

From: Priscilla Burton
To: Darin Caine; OGMCOAL
Date: 8/29/2011 3:25 PM
Subject: 0070001 White Oak Outgoing french drain location map
Attachments: french drains_001.pdf

Hello Darin,

I have attached a copy of the Design Topography Map D3 from the Abandoned Mine project AMR/007/934, that was completed in 2004 at White Oak. The scale on this map is 1 inch = 200 ft. Map D3 shows two french drains (Areas 5 and 7) and a perforated pipe (Area 17) sending flow to the upper portion of the reconstructed channel. A description of the work completed in 2004 in Area 5, Area 7 and Area 17 is also attached. I have drawn the approximate location of the recently constructed Terrace A access on to Map D3.

Please call if you have questions.
Priscilla.

Priscilla Burton, CPSSc
Division Oil Gas & Mining
319 Carbonville Rd., Ste. C
Price UT 84501
(435) 613-3733

>>> Darin Caine <omanranches@hotmail.com> Tuesday, August 23, 2011 7:09 PM >>>

Ms. Burton, Yes I have been down to see the progress and it looks much better. I guess my response to your last email did not go through to you, it does not show it did. I emailed you from the ranch last week where I have spotty reception. I have been there several times this summer. It looks much better and I hope erosion will cease in Whiskey Creek. I apologize for failing to meet you in person on the site but everything looked great so I had nothing to add or concerns aside from the remaining asphalt road which we have discussed.

I do want a map of the French Drains and where you would recommend a road be placed if I put one in. Thanks for asking.

Please email me if you are down on the site again, if my schedule allows I will try and meet you. I appreciate your work on this issue after many years it is nice to see grass where it used to grow. The aspen will come again in time and the hill and creek won't be so bare. I will keep sheep out and I am pleased metal debris and hazards from erosion and sinkholes have been corrected.

If the hill did not wash away from rains we had this summer I am not too worried. It held up quite well I think, we had real downpours.

Thanks again, Darin

Sent from my iPhone

On Aug 23, 2011, at 5:51 PM, "Priscilla Burton" <priscillaburton@utah.gov>
> wrote:

> Hello Darin,

>

> The work at White Oak is completed. Have you had a chance to take a
> look? I think you will be impressed with the change at the site.

> Lets hope for gentle rains this fall and good snowfall this winter.
>
> Joe (the logger) asked me whether he could use the remaining terrace/
> road to access the southern most end of your property, where there
> is an existing road in the trees, going up to the ridge and
> connecting to the Clear Creek road. (Apparently, access from Clear
> Creek side has been closed.)
>
> I told him that it was your decision whether to allow him to cross
> the reclaimed area. I warned him about the French drains that are
> just beneath the surface on the east facing slope (west side, above
> the reclaimed channel), beyond where our restoration work ended.
> [If you like, I can send you a scanned copy of a map showing the
> location of the French drains.] I told him that the Division would
> not return to repair damage to the access road, slopes or stream
> channel caused by logging trucks or equipment.
>
> If you decide to allow him access, I would suggest that you have him
> restore the water bars along the length of the access road each
> fall, to prevent erosion.
>
> Priscilla.
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> Price UT 84501
> (435) 613-3733
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material will be used as backfill for areas as necessary to approximate pre-mining contours and as shown on Map Sheet D3. A riprap channel shall be installed extending down the slope as shown on Map Sheet D3 and on cross-section A-A'. The riprap channel shall be constructed with a bottom width of ten feet and depth of three feet as shown on Map Sheet D4A. Riprap shall consist of minus 6-inch graded durable rock material. The lining shall be geotextile filter blanket installed as shown on the drawings. Approximately 2,100 linear feet of fabric and 3,970 cubic yards of rock material will be required for the channel. Approximate drain alignment shall be as shown on Map Sheet D3. Approximate volume of material to be cut is 13912 cubic yards and 56,141 cubic yards of fill. Approximately 4.0 acres will require roughening and revegetation. All site grading and earthwork shall be conducted in accordance with Technical Specification Section 0270 - Site Grading/Earthwork, and as shown on the drawings in Appendix D. All drainage construction shall be conducted in accordance with Technical Specification Section 0280 - Drainage Control & Stream Protection, and as shown on the drawings in Appendix D. All revegetation shall be conducted in accordance with Technical Specification Section 0290 - Revegetation and as described in Appendix A. It is estimated that 4.0 acres will require revegetation.

P. Area 15: [roughening] The combined Area 15 shall be roughened prior to revegetated as shown on the drawings. All revegetation shall be conducted in accordance with Technical Specification Section 0290 - Revegetation and as described in Appendix A. It is estimated that 7.8 acres will require revegetation.

Q. Area 16: [cut/fill area - diversion ditch] Area 16 shall be reggraded as shown on Map Sheet D3. Material within the area will be reggraded to approximate pre-mining contours. Approximate length of diversion ditch is 800 feet. Approximate volume of material to be reggraded is 535 cubic yards. Approximately 0.3 acres will require roughening and revegetation. All site grading and earthwork shall be conducted in accordance with Technical Specification Section 0270 - Site Grading/Earthwork, and as shown on the drawings in Appendix D. All revegetation shall be conducted in accordance with Technical Specification Section 0290 - Revegetation and as described in Appendix A. It is estimated that 0.3 acres will require revegetation.

R. Area 17: [perforated drain pipe] An eight-inch diameter perforated cmp shall be installed to connect to the existing drain pipe as shown on Map Sheet D3. The drain will be approximately 340 feet long extending down the slope to the drainage bottom. The perforated cmp shall be buried a minimum of 12-inches deep. Care shall be taken not to damage the drain pipe during roughening and revegetation operations. All drainage construction shall be conducted in accordance with Technical Specification Section 0280 - Drainage Control & Stream Protection, and as shown on the drawings in Appendix D. All revegetation shall be conducted in accordance with Technical Specification Section 0290 - Revegetation and as described in Appendix A.

S. Area 18: [side drainage channel] A riprap channel shall be installed extending down the slope as shown on Map Sheet D3. The riprap channel will be approximately 240 feet long extending down the slope to the drainage bottom. The channel shall be constructed with a bottom width of five feet and depth of one foot as shown on Map Sheet D4A. Riprap shall consist of minus 6-inch graded durable rock material. The lining shall be geotextile filter blanket installed as shown on the drawings. Approximately 240 linear feet of fabric and 230 cubic yards of rock material will be required for the channel. Approximate drain alignment shall be as shown on Map Sheet D3. All drainage construction shall be conducted in accordance with Technical Specification Section 0280 - Drainage Control & Stream Protection, and as shown on the drawings in Appendix D.

I. Area 8: [cut/fill area] Area 8 shall be backfilled with material from Areas 3 through 14 as required. The highwall and slope shall be backfilled as shown on Map Sheet D2. Approximate volume of material to be cut is 57,053 cubic yards and 142,901 cubic yards of fill. Approximately 4.0 acres will require roughening and revegetation. All site grading and earthwork shall be conducted in accordance with Technical Specification Section 0270 - Site Grading/Earthwork, and as shown on the drawings in Appendix D. All revegetation shall be conducted in accordance with Technical Specification Section 0290 - Revegetation and as described in Appendix A. It is estimated that 4.0 acres will require revegetation.

H. Area 7: [cut/fill area w/French drain] Area 7 shall be backfilled with material from Area 6. A French drain will be installed parallel to the existing cut slope and extending down the slope to the drainage bottom. The drain will be minus 2-inch durable rock. The lining shall be geotextile filter blanket installed as shown on the drawings. Trench depth for installation of the French drain shall be on the existing slope. Approximately 220 linear feet of fabric and 33 cubic yards of rock material will be required for the drain. Approximate drain alignment will be as shown on Map Sheet D3. Area 7 will be backfilled approximate pre-mining contours. Approximate volume of material to be cut is 333 cubic yards and 2,859 cubic yards of fill. Approximately 0.3 acres will require roughening and revegetation. All site grading and earthwork shall be conducted in accordance with Technical Specification Section 0270 - Site Grading/Earthwork, and as shown on the drawings in Appendix D. All drainage construction shall be conducted in accordance with Technical Specification Section 0280 - Drainage Control & Stream Protection, and as shown on the drawings in Appendix D. All revegetation shall be conducted in accordance with Technical Specification Section 0290 - Revegetation and as described in Appendix A. It is estimated that 0.3 acres will require revegetation.

G. Area 6: [cut/fill area] Area 6 shall be cut to form the new stream channel alignment. The material from Area 6 will be placed in Area 10 to reduce the highwall. Approximate volume of material to be cut is 12,132 cubic yards and 744 cubic yards of fill. Approximately 1.1 acres will require roughening and revegetation. All site grading and earthwork shall be conducted in accordance with Technical Specification Section 0270 - Site Grading/Earthwork, and as shown on the drawings in Appendix D. All revegetation shall be conducted in accordance with Technical Specification Section 0290 - Revegetation and as described in Appendix A. It is estimated that 1.1 acres will require revegetation.

F. Area 5: [cut/fill area w/French drain] Area 5 shall be cut to expose the seeps along the bedrock slope. A French drain will be installed parallel to the slope and extending down the slope to the drainage bottom. The drain will be approximately 130 feet parallel to the slope and 180 feet down the slope. The drain will be 2 feet wide by 2 feet high filled with minus 2-inch durable rock. The lining shall be geotextile filter blanket installed as shown on the drawings. Trench depth for installation of the French drain is estimated to be six feet. Approximately 325 cubic yards of material will be excavated and replaced for installation of the drain. Approximately 310 linear feet of fabric and 46 cubic yards of rock material will be required for the drain. Approximate drain alignment will be as shown on Map Sheet D3. Area 5 will be regraded to approximate pre-mining contours. Approximate volume of material to be cut and filled is 325 cubic yards. Approximately 1.6 acres will require roughening and revegetation. All site grading and earthwork shall be conducted in accordance with Technical Specification Section 0270 - Site Grading/Earthwork, and as shown on the drawings in Appendix D. All drainage construction shall be conducted in accordance with Technical Specification Section 0280 - Drainage Control & Stream Protection, and as shown on the drawings in Appendix D. All revegetation shall be conducted in accordance with Technical Specification Section 0290 - Revegetation and as described in Appendix A. It is estimated that 1.6 acres will require revegetation.