

Recording Requested By and
When Recorded Return to:

Rob Hanson
Idaho Department of Environmental Quality
1410 N. Hilton
Boise, Idaho 83706

Instrument # 614302

HAILEY, BLAINE, IDAHO
10-29-2013 02:47:15 No. of Pages: 35
Recorded for : ID DEPT OF ENVIRONMENTAL QUALITY
JOLYNN DRAGE Fee: 112.00
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Index to: COVENANTS & RESTRICTIONS

JB

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THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL COVENANT PURSUANT TO THE UNIFORM ENVIRONMENTAL COVENANTS ACT, IDAHO CODE § 55-3001, et seq.

ENVIRONMENTAL COVENANT

This instrument is an Environmental Covenant ("Environmental Covenant") executed by **Dan Tucker** ("OWNER), and the Idaho Department of Environmental Quality ("Department").

This Environmental Covenant sets forth protective provisions, covenants, restrictions and conditions (collectively referred to as "Activity and Use Limitations") on the Property described below. The Activity and Use Limitations are designed to protect natural resources, human health and the environment upon and or adjacent to the Property identified below and every portion thereof.

The Idaho Department of Lands (IDL) is a "holder" as defined in Idaho Code § 55-3002(6).

OWNER, as the current property owner grants this Environmental Covenant to all signatories to this instrument.

Property. This Environmental Covenant concerns real property in the Town of Triumph located in the County of Blaine, State of Idaho, legally described as **North Star Subdivision, Lot 2, Blaine County Parcel Number RP004370000020** (hereafter referred to as "the Property"). The Property is legally described in the attached Exhibit A. [attach legal description and map if available.]

Property Ownership. OWNER hereby represents and warrants to the other signatories to this Environmental Covenant that he/she/they is [are] the sole owner of the property, holds fee simple title to the property and OWNER has the power and authority to enter into this Environmental Covenant.

Reason for Activity and Use Limitations. The area in which the above described property is located is within an area affected by the Triumph Mine Tailings Pile Site. In 1995, IDL and ASARCO entered into a Consent Order with the Idaho Department of Environmental Quality (the "Department") for the remediation of the Triumph Mine in Triumph, Blaine County, Idaho

("the site"). Pursuant to this Consent Order, the Department required the parties to establish institutional controls to protect human health and the environment related to lands in and around the Triumph Mine and its associated workings and tailings pile.

A copy of the Administrative Record for this Environmental Clean-up Action may be found at the Idaho Department of Environmental Quality, 1410 N. Hilton, Boise, Idaho.

Activity and Use Limitations. By acceptance and recordation of this Environmental Covenant, OWNER, and any successors in interest, are hereby required to comply with all terms and conditions of the Triumph Community Protection Measures (hereinafter "TCPM") attached hereto as Exhibit B and made a part herein by reference.

Amendment by Consent. The Environmental Covenant may be amended by consent pursuant to Idaho Code § 55-3010. Except for an assignment undertaken pursuant to a governmental reorganization, assignment of the Environmental Covenant to a new holder is an amendment.

Termination by Consent. The Activity and Use Limitations shall apply to the Property, or any subdivided portion thereof, unless OWNER, or its successors in interest, applies to the Department to have this Environmental Covenant terminated pursuant to Idaho Code § 55-3010 and demonstrates in a Department approved document that with respect to all or part of the Property or any subdivided portion thereof the Property does not contain contaminated soils or groundwater.

Provisions to Run With the Land. Each and all of the Activity and Use Limitations shall run with the land, and pass with each and every portion of the Property, and shall apply to and bind the respective successors in interest thereof. Each and all of the Activity and Use Limitations are imposed upon the entire Property unless expressly stated as applicable to a specific portion of the Property.

Concurrence of Subsequent Owners Presumed. All purchasers, lessees, or possessors of any portion of the Property shall be deemed by their purchase, leasing, or possession of such Property, to be in accord with the foregoing and to agree for and among themselves, and their successors, that the Activity and Use Limitations as herein established must be adhered to and that their interest in the Property shall be subject to the Activity and Use Limitations contained herein.

Recording/Filing of Environmental Covenant. This Environmental Covenant and any amendment or termination of the Environmental Covenant shall be recorded in the county recorder's office of every county in which any portion of the Property subject to the Environmental Covenant is located. The Environmental Covenant or any amendment or termination shall be recorded by OWNER, or its successors in interest, within ten (10) days of receipt of this Environmental Covenant signed by the Department. Within ten (10) days of the recording of this Environmental Covenant, or any amendment or termination, OWNER, or its successors in interest, shall provide to the Department a copy of this recorded Environmental Covenant, or any amendment or termination of this Environmental Covenant. Upon receipt of the copy of the recorded Environmental Covenant, and any amendment or termination therein, the Department shall post the copy of the fully executed instrument in the Registry as required

by Idaho Code Section 55-3012(1). In addition, a copy of the recorded Environmental Covenant, or any amendment or termination, shall be provided by OWNER, or by its successors in interest, to the following persons: (a) each person that signed the Environmental Covenant; (b) each person holding a recorded interest in the Property; (c) each person in possession of the Property; (d) each municipality or other local government in which the Property is located; and (e) any other person the Department requires. The validity of the Environmental Covenant is not affected by failure to provide a copy of the Environmental Covenant as required under this section.

Enforcement. The Department and any Holder of the Environmental Covenant shall have authority to enforce the Activity and Use Limitations against OWNER or its successors-in-interest, including subsequent owners of the Property and any other person using the Property.

Property Access. The Department shall have a right of access to the Property for the purposes of ensuring compliance with this Environmental Covenant.

Notice of Conveyance of Property. Within thirty (30) days of the closing of any conveyance of the Property, or part thereof, the Conveyer of the Property, shall provide written notice to the Department and each municipality or other local government in which the Property is located, the name and address of all the then Owners and/or Occupants of the Property, or part thereof, conveyed. The Department shall not, by reason of this Environmental Covenant, have authority to approve, disapprove, or otherwise affect any conveyance of the Property except as otherwise provided by law.

Notices. All notices required or permitted to be given hereunder shall be in writing and mailed in the United States Mail, postage prepaid, by certified or registered mail, return receipt requested, to the appropriate address indicated below or at such other place or places as either OWNER or its successors, the Idaho Department of Lands or its successors, or the Department or its successors, may, from time to time, respectively, designate in a written notice given to the other. Notices which are deposited in the United States Mail in accordance with the terms of this provision shall be deemed received three (3) days after the date of mailing thereof.

OWNER:

THE DEPARTMENT: Idaho Department of Environmental Quality

ATTN: Rob Hanson

1410 N. Hilton

Boise, ID 83706

THE IDL:

ATTN: Eric Wilson

300 North 6th Street, Suite 103

P O Box 83720

Boise ID 83720-0050

Costs and Expenses. All costs of terminating this Environmental Covenant, including the cost of any remediation or abatement of any environmental condition related to Activity and Use Limitations pertaining to the Property, shall be borne by the party seeking such termination.

Partial Invalidity. If any portion of the Environmental Covenant or terms set forth herein is determined to be invalid for any reason, the remaining portion shall remain in full force and effect as if such invalidated portion had not been included herein.

Headings. Headings at the beginning of each section of this Environmental Covenant are solely for the convenience of the parties and are not a part of the Environmental Covenant.


Idaho Code References. All references to the Idaho Code sections include successor provisions.

Reservation of Rights. Notwithstanding any provision of this Environmental Covenant, the Department retains all of its access and enforcement authorities under any applicable statute or rule. The Department's acceptance hereunder is based upon the information presently known or available to the Department with respect to the environmental condition of the Property, and the Department reserves the right to take appropriate action under applicable authorities in the event the Department determines new information warrants such action.

Effective Date. The effective date of this instrument shall be the date the fully executed Environmental Covenant is recorded at the county recorder's office.

Signature and Acknowledgments
Accepted:

Idaho Department of Environmental Quality

Signature: 
Printed Name: Toni Hardesty
Title: Director, Idaho Department of Environmental Quality
Date: 11/3/10

State of Idaho)
) ss.
County of Ada)

On this 3 day of Nov, in the year 2010, before me, a Notary Public in and for said County and State, personally appeared Toni Hardesty, known or identified to me to be the Director of the Idaho Department of Environmental Quality that executed this Environmental Covenant, and acknowledged to me that the Idaho Department of Environmental Quality executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.



Notary Public for Idaho: Rosie M. Alonzo
Residing at: Blanca, Idaho
Commission Expires: 11/30/2015

Idaho Department of Lands

Signature: [Handwritten Signature]
Printed Name: George Bacon
Title: Director, Idaho Department of Lands
Date: _____

State of Idaho)
) ss.
County of Ada)

On this 19th day of November in the year 2010, before me, a Notary Public in and for said County and State, personally appeared George Bacon, known or identified to me to be the Director of the Idaho Department of Lands that executed this Environmental Covenant, and acknowledged to me that the Idaho Department of Lands executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.




Notary Public for Idaho: H G PRICE
Residing at: Middleton
Commission Expires: 03/18/10

Signature and Acknowledgments

Accepted:

Property Owner


Signature: 
 Printed Name: DAN TUCKER
 Title: owner
 Date: 10/31/10

State of Idaho)
) ss.
 County of Blaine)

On this 31 day of Oct., in the year 2010, before me, a Notary Public in and for said County and State, personally appeared DAN TUCKER, known or identified to me to be the person that executed this Environmental Covenant, and acknowledged to me that he/she executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.



Notary Public for Idaho: 
 Residing at: Betchum ID
 Commission Expires: 4-5-11

Signature and Acknowledgments

Accepted:

Property Owner

Signature: _____
Printed Name: _____
Title: _____
Date: _____

State of Idaho)
) ss.
County of Blaine)

On this _____ day of _____, in the year _____, before me, a Notary Public in and for said County and State, personally appeared _____, known or identified to me to be the person that executed this Environmental Covenant, and acknowledged to me that he/she executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Notary Public for Idaho: _____
Residing at: _____
Commission Expires: _____

TRIUMPH COMMUNITY PROTECTION MEASURES

(Exhibit B)

TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION AND PROJECT OVERVIEW.....	1
1.1 PROGRAM COMPONENTS.....	2
2.0 PROTECTION MEASURES.....	2
2.1 YARDS AND OPEN SPACES.....	2
2.1.1 Small or Minor Activities.....	3
2.1.2 Large Excavations.....	4
2.2 FUTURE DEVELOPMENT.....	4
2.2.1 Barrier Option Plan.....	5
2.2.2 Drinking Water.....	5
3.0 DOCUMENTATION OF COMPLIANCE AND SELF CERTIFICATION..	5
3.1 TCPM Database.....	5
3.2 As-Built Plate.....	6
3.3 Property Owner Documentation.....	6

LIST OF ATTACHMENTS

Attachment

- A Map of Triumph Vicinity District
- B Procedures and Standards/Small or Minor Activities
- C Procedures and Standards/Large Excavations
- D Barrier Option Plan
- E Soil Disposal Site Plan
- F Database Program
- G Soil Sampling Protocol
- H As-Built Plate

TRIUMPH COMMUNITY PROTECTION MEASURES

1.0 INTRODUCTION

Project Overview

The remedial action work performed at Triumph was in response to contaminated soil and tailings resulting from past mining activities. The principal contaminant of concern at the site was arsenic. Arsenic above certain levels is known to have adverse health effects. Arsenic was found above EPA threshold levels in most residential yards and in the tailings piles and other soils. In order to address this, contaminated soil was removed from residential areas and disposed on the lower tailings pile. In some cases all of the contaminated soil could not be removed. In these cases, the soil was covered with a barrier of clean (uncontaminated) soil or gravel. Likewise, the tailings piles and waste rock pile were covered with a soil barrier. These barriers effectively protect people and the environment.

The remedial action was performed by Asarco and the Idaho Department of Lands (PRP's) in response to two consent orders with the Idaho Division of Environmental Quality (DEQ) under the authority of State environmental regulations. The remedy selections and remedial action work were also performed in compliance with federal Superfund Program requirements under EPA oversight.

Since all of the contaminated soil was not removed from some areas, measures are needed to ensure that the contaminated soils and tailings do not become an unacceptable health risk. The measures described in this document provide information to property owners so that they know how they can continue to maintain the environmental protection provided by the soil and gravel barriers and avoid recontaminating the barriers.

The Triumph Community Protection Measures (TCPM) are an essential part of the remedy at the Triumph Community Site. In particular, the TCPMs are necessary to ensure that clean soil and gravel barriers will not become recontaminated from contaminated soils and mine wastes. In addition, the TCPMs are necessary to make sure that the caps, "barriers", are protected or reinstalled in the future so that they continue to serve as barriers to the underlying contaminated soils. The investments in barriers and other remedial actions are to prevent migration of or contact with contaminated soils.

The future uses of the lands within the Triumph Vicinity District (TVD) (shown on Map A, attached hereto) will have an important role in preserving the remedial work performed at the Triumph Community Site. The TCPMs are designed to accommodate future land use development by outlining procedures and guidelines and educating the landowners so that such development will not jeopardize the cleanup.

The purpose of the District will be to guide development and activities that impact the installed barriers or create the need for new barriers in the Triumph Community Area.

The TCPMs will focus upon educating the property owners and the public with regard to performing excavating and grading activities, the proper disposal of contaminated soil, the location of the disposal area, the requirements of excavation and disposal, and the installation of new barriers. Primarily, the limitations for activities will center around excavation issues. It will be the responsibility of the property owner to comply with the TVD restrictions.

Management of barriers and documentation of compliance are the objectives of the TCPMs. A database will be created for tracking development activities in the TVD based upon two types of property in the TVD . The database will also be used to track dissemination of educational pamphlets each year. First, the properties that have had all contamination removed and require no further protective measures, will have no further restrictions placed on the property's use and activities. These properties will not be included in the TVD area on the TVD Map (Attachment A). The second category of properties consists of approximately five to ten residential properties, which have had a barrier cap placed upon them (Shown in yellow on Attachment A). These properties have had the contaminants safely controlled. These properties will have certain restrictions concerning excavation and disposal of soils. There are also undeveloped properties that have a barrier cap placed upon them and these properties will also be subject to the TCPMs (Shown in green on Attachment A). Finally, there are undeveloped, uncapped areas consisting of wetlands and hillside areas. These areas are marked in blue on the TVD Map and these properties are subject to the TCPMs, requiring a barrier option plan for future development.

1.1 PROGRAM COMPONENTS

There are two main components of the TCPMs:

- Protection Measures (PMs). These specify the how to, what is allowed, what is not allowed -- the specifications for barriers and protection of barriers, disposal practices and procedures to be followed.
- Documentation of compliance for development activities requiring a permit.

2.0 PROTECTION MEASURES

2.1 YARDS AND OPEN SPACES

2.1.1 “SMALL OR MINOR” ACTIVITIES

These are identified as types of activities that property owners or tenants might carry out in the normal course of working around their property such as gardening, putting in a fence, planting a tree, creating a patio, putting in footers for a deck, etc. This is being defined as involving excavations and activities not requiring a building permit from Blaine County. Educational materials in the form of pamphlets will be mailed out once a year to remind people of the TCPMs. Procedures and standards are provided in Attachment B. The property owners should provide anyone, including contractors and utility companies, copies of the educational materials guiding proper excavation procedures for small activities not requiring a building permit, as they deem necessary pursuant to the TCPMs.

2.1.1.2. Some of the properties in the TVD have had a geofabric marker, called marker fabric, installed. Persons digging through the cap in a remediated yard, as evidenced by penetration of the marker fabric, shall segregate clean soil from above the marker fabric from contaminated soil below the marker and handle the contaminated soil so as to not contaminate the adjacent soil. (See Attachment B.) If a person does not dig below the marker fabric they have no need to do anything special with the disturbed soil. In other areas no marker fabric has been installed. Attachment A depicts the properties with the marker fabric. In all cases, identifying contaminated soil can be done visually. The contaminated soil consists of the black sand/silt material known as mine tailings. If black tailings are encountered in any digging or excavations, the procedures discussed in Sections 2.1 and 2.2 apply.

2.1.1.3. When digging occurs above the marker fabric, no precautions need be taken with the soil. If digging occurs below the marker fabric, the soil from above and below that marker shall be segregated. When re-filling the excavation, the soil from below the bottom of the cap or marker fabric should be placed in the hole up to the bottom of the cap or marker fabric and then clean fill placed on top. Any excess materials shall be taken to the disposal site.

2.1.1.4 Activities such as installation of water or gas service lines are small or minor activities.

2.1.1.5 Material Disposal. A contaminated soil disposal site is located on the Lower Tailings pile that can be accessed at the south end of East Fork Lane. (See Attachment E.)

2.1.2 LARGE EXCAVATIONS

Large excavations and earth moving projects may spread contaminated material, create dust or contaminated material that settles off-site, create run-off of contaminated material or break caps and negate the investment in protective barriers. Proper disposal and management of large quantities of excess contaminated materials is necessary to ensure that clean soil is not recontaminated and contaminate migration is controlled.

These provisions apply to any activities requiring the issuance of a building permit. Property owners are required to document and self certify compliance with these TCPMs and provides copies to the Idaho DEQ. The procedures and standards are included as Attachment C.

2.1.2.1 Contaminated Excavated Material Disposal. Excess contaminated excavated materials must go to the soil disposal site. However, reuse of contaminated soil materials will be permitted with an appropriate cap to ensure there is no exposure or migration of the material off the site. The proper method for capping is discussed in the barrier option plan, Section 3.2.1 and Attachment D. The contractor or property owner is responsible for the approved disposal of the soil. A large quantity disposal site will also be provided along with procedures and standards for its use. (See Attachment E.)

2.1.2.2 Clean Material Supply. In the case of large excavations, the contractor or property owner is responsible for obtaining suitable replacement material when necessary. Soil purchased or obtained out of areas impacted by mining waste site will be considered to meet the suitable soil criteria. The suitable soil criteria for the cleanup called for soil with arsenic levels 40 ppm or less, lead levels 100 ppm or less and cadmium levels 5 ppm or less. These criteria may be used to determine suitability when chemical testing of the soil is performed.

2.2 FUTURE DEVELOPMENT

SUBDIVISION, PUD AND NEW DEVELOPMENT REGULATIONS

Subdivision regulations and companion engineering standards for construction of physical improvements not only govern the process whereby individual lots are created for sale and development, but also control the site design and how construction of improvements will occur. In addition to developing plans to meet existing local zoning standards, the developer shall also ensure that the development meets the standards and objectives of the TCPMs for barrier protection, such as drainage plans to control runoff, soil erosion, vegetation

protection, grading plans and soil stability. Public improvements that are requirements in a subdivision, such as paving roads, may also act as a cap over contaminated soil. A developer, during the course of submitting otherwise required data, will be required to provide plans to the property owner for protection of existing barriers, installation of new barriers where necessary, and plans for prevention of recontamination. The property owner shall provide such plans to DEQ within thirty (30) days of the plan's development. The standards for Small or Minor Activities, Large Excavations and the barrier option plan, as applicable, shall apply.

2.2.1 Barrier Option Plan.

Any developer, contractor or property owner proposing a subdivision, PUD or any other new development shall provide the property owner with plans prepared by a qualified professional addressing barrier preservation or installation of a new barrier. Such plans shall provide for twenty-four inches (24") of clean soil for a vegetable garden and a twelve inch (12") clean soil cap in residential areas or a six inch (6") clean soil cap in non-residential areas or other permanent barrier such as pavement or concrete in areas identified in the database as having soil arsenic levels exceeding 300 parts per million (PPM). Attachment E discusses the barrier option plan.

2.2.2 Drinking Water.

Any developer, contractor or property owner proposing a subdivision, PUD or any other new development shall provide the property owner with plans prepared by a qualified professional identifying and addressing the source of drinking water. Any plans for drinking water shall meet all applicable Federal and State drinking water standards.

3.0 DOCUMENTATION OF COMPLIANCE AND SELF CERTIFICATION

3.1 TCPM Database

The TCPM database will be created by DEQ and identifies those properties that have had all contamination removed and require no further protective measures and those properties which have a protective barrier. This database will be used to identify those properties that are subject to protective measures. The database will also be used to collect information provided by properties owners to document compliance with the TCPMs.

3.2 As-Built Plate

The As-Built Plate for the parcel(s) is included in the TCPM and is attached as in Attachment H. The As-Built Plate shows the final completion of remedial work based on a site plan. The site plan for a residential property comprised an agreement between the property owner and the PRPs that ensured that excavation, where required, took place in the appropriate areas and that the property is returned to its original condition, to the extent practicable. The Site Plan included: (1) an access agreement that documents the property owner's permission for the PRPs' to enter the property for the purposes of remediation and (2) a map of the property that shows the property boundaries, buildings, driveways, utilities, and other features as well as areas where remediation was conducted and the extent of that remediation. The map also included annotations regarding specific aspects of the property's remediation, as discussed with the property owner prior to remediation. The As-Built Plate updates the site plan to show the remediation work completed on the property by the PRPs.

3.3 Property Owner Documentation

The TCPM Database will be managed by DEQ. DEQ will collect documentation submitted by property owners that shows their compliance with TCPMs for large excavations (Section 2.1.2) and future development (Section 2.2). The database will serve as a way for property owners to preserve documentation to help meet disclosure requirements for property transfers. TCPM documents should be sent to the following address:

Rob Hanson
Mine Waste Program Manager
Idaho Department of Environmental Quality
1410 North Hilton
Boise, Idaho 83703

ATTACHMENT A

Map of Triumph Vicinity District



TRIUMPH VICINITY OVERLAY DISTRICT

ATTACHMENT B

Procedures and Standards Small or Minor Excavation Activity

1. Purpose

These requirements apply to sites where soils have been remediated and barrier caps installed. The concern is to protect the barrier that has been put in place and to avoid exposure to contaminated soil or dust due to some form of minor activity involving disturbance of the soil. During the course of normal upkeep, residents will dig up soils by gardening, landscaping, installing fences or other improvements on their lots. These activities are usually conducted by the resident and do not require a building permit or a contractor. By conducting the activity in an appropriate manner, barrier protection can be preserved and disposal of the excess contaminated soil will occur in an appropriate manner. The installation of water or gas service lines are small or minor activities.

2. Procedures and Standards

- a. If there is a cap in place (a geofab marker, called the marker fabric, indicates the bottom of the cap) and the activity will not occur below the cap, no special precautions need occur.
- b. If a cap is in place and digging will occur below the marker fabric, then the soil removed shall be kept on a plastic sheet or in a container to avoid spreading onto surrounding surfaces. When digging occurs above the marker fabric, no precautions need be taken with the soil. If digging occurs below the marker fabric, the soil from above and below that marker shall be segregated. When re-filling the excavation, the soil from below the bottom of the cap or marker fabric should be placed in the hole up to the bottom of the cap or marker fabric and then clean fill placed on top. Any excess materials shall be taken to the disposal site.
- c. Where contaminated soils will be encountered, personal protection practices should be followed, such as wearing gloves, washing hands immediately after working in the soil, keeping children away from the excavated soil, preventing dust by wetting or covering the soil, etc.

- d. Some of the properties in the TVD have had a marker fabric installed. Attachment A depicts the properties with the marker fabric. In other areas no marker fabric has been installed. In all cases, identifying contaminated soil can be done visually. The contaminated soil consists of the black sand/silt material known as mine tailings. If black tailings are encountered in any digging or excavations, the procedures discussed in Sections 2.1.1 and 2.1.2 apply.

3. Recording

No specific record will be kept of the “minor” activities occurring at the site.

ATTACHMENT C

Procedures and Standards Large Excavations

1. Purpose

Procedures and standards apply to all parties proposing large excavations or activities requiring a building permit. Large excavations and earth moving projects may spread contaminated material, create dust or contaminated material that settles off-site, create run-off of contaminated material or break caps and negate the investment in protective barriers. Furthermore, where disposal of large quantities of contaminated material is associated with such a project, appropriate disposal procedures must be followed. The purpose of the following procedure is to ensure that the work is properly planned for and conducted in a manner that will minimize these problems.

2. Procedures and Standards

- a. Local law will specify when a building permit is required. In addition to applying for a building permit, the applicant shall provide the property owner with the following:
 - 1) Location of the site and purpose of the activity.
 - 2) If removal of material is to occur, then the estimated amount of material to be removed to the disposal site. Plans to clean up tracked or spilled materials and to cover the load need to be provided.
 - 3) The applicant must include a plan for the finished site identifying what portions of the site will be landscaped, paved and built over and the nature of the cap or replacement of the cap if one proves necessary; the anticipated structures and location of improvements. A building may serve as a cap.
 - 4) If fill material will be required, the applicant will identify the source, which will require the use of clean

fill obtained from a source outside of the TVD .

- 5) Personal protection of workers at the site should include wearing of coveralls, face mask if exposed to dust, and hat. Leave the clothing at the site and wash separately from other clothes when laundered. Wash hands before eating. Avoid hand-to-mouth actions when working. Shower after work.
- 6) Best management practices (BMPs) shall be utilized to control the migration of contaminated soils. These BMPs shall include storm water runoff controls, dust controls and controls to minimize vehicle tracking.
- 7) The property owner will provide the preceding information to DEQ within thirty (30) days of the information's development.

ATTACHMENT D

Barrier Option Plan

1. Purpose

The purpose of the barrier option plan is to ensure that large projects or large excavation activities preserve and protect the barriers. Further, the barrier option plan allows flexibility in preventing recontamination of clean soil.

2. Procedure

- a. A developer proposing a subdivision, PUD or other new development shall also submit to the property owner a plan prepared by an engineer, architect or other qualified professional indicating that he/she has reviewed the site plan and that the proposed improvements are consistent with protecting remediated areas, with the TCPMs, and will create the proper protection or do not pose an issue with regard to public health, safety and the environment.
- b. The developer shall submit the following to DEQ:
 1. A site plan showing the proposed activities and/or development and measures taken to protect the barriers or install new barriers.
 2. The plans for minimizing contaminant migration and direct contact risk by workers or others.
 3. Plans prepared by a qualified professional identifying and addressing the source of drinking water. Any plans for drinking water shall meet all applicable Federal and State drinking water standards.
- c. The property owner shall submit the preceding plans within thirty (30) days of plan's development.

3. Standards

The following shall be utilized by a developer for a protective barrier:

- a. Clean soil at a depth of 12 inches in residential areas or a 6 inch clean soil cap in non-residential areas. Vegetable gardens shall have clean soil at a depth of 24 inches.

- b. An asphalt or concrete pour at a depth of 2 inches.
- c. An engineer, architect or other qualified professional may design a barrier appropriate for the proposed use.

ATTACHMENT E

Soil Disposal Site Plan

The Triumph Community Protection Measures (TCPMs) program for the Triumph community sets forth measures for handling of soil and tailings potentially containing arsenic and/or other metals. If a cap is in place and digging will occur below the marker fabric, (a geofab marker indicates the bottom of the cap) then the soil removed shall be kept on a plastic sheet or other device or container to avoid spreading onto surrounding surfaces. When digging occurs above the marker fabric, no precautions need be taken with the soil. If digging occurs below the marker fabric, the soil from above and below that marker shall be segregated. When re-filling the excavation, the material from below the bottom of the cap or marker fabric should be placed in the hole up to the bottom of the cap or marker fabric and then clean material placed on top. Any excess material shall be taken to the disposal site.

One disposal site has been identified near the Triumph community (See Attachment A). This site are situated on property owned by the State of Idaho and will be administered by the Idaho Department of Lands. Access to the disposal site will be free for members of the Triumph community.

The Disposal Site will be accessible by the public and will be used for the disposal of small quantities of soil and/or tailings (i.e., less than a single dump truck load). No notification to the Idaho Department of Lands (IDL) is necessary for small quantity disposal. The purpose is to facilitate rapid disposal of small quantities of soil and/or tailings by members of the Triumph community. Soil and tailings accumulating in the Temporary Disposal Site will periodically be removed by the Idaho Department of Lands and transported to the Permanent Disposal Site.

Large disposal projects (i.e. greater than one single dump truck load) triggers the need to notify the IDL. Members of the Triumph community who anticipate generating a dump truck load or more of soil or tailings from the Triumph Vicinity District potentially containing arsenic and/or other metals will be required to contact the IDL (phone: 208-324-2561) approximately one week in advance of such generation to secure access to the Permanent Disposal Site. The IDL will provide access to the Disposal Site for the duration of the activities from which the soil and/or tailings will be generated, so long as those activities are conducted in a timely manner.

The Disposal Site will be used for soil and tailings only and will not serve as a disposal site for general refuse and/or debris.

ATTACHMENT F

Database Program

1. Purpose

A permanent record of remediation and subsequent activities done on each property in the TVD . The purpose is to track activities on each property and ensure that caps are maintained and preserved.

2. Information Retained

a. The documentation on individual properties will include the following information:

- 1) Legal description of the property
 - Lot and block numbers, subdivision or metes and bounds description
 - Address of the building or site
 - County parcel number
- 2) Owner (as of the time information is recorded)
- 3) Type of construction activity that occurred, when and who did the work
- 4) Remediation performed by the PRPs at each property as documented on the As-Built Plate prepared by the PRPs.
- 5) Existing use
- 6) Reference number and/or copy of building permit and subsequent work permits

b. The documentation of construction activity at large sites such as a subdivision and in PUD will include the following information:

- 1) Location and legal description of the site
- 2) Owner

- 3) Construction activity that occurred, when and who did the work
- 4) Actions taken at the site to preserve and maintain the caps.

The documentation of educational material distributed; including:

- a. Date distributed
- b. Information
- c. Mailing List

ATTACHMENT G

Soil Sampling Protocol

Soil sampling may be required to provide representative results for the property (or portion of the property) where development is proposed. The property may be divided into discrete areas and sampled separately, depending on the intended use of that portion of the property (i.e., a yard or playground area versus a horse pasture). Soil sampling methodology should be similar to that followed in the Final Remedial Investigation Report for the Triumph Mine Tailings Piles Site (Kennedy-Jenks, 1997). A summary of the sampling procedures follows.

- One sample location should be selected per every 500 square feet of the property, with a minimum of two sample locations per property. For example, if a property has an area of 870 square feet, two sample locations would be required. Sample locations may be excavated as a small pit using a clean shovel or other digging instrument to a depth of approximately 18 inches.
- At each sampling location, soil samples should be collected from four discrete sample intervals to evaluate the vertical distribution of arsenic. These sample intervals should be: 0 to 1 inches below ground surface (bgs), 1 to 6 inches bgs, 6 to 12 inches bgs, and 12 to 18 inches bgs.
- Compositing of the discrete sample intervals from all of the sample locations should be performed. This consists of placing the soil collected for an interval (i.e., 0 to 1-inch) in a clean bucket or directly in to a Ziploc™ bag and then adding an equal amount of the soil from the same sample interval (i.e., 0 to 1-inch) from the next sample location, and so on. The bucket, as mentioned above, may be used as a temporary container for compositing (collection and mixing); final samples should be placed in a Ziploc™ bag prior to shipment to the laboratory. The result will be a total of four composite samples (one for each depth interval) from each property/discrete property area.
- Soil from the discrete sample intervals should be collected from the side wall of the pit using a clean trowel, spoon or other sampling tool. Shovels and other digging and sampling tools that are reused between the discrete sample intervals and/or sample locations should be cleaned before each reuse.
- The composite samples should be shipped as soon as possible to a qualified laboratory. Samples should be analyzed by the laboratory for arsenic using Method 6010B; as defined in the U.S. Environmental Protection Agency "Test Methods for Evaluating Solid Wastes," 3rd Edition, SW 846, 1994.

ATTACHMENT H

As-Built Plate

3.3.1.4 West Side Slope of LTP

During grading of the west and southwest slopes of the LTP closure, a wet zone developed on the west slope starting on the north end near the west side LTP access and extending to the south approximately 1,100 feet. Although the zone was continuous, moisture conditions varied from slightly damp to saturated. Limited areas within the zone initially produced surface water but, by late fall, these areas had drained such that flowing water was no longer present. The location of this wet zone appeared concurrent with the location of a starter dike, as indicated by the presence of native alluvial soils. To remove water from the slope, a geodrain system was designed and installed. The northern 250 feet consists of non-woven geofabric placed on the final tailings surface from the top of the seepage to near the toe of the slope. At the north end, the wet zone had a greater extent occurring from approximately the slope toe to 2/3 the distance up the slope. The southern 850 feet of the drain was made by embedding a 2-foot-wide strip drain approximately 6-inches below the tailings surface, connecting lateral outlet pipes, placement of 8-ounce-per-square-yard non-woven geofabric, and placement of the 6 inch thick soil cap. Six lateral pipes exit the slope at the toe in the west side toe ditch. Shortly after drain installation, small flows were observed exiting two of the six lateral pipes. After placement of the soil cap and prior to seeding (elapsed time of approximately 3 weeks), very limited areas of wetness were noted on the slope. Final side slopes varied from approximately 4.5:1 to 6:1, with an average of slightly over 5:1, in accordance with the specifications. Additional as-built information for the LTP is provided on Drawings 5485-C4 through 5485-C6A.

3.3.2 Upper Tailings Pile

The UTP was closed in general accordance with the plans and specifications with top surface grades in excess of 2 percent and side slopes of 2.5:1 to 3.5:1. Variations from the original design focused on the swale and southwest toe.

3.3.2.1 UTP Swale

While making the cut in the center portion of the pile, significant quantities of saturated, fine-grained slimes tailings were encountered. The slimes were stockpiled using an excavator, allowed to dry

for several days, and loaded into trucks for transport to the southeast portion of the LTP. At the LTP, the slimes were spread by bulldozer and allowed to air dry. Periodically the slimes were mixed by the bulldozer until they had dried sufficiently to allow compaction by the Sakai roller and subsequent loaded truck traffic.

Perched water was encountered in the UTP swale cut. This water had collected in the overlying sands while the underlying slimes kept the water from draining. This water was primarily drained during regrading activities. The majority of remaining water was at an elevation that allowed collection into the swale subgrade drain. The base of the swale was over-excavated to allow for construction of a subgrade drain. The following actions were implemented to construct the swale:

- The over-excavation was lined with geogrid;
- 1 to 2 feet of plus 1-inch screen by-product was placed to form the drain;
- Pit run borrow was placed to seal the drain rock;
- 8oz/sy NW geotextile was placed to cushion the swale liner;
- Geomembrane liner was placed (40-mil linear low density polyethylene, LLDPE, textured);
- The liner was capped with clean fill;
- A turf reinforcement mat (TRM) was placed at the swale invert; and
- The UTP and swale were revegetated.

The final grade along the centerline of the swale varies from approximately 2.4 to 4 percent.

3.3.2.2 Southwest Toe Drain

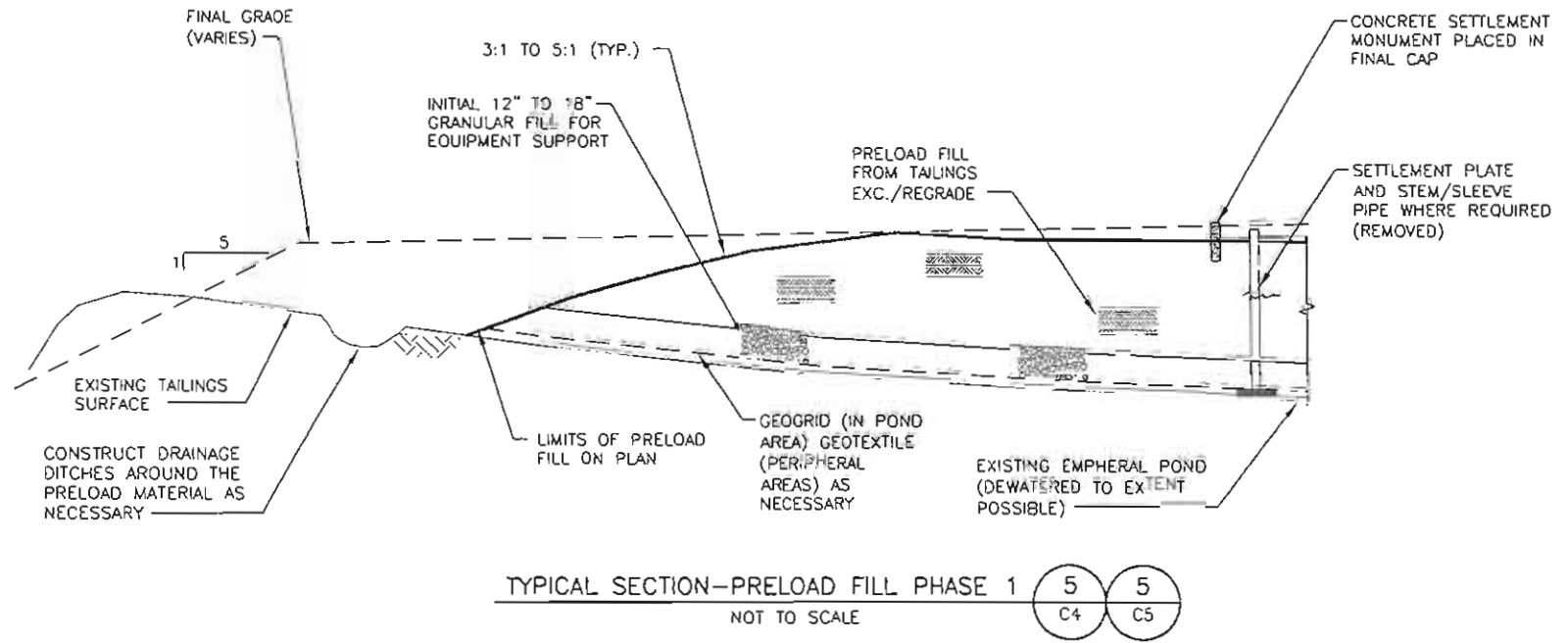
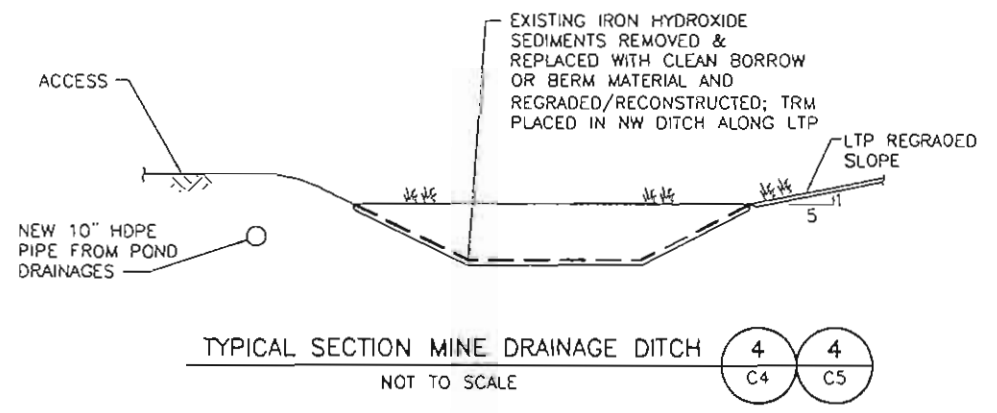
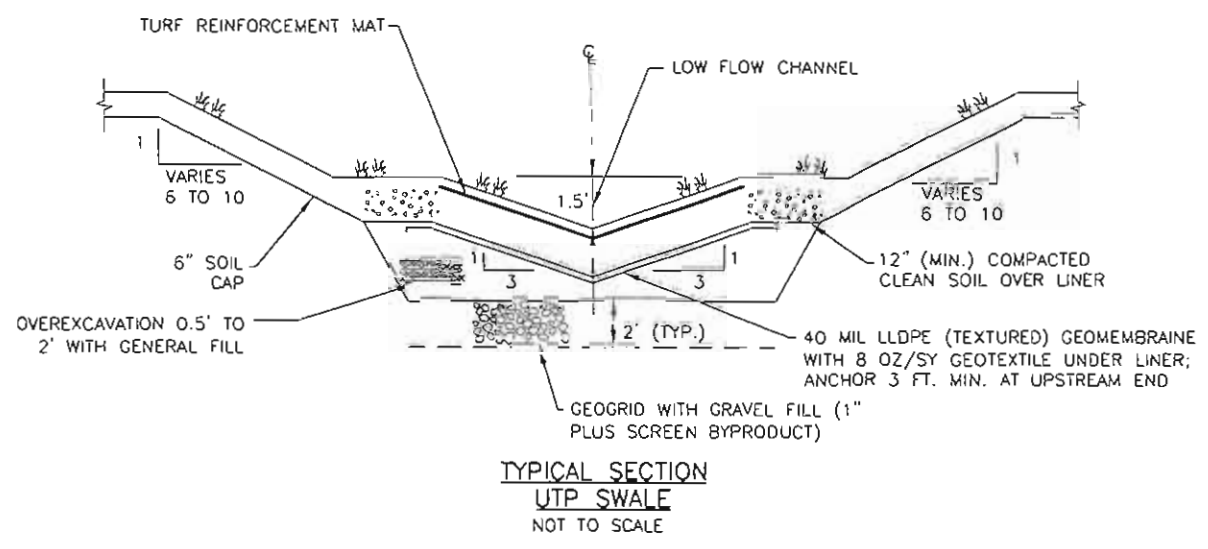
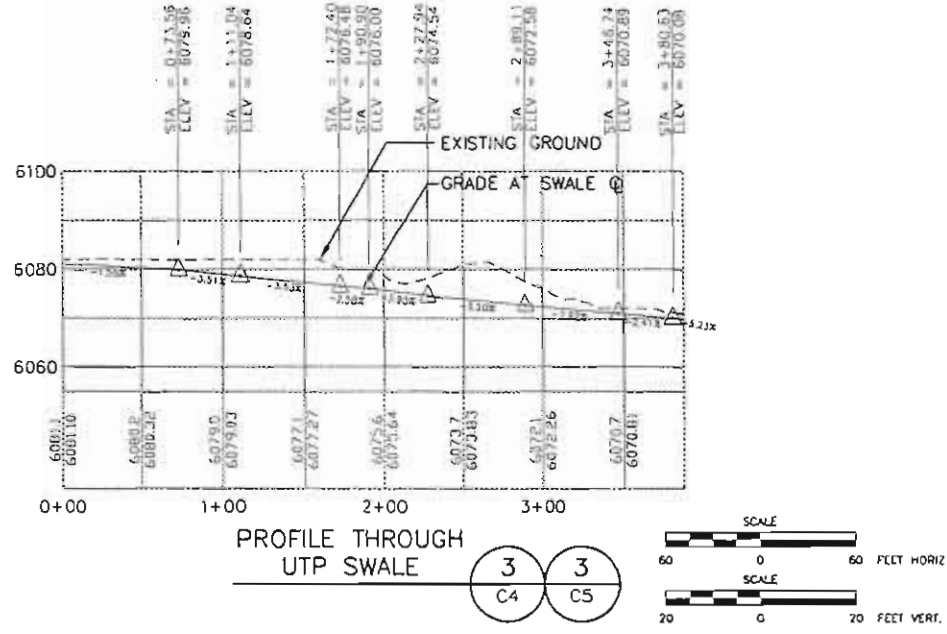
The regraded southwest slope was also subject to the effects of groundwater. After slope grading, the southwest toe became wet and the formation of white salts/alkali was noted. It is unknown if this water is due to perched water within the tailings or is a reflection of local ground water conditions. Due to the presence of the UTP seep and shallow near-surface water in the dispersed tailings excavation, local groundwater is thought the most likely source of water occurring at the southwest toe. A toe drain was installed to reduce the ground water elevation. The drain inlet is located near the intersection of the southwest toe and East Fork Lane. The QC surveyor (Anderson and Wade) set grade stakes along the drain alignment at a 0.5 percent slope. Under the guidance of Envirocon's grade setter, a Caterpillar 312

trackhoe excavated a 2.5-foot wide trench for drain installation. The trench was lined with 8-ounce-per-square-yard non-woven geotextile and a bedding layer of 3/8-to 1-inch screen by-product, approximately 6 inches thick was placed and graded in the trench bottom. A 6-inch diameter slotted drainpipe was laid in the trench and covered with about 1-foot of 3/8-to 1-inch screened gravel. The geofabric was folded over the gravel and the trench was backfilled. At the swale confluence, the 6-inch slotted pipe was connected to an 8-inch solid pipe, also bedded in 3/8 to 1-inch screened gravel. The swale subgrade drain and slope toe drain were connected at the confluence and the drain continues to the south for approximately 50 feet and terminates in a near-surface gravel bed. Additional as-built information for the UTP is provided on Drawings 5485-C4 through 5485-C6.

3.3.3 Waste Rock Pile

The WRP was reclaimed in general accordance with the specifications and drawings (Dwgs. 5485-C7 to 5485-C9). Final side slopes vary from an average of slightly over 2(h): 1(v) along the central and eastern portions of the WRP to slightly over 2.5:1 in the western portion of the WRP below the surge pond in accordance with the specifications. Two areas were changed in order to better meet actual ground conditions. The east end, near the ore bins, was not constructed to the lines shown on the drawings. In order to preserve existing vegetation on the slope southeast of the ore bins and to blend the waste rock pile and existing slopes, the grade in this area was field-fit. At the west end of the pile, below the surge pond embankment, a power pole is located on a small knob of waste rock that extended beyond the planned grading limits. This waste rock knob was graded to blend into the reclaimed waste rock pile, was left in a configuration that would continue to support the power pole and adjacent embankment, and was capped with clean fill. The WRP slopes were capped with 6 inches of borrow soil and hydro-seeded with the Quattro (erosion control and seed) products. The Quattro products include a combination of root growth stimulating enzymes, tackifibers, and chicken manure.

The area immediately outside the Portal was excavated to remove saturated soft soils. This over-excavation was backfilled with plus 1-inch screen by-product. A sump and electric pumps were used to transfer water from the Portal to the temporary pipeline to allow the pond in front of the Portal to drain. The hydroxide materials from the ponds in front of the Portal were taken to the ditch sediment storage area (Figure 2), processed with Portland Cement to reduce moisture content, and placed in the repository.



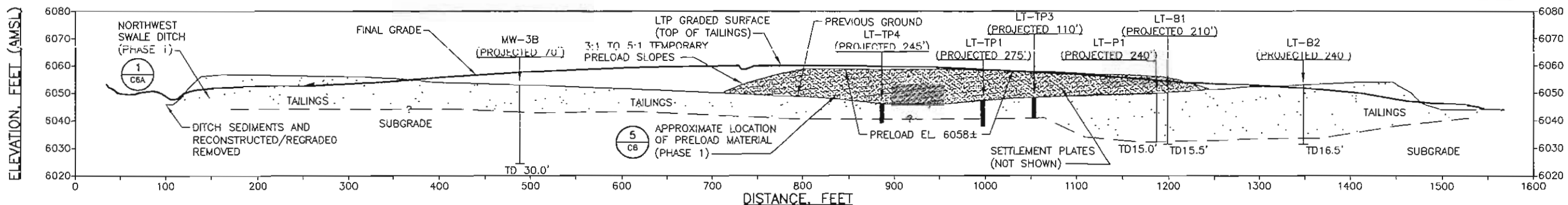
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					1	ISSUE FOR FINAL REVIEW & BID	JHR	8/98					D:\3485\5485-50.DWG	JULY 1998	5485-C6	4
					2	NOTATIONS ADDED; ISSUE FOR CONSTRUCTION	JHR	10/98								
					3	REMOVED SOUTH SWALE DETAILS	JHR	3/99								
					4	AS-BUILT	JHR	1/00								

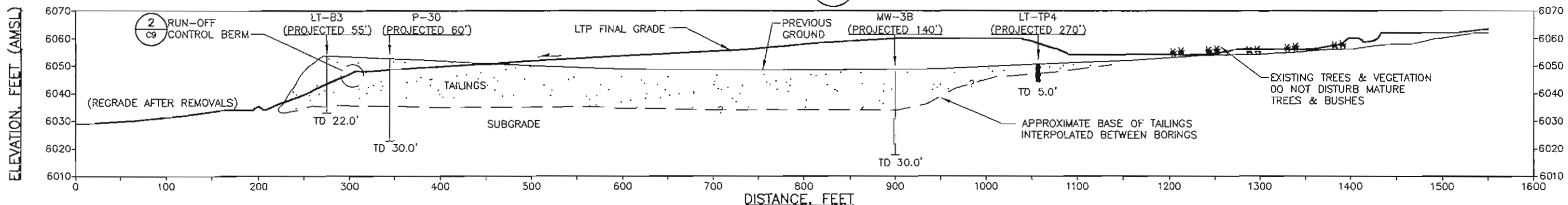


MFG, Inc.
 consulting scientists and engineers
 DESIGNED BY: JHR
 DRAWN BY: PRM
 CHECKED BY: JHR
 APPROVED BY: BOH

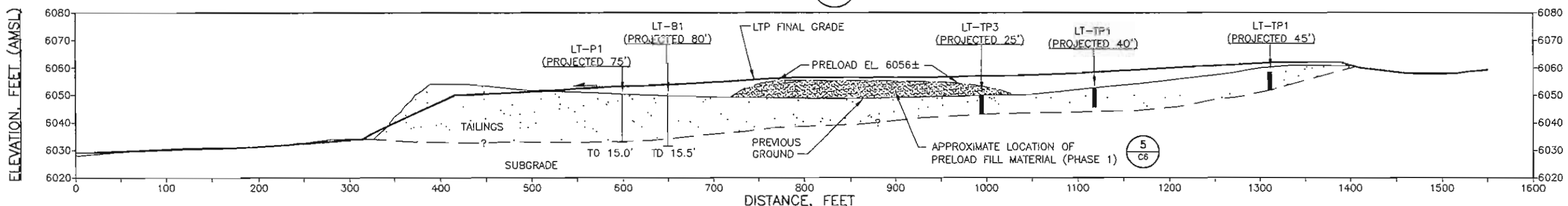
IDAHO DEPT. OF LANDS & ASARCO
TRILIMPH MINE TAILINGS PILES SITE
UPPER AND LOWER TAILINGS PILES
SECTIONS & DETAILS



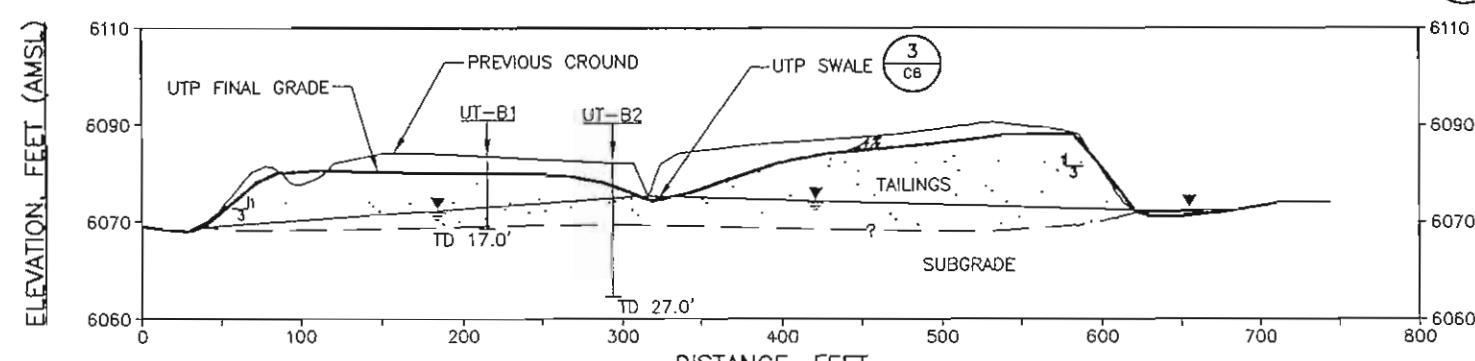
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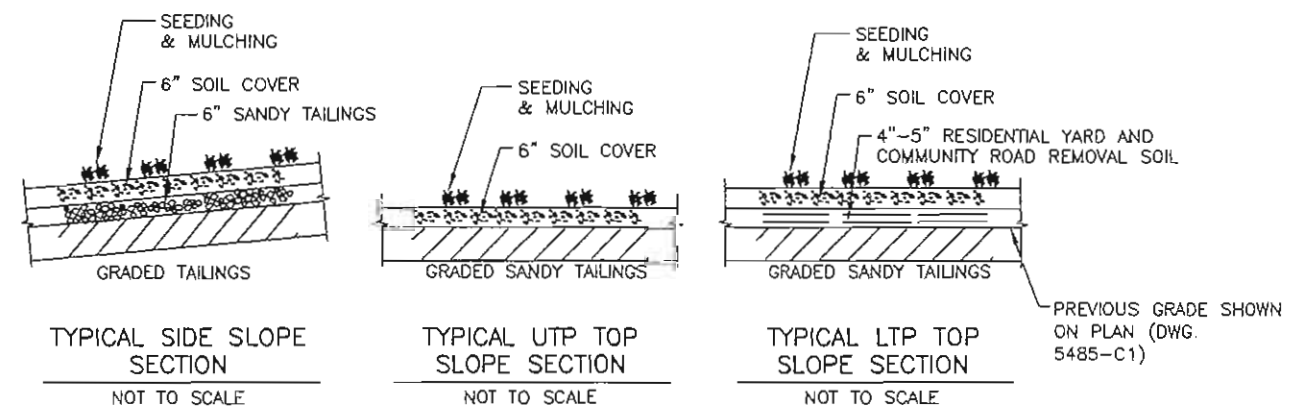
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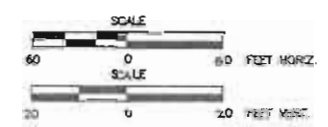
SECTION C
C4



SECTION D
C4



NOTE:
1. BORING LT-B3 WAS NOT PROJECTED PERPENDICULAR TO SECTION B.



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	2	NOTATIONS ADDED; ISSUE FOR CONSTRUCTION	JHR	0/98				
	1	ISSUE FOR FINAL REVIEW & BID	JHR	8/98				
	0	ISSUE FOR REVIEW	JHR	8/98				

NOT VALID UNLESS SIGNED

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consulting scientists and engineers

DESIGNED BY: D.H.
DRAWN BY: CAA
CHECKED BY: JHR
APPROVED BY: B.H.

FILE NAME: D:\5485\5485-47.DWG

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UPPER AND LOWER TAILINGS PILES SECTIONS

DATE: AUGUST 1999 DWG. NO. 5485-C5 REVISION 4