

# **Scope of Work**

## **TUF - Access Road and Site Pad**

### **Background**

Twentymile Coal, LLC (TC) is soliciting bids for the construction of a 250'x170' borehole pad and the rehabilitation of an existing access road. This pad and access road will be used for the drilling of a single thickener underflow (TUF) borehole into Twentymile Mine's old workings. Refer to the attached drawing of the access road and proposed borehole site pad labeled TR 16-86.

### **Primary Site Contact:**

Jon Bobbera  
Mine Engineer  
W: 970-870-2789  
C: 970-439-8446  
[jbobbera@peabodyenergy.com](mailto:jbobbera@peabodyenergy.com)

### **Secondary Site Contact:**

Mike Berdine  
Manager - Technical Services  
W: 970-870-2782  
C: 970-846-9686  
[mberdine@peabodyenergy.com](mailto:mberdine@peabodyenergy.com)

### **Location:**

The Mine site is located approximately 9 miles north of Oak Creek, Colorado, on Routt County Road #27. The access road and pad are adjacent to Routt County road #27 just west of TC's west mine entrance.

### **Project Timing:**

- |   |   |
|---|---|
| 1. TC to submit scope of work to Peabody Purchasing Group | 10/14/16                                      |
| 2. Forward RFP to Contractors                             | 10/17/16                                      |
| 3. Return bid to Peabody Purchasing Group                 | 10/31/16                                      |
| 4. Award project to Contractor                            | First Week of November                        |
| 5. Commence Project                                       | Early November (Pending Regulatory Approvals) |
| 6. Complete Project                                       | Mid November                                  |

A detailed construction schedule shall be submitted with the contractor's proposal that accurately defines the contractor's plan of construction and the required timing to complete each phase of

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and base course gravels lifts shall be measured to verify that the required gravel sections have been constructed.

In all areas, the access road shall be constructed with a minimum crown or super elevation of 2 percent to promote effective drainage.

2. Contractor shall be responsible for purchase and haulage of all gravel materials. Approximate quantities are provided in the bid table below and are based on 1.3 swell factors, 8 inches of pit run (compacted), and 3 inches of base course (compacted). Gravel pit location must be provided in bid. **The Pit run and road base may be loaded and hauled from the Peabody Mesa Pit using contractor equipment.**

#### Specifications – Site Pad

1. Contractor shall be responsible for preparation of the site pad and performing a balanced cut and fill of approximately 1,585yd<sup>3</sup> of material. The top of pad elevation is at approximately 6,926'. Cut and fill slopes are calculated at a slope ratio of 2:1. TC surveyors will complete an as-built survey of the pad to determine actual yardage moved in the cut and fill areas. Refer to the attached pad report below:

<b>Pad Report</b>	<b>Mon Sep 05 08:16:34 2016</b>
Top of pad elevation range:: 6924.7682 to 6927.6433	
Pad slope percent: 1.000%	
Pad slope azimuth: 174°21'36"	
Pad slope North component: -0.995%	
Pad slope East component : 0.098%	
Cut slope: 50.00% 2.00:1 26.57°	
Fill slope: 50.00% 2.00:1 26.57°	
Existing Surface: I:\Engineering\2016 Thickener Underflow Boreholes\TUF Design\	
Grid position: 11716.75,33842.62 to 12266.82,34421.82	
Grid resolution X: 50, Y: 50	
Grid cell size X: 11.00, Y: 11.58	
Balance Tolerance (C.Y.): 10.00	
Cut Swell Factor: 1.00	
Fill shrink Factor: 1.00	
 <b>Pad Earthwork Volumes</b>	
Total cut : 42,762.6 C.F., 1,583.80 C.Y.	
Total fill: 42,568.1 C.F., 1,576.60 C.Y.	
Balance Export: 194.5 C.F., 7.20 C.Y.	
Area: 48426.6 Sq.Ft., 1.112 Acres	

In this pad area, the contractor shall strip brush and topsoil off the proposed pad surface for a maximum area of 310' x 215' as shown on the attached Exhibit 49S-F2. The pad area shall be staked by TC just prior to brush and topsoil removal.

The contractor shall remove brush, topsoil and other organic materials to an average topsoil depth of approximately 12". The site pad brush and topsoil materials shall be evenly stockpiled to the north-west of the pad and diversion ditch for future reclamation use as shown on Exhibit 49S-F2. The stockpiled brush and topsoil shall be seeded with a stockpile stabilization seed mixture. Refer to the attached Table 53 for the seed mixture specifics.

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- b. The attached Twentymile Coal Safety & Health Management Plans.
  - c. Provide copies of current insurance and workers compensation certificates
  - d. The Contractor must provide a copy of their completed Safe Work Method Statement/s (SWMS).
  - e. The Contractor is required to familiarize themselves with these requirements:
    - i. All Contractors' and subcontractors' personnel must complete training on the Peabody's Cardinal Rules.
    - ii. All Contractors' personnel accessing the site must successfully complete a full site induction.
    - iii. All Contractors' and Subcontractors' personnel must provide current evidence of training complete with current competencies, including current MSHA annual training.
    - iv. Copies all pertinent records will be retained by both the contractor and the Project Safety Manager as required by legislation.
    - v. All Contractor and Sub Contractor personnel must complete TC's on-site hazard training prior to beginning of any work on the site.
3. Contractor shall be responsible for the safety on and around the construction site. Contractor shall be solely responsible to effectively secure the construction site to restrict and prohibit access to the immediate construction area for the safety of all persons that may enter the construction area. Contractor shall post signs around the construction site giving warnings of any and all dangers that may potentially exist.
4. Contractor shall comply with all applicable federal, state, and local laws, regulations, codes, and ordinances. Refer to the general Peabody Safety guidelines below.
5. The Contractor is responsible for Environmental Compliance of all demolished and disposed material.
6. Contractor shall provide MSDS information for all products brought onto the job site.
7. Oils and lubricants may not be disposed of on the site pad and must be handled properly for disposal.
8. Contractor shall be responsible for the disposal of all unused or waste products brought onto the site. Contractor may not use TC sites for disposal. A local landfill is located a few miles northwest of the mine's property in Milner.
9. Contractor shall secure all required permits for hauling or traveling across any roads as required. The costs of any permits shall be included in the Contractor's proposal.
10. Contractor shall be responsible for all management of construction materials; this includes but is not limited to receiving materials on site, unloading materials at the site and transportation of materials around the site.

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Please refer to the attached Peabody safety standards.

### **Bid Form Access Road & Pad:**

	Unit	# Units	\$/Unit	Total \$
Purchase and placement of 400' of wattles on downhill sides of the access road	FEET	400		
Purchase and placement of 460' of wattles on the downhill side of both the drill pad, perimeter diversion ditch and topsoil piles	FEET	460		
Strip brush and topsoil and place stockpiles	YD3	2470		
Excavate & construct ~750' long pad perimeter diversion ditch, V design, 2' depth, 10' top width, 3:1 side slopes	FEET	750		
Purchase & placement of 2 each, 20' long x 10' wide x 3' deep rock checks, including 8-12" fractured rock, 25 YD3 of rock each.	YD3	50		
Purchase and placement of compacted sub-base pit run for a 340' x 20' wide road x 8" depth section x 1.3 swell factor	YD3	220		
Purchase and placement of compacted road base course materials for a 340' x 20' wide road x 3" section x 1.3 swell factor	YD3	82		
Balanced Cut (~1584 yd <sup>3</sup> ) and Fill (~1576 yd <sup>3</sup> ) excavation for drill pad	YD3	1585		



**Twentymile Coal, LLC**

29515 Routt County Road 27  
Oak Creek, CO 80467  
970.879.3800

Mr. Chad Phillips, Director  
Routt County Regional Planning Department  
PO Box 773749  
Steamboat Springs, Colorado 80477  
970.879.2704

October 11, 2016

**Re: Twentymile Coal, LLC, Administrative Approval Request for SWMD Thickener Underflow Borehole and Pipeline**

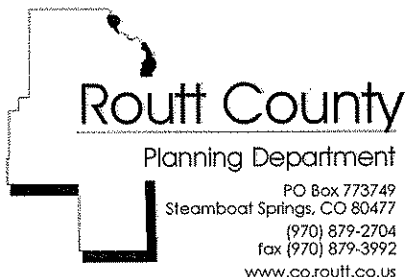
Dear Mr. Phillips;

With this submittal, Twentymile Coal, LLC (TC) is requesting County approval, under the established Administrative Approval process, for access road construction, construction of a drill-pad (approximately 250' x 170'), drilling and casing of a borehole, installation of a pipeline, use of the pipeline and borehole to transfer slurried coal-fines from the surface to sealed underground mine areas, and reclamation of the borehole, road, pad, and pipeline. Two alternative borehole locations have been identified in the Southwest Mining District (SWMD), although only one will be constructed. The proposed activities would occur on lands which are owned or controlled (surface and mineral) by TC. It is anticipated that road, pad, and pipeline construction and drilling would be initiated as soon as possible after receipt of permit approvals, with completion of the road, pad, and pipeline prior to the end of first quarter 2017. The SWMD Thickener Underflow Borehole installation will remain in place until they are no longer needed to support ongoing operations. Reclamation of this installation will involve plugging and sealing the borehole, regrading the pad and road, cutting the pipeline off below grade, plugging the ends, removing the manholes, backfilling and grading the pipeline ends and manholes, soil material replacement, and reseeding.

Environmental baseline studies, including cultural resource surveys and wildlife consultation with Colorado Parks and Wildlife (CPW), have been or are being completed for the proposed borehole and access road, as documented by a cultural resource survey report and wildlife consultation letter, which will be provided on receipt. The borehole site will be accessed from either RCR27 or the existing Fish Creek Borehole Road.

The proposed pad and access road locations are in relatively flat areas adjacent to RCR27, so upgradient drainage will be limited or can be readily diverted around the pad. The limited amount of drainage from upgradient areas will be intercepted and routed around the borehole pad by diversion ditches on the pad perimeter. Drainage from the borehole pad and road will be controlled by gravel surfacing on the pad and road to control runoff and sediment, and the perimeter ditches and rock-lined sumps. The borehole will extend to a depth of approximately 750 to 850 feet (depending on which location is constructed), will be drilled and subsequently cased to a maximum 12-inch diameter, with a maximum 18-inch surface casing enclosed within an 8-foot diameter CMP culvert covered manhole.

This submittal includes a completed Permit Application Form and supplemental materials detailing the proposed activities. TC would like to initiate the proposed activities as soon as possible, and therefore, requests your assistance and cooperation in completing review and approval of this application in a



## APPLICATION FORM: LAND USE & ZONING

Activity No. _____	OFFICE USE
Base Fee \$ _____	Receipt No. _____
Received By _____	Date _____
Deemed Complete By _____	Date _____

**I. PROJECT NAME** SWMD Thickener Underflow Borehole and Pipeline

### II. TYPE OF REVIEW

*This application form must be accompanied by the applicable submittal checklist.*

- |  |  |   |   |
|--|--|---|---|
| <input type="checkbox"/> Minor Use Permit                                  | <input type="checkbox"/> Administrative Permit         | <input type="checkbox"/> Site Plan Review           | <input type="checkbox"/> Conditional Use Permit (CUP) |
| <input type="checkbox"/> Sign Permit                                       | <input type="checkbox"/> Water Body Setback Permit     | <input type="checkbox"/> Pre-Application Conference | <input type="checkbox"/> Special Use Permit (SUP)     |
| <input type="checkbox"/> Special Event Permit                              | <input type="checkbox"/> Floodplain Development Permit | <input type="checkbox"/> Zoning Amendment/Rezoning  | <input type="checkbox"/> Conceptual PUD               |
| <input type="checkbox"/> Administrative Amendment to CUP/SUP/PUD/Site Plan | <input type="checkbox"/> Variance                      | <input type="checkbox"/> Final PUD                  |   |

### III. APPLICANT

Name Twentymile Coal, LLC  
Mailing Address 29515 RCR27  
City Oak Creek State Colorado Zip 80467  
Phone 970.879.3800 Email jnettleton@peabodyenergy.com

Representative / Primary Contact Jerry Nettleton—Manager Environmental Affairs  
Mailing Address Same as above  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Phone 970.870.2712 Email jnettleton@peabodyenergy.com

### IV. PROPERTY OWNER

Name Twentymile Coal, LLC (Leasee)  
Mailing Address Same as above  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Phone Same as above Email Same as above

### V. PROPERTY INFORMATION

Property Address 29515 RCR27  
General Location Approximately 23 miles SW of Steamboat Springs at the intersection of RCR27 and RCR33  
Legal Description (may be attached) See attached  
Parcel Identification No. (PIN) \_\_\_\_\_ Property Size (acres) Approximately 22,450 acres  
Current Use Mining and Rangeland Zoning Mining and Ag/Forestry  
Proposed Use Mining and Rangeland

### VI. SIGNATURES

*This application form must be signed by both the applicant and legal owner of the property. Attach additional pages if necessary.*

By signing below, the applicant acknowledges that all information contained on this application form and within accompanying submittals are true and correct and agrees to pay all required fees associated with this application. The base fee is indented to cover the estimated minimum staff hours to process the application. Any additional staff hours will be assessed at \$120 per hour. The applicant signing below is responsible for all additional hourly fees. Failure to pay fees may result in revocation of a permit/approval.

\_\_\_\_\_  
Applicant's Signature

\_\_\_\_\_  
Print/type name of applicant

By signing below, the property owner authorizes the applicant to petition Routt County for approval of the submitted application.



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**Twentymile Coal, LLC**

29515 Routt County Road 27  
Oak Creek, CO 80467  
970.879.3800

Jared Ebert  
Colorado Division of Reclamation, Mining, and Safety  
1313 Sherman Street, Room 215  
Denver, Colorado 80203  
(303) 866-3567 X8134

September 5, 2016

**RE: Twentymile Coal, LLC - Foidel Creek Mine (Permit No. C-82-056), Technical Revision (TR16-86) SWMD Thickener Underflow Borehole**

Jared:

Twentymile Coal, LLC (TC) requests CDRMS approval of a Technical Revision to our existing approved Permit for construction, operation, and reclamation of a new thickener underflow borehole, pipeline, and associated ancillary equipment and facilities in the Southwestern Mining District (SWMD). The new thickener underflow installation is needed both as backup for the current system, and to replace the existing 1MN Borehole and/or 2MN Borehole at some point in the future, if and when either of these boreholes is no longer functional.

The SWMD Thickener Underflow Borehole installation will be located near the west entrance to the main Foidel Creek Mine site. In order to provide some flexibility, TC is permitting two alternate borehole locations, although only one will be constructed and developed. Borehole location SWMD-1 is located on the west side of Routt County Road RCR27 between the west entrance and the Fish Creek Borehole road. SWMD-2 is located on the east side of RCR27, is accessed from the Fish Creek Borehole road, and the pad will be located on the west side of the road. The SWMD Thickener Underflow Borehole will extend from the surface into the sealed SWMD mine workings approximately 750 to 850 feet, depending on which location is selected.

Installation of the SWMD Thickener Underflow Borehole will involve placement of construction erosion controls (silt fence and/or straw wattles), removal and stockpiling of soil materials and the limited vegetation from the existing pad area and road margins, minor fill placement (if necessary) and grading to establish a level drill pad, placement of gravel surfacing at the access point, excavation of a temporary cuttings pit on the drill pad, and drilling and casing of the borehole. Upon completion of drilling and casing operations, the cuttings pit will be allowed to dry-out, material excavated from the pit will be replaced and graded, and the pad surface will be graveled to control erosion and sediment and provide an all-weather operating surface. The completed Thickener Underflow Borehole installation will include an access road, soil material stockpiles; a leveled pad (maximum 250' x 170'), an 18-inch cemented surface casing (60 feet deep), a 12-inch cased borehole, and a covered 8-foot diameter CMP manhole with lightning protection.

The pipeline installation will involve removal and windrowing of soil materials; trenching in most areas; placement of suitable bedding materials; placement, connection, and pressure testing of the pipeline; backfilling and compaction of suitable fill materials around and over the pipeline; backfilling and compaction of the trench; re-grading; replacement of soil materials; and re-vegetation of all

## ENVIRONMENTAL ANALYSIS REPORT

The proposed Southwest Mining District (SWMD) Thickener Underflow Borehole and Pipeline installation activities will result in minimal impact to the environmental resources of the area. The proposed activities include localized access and pad construction, drilling and casing of a borehole, installation of the associated pipeline, use of the pipeline and borehole to transfer slurried coal fines from the surface to seal underground mine areas, and reclamation of the borehole, road, pad, and pipeline when they are no longer needed to support ongoing operations.

**Geologic Hazards:** There are no known geologic hazards for the proposed borehole pad, road, and pipeline. The general topography of the proposed borehole and pipeline areas includes a low-gradient valley and sideslope areas (pipeline). The two alternative pad areas and the northern portion of the pipeline are immediately adjacent to RCR27, and the southern portion of the pipeline follows an existing pipeline corridor and road. The pad areas are located between the Fish Creek and Foidel Creek drainages, and most of the pipeline corridor falls within the Foidel Creek drainage.

**Hydrologic Hazards:** There are no anticipated hydrologic hazards for the proposed borehole pad, road, and pipeline. The borehole pad locations, road, and pipeline lie in a low-gradient valley and sideslope areas and are well above both the Foidel Creek and Fish Creek floodplains. The borehole completion activities will involve drilling through sandstone units, which may function as aquifers in the area (dependent on recharge, transmissivity, and lateral continuity). On completion of drilling, the borehole will be cased and grouted to minimize the potential for any hydraulic communication between the multiple sandstone units.

**Vegetation:** Previous vegetation investigations for the existing TC Foidel Creek Mine Permit did not identify any currently listed threatened or endangered plant species as occurring within the project area. The only rare plant species with Federal status that potentially could occur in the project area is the Ute Lady's Tresses orchid (*Spiranthes diluvialis*). The only suitable habitat for this species mapped in Routt County is in the vicinity of the Yampa River along the floodplain, which is several miles north and west of the project area. Several plants regarded as rare by the Colorado Natural Heritage Program (CNHP, <http://www.cnhp.colostate.edu>; accessed 4/10/08) have been located in the Little Snake Resource Area, though mostly at lower elevations and to the west of the project area. The only CNHP rare plant species with some potential for occurrence in the TC area are Harrington beardtongue (*Penstemon harringtonii*) and Autumn willow (*Salix serissima*). Habitat for Harrington beardtongue typically occurs at elevations between 6,800 and 9,200 feet, and while much of the area is within this elevation range, no occurrences of Harrington beardtongue have been identified in this area. Habitat for Autumn willow is defined as occurring between 7,800 and 9,300 feet. While elevations in the area approach 7,500 feet, no occurrences of Autumn willow have been identified in the project area.

**Wildlife:** The sagebrush, pastureland and mixed brush vegetation types in this area support a variety of wildlife species. Information on wildlife in the vicinity of the Twentymile area was obtained from federal and state agencies, as well as, site-specific studies for adjacent coal properties. The Bureau of Land Management (BLM) and Colorado Parks and Wildlife (CPW), in partnership with CNHP, keep information on area wildlife including big-game and game birds



**Threatened or Endangered Species:** The western yellow-billed cuckoo is a candidate for listing by USFWS under the Endangered Species Act (ESA). Habitat for this bird may occur along the Yampa River corridor and its presence is possible in the vicinity as a rare seasonal visitor or migrant passing through the area. As noted above, the bald eagle is listed as state threatened. Foraging bald eagles are commonly observed in the area in winter, when they are most numerous in the region.

Habitat for the Bonytail, Colorado pike-minnow, humpback chub and razorback sucker does not occur within the project area. Critical habitat for these fish species, which are federally-listed endangered species under the ESA, exists in the Yampa River downstream in Moffat County.

As part of the required consultation process, TC has provided the CPW with mapping and other information on the proposed borehole program for review. Appendix A presents the CPW wildlife consultation prepared for this project. It is not anticipated that the proposed borehole activities will negatively impact existing wildlife species or populations.

Given this information, TC submits that the borehole, pipeline, and reclamation activities described in this application will not jeopardize the continued existence of any threatened or endangered species listed pursuant to Section 4 of the Endangered Species Act of 1973 (16 U.S.C. 1533) or the Nongame, Endangered or Threatened Species Conservation Act (Section 33-8-101 *et seq.* C.R.S. 1973), or result in the destruction or adverse modification of critical habitat for those species.

**Soils:** Soils within the project area are formed primarily from weathered fine-grained sandstone, siltstone and shale. The dominant soils are Argiustolls, Haplocryolls, and Palecryolls associations, and are moderately-deep to deep, well-drained, and have loam to fine-sandy-loam surface textures (Soil Survey Staff, Natural Resources Conservation Service, U.S. Department of Agriculture. Web Soil Survey. *Custom Soil Resources Report for Routt Area, Colorado, Parts of Rio Blanco and Routt Counties*. <http://websoilsurvey.nrcs.usda.gov/>accessed [04/07/08]).

The only potential for erosion problems would be associated with the drill-pad and road, however given the very limited size of the pad, limited road length, their location in a low-gradient valley and sideslope area with very limited upgradient drainage, and the proposed drainage control measures, this potential is not significant. The borehole installation will remain in place until it is no longer needed to support ongoing or anticipated future mining operations, and the related drainage and sediment control measures will be maintained until the associated disturbance is reclaimed.

## RECLAMATION PLAN

The proposed access road, borehole pad, and pipeline are located in a low-gradient valley and on shallow sideslope areas, with the pipeline following an existing pipeline corridor, to minimize grading requirements. The maximum pad dimension will be 250 x 170 feet, and road disturbance will be limited to a 40 foot road corridor, with a typical road width of 25 feet. Construction will be conducted in accordance with Rule 2.02.2(2)(f) and 4.21.4(5) of the Regulations of the Mined Land Reclamation Board for Coal Mining.. Prior to earth-moving or excavations of any type, available soil materials will be salvaged and stored in an area that will be undisturbed and not subject to excessive wind or water erosion. After stripping and stockpiling the soil materials, minor grading will be completed to establish the drill pad and accommodate the drilling and support equipment. Runoff and sediment contributions from the soil material stockpile will be controlled through placement of a silt fence, a rigid silt barrier, and/or straw wattles, and a short diversion ditch discharging through a rock-lined sump.

Mud pits may be constructed within the graded pad area. The size of the required pits will be dependent on drilling depths and conditions. Materials excavated from the pits will be stockpiled on the margins of the pad area and used to backfill the pits after the drilling is completed. All drilling fluids will be contained within the mud pits, and all drilling supplies will be contained within the area of the drill pad. Any runoff and associated suspended sediment from the drill pad will be controlled and contained by the diversion ditch on the downgradient side(s) of the drill pad. On completion of drilling, the borehole will be cased and grouted, the mud pits will be allowed to dry out and will be backfilled, and the pad surface and road will be graded and surfaced with gravel. Construction drainage controls (wattles, silt fence, or similar) will be used during pipeline excavation and placement to control runoff and sediment, and the pipeline trench will be progressively backfilled and graded as pipeline installation proceeds. The pad, road, and pipeline, and associated drainage control measures will be maintained during active use, and all disturbance will be reclaimed when no longer needed to support ongoing or anticipated future mining operations.

**Proposed Reclamation Methods:** Under the required CDRMS Technical Revision approval, the surety-bond coverage in place with the Mined Land Reclamation Board is adequate to assure that the reclamation obligations are fulfilled. The following sections describe the specific proposed reclamation practices to be used to return areas disturbed by the borehole and pipeline activities to a stable condition and productive use.

**Borehole Plugging, Sealing, and Abandonment:** The borehole will be plugged, sealed, and abandoned. A minimum of 6 cubic yards of cement slurry will be tremied into the borehole from the bottom of the hole. This will effectively plug and seal all coal beds and potential groundwater aquifers to prevent vertical groundwater migration and hydraulic communication between aquifers.

The remaining open borehole interval will be filled with other suitable plugging material (plug gel or vendor-specific grout compounds) and/or drill cuttings to within 5 feet of the ground surface and the drillhole will be sealed with a surface plug consisting of at least 5 feet of cement. Surface casing will be cut-off at or below grade. The reclaimed borehole location will be marked with either a steel fence-post or a metal survey cap at or below ground level. The borehole location

Orchardgrass (Paiute)	0.25
Green needlegrass (Lodorm)	2.0
Canada bluegrass (Ruebens)	0.10
Sheep fescue (Covar)	0.25
Big bluegrass (Sherman)	0.25
Alfalfa (Falcata)	0.10
Rocky Mtn. penstemon (Bandera)	0.25
Palmer penstemon (Ceder)	0.10
Blue flax (Appar)	0.50
Arrowleaf balsaroot (Native)	0.50
Tailcup lupine (Native)	1.0
Yarrow (Native)	0.10
Pacific aster (Native)	0.10
Chokecherry (Native)	1.0
Serviceberry (Native)	0.50
Mountain snowberry (Native)	0.50
Antelope bitterbrush (Native)	<u>1.0</u>
Total PLS	18.5 (double for broadcast seeding)

The rangeland seed mixture has been used to seed mine disturbance areas, and lends itself to rapid and long-term surface stabilization, ease of establishment, maximum use of native species, high levels of utility for livestock and wildlife, good forage production potential, compatibility with naturally regenerating native species present in replaced topsoil and the ability to be self-sustaining. CPW has requested that TC add mountain big sagebrush (*Artemisia tridentate Ssp. vaseyana*) in the rangeland seed mixture (0.25 PLS/acre).

TC will monitor the reclaimed borehole and pipeline disturbance for noxious weeds and, if necessary, implement treatment to control any noxious weeds in accordance with CDRMS guidelines and the County Weed Management Plan.

## **MAPS**

**SWMD Thickener Underflow Borehole and Pipeline**

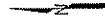
# MAP LEGEND

SYMBOL	NAME	UNIT	DATE	REVISION
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[Symbol]	1.000.00	SEC	05/05	002
[Symbol]	1.000.00	SEC	05/05	003
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1. NATIONAL ANTHROPOLOGICAL ARCHIVES, A REGISTERED PROFESSIONAL, CHARTERED IN THE STATE OF COLORADO DO HEREBY CERTIFY THAT THIS MAP IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

MAP NUMBER: 47004

DATE:



Area of Interest

SHEET 1

**Pottery**

Prepared by: COLLEGE  
Date: 05/05/05  
Scale: 1" = 100'

PODEBEL CREEK MINE

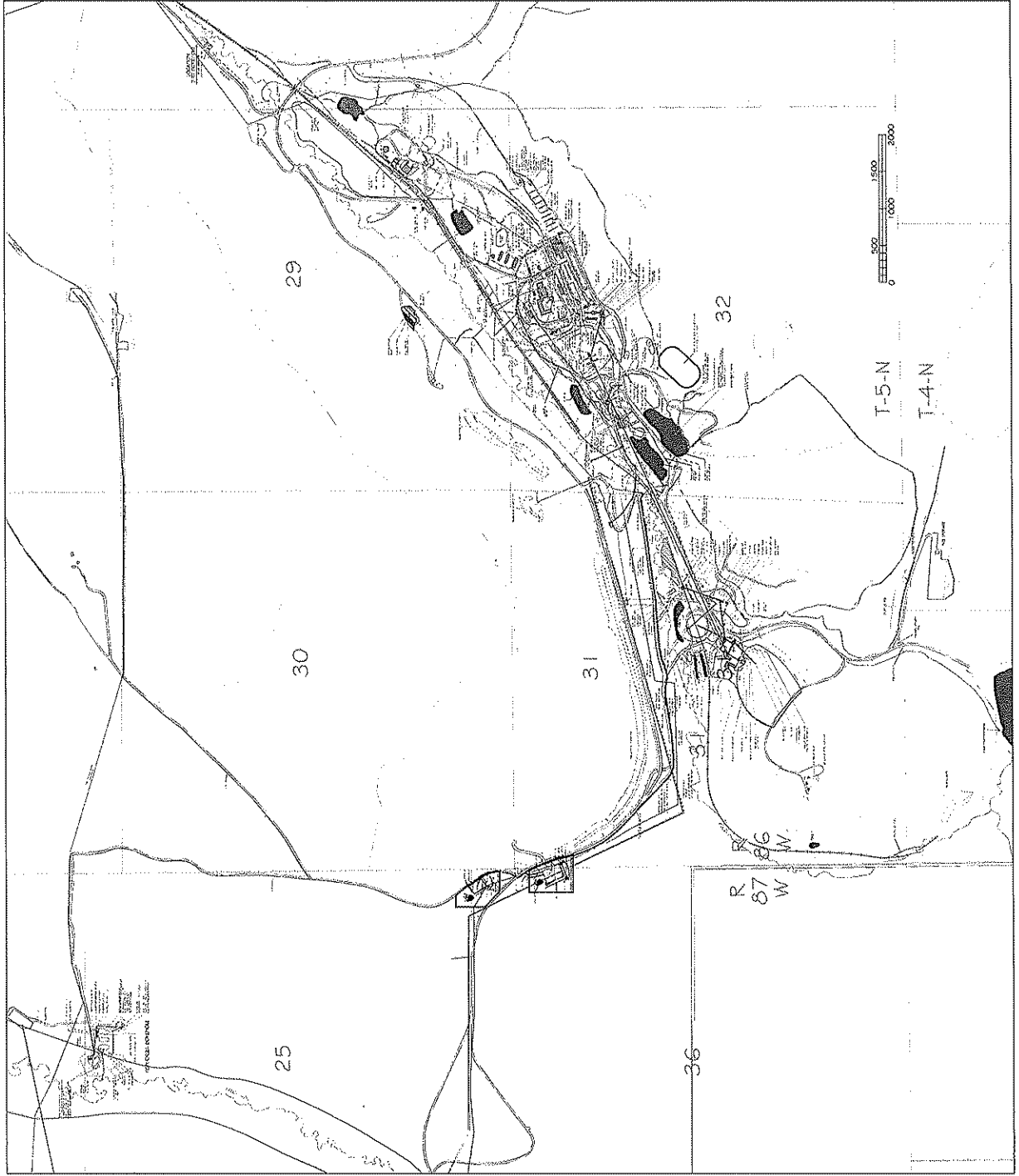
MAP 24

SURFACE FACILITIES

Scale: 1" = 100'

North Arrow

Scale: 1" = 100'



**APPENDIX A**

**COLORADO PARKS AND WILDLIFE CONSULTATION LETTER**