



PacifiCorp
Thermal General Environmental Services
1407 West North Temple, Suite 210
Salt Lake City Utah, 84116

March 6, 2020

Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Subj: Application for Phase III Bond Release of a Portion of the Cottonwood/Wilberg Mine Trail Mountain Access and Belt Portal Truck Turn-Around Area, PacifiCorp, Cottonwood/Wilberg Mine, C/015/0019, Emery County, Utah

PacifiCorp, (as mine manager), hereby submits an application for Phase III bond release of a portion of the Cottonwood/Wilberg Mine TMA and Belt Portal Truck Turn-Around Area. The said area covered by the bond is approximately 0.04 acres and is located in the SW1/4 of the NE1/4 of Section 25, Township 17 South, Range 6 East, SLB&M. This area has met the regulations of the R645 Utah Coal Rules in regards to Phase III bond release and where R645-301-357 does not apply in this case. Phase I bond release was approved for the entire Cottonwood/Wilberg mine sites on May 7, 2019.

The information included with this application provides documentation as required by Directive Number: Tech-006 and the R645-301-800 Utah Coal Regulations. This information is included as Attachments 1 through 11 (with exception of Attachment 8) and as follows:

General Information for Bond Release

- Attachment 1: Notarized Signature
- Attachment 2: Draft Letters to Interested Parties
- Attachment 3: Draft Newspaper Advertisement
- Attachment 4: Legal Description and Site Map
- Attachment 5: Reclamation Treatments Utilized (construction plans for turn-around)
- Attachment 6: General History of the Leach Field Site
- Attachment 7: Bond Summary (No bond reduction is being requested)

Information for Phase II Bond Release (not applicable but mentionable)

- Attachment 8: Not Applicable
- Attachment 9: Demonstration that Area is Not Contributing Suspended Solids Outside Permit Area

Information for Phase III Bond Release

- Attachment 10: Demonstration that Responsibility Period has been Met
- Attachment 11: Demonstration that Post Mining Land Use has been Achieved

When Phase III Bond Release procedures are complete and application approved, the Cottonwood Mine MRP and Legal/Financial Volumes will be revised to reflect the changes to the mining and reclamation permit. The required C1 form is included with this application. If you have any questions or concerns regarding the enclosed information, please contact me at 801-220-4632.

Sincerely,



Dennis Oakley
Sr. Mine Engineer

Enclosures: C1 Form
Attachments 1 through 11 (exception: Attachment 8)

Cc: file

APPLICATION FOR COAL PERMIT PROCESSING

Permit Change New Permit Renewal Exploration Bond Release Transfer

Permittee: PacifiCorp

Mine: Cottonwood/Wilberg Mine

Permit Number: C/015/0019

Title: Phase III Bond Release on Approximately 0.04 Acres of Land Related to the Cottonwood/Wilberg Mine Trail Mountain Access and Belt Portal Area.

Description, Include reason for application and timing required to implement:

Instructions: If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.

- | | |
|---|--|
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 1. Change in the size of the Permit Area? Acres: _____ Disturbed Area: <u>0.04</u> <input type="checkbox"/> increase <input checked="" type="checkbox"/> decrease. |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 2. Is the application submitted as a result of a Division Order? DO# _____ |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 4. Does the application include operations in hydrologic basins other than as currently approved? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 6. Does the application require or include public notice publication? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 7. Does the application require or include ownership, control, right-of-entry, or compliance information? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 9. Is the application submitted as a result of a Violation? NOV # _____ |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 10. Is the application submitted as a result of other laws or regulations or policies? |
- Explain:* _____
- | | |
|---|--|
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 11. Does the application affect the surface landowner or change the post mining land use? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2) |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 13. Does the application require or include collection and reporting of any baseline information? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 15. Does the application require or include soil removal, storage or placement? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 16. Does the application require or include vegetation monitoring, removal or revegetation activities? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 17. Does the application require or include construction, modification, or removal of surface facilities? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 18. Does the application require or include water monitoring, sediment or drainage control measures? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 19. Does the application require or include certified designs, maps or calculation? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 20. Does the application require or include subsidence control or monitoring? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 21. Have reclamation costs for bonding been provided? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 23. Does the application affect permits issued by other agencies or permits issued to other entities? |

Please attach one (1) review copy of the application.

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Dennis Oakley
Print Name

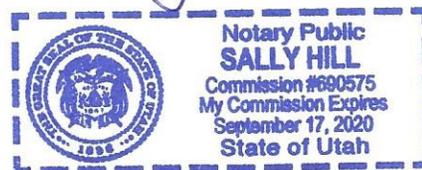
Dennis Oakley
Sign Name, Position, Date

Sr. Mine Engineer, 3/4/2020

Subscribed and sworn to before me this 4 day of March, 2020

Sally Hill
Notary Public

My commission Expires: 9-17, 2020 } ss:
Attest: State of UTAH }
County of SALT LAKE



For Office Use Only:

Assigned Tracking Number:

Received by Oil, Gas & Mining

Application for Phase III Bond Release

Cottonwood/Wilberg Mine - TMA and Belt Portal Area Truck Turn-Around

Attachment 1

Notarized Signature



March 6, 2020

PacifiCorp
Cottonwood/Wilberg Mine
C/015/0019

Phase III Bond Release on Approximately 0.04 Acres of Land Related to the Cottonwood/Wilberg Mine Trail Mountain Access and Belt Portal Area.

I hereby certify, to the best of my knowledge and belief, that all the information contained in this request is true and correct and that all applicable reclamation activities have been accomplished in accordance with the requirements of the Act, the regulatory program, and the approved reclamation plan.

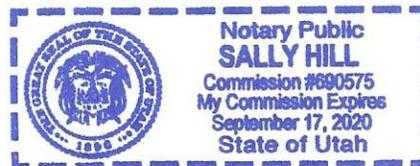
Dennis Oakley, Sr Mine Engineer
Print Name

Dennis Oakley Sr. Mine Engr 3/4/20
Signature, Position, Date

Subscribed and sworn to before me this 4 day of March, 2020.

Sally Hill
Notary Public

My Commission Expires: 9-17, 2020
Attest: State of Utah
County of Salt Lake



Application for Phase III Bond Release

Cottonwood/Wilberg Mine - TMA and Belt Portal Area Truck Turn-Around

Attachment 2

Draft Letter to Interested Parties

- Letters to be sent to:
- Emery County
 - Wolverine Fuels
 - USFS



March 6, 2020



PacifiCorp
Thermal General Environmental Services
1407 West North Temple, Suite 210
Salt Lake City Utah, 84116

Emery County Commissioners
75 East Main Street
Castle Dale, Utah 84513

DATE, 2020

Subject: Application for Phase III Bond Release on a Portion of the Cottonwood/Wilberg Mine Trail Mountain Access and Belt Portal Area

PacifiCorp has filed with the Division of Oil, Gas and Mining an application for a partial Phase III Bond Release for 0.04 acres of the Cottonwood/Wilberg Mine Trail Mountain Access (TMA) Area. The portion proposed for release is a Truck Turn-Around Area within the said area.

As required by the State of Utah, R645-Coal Mining Rules (R645-301-880), all adjoining property owners, local governmental bodies, etc, are notified, informing them of the operator's intention to seek release from bond. You are receiving this notice because of your association with one of the groups mentioned above. A public notice was published in the Emery County Progress commencing on XXX, XX 2020 and will run for four (4) consecutive weeks.

The Cottonwood/Wilberg Mine – Truck Turn-Around Area is located adjacent to Emery County Road 506 in Cottonwood Canyon directly adjacent to the Wolverine Fuels LLC, Fossil Rock Mine (formerly Trail Mountain Mine). The said area, located in SW1/4 of the NE1/4 of Section 25, Township 17 South, Range 6 East, SLB&M is on land owned by PacifiCorp. Refer to attached location map. The turn-around area is located within the Trail Mountain Access and Belt Portal Area and was constructed by Emery County after being granted an easement from PacifiCorp for the use of the area.

In the summer of 2019, Emery County approached PacifiCorp and requested use of the land because it needed a place for snow plows to turn around in the winter time. Emery County previously used the Trail Mountain (now known as Fossil Rock Mine) mine site to turn their vehicles around. This mine is now closed and locked and unavailable. Turning snow plows around has become somewhat of a safety concern, and therefore, PacifiCorp obliged and granted Emery County this easement.

Phase I bond release was granted by the Division of Oil, Gas, and Mining for the entire 1.86 acre Trail Mountain Access and Belt Portal Area on May 7, 2019. Final Reclamation was completed on this area in November 2014.

The turnaround area, which was constructed in December of 2019 by Emery County, consists of an 18" culvert placed in the road ditch at the entrance of the site. The surface is covered with approximately 6" of road base material and compacted in place. There are no vegetation standards associated with this site and therefore the period of extended responsibility requirements of the Utah Coal Regulations do not apply.

PacifiCorp currently maintains a \$977,232.00 surety bond payable to the Division of Oil, Gas, and Mining. No reduction of this bond is being requested for the release of the site. If you have

any questions, or require further information pertaining this bond release application, please feel free to call me at (801) 220-4632.

Sincerely,

Dennis Oakley
Sr. Mine Engineer

Cc Emery County Board of Commissioners
Ray Peterson, Emery County Public Lands
Wayde Neilsen, Emery County Road Department
Chris Hansen, Wolverine Fuels LLC
File

Application for Phase III Bond Release

Cottonwood/Wilberg Mine - TMA and Belt Portal Area Truck Turn-Around

Attachment 3

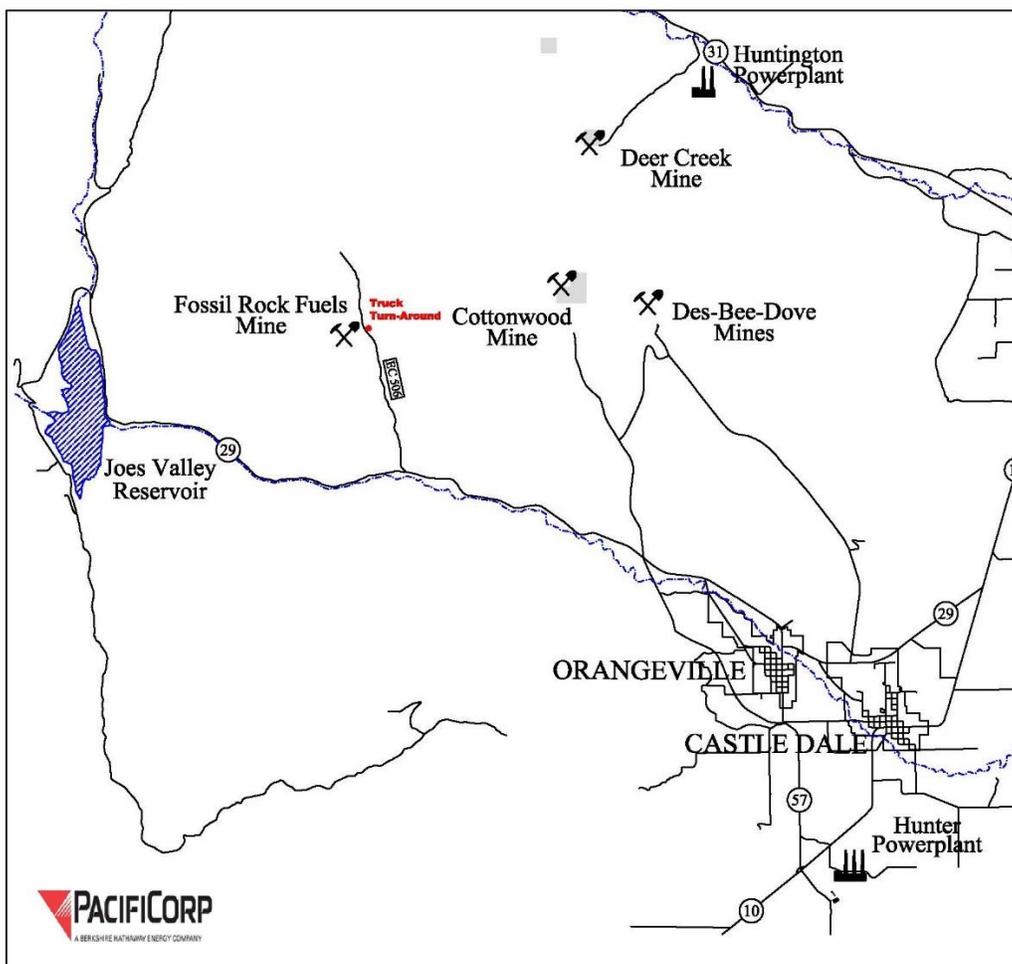
Draft Newspaper Advertisement



March 6, 2020

Phase III Bond Release Application
PacifiCorp
Cottonwood/Wilberg Mine – 0.04 Acre Truck Turn-Around Area
C/015/0019
Permit Approval Date: July 6, 2014 (revised May 18, 2015)

PacifiCorp, as mine manager, with a street address as 1407 West North Temple, Salt Lake City, Utah, has filed with the Division of Oil, Gas and Mining an application for a partial Phase III Bond Release for 0.04 acres of the Cottonwood/Wilberg Mine – Trail Mountain Access and Belt Portal Area. The general location of this site is shown below.



The Truck Turn-Around Area is located adjacent to Emery County Road 506 in Cottonwood Canyon. The said area, located in SW1/4 of the NE1/4 of Section 25, Township 17 South, Range 6 East, SLB&M is on land owned by PacifiCorp. The turn-around area is located within the Trail Mountain Access and Belt Portal Area (final reclamation completed 11/2014) and was constructed by Emery County after being granted an easement from PacifiCorp for the use of the area in August 2019. After approval of the Phase III Bond Release Application, this small area will become the responsibility of the Emery County Road Dept.

PacifiCorp currently maintains a \$977,232.00 surety bond payable to the Division of Oil, Gas, and Mining and the Office of Surface Mining Reclamation and Enforcement (OSM). No reduction of this bond is being requested for the release of the site.

A copy of the Phase III Bond Release application may be examined at the office of the Division of Oil, Gas and Mining, 1594 West North Temple, Suite 1210, Salt Lake City, Utah 84114-5801 and also at the Records Office located in the Emery County Courthouse in Castle Dale, Utah. Written comments, objections, or requests for an informal conference may be submitted to the Division of Oil, Gas, and Mining address above. Said comments must be submitted thirty (30) days from the date of the last publication of this notice.

This notice is being published to comply with the Surface Mining Control and Reclamation Act of 1977, and State and Federal regulations promulgated pursuant to said Act.

Published in the Emery County ETV News Progress for four consecutive weeks beginning XXX XX, 2020.

Application for Phase III Bond Release

Cottonwood/Wilberg Mine - TMA and Belt Portal Area Truck Turn-Around

Attachment 4

Legal Description and Map

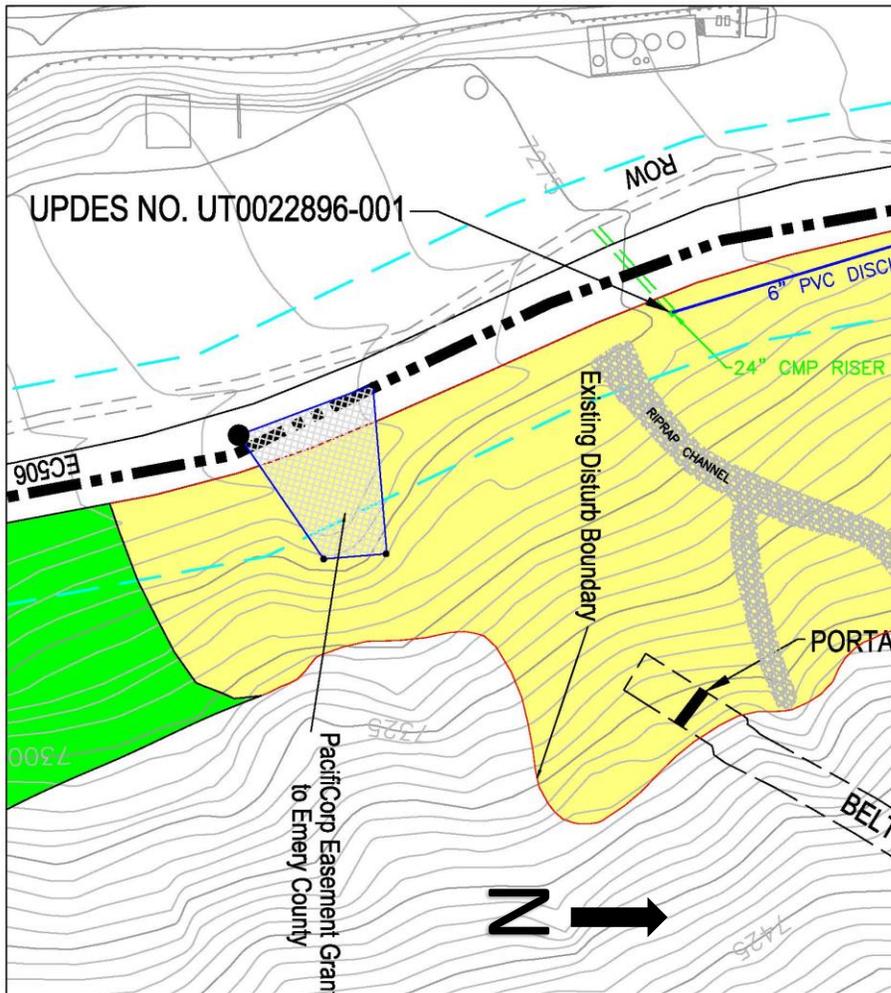


March 6, 2020

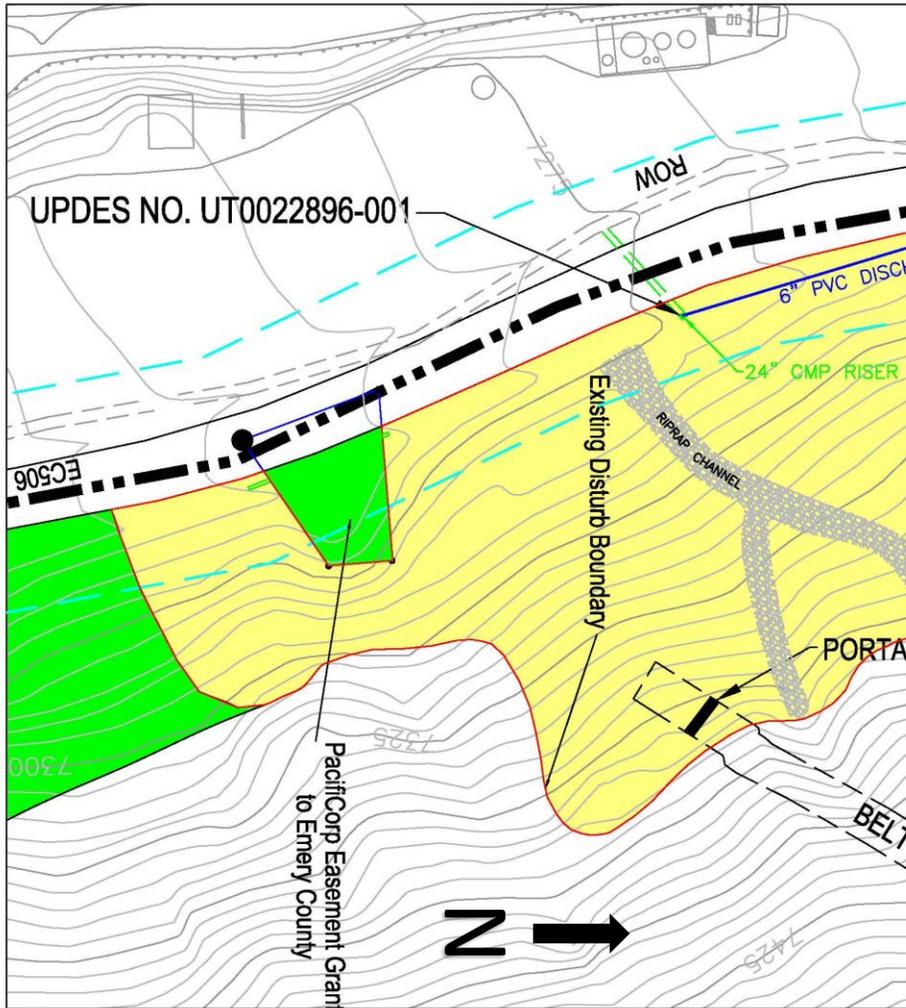
Phase III Bond Release Application for the Cottonwood/Wilberg Mine – Truck Turn-Around Area

Attachment 4 – Bonded Area Description

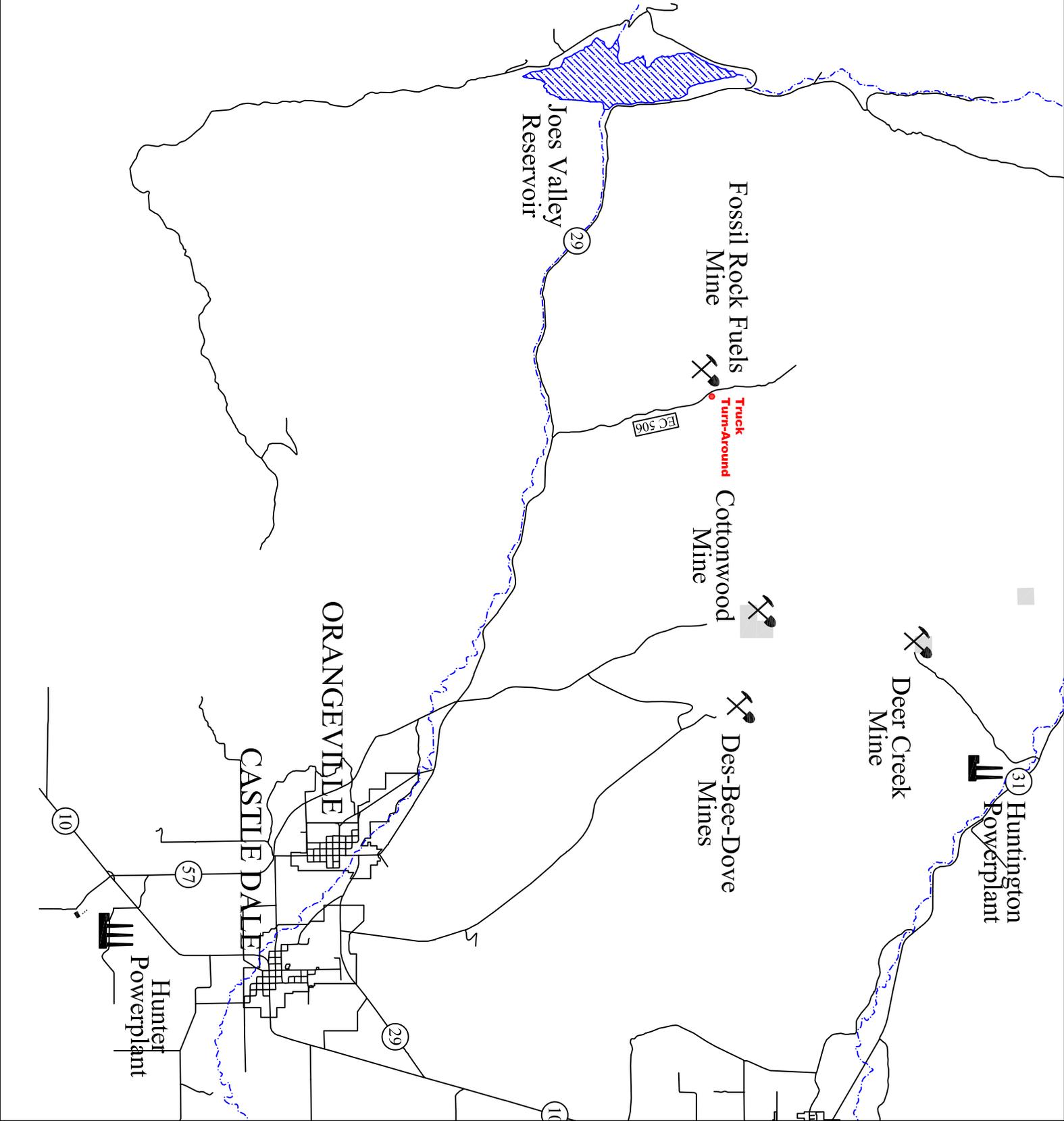
The **Truck Turn-Around Area** is located within the disturbed perimeters of the Trail Mountain Access and Belt Portal Area (part of the Cottonwood/Wilberg Mine disturbed area) in the SW¼NE¼ of section 25, Township 17 South, Range 6 East. The area proposed for release is 0.04 acres. Currently, the total area of the TMA and Belt Portal Area is 1.86 acres. Upon approval of the bond release application, the TMA and Belt Portal Area will total 1.82 acres.



Location of truck turn-around within the TMA disturbed area and easement boundary adjacent to Emery County road 506.



Proposed revision of the disturbed area boundary of the Trail Mountain Access and Belt Portal Area. Boundary area reduced from 1.86 acres to 1.82 acres. Note: Area in green refers to areas of phase III bond release.



Joe's Valley Reservoir

Fossil Rock Fuels Mine



Truck Turn-Around

EG 506

Cottonwood Mine



Des-Bee-Dove Mines



Deer Creek Mine



Huntington Powerplant



ORANGEVILLE
CASTLE DALE

Hunter Powerplant



10

57

29

10

31

Application for Phase III Bond Release

Cottonwood/Wilberg Mine - TMA and Belt Portal Area Truck Turn-Around

Attachment 5

Reclamation Treatments (Construction Plans for Turn-Around)



March 6, 2020

CERTIFICATE

I, WACEY R. ALLRED, A PROFESSIONAL LAND SURVEYOR HOLDING UTAH CERTIFICATE NO. 11179291, DO HEREBY CERTIFY THAT THE PLAT SHOWN HEREON HAS BEEN PREPARED FROM A FIELD SURVEY MADE UNDER MY DIRECTION AND CORRECTLY SHOWS THE DIMENSIONS AND MONUMENTS OF THE PROPERTY DESCRIBED TO THE BEST OF MY KNOWLEDGE AND BELIEF.



PURPOSE OF SURVEY:

PacifiCorp is deeding a parcel of land to Emery County Road Department for the use of a snow plow turn around.

LOCATION OF SURVEY:

Located within the Southwest quarter of the Northeast quarter of Section 25, Township 17 South, Range 6 East, Salt Lake Base and Meridian.

PROPERTY DESCRIPTION:

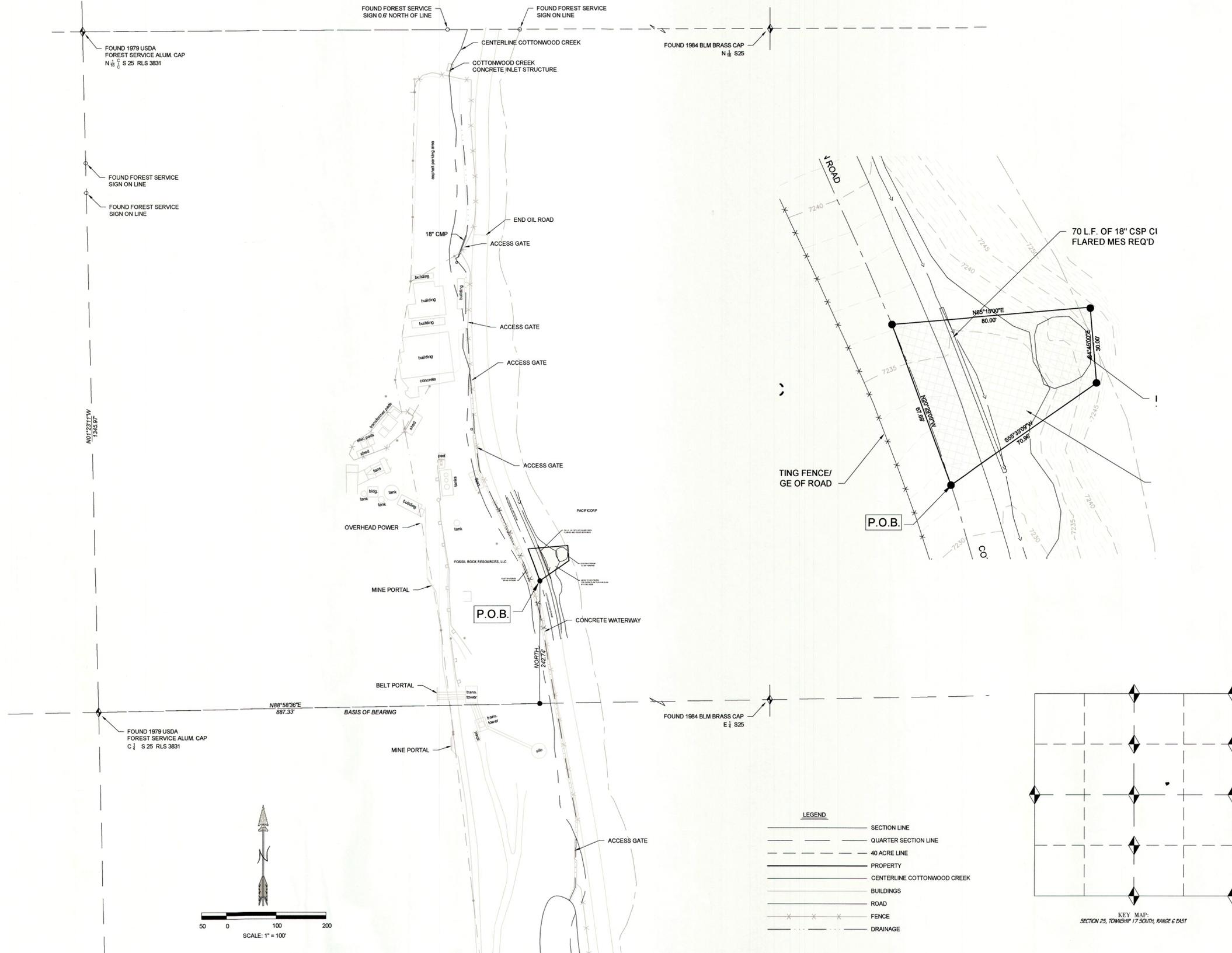
Beginning at a point which is located N 88°58'36" E, 887.33 feet along the Center Section Line and North, 242.74 feet from the Center of Section 25, Township 17 South, Range 6 East, SLB&M, said point being at the center of Cottonwood Canyon Road; thence N 20°29'09" W, 67.69 feet along said centerline; thence N 85°15'00" E, 80.00 feet; thence S 04°45'00" E, 30.00 feet; thence S 55°33'09" W, 70.96 feet more or less to the point of beginning. Containing 0.08 acres more or less.

BASIS OF BEARING:

N 88°58'36" E between the Center and the East Quarter Corner of Section 25, T 17 S, R 6 E, SLB&M.

MONUMENTS FOUND:

◆ Denotes Section monument found.



DESIGNED	CHECKED
DRAWN	WRA 08-19
SURVEYED	LO 08-19
R.O.W.	CHECKED

WACEY R. ALLRED
PROFESSIONAL LAND SURVEYOR 11179291

PHANSEN S. TUTTLE ENGINEERING INC.
P.O. Box 487, Castle Dale, UT 84513
(435) 381-2523 Fax (435) 381-2522, e-mail js@psnet.net

PACIFICORP
TRAIL MOUNTAIN MINE

SECTION	TOWNSHIP	RANGE	DATE	SCALE
25	17 S.	6 E.	08/06/19	1" = 100'
PROJECT No.	BLOCK	SURVEY	DRAWN BY	M/LB
SHEET No.				

Site Plan:

Emery County proposes to construct a snow plow truck turn around within the disturbed area of the 1.86 acre site of the Trail Mountain Access area. The County claims that their trucks cannot safely turn around at the end of the county road #506. The county expressed their concerns with PacifiCorp about acquiring an easement within the company's reclamation site. PacifiCorp agreed with the county and issued them an easement to allow them to construct the turnaround.

Within the easement, approximately 0.04 acres will be impacted by the turnaround. A 70 foot 18" CMP will be installed which will keep the truck from impacting any drainage from above the site. Refer to the hydrological calculations for contributing runoff and culvert sizing.

A large boulder on the east side of the easement will be removed and disposed of. The surface of the turnaround will be covered with 6" of untreated base course. The base course will be graded to allow for runoff and compacted to the specifications of the Emery County Road Department. The turnaround and all its appurtenances will be a permanent feature of the reclamation site.

Note: This work was completed in December 2019.



NOAA Atlas 14, Volume 1, Version 5
Location name: Huntington, Utah, USA*
Latitude: 39.3184°, Longitude: -111.1869°
Elevation: 7737.39 ft**



* source: ESRI Maps
 ** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps & aeriels](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.140 (0.122-0.164)	0.179 (0.157-0.212)	0.247 (0.214-0.289)	0.304 (0.261-0.358)	0.393 (0.328-0.462)	0.470 (0.386-0.555)	0.559 (0.449-0.664)	0.663 (0.517-0.793)	0.826 (0.615-1.01)	0.976 (0.700-1.22)
10-min	0.212 (0.185-0.249)	0.273 (0.239-0.322)	0.376 (0.325-0.440)	0.463 (0.397-0.544)	0.598 (0.500-0.703)	0.716 (0.587-0.845)	0.852 (0.684-1.01)	1.01 (0.786-1.21)	1.26 (0.936-1.54)	1.49 (1.07-1.85)
15-min	0.263 (0.230-0.309)	0.339 (0.296-0.399)	0.467 (0.403-0.545)	0.574 (0.492-0.675)	0.741 (0.619-0.872)	0.887 (0.727-1.05)	1.06 (0.847-1.25)	1.25 (0.975-1.50)	1.56 (1.16-1.91)	1.84 (1.32-2.29)
30-min	0.354 (0.309-0.416)	0.457 (0.398-0.538)	0.628 (0.542-0.734)	0.773 (0.662-0.908)	0.998 (0.834-1.18)	1.19 (0.979-1.41)	1.42 (1.14-1.69)	1.68 (1.31-2.02)	2.10 (1.56-2.57)	2.48 (1.78-3.09)
60-min	0.438 (0.383-0.515)	0.565 (0.493-0.665)	0.777 (0.671-0.909)	0.957 (0.819-1.12)	1.24 (1.03-1.45)	1.48 (1.21-1.75)	1.76 (1.41-2.09)	2.08 (1.62-2.50)	2.60 (1.93-3.18)	3.07 (2.20-3.82)
2-hr	0.540 (0.474-0.624)	0.683 (0.600-0.791)	0.909 (0.794-1.05)	1.11 (0.960-1.28)	1.43 (1.21-1.65)	1.70 (1.41-1.99)	2.02 (1.64-2.38)	2.40 (1.89-2.84)	2.99 (2.25-3.61)	3.53 (2.56-4.35)
3-hr	0.612 (0.546-0.697)	0.769 (0.684-0.879)	0.988 (0.877-1.13)	1.19 (1.05-1.36)	1.50 (1.30-1.72)	1.76 (1.50-2.03)	2.08 (1.74-2.42)	2.45 (2.00-2.88)	3.05 (2.40-3.66)	3.60 (2.73-4.39)
6-hr	0.807 (0.726-0.903)	1.00 (0.906-1.12)	1.24 (1.11-1.39)	1.44 (1.29-1.62)	1.73 (1.53-1.95)	1.99 (1.74-2.25)	2.29 (1.97-2.61)	2.64 (2.23-3.04)	3.24 (2.67-3.80)	3.78 (3.05-4.51)
12-hr	1.02 (0.930-1.13)	1.26 (1.15-1.40)	1.54 (1.39-1.71)	1.78 (1.60-1.97)	2.10 (1.87-2.34)	2.36 (2.09-2.64)	2.63 (2.30-2.97)	2.97 (2.56-3.38)	3.57 (3.02-4.11)	4.13 (3.45-4.82)
24-hr	1.18 (1.07-1.31)	1.47 (1.33-1.63)	1.81 (1.64-2.02)	2.09 (1.88-2.32)	2.46 (2.21-2.74)	2.75 (2.45-3.07)	3.06 (2.70-3.41)	3.36 (2.94-3.77)	3.78 (3.26-4.26)	4.17 (3.50-4.87)
2-day	1.40 (1.27-1.55)	1.75 (1.59-1.93)	2.16 (1.96-2.39)	2.50 (2.26-2.77)	2.98 (2.67-3.29)	3.35 (2.99-3.71)	3.75 (3.31-4.17)	4.15 (3.63-4.64)	4.71 (4.05-5.31)	5.16 (4.37-5.86)
3-day	1.57 (1.43-1.75)	1.96 (1.78-2.19)	2.44 (2.20-2.71)	2.83 (2.55-3.14)	3.37 (3.01-3.75)	3.80 (3.37-4.23)	4.25 (3.74-4.74)	4.72 (4.10-5.29)	5.36 (4.59-6.06)	5.88 (4.96-6.69)
4-day	1.74 (1.58-1.95)	2.18 (1.97-2.44)	2.71 (2.45-3.03)	3.15 (2.83-3.52)	3.76 (3.35-4.20)	4.24 (3.75-4.75)	4.75 (4.17-5.32)	5.28 (4.58-5.94)	6.02 (5.13-6.81)	6.60 (5.55-7.53)
7-day	2.15 (1.94-2.40)	2.69 (2.43-3.01)	3.36 (3.02-3.75)	3.91 (3.50-4.37)	4.67 (4.15-5.22)	5.28 (4.65-5.92)	5.92 (5.17-6.65)	6.58 (5.68-7.43)	7.50 (6.36-8.54)	8.23 (6.89-9.45)
10-day	2.48 (2.25-2.76)	3.11 (2.81-3.46)	3.88 (3.50-4.31)	4.50 (4.04-5.00)	5.34 (4.76-5.95)	6.00 (5.31-6.70)	6.69 (5.87-7.49)	7.38 (6.42-8.31)	8.35 (7.14-9.46)	9.11 (7.70-10.4)
20-day	3.45 (3.11-3.83)	4.33 (3.91-4.81)	5.41 (4.88-6.01)	6.27 (5.63-6.96)	7.43 (6.62-8.24)	8.33 (7.36-9.26)	9.26 (8.12-10.3)	10.2 (8.86-11.4)	11.5 (9.83-12.9)	12.5 (10.6-14.2)
30-day	4.24 (3.82-4.69)	5.30 (4.79-5.88)	6.58 (5.93-7.30)	7.59 (6.81-8.40)	8.93 (7.97-9.90)	9.95 (8.84-11.0)	11.0 (9.70-12.2)	12.0 (10.5-13.5)	13.4 (11.6-15.1)	14.5 (12.4-16.5)
45-day	5.26 (4.77-5.83)	6.60 (5.99-7.31)	8.18 (7.40-9.06)	9.42 (8.48-10.4)	11.1 (9.90-12.3)	12.4 (11.0-13.7)	13.7 (12.0-15.2)	15.0 (13.1-16.8)	16.9 (14.5-19.0)	18.3 (15.5-20.8)
60-day	6.31 (5.71-6.97)	7.93 (7.18-8.76)	9.84 (8.89-10.9)	11.3 (10.2-12.5)	13.2 (11.9-14.7)	14.7 (13.1-16.4)	16.2 (14.3-18.1)	17.7 (15.5-19.9)	19.8 (17.0-22.3)	21.4 (18.2-24.3)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

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NOAA Atlas 14, Volume 1, Version 5
Location name: Huntington, Utah, USA*
Latitude: 39.3195°, Longitude: -111.1828°
Elevation: 8509.63 ft**



* source: ESRI Maps
 ** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

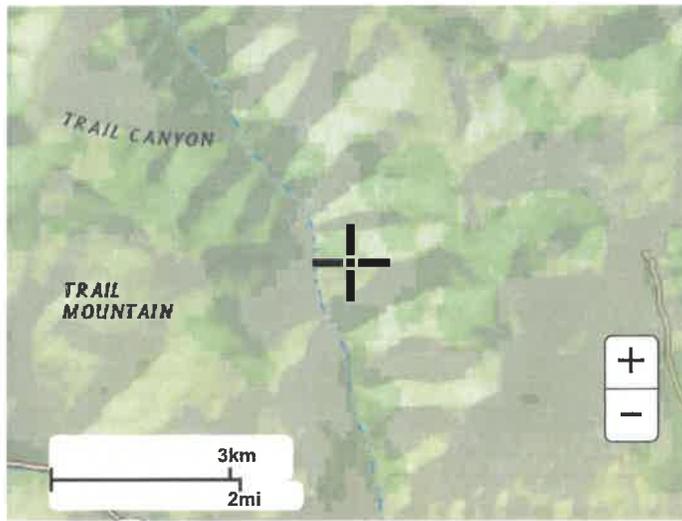
[PF tabular](#) | [PF graphical](#) | [Maps & aeriels](#)

PF tabular

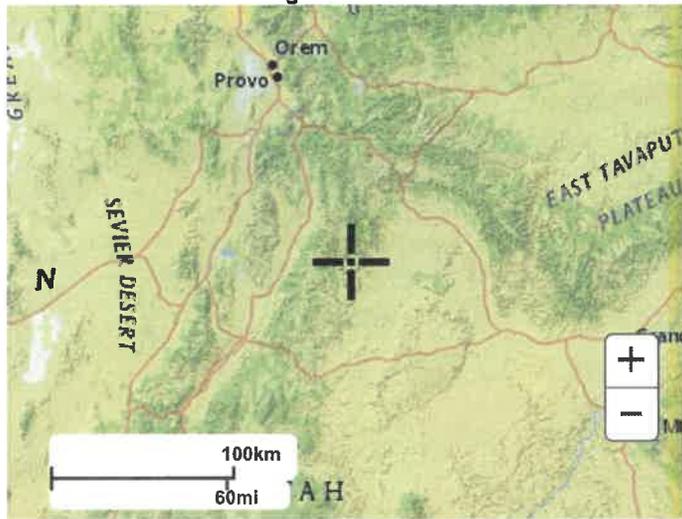
PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	1.68 (1.46-1.97)	2.15 (1.88-2.54)	2.96 (2.57-3.47)	3.65 (3.13-4.30)	4.72 (3.94-5.54)	5.64 (4.63-6.66)	6.71 (5.39-7.97)	7.96 (6.20-9.52)	9.91 (7.38-12.1)	11.7 (8.40-14.6)
10-min	1.27 (1.11-1.49)	1.64 (1.43-1.93)	2.26 (1.95-2.64)	2.78 (2.38-3.26)	3.59 (3.00-4.22)	4.30 (3.52-5.07)	5.11 (4.10-6.07)	6.05 (4.72-7.24)	7.55 (5.62-9.22)	8.92 (6.39-11.1)
15-min	1.05 (0.920-1.24)	1.36 (1.18-1.60)	1.87 (1.61-2.18)	2.30 (1.97-2.70)	2.96 (2.48-3.49)	3.55 (2.91-4.19)	4.22 (3.39-5.02)	5.00 (3.90-5.99)	6.24 (4.64-7.62)	7.36 (5.28-9.18)
30-min	0.708 (0.618-0.832)	0.914 (0.796-1.08)	1.26 (1.08-1.47)	1.55 (1.32-1.82)	2.00 (1.67-2.35)	2.39 (1.96-2.82)	2.84 (2.28-3.38)	3.37 (2.63-4.03)	4.20 (3.13-5.13)	4.96 (3.56-6.18)
60-min	0.438 (0.383-0.515)	0.565 (0.493-0.665)	0.777 (0.671-0.909)	0.957 (0.819-1.12)	1.24 (1.03-1.45)	1.48 (1.21-1.75)	1.76 (1.41-2.09)	2.08 (1.62-2.50)	2.60 (1.93-3.18)	3.07 (2.20-3.82)
2-hr	0.270 (0.237-0.312)	0.342 (0.300-0.396)	0.454 (0.397-0.526)	0.556 (0.480-0.642)	0.712 (0.602-0.826)	0.850 (0.706-0.993)	1.01 (0.820-1.19)	1.20 (0.944-1.42)	1.49 (1.13-1.80)	1.76 (1.28-2.17)
3-hr	0.204 (0.182-0.232)	0.256 (0.228-0.293)	0.329 (0.292-0.377)	0.395 (0.348-0.454)	0.498 (0.432-0.572)	0.585 (0.498-0.677)	0.692 (0.578-0.805)	0.816 (0.666-0.959)	1.02 (0.799-1.22)	1.20 (0.910-1.46)
6-hr	0.135 (0.121-0.151)	0.167 (0.151-0.187)	0.207 (0.186-0.231)	0.241 (0.216-0.270)	0.289 (0.255-0.325)	0.331 (0.290-0.375)	0.382 (0.328-0.436)	0.440 (0.372-0.507)	0.540 (0.446-0.634)	0.631 (0.509-0.753)
12-hr	0.085 (0.077-0.094)	0.105 (0.096-0.116)	0.128 (0.116-0.142)	0.148 (0.133-0.164)	0.174 (0.156-0.194)	0.196 (0.173-0.219)	0.219 (0.191-0.246)	0.246 (0.213-0.280)	0.296 (0.251-0.341)	0.343 (0.286-0.400)
24-hr	0.049 (0.044-0.055)	0.061 (0.055-0.068)	0.075 (0.068-0.084)	0.087 (0.078-0.097)	0.103 (0.092-0.114)	0.115 (0.102-0.128)	0.127 (0.112-0.142)	0.140 (0.123-0.157)	0.157 (0.136-0.178)	0.174 (0.146-0.203)
2-day	0.029 (0.027-0.032)	0.036 (0.033-0.040)	0.045 (0.041-0.050)	0.052 (0.047-0.058)	0.062 (0.056-0.069)	0.070 (0.062-0.077)	0.078 (0.069-0.087)	0.086 (0.076-0.097)	0.098 (0.084-0.111)	0.107 (0.091-0.122)
3-day	0.022 (0.020-0.024)	0.027 (0.025-0.030)	0.034 (0.031-0.038)	0.039 (0.035-0.044)	0.047 (0.042-0.052)	0.053 (0.047-0.059)	0.059 (0.052-0.066)	0.065 (0.057-0.073)	0.075 (0.064-0.084)	0.082 (0.069-0.093)
4-day	0.018 (0.016-0.020)	0.023 (0.021-0.025)	0.028 (0.025-0.032)	0.033 (0.029-0.037)	0.039 (0.035-0.044)	0.044 (0.039-0.049)	0.050 (0.043-0.055)	0.055 (0.048-0.062)	0.063 (0.053-0.071)	0.069 (0.058-0.078)
7-day	0.013 (0.012-0.014)	0.016 (0.014-0.018)	0.020 (0.018-0.022)	0.023 (0.021-0.026)	0.028 (0.025-0.031)	0.031 (0.028-0.035)	0.035 (0.031-0.040)	0.039 (0.034-0.044)	0.045 (0.038-0.051)	0.049 (0.041-0.056)
10-day	0.010 (0.009-0.012)	0.013 (0.012-0.014)	0.016 (0.015-0.018)	0.019 (0.017-0.021)	0.022 (0.020-0.025)	0.025 (0.022-0.028)	0.028 (0.024-0.031)	0.031 (0.027-0.035)	0.035 (0.030-0.039)	0.038 (0.032-0.043)
20-day	0.007 (0.006-0.008)	0.009 (0.008-0.010)	0.011 (0.010-0.013)	0.013 (0.012-0.014)	0.015 (0.014-0.017)	0.017 (0.015-0.019)	0.019 (0.017-0.021)	0.021 (0.018-0.024)	0.024 (0.020-0.027)	0.026 (0.022-0.030)
30-day	0.006 (0.005-0.007)	0.007 (0.007-0.008)	0.009 (0.008-0.010)	0.011 (0.009-0.012)	0.012 (0.011-0.014)	0.014 (0.012-0.015)	0.015 (0.013-0.017)	0.017 (0.015-0.019)	0.019 (0.016-0.021)	0.020 (0.017-0.023)
45-day	0.005 (0.004-0.005)	0.006 (0.006-0.007)	0.008 (0.007-0.008)	0.009 (0.008-0.010)	0.010 (0.009-0.011)	0.011 (0.010-0.013)	0.013 (0.011-0.014)	0.014 (0.012-0.016)	0.016 (0.013-0.018)	0.017 (0.014-0.019)
60-day	0.004 (0.004-0.005)	0.006 (0.005-0.006)	0.007 (0.006-0.008)	0.008 (0.007-0.009)	0.009 (0.008-0.010)	0.010 (0.009-0.011)	0.011 (0.010-0.013)	0.012 (0.011-0.014)	0.014 (0.012-0.015)	0.015 (0.013-0.017)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

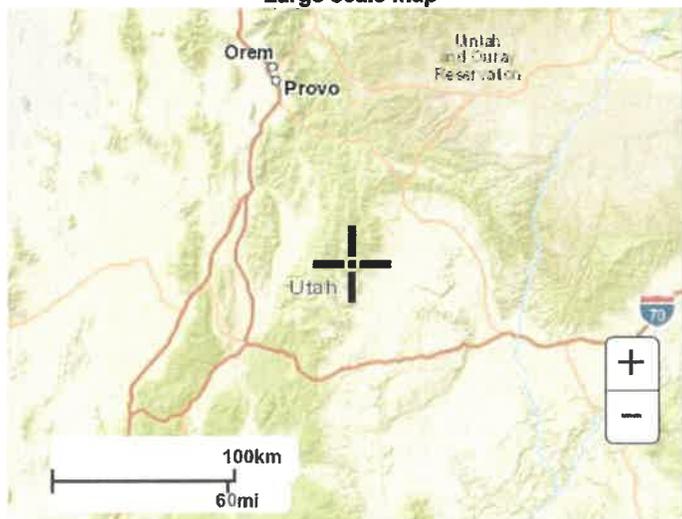
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Large scale terrain



Large scale map



Large scale aerial

Rational Method for Calculating Runoff for Area above Snow Plow Turnaround

$$Q=CiA$$

where,

Q = peak flow rate (cfs)
 C = dimensionless coefficient
 i = rainfall intensity (iph)
 A = drainage area (ac)

Solve for C; refer to chart

Solve for i; (refer to Attachment 1)
 from NOAA Atlas 14 Volume 1, Version 5
 Location Huntington Utah
 Lat. 39.3195 d, Long. -111.1828
 Elevation = 8509 ft

$$i=0.382$$

Solve for A; (Refer to Attachment 2)

$$A = 5.24 \text{ acres}$$

therefore;

$$Q = CiA = 0.4 * 0.382 * 5.24 = 0.80 \text{ cfs}$$

Required Culvert Size for Runoff Volume

Based on Mannings Equation:

$$D = \left(\frac{2.16 Qn}{\sqrt{S}} \right)^{0.35}$$

where,

D = Required Diameter (ft)
 Q = Peak Discharge (cfs)
 n = Roughness Factor (0.25 for CMP)
 S = Slope (ft/ft)

therefore,

$$D = \left(\left(\frac{2.16 Qn}{\sqrt{S}} \right)^{0.35} \right) = \left(\left(\frac{2.16 * 0.80 * 0.025}{\sqrt{0.1}} \right)^{0.35} \right) = \left(\left(\frac{0.0432}{0.3162} \right)^{0.35} \right) = 0.498 \text{ ft}$$

Field size culvert calls for an 18" culvert. Therefore culvert sizing checks.

C Values - Rural Areas

Topography and Vegetation	Open sandy loam	Clay and silt loam	Tight clay
Woodland			
Flat (0-5% slope)	0.10	0.30	0.40
Rolling (5-10% slope)	0.25	0.35	0.50
Hilly (10-30% slope)	0.30	0.50	0.60
Pasture			
Flat	0.10	0.30	0.40
Rolling	0.16	0.36	0.55
Hilly	0.22	0.42	0.60
Cultivated			
Flat	0.30	0.50	0.60
Rolling	0.40	0.60	0.70
Hilly	0.52	0.72	0.82

Application for Phase III Bond Release

Cottonwood/Wilberg Mine - TMA and Belt Portal Area Truck Turn-Around

Attachment 6

General History of the Site



March 6, 2020

Attachment 6 – General History of the Cottonwood/Wilberg Mine – Trail Mountain Access and Truck Turn-Around Area

The Trail Mountain Access and Belt Portal Area was constructed in 1994-1995 as an alternative to 1) access the Cottonwood/Wilberg Mine from the Trail Mountain Mine, and 2) transfer coal from the Trail Mountain Mine via belt across the canyon, through the Cottonwood/Wilberg Mine to the loadout in Grimes Wash (location of the main Cottonwood/Wilberg mine facility). In 2001, both Trail and Cottonwood/Wilberg mines were put into temporary cessation.

These idled mine operations stayed in a status of temporary cessation until PacifiCorp informed the Division of Oil, Gas, and Mining in July 2013 that it plans to conduct final reclamation on the entire Cottonwood/Wilberg Mine facility including the TMA and Belt Portal Area. Once the announcement was made, PacifiCorp immediately began reclamation work on the TMA area. This reclamation was completed in November 2014.

In July of 2019, Emery County Road Department approached PacifiCorp requesting to use an area in the disturbed area of the TMA and Belt Portal Area as a turn-around for their snow trucks. The southern extent of this disturbed area exists a flat expanse where trucks could back into which would enable the trucks to safely get turned around.

PacifiCorp approached the Division of Oil, Gas, and Mining (DOG M) with the county's proposal, where through multiple conversations the two parties found a path to promote it. In September 2019, PacifiCorp granted Emery County an easement for use of the area. Emery County Road Department began regrading the area in October 2019 and completed work in December 2019.

Because the turn-around is graveled surfaced, no vegetation standards will be required for bond release of the area. Without vegetation standards, the 10 year period of extended responsibility will not be applicable. Therefore, PacifiCorp is requesting that the DOGM consider a Phase III bond release for the small area of the turn-around. Existing acreage of the TMA and Belt Portal disturbed is 1.86 acres. If Phase III bond release is approved for this small area, the acreage will be reduced 0.04 acres to 1.84 acres. PacifiCorp is not requesting any reduction of the bond surety.

Application for Phase III Bond Release

Cottonwood/Wilberg Mine - TMA and Belt Portal Area Truck Turn-Around

Attachment 7

**Current Total Bond Amount
and Incremental
Amount Requested for Release**



March 6, 2020

**Cottonwood/Wilberg Mine
Bond Summary
C/015/0019**

Revised June 2019

Direct Costs

Grimes Wash Facility

Demolition	\$967,887.38
Earthwork	\$673,586.42
Revegetation	<u>\$36,172.85</u>
Subtotal	\$1,677,646.66

Overland Conveyor

Demolition	\$23,494.49
Earthwork	\$10,825.80
Revegetation	<u>\$3,061.91</u>
Subtotal	\$37,382.20

Total Direct Costs **\$1,715,028.86**

Indirect Costs

Mob/Demob	\$171,503.00	10.0%
Contingency	\$85,751.00	5.0%
Engineering Redesign	\$42,876.00	2.5%
Main Office Expense	\$116,622.00	6.8%
Project Mainagement Fee	<u>\$42,876.00</u>	2.5%

Total Indirect Costs **\$459,628.00** 26.8%

Total Cost (2011 Dollars) **\$2,174,656.86**

Escalation factor		0.017
Number of years		5
Escalation	\$191,238.00	

Bond Amount (2016 Dollars) **\$2,365,895**

Escalation factor		0.007
Number of years		5
Escalation	\$77,186.00	

Bond Amount (2021 Dollars) **\$2,443,081**

Phase I Bond Release (Approved 5/7/2019) \$1,465,848.52

Revised Bond Amount after Bond Release (2021 Dollars) **\$977,232.34**

INCORPORATED

MAY 07 2019

Div. of Oil, Gas & Mining

Application for Phase III Bond Release

Cottonwood/Wilberg Mine - TMA and Belt Portal Area Truck Turn-Around

Attachment 9

**Demonstration that Area is
Not Contributing
Suspended Solids Outside Permit Area**



March 6, 2020

Demonstration that Area is Not Contributing Suspended Solids Outside Permit Area

Because of the size of the area, it is nearly impossible to calculate any practical sediment production that would mimic real world conditions. The site is small and relatively flat. The surface is made up of a six inch layer of road base which is compacted in place. A culvert is installed at the entrance of the site which by-passes any runoff from areas located above this site.

Because the area will be continually used not only by the county, but also the public throughout the year, PacifiCorp has (as part, and in consideration of the easement requirements) required the Emery County Road Department to install a sediment control device (straw wattle) on the downhill side of the site. This shall remain operational at all times and maintained on a regular basis so long as Emery County Road Department possesses the easement. This device will protect the off-site areas from minute sediment contributions that occur from the truck turn-around area.

Application for Phase III Bond Release

Cottonwood/Wilberg Mine - TMA and Belt Portal Area Truck Turn-Around

Attachment 10

**Demonstration that Responsibility
Period has been Met**



March 6, 2020

Demonstration that Responsibility Period has been Met

As stated in the Utah Coal Regulations, R645-301-357 Revegetation: Extended Responsibility Period:

357.100. The period of extended responsibility for successful vegetation will begin after the last year of augmented seeding, fertilization, irrigation, or other work, excluding husbandry practices that are approved by the Division in accordance with paragraph R645-301-357.300.

The surface areas of the truck turn-around site consists a compacted road base material. No vegetation was required for the site and therefore, the period of extended responsibility is not applicable in this situation.

357.200. Vegetation parameters identified in R645-301-356.200 will equal or exceed the approved success standard during the growing seasons for the last two years of the responsibility period. The period of extended responsibility will continue for five or ten years based on precipitation data reported pursuant to R645-301-724.411, as follows:

357.210. In areas of more than 26.0 inches average annual precipitation, the period of responsibility will continue for a period of not less than five full years.

357.220. In areas of 26.0 inches or less average annual precipitation, the period of responsibility will continue for a period of not less than ten full years.

No vegetation was required for the site to which a vegetation standard can be applied. The period of extended responsibility is not applicable in this situation.

Application for Phase III Bond Release

Cottonwood/Wilberg Mine - TMA and Belt Portal Area Truck Turn-Around

Attachment 11

**Demonstration that Post Mining
Land Use has been Achieved**



March 6, 2020

Demonstration that Post Mining Land Use has been Met

As stated in Volume 2, Part 4, R645-301-400 Land Use of the Cottonwood/Wilberg Mining and Reclamation Plan, the post mining land use in the Cottonwood Canyon area is grazing and wildlife habitat.

As the turn-around area will be used year around by the public, including cattlemen who transport their cattle into the Cottonwood Canyon area, the site supports the stated post mining land use for grazing. Although the small site does not support vegetation, the site does support a higher and better use of the land in the support of grazing.

The use of this site is reasonable and practicable. Does not present any actual or probable hazard to public health or safety, or threat of water diminution or pollution. The construction or use of this site is not inconsistent to land use policies or plans. The site does not cause or contribute to violation of federal, Utah, or local law. The site is agreeable to and has been approved by the landowner.

Therefore, with the above information being stated and factual, a demonstration that post mining land uses have been met.