical slope will exist at a time. These active faces will be knocked down to a 2H:1V slope as soon as feasible after mining has reached its final extents. Once the pit nears completion, there will be no more than 1000 feet of 2H:1V mining slopes. The remaining areas where mining is complete will be reclaimed: backfill to 3H:1V, topsoil, and seed. Therefore, the worst-case reclamation scenario will be once the full pit is mined, where 1000 feet of 2H:1V mining slopes with no reclamation work exist.

Other reclamation work will include pit dewatering to reclaim the remaining slopes, flattening berms and stockpiles, filling in the sump, and topsoiling and seeding all disturbances outside of the pit. All the equipment will be removed from the site (all are portable). Vegetation monitoring will then occur for 2 years after all reclamation work is complete.

Topsoil and overburden will be directly placed via trucks and loaders. Berms will be flattened and ponds will be filled using dozers. Components, areas, and volumes that make up the worst-case reclamation scenario in each phase are described below:

Anderson Pit Reclamation - 224.5 acres of disturbance

- 1. Backfill and grade 1000 feet of highwall (approx. 38 ft tall) to the final contours
  - a. 374,210 CY of backfill directly placed via loader and haul truck from stockpiled overburden
  - b. Dewater pit w/ 12' groundwater
- 2. Place topsoil across all areas that are not partially reclaimed (All areas outside of the pit including peninsulas, and
  - Place topsoil on 114.2 acres at 2 inches deep = 30,720 CY
- 3. Remove scale, office, plants, and other facilities/equipment
- 4. Seed entire topsoiled area
  - a. 114.2 acres total to be seeded, assume 25% seed failure (applied to area in calculating estimated costs)
- 5. Mulch all seeded areas



Activity Description	Quantity		Unit Cost (\$)	Cost (\$)
Backfill and grade 1000' of highwall (38 ft. tall)	26,740	CY	\$1.50	\$40,110
Pit dewatering of approx. 133.9 acre lake @ 12 feet deep	1610 Acre-ft		\$105.00	\$169,050
Remove facilities	1		\$1,000.00	\$1,000
Topsoil all disturbed areas to be revegetated. (114.2 acres @ 2")	30,720	CY	\$1.50	\$46,080
Discing all topsoiled areas.	114.2	acres	\$105.00	\$11,990
Drill seed all topsoiled areas	114.2	acres	\$476.00	\$54,360
Mulch all seeded areas	142.75	acres	\$858.00	\$122,480
Totals				\$445,070.00
DRMS Costs (28% x direct costs)				\$124,620
Total Bond Amount				\$569,690

### Table L-1 – Reclamation Cost Estimate Phase 1



#### -CERTIFICATION-

The undersigned, Brent Kerr, Resource Manager of Oldcastle SW Group, Inc. dba United Companies of Mesa County, does hereby certify that John Anderson will be compensated for any costs incurred resulting from damage to any man-made structures within 200 feet of the affected land described within Exhibit A, of the Construction Materials Application, as a result of our mining activities.

Oldcastle SW Group, Inc. dba United Companies of Mesa County

Brent Kerr, Resource Manager

STATE OF COLORADO )ss COUNTY OF MESA )



The fore going was acknowledged before me this  $25^{+5}$  day of April 2005 by Brent Kerr, as Resource Manager of Oldcastle SW Group, Inc. dba United Companies of Mesa County.

My commission expires: 3.29-07

Notary Public



ACCEPTED BY: BY: U.R. alum, Title: Onen Date: 4/26/05 Prim Name: John R. Andersons

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3)	of Mesa Co with the terr Recharge P		ed by the Division 4 ect to administration	Water Court in cas including orders t	se no. 09CW0014. If o cease diverting wate	this well is not operated in a er. This well is known as the	e Anderson
4)		e annual amount of ground wate er pond limited to 3 acres.	er to be appropriated	shall not exceed s	9.58 acre-feet with the	total surface area of the pr	oposed
5)	Anderson R	ground water, in addition to eva techarge Pit Well will also be us Ditch, as outlined in case no. 09	ed to lag return flow	o fire protection and s back to the Gunr	d wildlife watering. Du lison River with water	iring mining operations, the from United Companies' sh	ares in the
6)		shall mark the well (gravel pit po shall take πecessary means and				court case number(s) as app	propriate.
7)							
8)	except for c	Rule 10.1.6 of the Water Well ( ontamination considerations as	stated in the Rule.				
9)	prevent contaminants from entering the gravel pit well. Pursuant to Rule 17.1.4 of the Water Well Construction Rules, the owner shall submit, after initiation of construction, site plan and cross section drawings on 8-1/2" x 11" paper showing the extent of intended excavation, the maximum depth of the pit, and the initial static water level. The owner shall also provide the initial date of ground water exposure in the pit.						
10)		ries of the gravel pit pond shall	-		•	he same aquifer, that is not	owned
11)	Pursuant to equipment s	Policy 2000-4 of the State Board shall be installed in the gravel pi ved by the Board. $239 4/3$	t well to withdraw wa				
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