



US ARMY Corps
Of Engineers®
Little Rock District

JOINT PUBLIC NOTICE

CORPS OF ENGINEERS – STATE OF MISSOURI

Application Number: SWL 2013-00260

Date: April 15, 2014

Comments Due: May 6, 2014

TO WHOM IT MAY CONCERN: **Comments are invited on the work described below. Please see the Public Involvement section for details on submitting comments.**

Point of Contact. If additional information is desired, please contact the project manager, Mr. Louis Clarke, telephone number: (870) 886-3610, mailing address: Little Rock District Corps of Engineers, Walnut Ridge Regulatory Field Office, PO Box 865, Walnut Ridge, Arkansas 72476-0865; email address: Louis.E.Clarke@usace.army.mil .

Project Information. Pursuant to Section 404 of the Clean Water Act (33 U.S. Code 1344), notice is hereby given that

**The Doe Run Resources Corporation d/b/a Doe Run
ATTN: Mr. Mark Cummings
PO Box 500
Viburnum, Missouri 65566**

has requested authorization for the placement of dredged and fill material in waters of the United States associated with the construction of a new mine tailings impoundment. The proposed project is located in 25,111 linear feet of Lick Creek and tributaries, in sections 13, 14, 23, 24, and 26, T. 33 N., R. 2 W., northeast of Bunker, Reynolds County, Missouri.

The basic purpose of the project is to contain lead mine tailings. The overall purpose of the project is to store lead mine tailings near the Brushy Creek Lead Mine to support future mining and milling operations based on known ore reserves. The project is not water dependent.

The Doe Run Company mines and concentrates lead-bearing ore at the Brushy Creek Mine and Mill facility. Tailings from the mining operations are deposited in the existing tailings basin created by the Brushy Creek Tailings Dam (MO30951); however, the remaining tailings capacity is insufficient to support future mining and milling operations. This project includes the construction of a new tailings dam and tailings storage which will be located within the Lick Creek watershed, upstream of the existing Brushy Creek Mine Water Lake which receives water pumped from the mine.

The project would consist of a dam height of 183 feet, at elevation 1,230 feet above mean sea level (msl), and a maximum water surface elevation at 1,214 feet msl. The total designed storage volume of the facility is 24.1 million cubic yards of combined tailings and liquid. The proposed earth fill embankment is designed to meet requirements as an Environmental Class I dam and its construction would be completed in three phases. Phase I involves the construction of a 103-foot-high embankment to 1,150 feet above msl; Phase II would raise the embankment to 143 feet high, for a maximum elevation of 1,190 feet above msl; and Phase III would raise the

embankment to its final height of 183 feet at 1,230 feet above msl. Phase I dam construction would have a 5H:1V downstream slope. Phase II and III construction would take place downstream of Phase I construction with 4H:1V downstream slopes with approximately 100-ft-wide benches every 50 vertical feet.

The mine tailings dam is designed to contain storm and flood water for all storm events that could occur without passing flow, up to the 75% of the maximum probable precipitation (21.52 inches). Model results using a 6-hour duration indicate the Phase I dam emergency spillway will pass a flow of 3,241 cubic feet per second (cfs) and 1,416 acre-feet of water downstream to Bills Creek; Phase II dam emergency spillway would pass a flow of 2,752 cfs and 1,402 acre-feet of water downstream to Bills Creek; and Phase III would pass 2,186 cfs and 1,360 acre-feet of water downstream to Bills Creek. Construction of Phases II and III would occur at such times when Doe Run determines that the existing basin capacity is insufficient to support future operations.

Processing of currently identified proven and probable reserves, including reserves of minerals owned by the United States and leased by Doe Run, requires increasing tailings capacity for the Brushy Creek Mill. Raising the existing Brushy Creek Tailings Dam to increase tailings capacity is not technically feasible as the current dam height is at the maximum height of containment as controlled by the height of the ridges of the valley. To avoid placing tailings in drainage areas not currently containing mining waste, the location of the site for the new tailings dam was selected above the current Mine Water Pond.

Doe Run proposes to compensate for project impacts using on-site and off-site stream mitigation, on-site and off-site wetland mitigation, and/or credit purchases through the Missouri Stream Stewardship Trust Fund.

The location and general plan for the proposed work are shown on the enclosed sheets.

Water Quality Certification. By copy of this public notice, the applicant is requesting certification from the Missouri Department of Natural Resources that the operation of the proposed facility will apparently not violate the existing water quality criteria of the State of Missouri. The Commission hereby gives notice of its intent to certify this construction. A Corps of Engineers permit will not be issued until such certification has been granted. Commenters are requested to furnish a copy of their comments to the Missouri Department of Natural Resources.

Cultural Resources. A Corps staff archeologist will review topographic maps, the National Register of Historic Places, and other data on reported sites in the area. The District Engineer invites responses to this public notice from Native American Nations or tribal governments; Federal, State, and local agencies; historical and archeological societies; and other parties likely to have knowledge of or concerns with historic properties in the area.

Endangered Species. Our preliminary determination is that the proposed activity will not affect listed Endangered Species or their critical habitat. A copy of this notice is being furnished to the U.S. Fish and Wildlife Service and appropriate state agencies and constitutes a request to those

agencies for information on whether any listed or proposed-to-be-listed endangered or threatened species may be present in the area which would be affected by the proposed activity.

Flood Plain. We are providing copies of this notice to appropriate flood plain officials in accordance with 44 CFR Part 60 (Flood Plain Management Regulations Criteria for Land Management and Use) and Executive Order 11988 on Flood Plain Management.

Section 404(b)(1) Guidelines. The evaluation of activities to be authorized under this permit which involves the discharge of dredged or fill material will include application of guidelines promulgated by the Administrator, Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act. These guidelines are contained in 40 Code of Federal Regulations (CFR) 230.

Public Involvement. Any interested party is invited to submit to the above-listed POC written comments or objections relative to the proposed work on or before **May 6, 2014**. Substantive comments, both favorable and unfavorable, will be accepted and made a part of the record and will receive full consideration in determining whether this work would be in the public interest. The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Any person may request in writing within the comment period specified in this notice that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. The District Engineer will determine if the issues raised are substantial and whether a hearing is needed for making a decision.

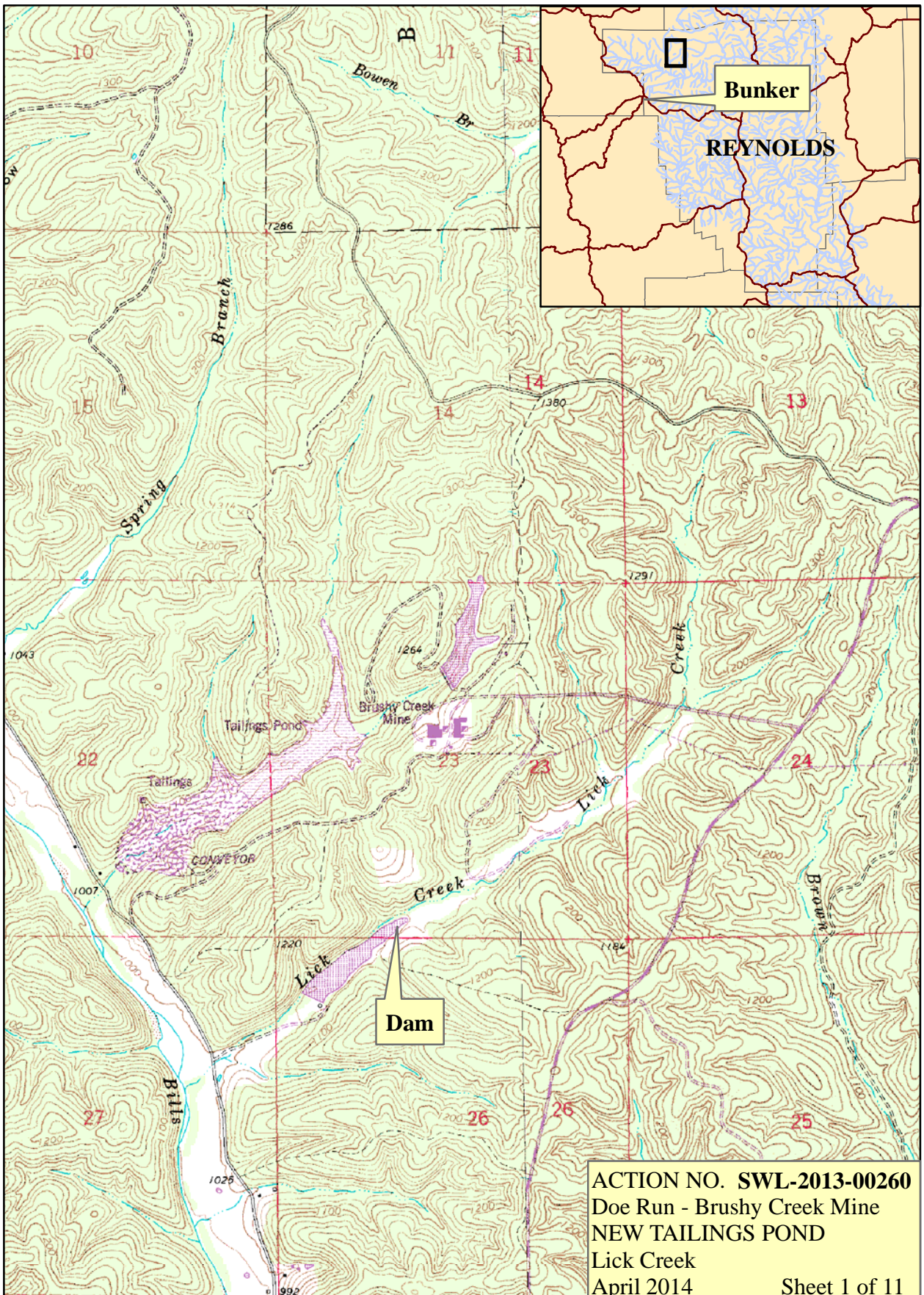
NOTE: The mailing list for this Public Notice is arranged by state and county(s) where the project is located, and also includes any addressees who have asked to receive copies of all public notices. Please discard notices that are not of interest to you. If you have no need for any of these notices, please advise us so that your name can be removed from the mailing list.

Enclosure

Approximate Coordinates of Project Center

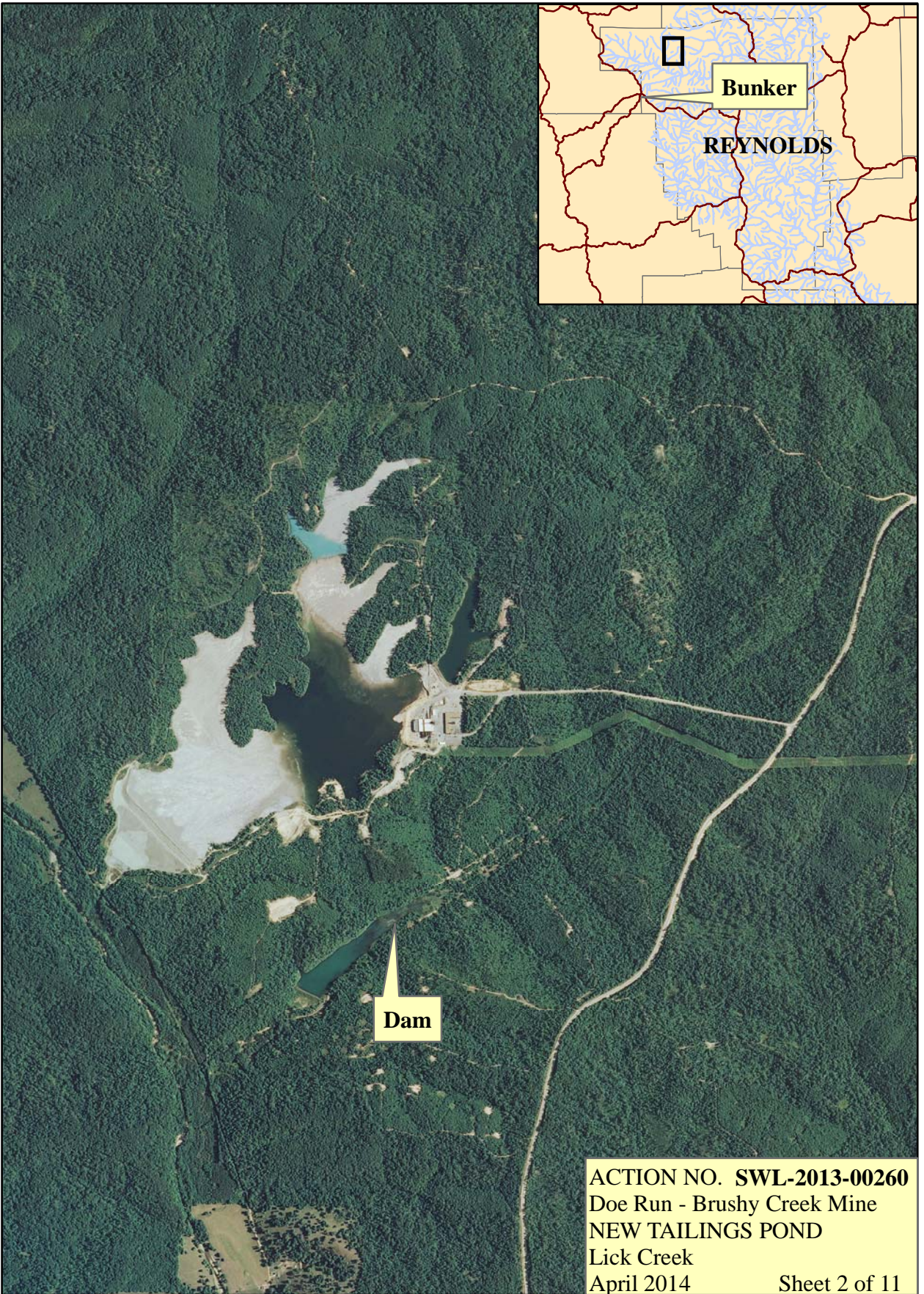
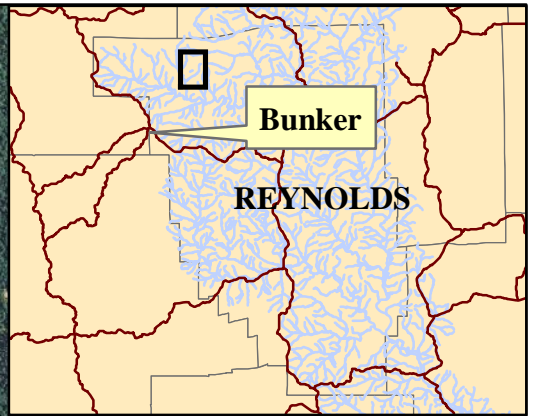
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UTM Zone: **15** North: **4155391** East: **665104**



5,600

Feet



47

Dam

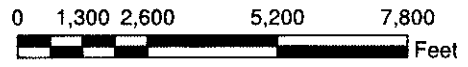
ACTION NO. SWL-2013-00260
Doe Run - Brushy Creek Mine
NEW TAILINGS POND
Lick Creek
April 2014

Sheet 2 of 11

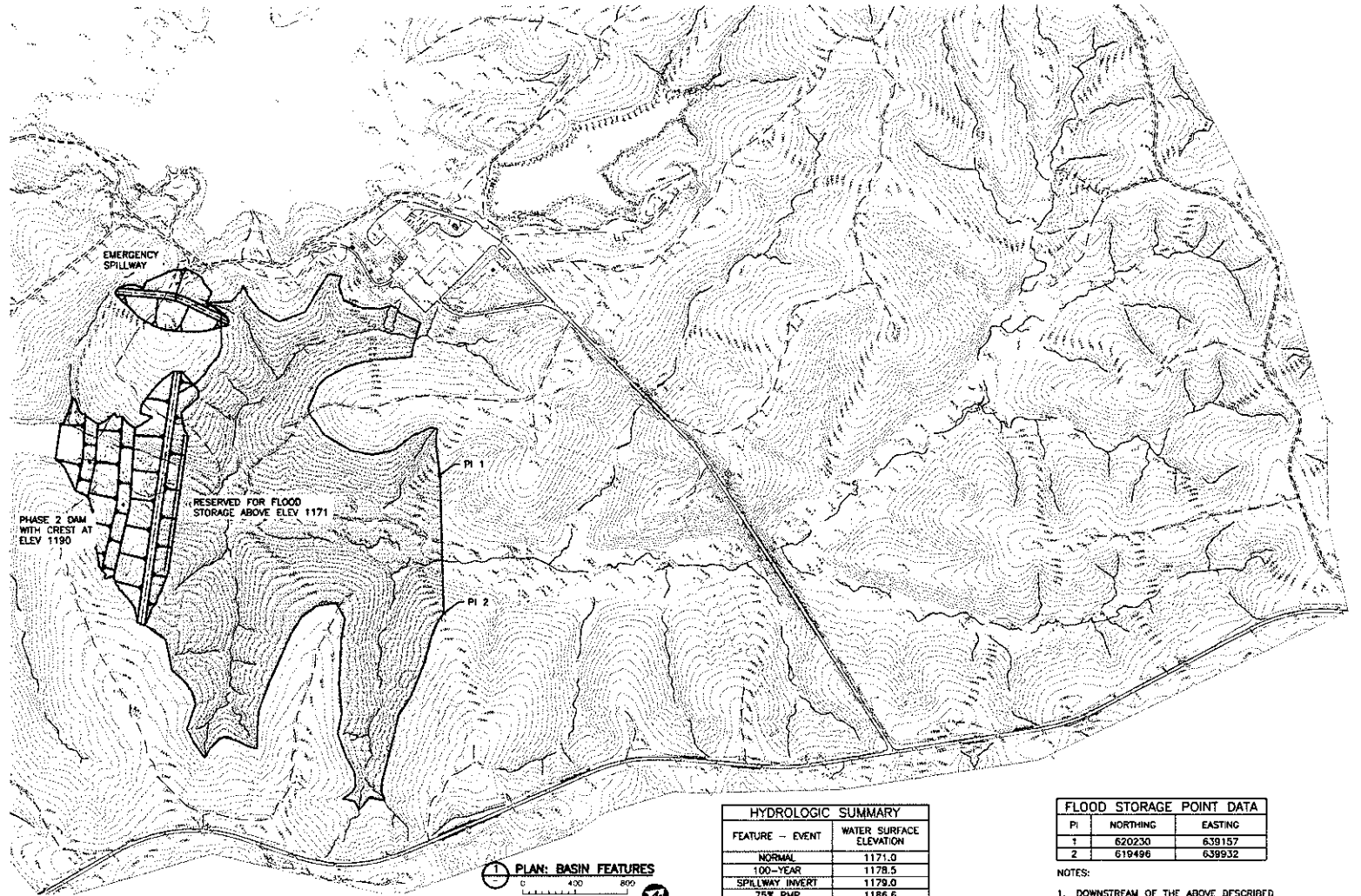
5,600

Feet

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ACTION NO. SWL-2013-00260
Doe Run - Brushy Creek Mine
NEW TAILINGS POND Lick Creek
April 2014 Sheet 3 of 11



1 PLAN: BASIN FEATURES
 0 400 800
 SCALE IN FEET

HYDROLOGIC SUMMARY	
FEATURE - EVENT	WATER SURFACE ELEVATION
NORMAL	1171.0
100-YEAR	1178.5
SPILLWAY INVERT	1179.0
75% PMP	1186.6

FLOOD STORAGE POINT DATA		
PI	NORTHING	EASTING
1	620230	639157
2	619496	639932

NOTES:
 1. DOWNSTREAM OF THE ABOVE DESCRIBED LINE, THE FLOOD STORAGE BOUNDARY IS

- NOTES:
- NORMAL LEVEL IS MAINTAINED BY P
 - AVERAGE ANNUAL OUTLET FLOW IS
 - OUTLET PUMP STATION MINIMUM CAP 8 CFS, TO PROVIDE CAPACITY TO O RESERVOIR AFTER FLOOD EVENTS.

ACTION NO. SWL-2013-00260
 Doe Run - Brushy Creek Mine
 NEW TAILINGS POND Lick Creek
 April 2014
 Sheet 5 of 11

NO.	BY	CHK	APP.	DATE	REVISION DESCRIPTION

BARR
 Corporate Headquarters
 Minneapolis, Minnesota
 PH: 1-800-639-2277

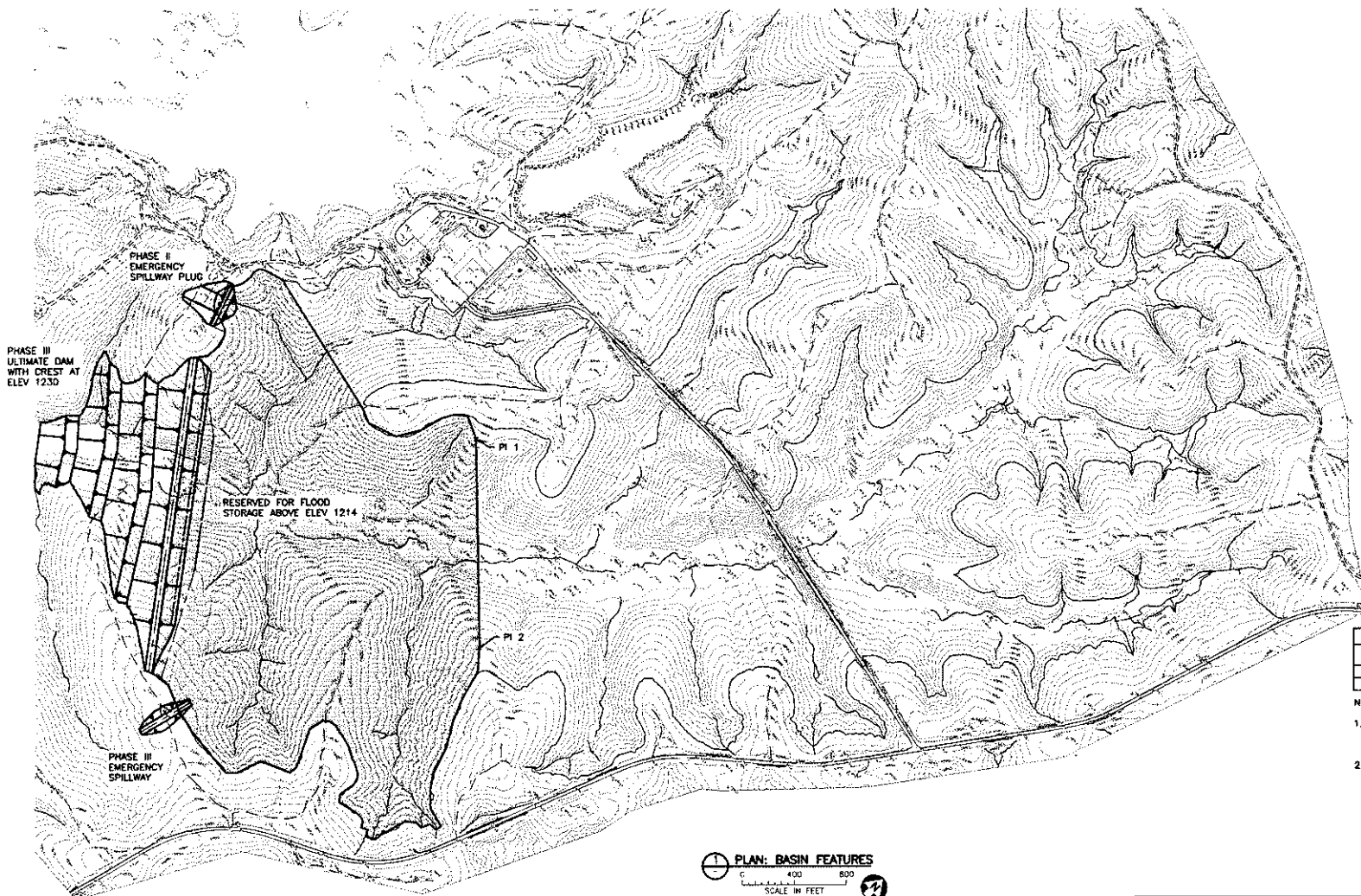
Project Office:
BARR ENGINEERING CO.
 3238 EMERALD LANE
 JEFFERSON CITY, MO 65109
 PH: (636) 374-3633
 FX: (636) 628-5001
 www.barr.com

Scale	AS SHOWN
Date	12/12/2012
Drawn	AP
Checked	
Designed	
Approved	



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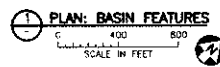


HYDROLOGIC SUMMARY	
FEATURE - EVENT	WATER SURFACE ELEVATION
NORMAL	1214.0
100-YEAR	1219.8
SPILLWAY INVERT	1220.0
75% PMF	1226.5

- NOTES:
1. NORMAL LEVEL IS MAINTAINED BY PUMPING.
 2. AVERAGE ANNUAL OUTLET FLOW IS ABOUT 0.5 CFS.
 3. OUTLET PUMP STATION MINIMUM CAPACITY WILL BE 8 CFS, TO PROVIDE CAPACITY TO DRAWDOWN RESERVOIR AFTER FLOOD EVENTS.

FLOOD STORAGE POINT DATA		
PI	NORTHING	EASTING
1	620473	639007
2	619348	640167

- NOTES:
1. DOWNSTREAM OF THE ABOVE DESCRIBED LINE, THE FLOOD STORAGE BOUNDARY IS THE ELEVATION 1214 CONTOUR.
 2. TAILINGS PLACED AROUND THIS BOUNDARY SHALL HAVE A SLOPE OF 3H:1V OR FLATTER.



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 Doe Run - Brushy Creek Mine
 NEW TAILINGS POND Lick Creek
 April 2014 Sheet 6 of 11

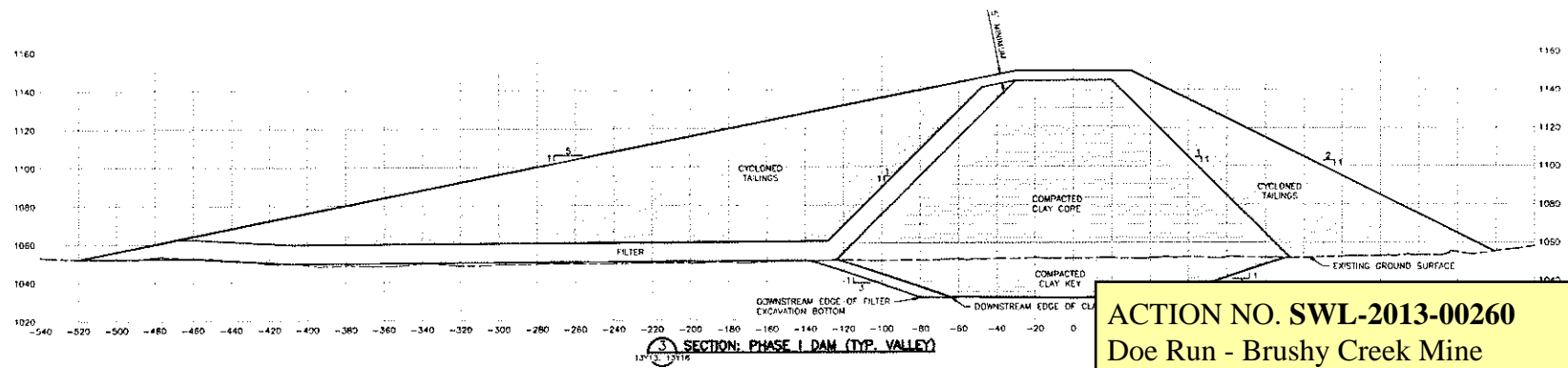
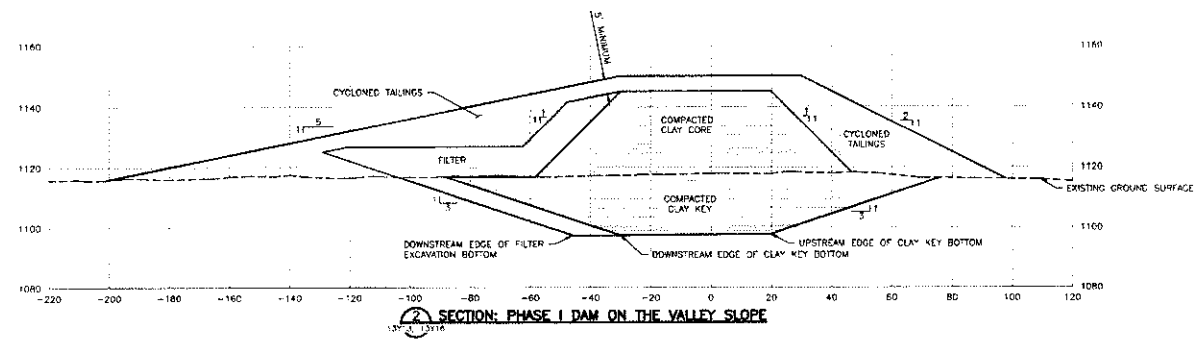
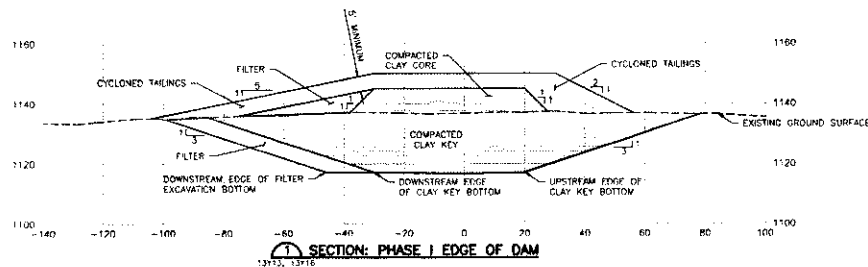
NO.	BY	CHK	APP	DATE	REVISION DESCRIPTION

BARR
 Project Office:
 BARR ENGINEERING CO.
 3236 EMERALD LANE
 JEFFERSON CITY, MO 65109
 Tel: 1-800-374-3637
 Fax: (573) 634-3001
 www.barr.com

Scale	AS SHOWN
Date	12/12/2012
Drawn	AJT
Checked	
Engineered	
Approved	



LEGEND:
 CLAY
 FILTER
 TAILINGS
 PHASE - CONSTRUCTION



ACTION NO. SWL-2013-00260
 Doe Run - Brushy Creek Mine
 NEW TAILINGS POND Lick Creek
 April 2014
 Sheet 7 of 11

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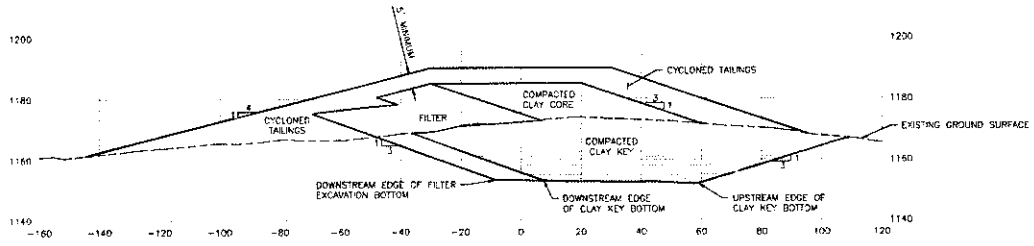
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2	CAB			04/02/13	ISSUED FOR CLIENT REVIEW
3	TLM			04/02/13	ISSUED FOR CLIENT REVIEW

BARR Engineering Co.
 1001 DIAMOND RIDGE SUITE 1100
 JEFFERSON CITY, MO 65109
 Phone: 1-888-324-3333
 Fax: (313) 636-5001
 www.barr.com

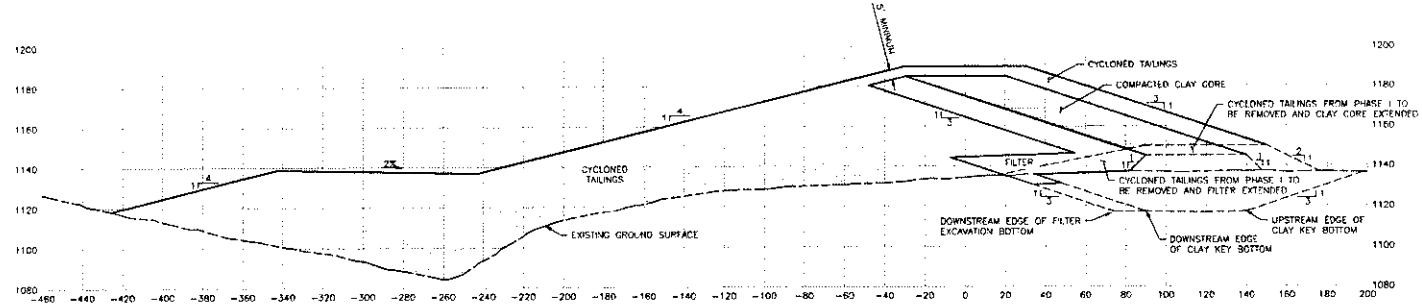
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Drawn	2/8/13
Checked	CMS2
Designed	CAB
Approved	TLM



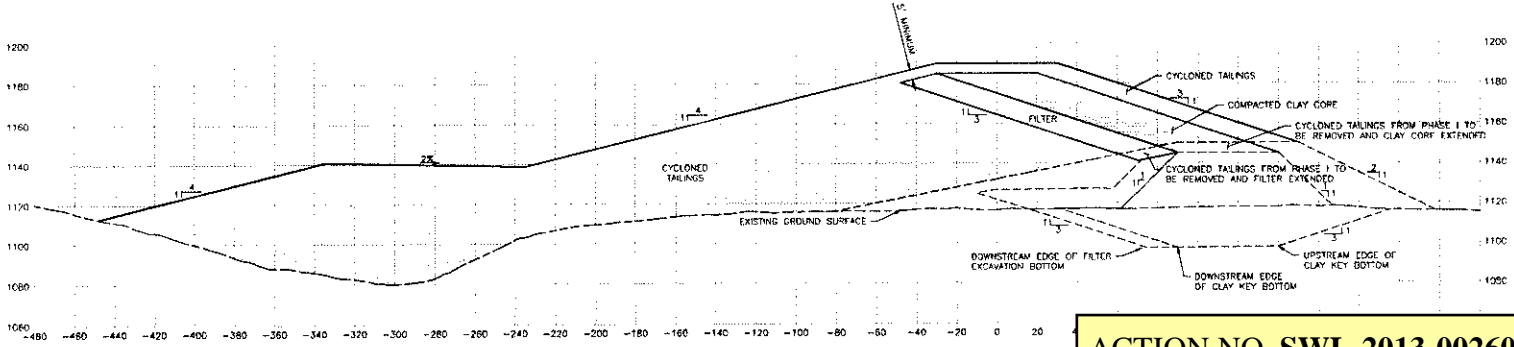
- LEGEND:**
- CLAY
 - FILTER
 - TAILINGS
 - PHASE I CONSTRUCTION
 - PHASE II CONSTRUCTION



1 SECTION: PHASE II DAM BEYOND EXTENTS OF PHASE I DAM



2 SECTION: PHASE II DAM ON THE VALLEY SLOPE



3 SECTION: PHASE II DAM ON THE VALLEY SLOPE

ACTION NO. SWL-2013-00260
Doe Run - Brushy Creek Mine
NEW TAILINGS POND Lick Creek
 April 2014
 Sheet 8 of 11

NO.	BY	CHK	APP	DATE	REVISION DESCRIPTION	RELEASED TO/FOR
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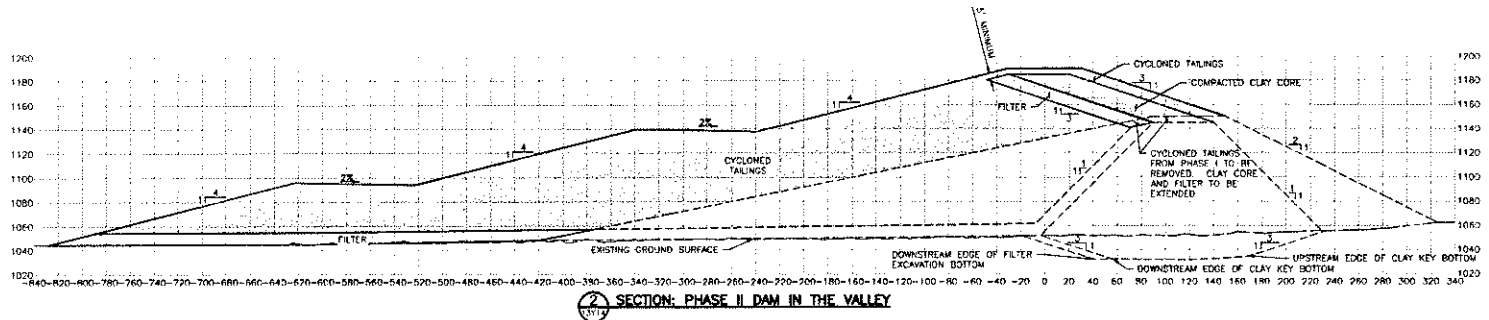
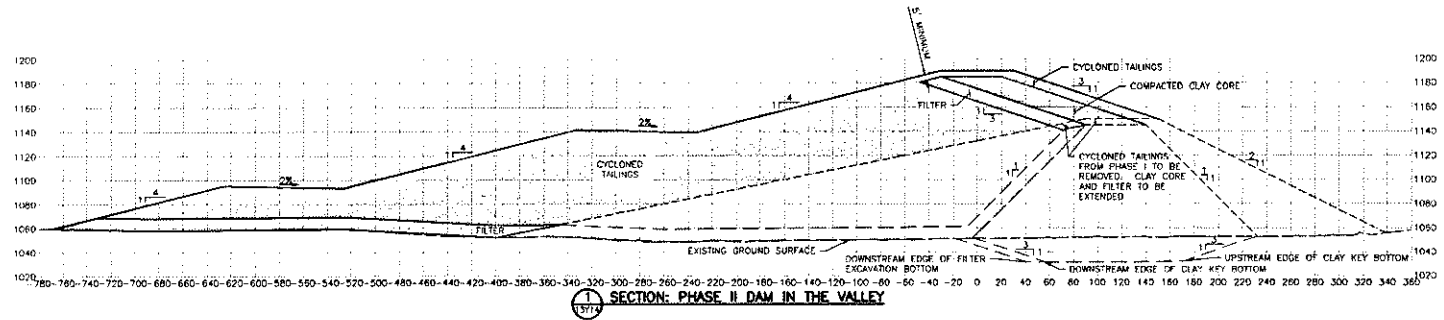
BARR ENGINEERING CO.
 1001 DIAMOND RIDGE
 SUITE 1100
 JEFFERSON CITY, MO 65109
 Copyright: This document
 Minneapolis, Minnesota
 Ph. 1-800-632-2277
 www.barr.com

Project: Doe Run
 Scale: AS SHOWN
 Date: 2/8/13
 Drawn: CWS2
 Checked: CAB
 Designed: CAB
 Approved: TLM



CAD: GSD, CHN: M, SCALE: FILE: 4:\WORKSPACE\2013\00260\1071\01_13\DOE_RUN_POND_SALE_12.PLOT DATE: 4/17/2013 1:08 PM

LEGEND:
 - - - - - CLAY
 - - - - - FILTER
 - - - - - TAILINGS
 - - - - - PHASE I CONSTRUCTION
 ——— PHASE II CONSTRUCTION



ACTION NO. SWL-2013-00260
 Doe Run - Brushy Creek Mine
 NEW TAILINGS POND Lick Creek
 April 2014
 Sheet 9 of 11

NO.	BY	CHK/APP	DATE	REVISION	DESCRIPTION	RELEASED TO/FOR	DATE RELEASED
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Project Office:
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 JEFFERSON CITY, MO 65109
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 Fax: (573) 638-9921
 Mo: 1-800-537-2277
 www.barr.com

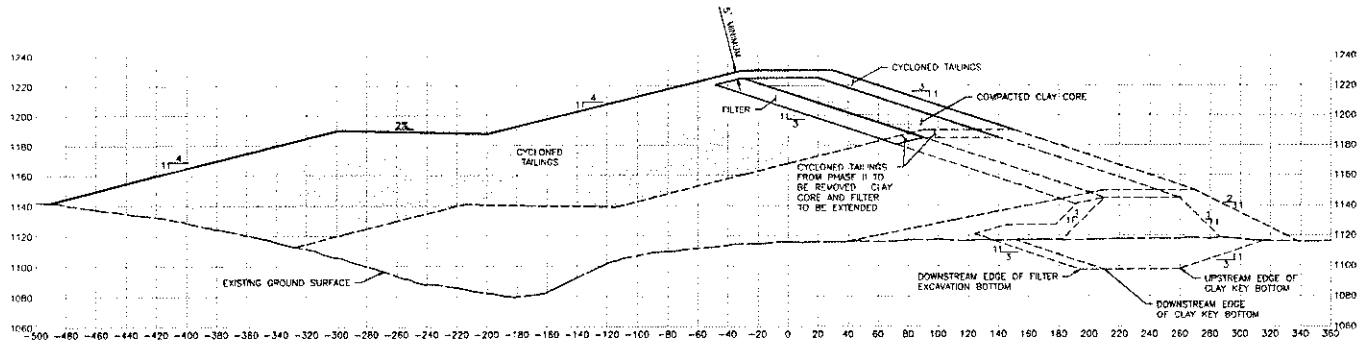
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 Drawn: CWS2
 Checked: CAB
 Design: CAB
 Approved: ELM



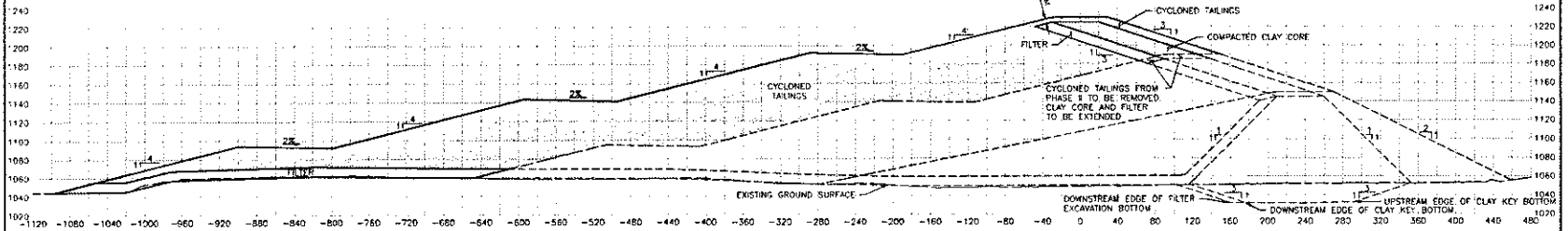
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LEGEND:

- CLAY
- FILTER
- TAILINGS
- PHASE I AND II CONSTRUCTION
- PHASE III CONSTRUCTION



1 SECTION: PHASE III DAM IN THE VALLEY
13112



2 SECTION: PHASE III DAM IN THE VALLEY
13113

ACTION NO. SWL-2013-00260
Doe Run - Brushy Creek Mine
NEW TAILINGS POND Lick Creek
 April 2014 Sheet 11 of 11

NO.	BY	CHK	APP	DATE	REVISION DESCRIPTION
1					ISSUED FOR CLIENT REVIEW
2					ISSUED FOR CLIENT REVIEW
3					ISSUED FOR CLIENT REVIEW

BARR ENGINEERING CO.
 1001 DIAMOND WOODS
 SUITE 1100
 JEFFERSON CITY, MO 65109
 Project Office: BARR ENGINEERING CO.
 1001 DIAMOND WOODS
 SUITE 1100
 JEFFERSON CITY, MO 65109
 Tel: 1-866-324-3632
 Jeffersonville, Missouri
 Tel: (573) 638-5007
 www.barr.com

THE DOE RUN COMPANY

Scale	AS SHOWN
Date	2/8/13
Drawn	CMS2
Checked	CAB
Designed	CAB
Approved	TLM

CAD USER: CHM N. Schum File: M:\DESIGN\2013\107\DOE RUN\107\DOE RUN PLP SCALE: 1:1.0 PLOT DATE: 4/17/2013 4:17 PM