



ROUTT COUNTY
ROAD & BRIDGE
 P. O. Box 773598
 Steamboat Springs, CO 80477
 Phone: 970-879-0831
 Fax: 970-879-3992

Permit Application

Type of permit applied for:		
Grading and Excavating <input checked="" type="checkbox"/>	Driveway ____	Utility Installation ____
Cattle Guard Installation ____	Special Event ____	Oversize/Overweight ____
Adopt A Highway ____	Plow ____	Work in Right-of Way ____
other _____		

Property Information

Project physical address: 29994/31405 RCR 27 City: Hayden
 Parcel Number: 944222001/944241001 Section(s): 23, 25, & 26 Township: 5N 87W
 Area to be disturbed: Pad Construction=1.8 ac, Pipeline=4 ac, & Access roads = >1.0 ac

Owner/Applicant Information

Applicant/ Contractor: Twentymile Coal, LLC
 Mailing Address: 29515 RCR 27 City: Oak Creek State: CO Zip: 80467
 Phone number: 9708702718 Email: mblomquist@peabodyenergy.com
 Property Owner: Camilletti & Sons / Chance Revocable Trust
 Mailing Address: HCR 66 PO Box 69 City: Steamboat Springs State: CO Zip: 80487-9804
 Phone Number: 970-879-5260 Email:
 Contractor Name: Bower Brothers Const. Phone number: 970-326-8562

Project Description:
 Construction of two additional bore hole pads, associated pipeline, and access roads in relation to the Twentymile Coal Mine for the purposed of injecting thickener into the sealed underground workings.

Guidelines for Grading and Excavating (G &E) Permits (Accounting # 03-00-06-000-5647)

Permit Needed: Routt County adopted IBC 2009 as amended by Resolution 2012-051 to govern grading and excavating. Additionally the Federal Clean Water Act requires storm water management and erosion control for disturbances greater than 1 (one) acre. A grading and excavating permit will be needed and is issued by the Routt County Road & Bridge Department for land disturbances that include:

- ☐ Any excavation of 300 cubic yards or more of material
- ☐ Any fill of 300 cubic yards or more of material
- ☐ Any soil disturbance of one acre or more
- ☐ Any activity that occurs within the 50-foot water body setback of any water body, as defined in the Routt County zoning resolution.

For additional information see: <http://www.co.routt.co.us/DocumentCenter/View/159>

Permit is not needed if only excavation or fill is for a structure foundation for a structure permitted via a Routt County Building permit.

Permit Application shall include:

- ☐ Site Plan/design (either CAD drawings or hand drawn to scale) with erosion control measures drawn in. See R & B for complete site plan checklist.
- ☐ Storm Water Management Plan SWaMP (using the county format)

<http://www.co.routt.co.us/DocumentCenter/View/158>

- ☐ Approximate amount of Cut, Fill, and/or Surface Area moved

Additional info needed on application: If applicable, Wetland development permit, CDPHE permit.

Permit Process:

1. Submit complete G & E permit application to the County Road & Bridge Department offices at 136 6th Street, between the hours of 7:30 am and 4:30 pm. Applications must include cut/fill calculations.
2. Applicant completes Storm Water Management Plan (SWMP) and provides copy on-site.
3. R & B and Planning reviews application and inspects site. (??? Geo and fire??)
4. Revisions are made by applicant if needed.
5. R & B and Planning re-reviews and re-inspects if needed.
6. If acceptable application is approved
7. Applicant pays fee and permit issued.
8. Applicant conducts work in accordance with plans, maintains erosion control, and updates SWMP as needed.
9. R & B inspects completed work
10. If erosion, re-vegetation and structural measures are met, permit is closed

Following G & E plan review and initial inspection of complete and adequate application the permit will typically be issued within 7 business days. G & E permits should follow Routt County Best Management Practices to control erosion and sediment. (Guidelines available at Routt County Road and Bridge or Planning Depts.) PLEASE NOTE: The municipalities/towns of Yampa, Hayden, and Oak Creek will assess charges as per the Uniform Building Code Appendix Chapter 33 and not the adopted version by the County.

Fee Calculation:



Twentymile Coal, LLC
Foidel Creek Mine
29515 RCR 27
Oak Creek, CO 80467
970.879.3800

May 1st, 2018

Routt County Road & Bridge
136 6th Street
PO Box 773598
Steamboat Springs, Colorado 80477

**RE: Twentymile Coal, LLC - Foidel Creek Mine (Permit No. C-82-056), Technical Revision (TR18-90)
WMD 14, 15, 16 & 17-Left Thickener Underflow Boreholes, Pads and Pipelines**

Sir or Madem,

Twentymile Coal, LLC (TC) has requested the Colorado Division of Reclamation Mining and Safety's approval of a Technical Revision to our existing approved Permit for construction, operation, and reclamation of four new Thickener Underflow (TUF) boreholes, drill pads, additional pipelines, and associated ancillary equipment and facilities in the Western Mining District (WMD) - Panels 14, 15, 16, & 17-Left. The new thickener underflow installations are needed both as backup for the current system, and ultimately, to replace the 2SW and 12-Left, which are currently being used, if and when either of these boreholes are no longer functional. Enclosed is TC's application for the associated 14-Left and 15-Left borehole construction for the required Driveway and Grading & Excavation permits. Routt County Applications associated with the 16-Left and the 17-Left boreholes will be submitted at an later date.

The 14 & 15-Left TUF boreholes will be located north of the 12-Left TUF borehole. Both of the locations will be within 300 feet from Routt County Road 27. TUF boreholes 14-Left & 15-Left will be accessed using one County Road driveway with a light use road going between the two pads. TUF 16-Left & 17-Left will be accessed using the existing driveway that is used to access the existing 16-Left Pad. Both boreholes will be drilled into the inby opening of their associated panel; the depths are 1,370 feet and 1,381 feet respectively.

Installation of the new WMD Thickener Underflow Boreholes 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 pad areas and newly disturbed roads, construction of the designed drainage structures (ditches and rock sumps), minor cut and fill grading to establish the access road and level drill pads, placement of gravel surfacing on the roads and pad areas, excavation of temporary cuttings pits on the drill pads, and drilling and casing of the boreholes. On completion of drilling and casing operations, the cuttings pits will be allowed to dry-out, material excavated from the pits will be replaced and graded, and gravel surfacing will be extended for the affected areas to control erosion and sediment and provide an all-weather operating surface. The completed thickener underflow borehole installations will include the light-use road access, soil material stockpiles, the leveled drill pads (maximum 200' x 200'), 14-inch diameter cemented surface casings (60 feet deep), 12.25-inch diameter cased boreholes, and covered 8-foot diameter CMP manholes with lightning protection.

Partial or full reclamation of the thickener underflow borehole disturbances will include, as appropriate, removal of the manhole structures, plugging and sealing of the boreholes consistent with State Engineer requirements, removal of pad and road surfacing materials, grading of pad and road areas to a stable configuration that blends with the surrounding terrain, replacement of soil materials, and revegetation with the approved rangeland seed mix. Given that the thickener underflow boreholes will be enclosed within the manhole structures, it will not be necessary to

maintain the full pad areas used for drilling. As appropriate, TC may reclaim portions of the pad areas, leaving only the light-use access roads and a limited area around the manholes for inspection and maintenance access.

The pipeline installations will involve removal and windrowing of soil materials for the 40-foot maximum width pipeline construction areas; trenching in most areas; placement of suitable bedding materials; placement, connection, and pressure testing of the pipelines; backfilling and compaction of suitable fill materials around and over the pipelines; backfilling and compaction of the trenches; re-grading; and replacement of soil materials and re-vegetation of all disturbed areas. Parts of the pipeline disturbance will occur within the same disturbance corridor previously used for mine roads and or County Roads.

The total length of the new segment of pipeline once it is constructed through all of the borehole locations will be around 7,245 feet from the west side of where the existing pipeline crosses under Fish Creek. The pipeline will be a double walled HDPE pipe system, with an 8-inch carrier pipe inside a 12-inch containment pipe, buried approximately 5-feet deep. Electronic moisture sensors in the interstice between the inner and outer pipe connected to the pump controls and shut-off valves will provide for timely leak detection and spill prevention. Access/Inspection manholes will be established at key points along the pipeline route. It is anticipated that a maximum of 5 manholes will be placed along the new pipeline disturbance corridors.

The further thickener underflow borehole (15-Left) will be upwards of 20,000 feet from the source of the slurry. The pump assembly recently installed at the 2SW TUF borehole will aid in the conveyance of the slurry to the WMD TUF sites.

The pipeline disturbance areas will be progressively reclaimed as the pipelines are constructed, with a maximum of approximately 1,000 feet of trench being open at any given time. While the entire pipeline disturbance areas will be reclaimed within a reasonable time period following pipeline installation, TC does not consider these areas to be reclaimed for purposes of reporting, since there is some potential that they may be re-disturbed for pipeline repair or maintenance in the future. At the time of final reclamation, inspection manholes will be removed or demolished to 3-feet below grade, and the pipeline will be cut-off below grade, capped, and abandoned in place.

Detailed design, operations, and reclamation information for the proposed activities is provided as both revised PAP text and exhibits; and revised maps, reflecting the location and configuration of the new facilities, pipelines, and roads.

We would like to proceed with this project ASAP to avoid any operation delays. We, therefore, appreciate your consideration, cooperation, and assistance in facilitating timely review and approval of this application. After you have opportunity to review the accompanying information, please feel free to contact me with any questions or to discuss submittal materials or related matters.

Sincerely,



Miranda Kawcak
Environmental Engineer
mblomquist@peabodyenergy.com
970-870-2718

cc: Ed Brady /TC
Jerry Nettleton

GRADING PLAN REVIEW FEES

- ☐ 50 cubic yards.....No Fee
- ☐ 50 to 100 cubic yards.....\$26.50
- ☐ 100 to 1,000 cubic yards.....\$42.00
- ☐ 1,000 to 10,000 cubic yards.....\$55.00
- ☐ 10,000 to 100,000 cubic yards – \$55.00 for the first 10,000 cubic yards, plus \$27.50 for each additional 10,000 cubic yards or fraction thereof.
- ☐ 100,000 to 200,000 cubic yards - \$302.50 for the first 100,000 cubic yards, plus \$14.85 for each additional 10,000 cubic yards or fraction thereof.
- ☐ 200,000 cubic yards or more - \$451.00 for the first 200,000 yards, plus \$8.15 for each additional 10,000 cubic yards or fraction thereof.

GRADING PERMIT FEES

- ☐ 0 to 100 cubic yards.....\$50.00
- ☐ 100 to 1,000 cubic yards - \$50.00 for the first 100 cubic yards, plus \$20.00 for each additional 100 cubic yards or fraction thereof.
- ☐ 1,000 to 10,000 cubic yards - \$230.00 for the first 1,000 cubic yards, plus \$16.50 for each additional 1,000 cubic yards or fraction thereof.
- ☐ 10,000 to 100,000 cubic yards - \$378.50 for the first 10,000 cubic yards, plus \$75.00 for each additional 10,000 cubic yards or fraction thereof.
- ☐ 100,000 cubic yards or more - \$1,053.50 for the first 100,000 cubic yards plus \$42.00 for each additional 10,000 cubic yards or fraction thereof.

OTHER FEES

1. Inspections outside of normal business hours (minimum charge – 4 hours).....\$50.00 per hour
2. Reinspection fees (work not ready for inspection or called for corrections not made)\$50.00
3. Inspections for which no fee is specifically indicated (minimum charge – 2 hours).....\$50.00 per hour
4. Additional plan review required by changes, additions or revisions to or revisions to the approved plans (minimum charge – one half hour).....\$50.00 per hour

Questions regarding details should be directed to the Road & Bridge Grading and Excavating inspector's office at (970) 870-5344.

Storm Water Management Plan

Project Name: Twentymile Mine 2018 Thickener Underflow Boreholes

SITE DESCRIPTION			
Project Name and Location: (PARCEL #, Section, Township, & Range; and Address)	2018 Thickener Underflow borehole pads construction and access roads. Parcel 944241001. Sections 25 & 26 5N 87W. 29994 RCR 27	OWNER Name, Address, and Phone #:	Camilletti & Sons HCR 66 PO Box 69 Steamboat Springs, CO 80487 970-879-5260
Description: (Purpose and Types of Soil Disturbing Activities)	Contruction of two 200X200 feet thickener underflow borehole pads and associated access roads and pipelines.	CONTACT Name, Address, & Phone #:	Miranda Kawcak Twentymile Coal, LLC 29515 RCR 27 Oak Creek, CO 80467 970-870-2718 / 970-439-8273
# Cubic Yards of soil cut/fill and/or amount of surface area moved.	14 Left Pad: ~2452 Cu.Yd. cut/fill balance 15 Left Pad: ~2470 Cu.Yd. cut/fill balance		
Site Area:	The site is approximately 10 acres of which 7 acres will be disturbed by construction activities.		
Sequence of Major Activities			
The order of activities will be as follows:		5 Access road constructed or rehabilitated with subbase pitrun and finished with road base	
1 Please refer to attached SOW for the actions of the access road and drill pad		6 Construction of of perimeter ditch with rock check dams around pad area.	
2 Establishment of temporary drainage and sediment control		7	
3 Removal of topsoil and placed in stockpiles		8	
4 Construction of finished drill pad and borehole		9	
Name of Receiving Waters:	Fish Creek		
CONTROLS			
Erosion and Sediment Practices			
Stabilization Practices			
Temporary Stabilization -	Refer to the attached Exhibit 49S-F6 and 49S-F7. Temporary stabilization includes wattles or equivalent devices at all topsoil stock piles and alongthe fill sides of the pads		
Permanent Stabilization -	Refer to the attached Exhibit 49S-F6 and 49S-F7. A run-off diversion ditch will be constructed on the appropriate sides of the pads to catch all drainage from the pad area and divert any run-off from entering the pad area.		
Weed Control -	Refer to the attached Weed Management Plan		
Structural Practices			
Refer to the attached applivation to the Routt County Planning Dept. for an administrative use permit.			
Storm Water Management			
Drainage and sediment from disturbed areas will be controlled by an integrated system, using grading and berms to limit and control surface runoff, mud pits excavated within the footprint of the pad to contain all drilling fluids, and either rock check-dams, silt fence, or straw bales/wattles installed at the low point of the drill pad to contain sedimetrn and control any discharge.			
Maintenance:	The access road and drill pad surfaces will have approximatly 8" of compacted pitrun and 3" of compacted road base or screened rock applied. The access road and pad will be maintained and or plowed as needed by a road blade.		

Storm Water Management Plan

OTHER CONTROLS	
Waste Disposal:	All waste will be disposed of at the Twentymile trash collection sites.
Waste Materials	Minor amounts of cardboard, wooded stakes, and misc. steel pipe that will be removed as the construction progresses
Hazardous Waste	No hazardous waste except fuels and oils for the equipment used will be present at the construction site
Sanitary Waste	A portable toilet will be placed on site during construction. The toilet will be inspected and cleaned weekly.
TIMING OF CONTROLS/MEASURES	
The proposed drill sites construction and access road will be initiated as soon as possible after the receipt of the permit approvals with the complete of the first drill site complete during the 2nd quarter of 2018.	
CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS	
On April 11th, 2018 Twentymile Coal, LLC submitted a Technical Revision (TR18-90) to the Colorado Division of Mining, Reclamation, and Safety (CDRMS) requesting approval of TR18-90 to our existing Mining Permit for the installation, operation, and reclamation of these Thickener underflow borehole sites. CDRMS is expected the week of May 20th, 2018.	
MAINTENANCE/INSPECTION PROCEDURES	
Erosion and Sediment Control Inspection and Maintenance Practices	
1	The installed wattles and diversion ditch will be inspected bi-annually for erosion and proper functionality.
2	The topsoil piles will be seeded following construction
3	Rock Check-dams will be installed at the ends of the diversion ditched to help control sediment and erosion.
4	
5	
6	

Storm Water Management Plan

INVENTORY FOR POLLUTION PREVENTION PLAN

The materials or substances listed below are expected to be present onsite during construction:

- Straw or Equivalent wattles
- 8-12" fractured limestone for rock check dams
- Pitrun and road base for access road and pad
- Wooden Stacks for stabilization of wattles
- Steel pipe for the borehole surface casing, borehole shaft casing, and misc. fittings
-

Spill Control Practices

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:

- Please refer to the attached Twentymile SPCC Plan
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STORM WATER MANAGEMENT PLAN CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or of those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed:

Minonda Kawcak

Date:

5/1/18

14 LEFT Pad

Pad Report

Tue Feb 13 11:11:54 2018

Top of pad elevation: 6860.9349
Cut Slope: 50.00% 2.00:1 26.57°
Fill Slope: 50.00% 2.00:1 26.57°
Existing Surface: I:\Engineering\Spencer, Jenna\2018 TUF
Grid position: 5407.10,38152.14 to 5879.98,38642.06
Grid resolution X: 50, Y: 50
Grid cell size X: 9.46, Y: 9.80
Balance Tolerance (C.Y.): 10.00
Cut Swell Factor: 1.00
Fill Shrink Factor: 1.00

Pad Earthwork Volumes

Total cut : 66,226.4 C.F., 2,452.83 C.Y.
Total fill: 66,021.8 C.F., 2,445.25 C.Y.
Balance Export: 204.6 C.F., 7.58 C.Y.
Area: 46254.6 Sq.Ft., 1.062 Acres

15 LEFT Pad

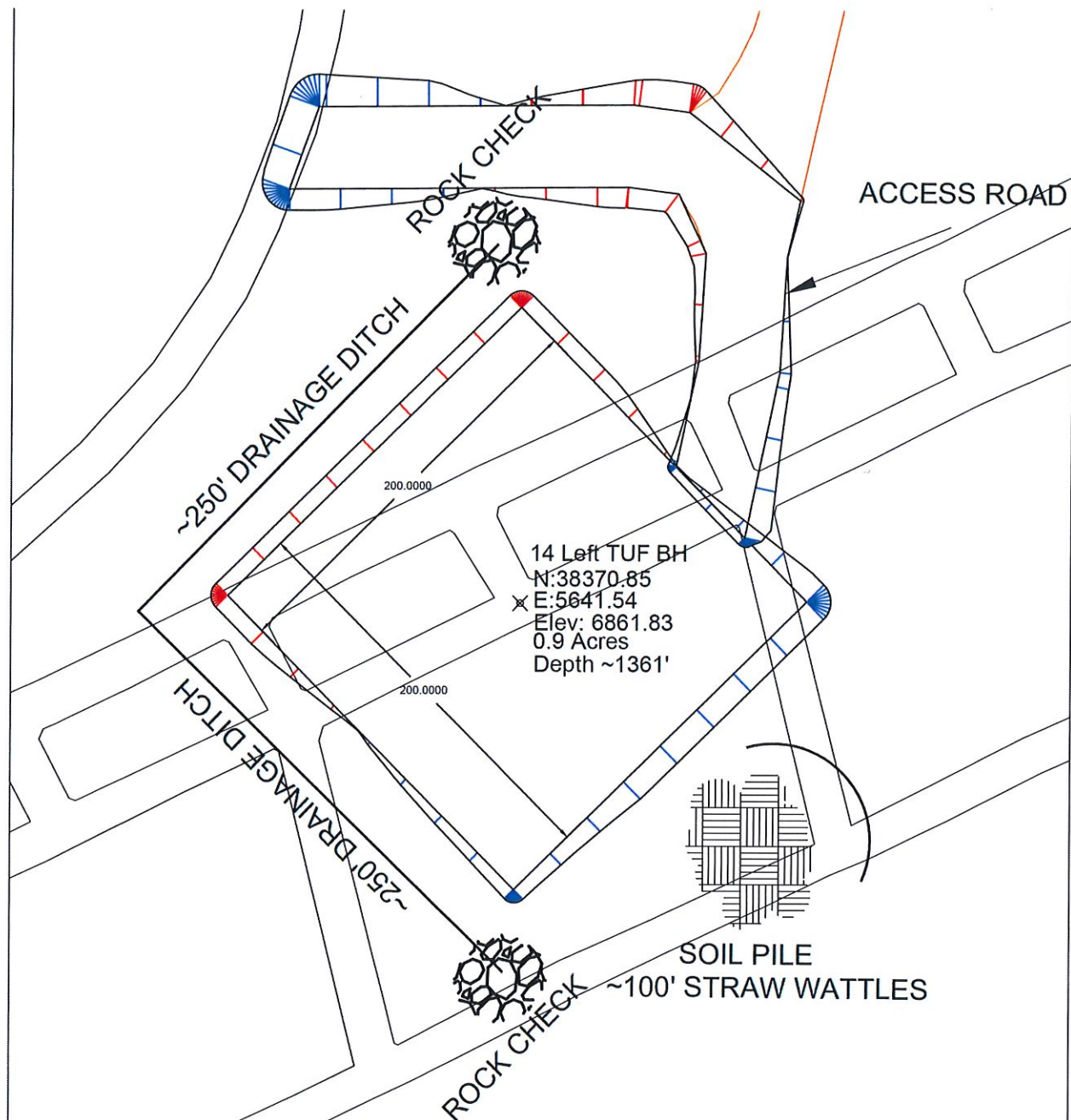
Pad Report

Tue Feb 13 12:33:25 2018

Top of pad elevation: 6863.7259
Cut Slope: 50.00% 2.00:1 26.57°
Fill Slope: 50.00% 2.00:1 26.57°
Existing Surface: I:\Engineering\Spencer, Jenna\2018 TUF
Grid position: 5548.18,39632.19 to 5986.63,40018.67
Grid resolution X: 50, Y: 50
Grid cell size X: 8.77, Y: 7.73
Balance Tolerance (C.Y.): 10.00
Cut Swell Factor: 1.00
Fill Shrink Factor: 1.00

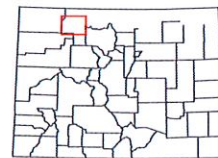
Pad Earthwork Volumes

Total cut : 66,698.3 C.F., 2,470.31 C.Y.
Total fill: 66,807.7 C.F., 2,474.36 C.Y.
Balance Import: 109.4 C.F., 4.05 C.Y.
Area: 46458.1 Sq.Ft., 1.067 Acres



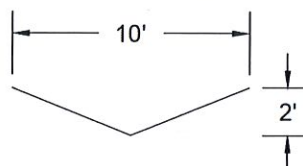
Borehole Information

- Surface Elevation: 6,861'
- Top of Coal Elevation: 5508'
- Total BH Depth: ~1361'
- Surface Casing Size: 18"
- Surface Casing Depth: 60'
- Borehole Diameter: 12"



REVISION	REV'D BY	DATE

Ditch Design



TWENTYMILE COAL, LLC
29515 RCR #27
OAK CREEK, CO 80467

THICKENER UNDERFLOW BOREHOLE
SURFACE PAD AND ACCESS ROAD
TR18-90
Exhibit EX49S-F6

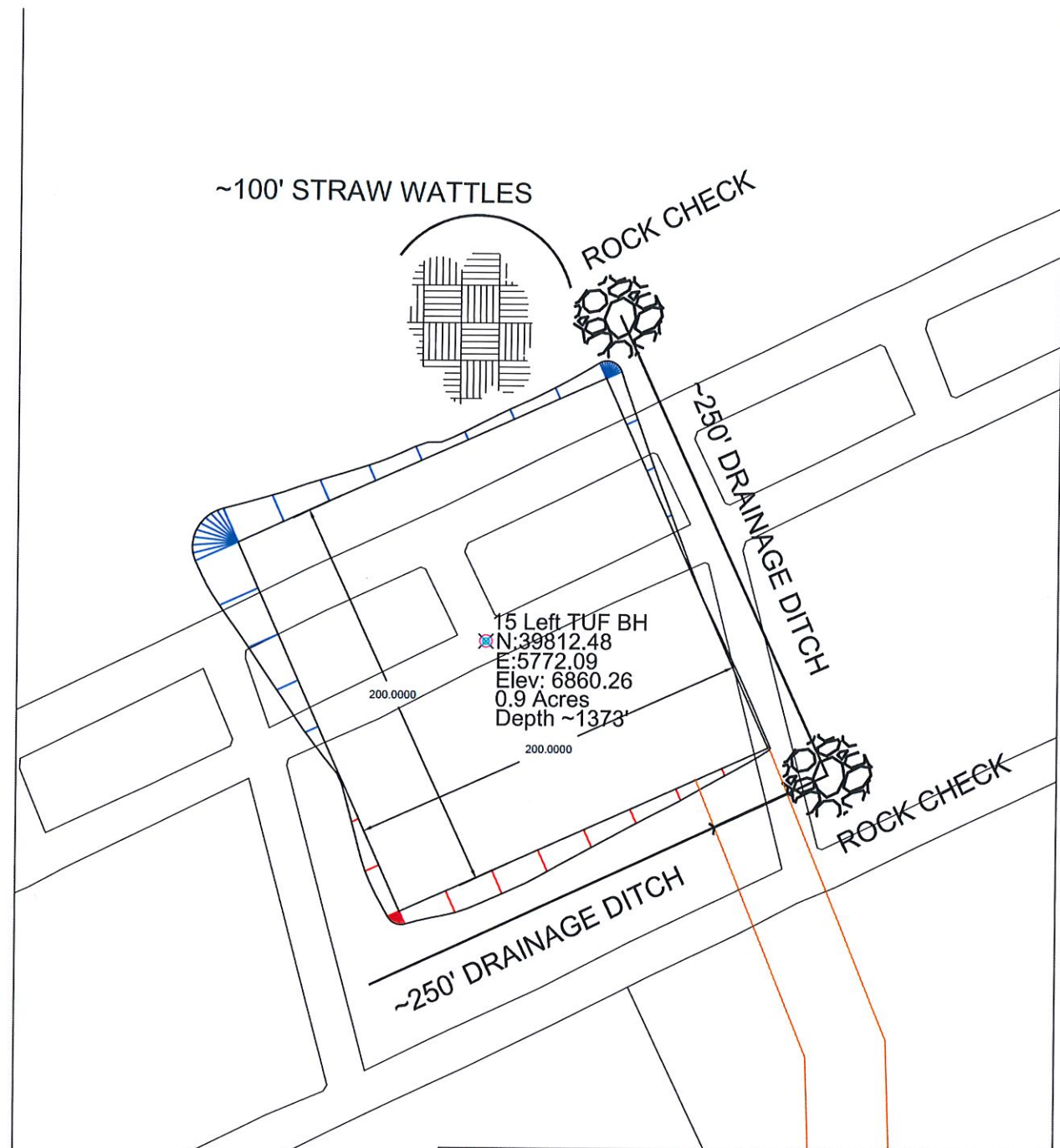
DESIGNED BY: Technical Services
DRAWN BY: Technical Services
APPROVED BY:

COUNTRY: USA
STATE/PROVINCE: COLORADO
CITY: SECTION 17 T5N R60W

DATE: 2019-08-10
SCALE: 1" = 50'

DRAWING/SHEET: 1 of 1
C.A.: 0





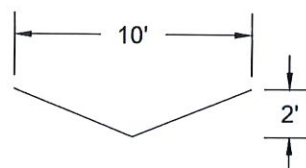
Borehole Information

- Surface Elevation: 6,860'
- Top of Coal Elevation: 5,487'
- Total BH Depth: ~1,373'
- Surface Casing Size: 18"
- Surface Casing Depth: 60'
- Borehole Diameter: 12"



REVISION	REV'D BY	DATE

Ditch Design



TWENTYMILE COAL, LLC



29515 RCR #27
 OAK CREEK, CO 80467

THICKENER UNDERFLOW BOREHOLE
 SURFACE PAD AND ACCESS ROAD
 TR18-90
 Exhibit EX49S-F7

DESIGNED BY: Technical Services	COUNTRY: USA
DRAWN BY: Technical Services	STATE/PROVINCE: COLORADO
APPROVED BY:	GCs: SECTION 17 TSN F80W
DATE: 2019-04-10	DRAWING SHEET: 1 of 1
SCALE: 1" = 50'	C.L.: 0

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