Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

REPUBLIC SERVICES

Sustainability in Action

November 2, 2026

Natalie Walker - Hazardous Waste Bureau Chief
Waste Management and Remediation Division
Idaho Department of Environmental Quality
1410 North Hilton
Boise, ID 83706-1255

RE: US Ecology Idaho, Inc. (USEI) Site A – IDD000773952
Class 2 Modification Under 40 CFR 270.42(e) – Updates to the Well Monitoring Program to include the abandonment of six deep groundwater monitoring wells at the US Ecology Idaho, Inc. (US Ecology) Site A Landfill

Dear Ms. Walker:

Attached is a *Notice of Class 2 Modification* to USEI's Site A Ground Water Monitoring Program, to include the Permit Modules. This notice is being filed in accordance with IDAPA 58.01.05.012 [40 CFR 270.42]. The mailing list used is on file with the State of Idaho as the official mailing list. The attached notification details the requirements for this modification and the submittal date.

The purpose of this notification is to make modifications to the Site A well monitoring program, to remove 4 wells and 2 piezometers. These changes are being requested in accordance with the Work Plan for Monitoring Well Abandonment prepared by Weaver Consultants Group, dated June 11, 2025, and accepted by the Idaho Department of Environmental Quality (IDEQ) on August 6, 2025.

All other required information is included in the attached documents including the required certification statement and the applicable permit replacement pages.

Regards,

Joe Wickenden

Joe Wickenden
General Manager

Attachments

cc: Bo Norton – IDEQ
Daryl Sawyer – IDEQ
Mathew Pabich – IDEQ
Michelle Mullin – USEPA Region X (Electronic Copy)

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

NOTIFICATION OF CLASS 2 MODIFICATION UNDER 40 CFR 270.42(E)

Updates to the Well Monitoring Program to include the abandonment of six deep groundwater monitoring wells at the US Ecology Idaho, Inc. (US Ecology) Site A Landfill

BY

US ECOLOGY IDAHO, INC. (USEI)

IDD000773952

SUBMITTED
NOVEMBER 2, 2026

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

The following Class 2 Notice of Modification is submitted in accordance with the requirements of 40 CFR Part §270.42:

1. **270.42(b)(1)(i):**

   This Modification is being submitted to update the Site A Post-Closure Permit and the following Permit Attachment 4 – Site Hydrogeology, Geochemistry, and Environmental Monitoring, to address the monitoring well abandonment of wells AMW-4, APW-10, AOB-12, and AMW-14 and piezometers AMW-6 and AMW-7. The exact changes required to the Post-Closure Permit and supporting documents are presented in Appendix A of this Notice.

2. **270.42(b)(1)(ii):**

   Changes to permit and attachment sections are considered Class 2 modifications under Appendix I, items A.4.b, B.5.a, B.6.c, F.1.b, F.2.a, and J.5.

3. **270.42(b)(1)(iii):**

   The purpose of this modification is to meet requirements agreed to in the Department's August 6, 2025, approval of the Site A Groundwater Well Abandonment Plan and prior to preparation and submittal of the formal Class 2 Permit Modification Request.

4. 270.42(b)(1)(iv):

   Other information required by 40 CFR §270 is as follows:

   - 270.13: Not Applicable
   - 270.14: Not Applicable
   - 270.15: Not Applicable
   - 270.16 through 270.20: Not Applicable
   - 270.21: All required information is included in the attached documents including the applicable permit replacement pages.
   - 270.62: Not Applicable
   - 270.63: Not Applicable

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

5. 270.42(b)(2):

A copy of the receipts for the certified mailing to the required mailing list maintained by the Director and to the appropriate units of State and local governments under 40 CFR 124.10(c)(ix) will be forwarded upon completion for inclusion as Appendix C.

The official Public Notice will be placed in the Owyhee Avalanche. Copies of the receipts for the public notice shall be forwarded to IDEQ to be included in this document as Appendix D.

6. 270.42(b)(3):

A copy of this document has been placed at the local library in Grand View, Idaho. Copies are also available at the Idaho Department of Environmental Quality in Boise, Idaho.

7. 270.42(b)(4):

The public meeting has been scheduled to take place Thursday November 12, 2026, at 6:00 p.m. at Rimrock Jr.-Sr. High School in Grand View, Idaho.

8. 270.42(b)(5):

The 60-day public comment period shall begin upon publication of the Public Notice in the Owyhee Avalanche as shown in Appendix D.

9. 270.42(c):

Not Applicable.

10. 270.42(d):

Not Applicable.

11. 270.42(e):

Not Applicable

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Notification of Class 2 Modification
Updates to the Well Monitoring Program to include the abandonment of six deep groundwater monitoring wells at the US Ecology Idaho, Inc. (US Ecology) Site A Landfill

November 2, 2026

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

Joe Wickenden _____ 11/3/2026

Signature Date

Joe Wickenden, General Manager

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Appendix A

Permit Modification For Well Abandonment at USEI Site A

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Redline Copies

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Permit Modules

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Permittee: U.S. ECOLOGY OF IDAHO, INC.
Facility Identification/EPA ID Number: IDD000773952

INTRODUCTION AND SIGNATURE PAGE

Pursuant to the Idaho Hazardous Waste Management Act of 1983 (HWMA), as amended, Idaho Code § 39-4401 *et seq*., and the "*Rules and Standards For Hazardous Waste,"* IDAPA 58.01.05.000 *et seq*., a Post-Closure Care Permit (Permit) is hereby re-issued to U.S. Ecology of Idaho, Inc. (USEI or Permittee), for USEI's Site A hazardous waste facility located in Owyhee County near Bruneau, Idaho at 42º40'12" N latitude, and 115º52'10'W longitude.

The Permittee shall comply with all terms and conditions of the Site A Post-Closure Permit, including Attachments 1 through 7, as approved by the Idaho Department of Environmental Quality. The Permittee must comply with all applicable state and federal regulations, including IDAPA 58.01.05.004 through 58.01.05.008 and 58.01.05.010 through 58.01.05.013 [40 Code of Federal Regulations (CFR), Parts 260 through 264, 266, 268, 270, and 124] and as specified in the Permit. Any reference in this Permit to the Resource Conservation and Recovery Act (RCRA), or the Hazardous and Solid Waste Amendments of 1984 (HSWA), or federal regulations promulgated thereunder in 40 CFR, shall be deemed to include the equivalent HWMA statute or state regulation promulgated thereunder.

Applicable state and federal regulations are those that are in effect on the date of final administrative action on this Permit and any self implementing statutory provisions and related regulations that, according to the requirements of HWMA and/or the Hazardous and Solid Waste Amendments of 1984 (HSWA), as amended, are automatically applicable to the Permittee's hazardous waste management activities, notwithstanding the conditions of this Permit.

This Permit is based upon the administrative record, as required by IDAPA 58.01.05.013 [40 CFR §124.9]. The Permittee's failure in the application or during the Permit issuance process to disclose fully all relevant facts, or the Permittee's misrepresentation of any relevant facts, at any time, shall be grounds for the termination or modification of this Permit and/or initiation of an enforcement action. To the extent, there are inconsistencies between the Permit and the attachments, the language of the Permit shall prevail.

The Permittee must inform the Director of the Idaho Department of Environmental Quality (hereinafter referred to as "Director") of any deviation from the permit conditions

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

or changes in the information on which the application is based that would affect the Permittee's ability to comply, or actual compliance with the applicable regulations or Permit Conditions or which alters any Permit Condition in any way.

The Director shall enforce all conditions of this Permit. Any challenges of any Permit Condition shall be appealed to the Idaho Board of Environmental Quality, in accordance with IDAPA 58.01.05.013 [40 CFR §124.9], and in accordance with *"Rules of Administrative Procedure Before the Board of Environmental Quality"*, IDAPA 58.01.23..

This Permit is effective as of October 30, 2017, and shall remain in effect until October 30, 2027, unless, in accordance with IDAPA 58.01.05.012, the Permit is: revoked and reissued [40 CFR § 270.41], terminated [40 CFR § 270.43], modified [40 CFR § 270.42 Appendix I.A.6], or continued [40 CFR § 270.51].

_____ _____

Date

John H. Tippets, Director
Idaho Department of Environmental Quality

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

TABLE OF CONTENTS

LIST OF TABLES **5**
LIST OF FIGURES **6**
LIST OF ATTACHMENTS **7**
DEFINITIONS **9**
ACRONYMS AND ABBREVIATIONS **13**
MODULE I - STANDARD PERMIT CONDITIONS **17**
I.A. EFFECT OF PERMIT 17
I.B. PERSONAL AND PROPERTY RIGHTS 17
I.C. ENFORCEABILITY 17
I.D. OTHER AUTHORITY 17
I.E PERMIT ACTIONS ..... 18~~17~~
I.F. SEVERABILITY 18
I.G. DUTY TO COMPLY ..... 19~~18~~
I.H. DUTY TO REAPPLY 19
I.I. PERMIT EXPIRATION 19
I.J. CONTINUATION OF EXPIRING PERMIT 19
I.K. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE ..... 20~~19~~
I.L. DUTY TO MITIGATE 20
I.M. DUTY TO PROVIDE INFORMATION 20
I.N. INSPECTION AND ENTRY 20
I.O. MONITORING AND RECORDS 20
I.P. REPORTING PLANNED CHANGES 22
I.Q. CERTIFICATION OF CONSTRUCTION OR MODIFICATION 22
I.R. ANTICIPATED NONCOMPLIANCE 23
I.S. TRANSFER OF PERMIT 23
I.T. TWENTY-FOUR HOUR REPORTING 23
I.U. OTHER NONCOMPLIANCE ..... 25~~24~~
I.V. OTHER INFORMATION ..... 25~~24~~
I.W. SIGNATURE AND CERTIFICATION 25
I.X. CONFIDENTIAL INFORMATION 25
I.Y. REPORTS, NOTIFICATIONS AND SUBMISSIONS 25
I.Z. BIENNIAL REPORT ..... 26~~25~~
MODULE II - GENERAL FACILITY CONDITIONS ..... **27~~26~~**
II.A. OPERATION AND MAINTENANCE OF FACILITY ..... 27~~26~~
II.B. FACILITY DESCRIPTION ..... 27~~26~~
II.C. GENERAL INSPECTION REQUIREMENTS ..... 27~~26~~
II.D. PERSONNEL TRAINING ..... 27~~26~~
II.E. RECORD KEEPING ..... 28~~27~~

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

II.F. SECURITY 2928

MODULE III - GROUND WATER MONITORING 3029

III.A. GROUND WATER MONITORING PROGRAMS 3029
III.B. WELL MAINTENANCE AND CONSTRUCTION 3130
III.C. GROUND WATER MONITORING WELLS 3331
III.D. GROUND WATER SAMPLING & ANALYSIS 3332
III.E. GROUND WATER ELEVATION 3433
III.F. DETECTION MONITORING PROGRAM 3433
III.G. COMPLIANCE MONITORING PROGRAM 3634
III.H. DATA REPORTING FOR DETECTION AND COMPLIANCE MONITORING 3837
III.I. GROUND WATER PROTECTION STANDARDS 3937

MODULE IV - CORRECTIVE ACTION 4340

IV.A. SOLID WASTE MANAGEMENT UNITS (SWMUS) 4340
IV.B. STANDARD CONDITIONS 4340
IV.C. NOTIFICATION REQUIREMENTS & ASSESSMENT OF NEWLY IDENTIFIED SWMUS 4441
IV.D. RCRA FACILITY INVESTIGATION (RFI) 4542
IV.E. INTERIM MEASURES 4642
IV.F. CORRECTIVE MEASURES STUDY AND IMPLEMENTATION 4744
IV.G. REPORTING REQUIREMENTS 4845
IV.H. MODIFICATION OF THE CORRECTIVE ACTION SCHEDULE OF COMPLIANCE 4845

MODULE V - POST-CLOSURE CARE 5249

V.A. POST-CLOSURE 5249
V.B. POST-CLOSURE MAINTENANCE ACTIVITIES 5249
V.C. POST-CLOSURE INSPECTION PLAN 5249
V.D. POST-CLOSURE PROPERTY USE 5350
V.E. CERTIFICATION 5451
V.F. POST-CLOSURE MONITORING PLAN 5451
V.G. POST-CLOSURE COST ESTIMATE AND FINANCIAL ASSURANCE 5451
V.H. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS 5552

FIGURE 1 5653

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

LIST OF TABLES

TABLE III-1 GROUND WATER MONITORING CRITERIA FOR THE GROUND WATER MONITORING PROGRAMS

TABLE III-2 GROUND WATER MONITORING PARAMETERS, DETECTION LIMITS, AND GROUND WATER PROTECTION STANDARDS

TABLE III-3 GROUND WATER MONITORING WELL NETWORK AND WELL CONSTRUCTION DETAILS

TABLE IV-I RCRA FACILITY INVESTIGATION COMPLIANCE SCHEDULE FOR NEWLY IDENTIFIED SWMU'S

TABLE IV-2 CORRECTIVE MEASURES STUDY AND IMPLEMENTATION COMPLIANCE SCHEDULE

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

LIST OF FIGURES

FIGURE 1 SITE MAP AND GROUND WATER MONITORING NETWORK
(Figure 6-10 of the Permit Application dated September 27, 2016)

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

LIST OF ATTACHMENTS

The following documents are excerpts from the Permittee's RCRA Permit Application dated September 27, 2016. The Permit Application and applicable attachments from the previous RCRA Permit are part of the official Administrative Record for the Facility. The documents listed below are hereby incorporated, in their entirety, by reference, into this Permit. The Department has modified specific language in the attachments, as deemed necessary. These modifications are described in the permit conditions (Modules I through V) and, thereby, supersede the language of the original attachment. All references in these attachments to the Agency, or to designated representatives of the Agency, shall also refer to the Department or to designated representatives of the Department. All references in any of the attachments of this Permit to "Envirosafe Services of Idaho Inc. (ESII)" are superseded by reference to "U.S. Ecology, Idaho (USEI)." These incorporated attachments are enforceable conditions of this Permit, as modified by the specific permit conditions.

ATTACHMENTS

ATTACHMENT 1 FACILITY DESCRIPTION AND SITE MAPS, consisting of:

Section 2, Pages 5 through 19, and Figures 1-1, 1-2, 1-3, and Figure 1-4 of the Permit Application, dated September 27, 2016.

Drawing No. 2005-1 (Site Civil Features) of the Permit Application, dated September 27, 2016.

Drawing No. 2005-2 (Site Drainage Patterns) of the Permit Application, dated September 27, 2016.

Corporate Warranty Deed (dated February 5, 1998), containing the property legal description, and Closure Certification documents.

ATTACHMENT 2 SITE SECURITY AND INSPECTIONS, POST-CLOSURE PLAN, consisting of:

Section 3 and 4, Pages 20 through 29, including Figure 4-1 (Post-Closure Inspection & Maintenance form) of the Permit Application, dated September 27, 2016.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

ATTACHMENT 3 POST-CLOSURE FINANCIAL REQUIREMENTS, consisting of:

Section 5, Pages 30 through 32, including Table 5-1, of the Permit Application, dated September 27, 2016.

ATTACHMENT 4 GROUND WATER MONITORING PLAN, consisting of:

Sections 6.1 through 6.7, Pages 32 through 78, including Figures 6-1, 6-2, 6-3, 6-4, 6-5, 6-6, 6-7, 6-8, 6-9, 6-10, 6-11 and Tables 6-1, 6-2, 6-3, 6-4, 6-5, 6-6, of the Permit Application, dated September 27, 2016.

Hydraulic conductivity, effective porosity, and ground water velocity calculations (dated February 2, 2003)-Memo from Chuck Feast

ATTACHMENT 5 GROUND WATER SAMPLING AND ANALYSIS PLAN, consisting of:

Appendix P of the Permit Application, as last revised September 2016, including the Ground Water Sampling Quality Assurance Project Plan.

ATTACHMENT 6 RCRA PART A APPLICATION, consisting of:

Appendix C of the Permit Application (Note: no page numbers), as last revised July 6, 2017.

ATTACHMENT 7 PERMIT MODIFICATION TRACKING LOG

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

DEFINITIONS

All definitions contained in IDAPA 58.01.05.004, 005, .008 and .010 through .013 [40 CFR Parts 260, 261, 264, 266, 268, 270, and 124] are hereby incorporated, in their entirety, by reference into this Permit, except that any of the definitions used below shall supersede any definition of the same term given in IDAPA 58.01.05.000 *et seq.* Where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by a standard dictionary reference of the generally accepted scientific or industrial meaning of the term.

a. "Active well" shall mean any well being pumped at the time of that sampling event.

b. "Application" shall mean Volume 1, Sections 1 through 6 of the HWMA/RCRA Part A and B Permit Application dated September 27, 2016.

c. "Area of Concern" (AOC) shall mean any area where hazardous waste or hazardous waste constituents may be present.

d. “Corrective action” shall mean all corrective actions necessary to protect human health and the environment for all releases of hazardous waste or hazardous waste constituents at the Facility, regardless of the time at which waste was placed in the unit as specified in IDAPA 58.01.05.008 [40 CFR § 264.101].

e. "Corrective Action Management Unit" (CAMU) shall mean an area within a facility that is designated for implementing corrective action requirements. The boundaries of the CAMU at Site A were defined during closure.

f. "Days" shall mean calendar day(s) unless otherwise specified. Any requirement of submittal, under the terms of this Permit, that would be due on a Saturday, Sunday, or a federal or state holiday shall be due on the following business day.

g. "Department" shall mean the Idaho Department of Environmental Quality.

h. "Director" shall mean the Director of the Idaho Department of Environmental Quality or his/her designee or authorized representative.

i. "Discovery (discovered)" shall mean the initial identification of an Area of Concern that has the potential to release hazardous waste or hazardous waste constituents to the environment.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

j. “Disposal Facility” shall mean the Facility or part of the Facility at which hazardous waste is intentionally placed into, or on any land or water, and at which waste will remain after closure

k. "Facility" or "permitted Facility" shall mean USEI’s Site A hazardous waste Facility located near Bruneau, Idaho, as defined in Attachment 1 of this Permit. “Facility or Site" shall mean; (1) all contiguous land, structures, other appurtenances, and improvements on the land used for treating, storing, or disposing of hazardous waste. A Facility may consist of several treatment, storage or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations of these), (2) for the purpose of implementing corrective action under IDAPA 58.01.05.008 [40 CFR § 264.101], all contiguous property under the control of the owner or operator seeking a permit under Subtitle C of RCRA. This definition also applies to facilities implementing corrective action under RCRA Section 3008(h).

l. “Final Closure” shall mean the closure of all hazardous waste management units at the Facility in accordance with all applicable closure requirements so that the hazardous waste management activities under IDAPA 58.01.05.008 & 58.01.05.009 [40 CFR Parts 264 and 265] are no longer conducted at the Facility unless subject to the provisions of IDAPA 58.01.05.006 [40 CFR § 262.34].

m. "Fully operational" related to ground water monitoring wells shall mean that water level elevations have stabilized and the wells are ready to be sampled.

n. "Hazardous Waste Constituent" means a constituent that could cause or has caused the EPA to list a waste as hazardous per Part 261, Subpart D, or a constituent listed in Table 1 of 40 CFR § 261.24.

o. "Hazardous Waste" shall mean a solid waste, or combination of solid wastes, that because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed [See Public Law 98-616 Section 1004(5)].

p. "Hazardous Waste Management Unit (HWMU)" shall mean those operable units subject to the requirements of IDAPA 58.01.05.012 [40 CFR §§ 270.14 to 270.25].

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

q. “Landfill” shall mean a disposal facility, or part of a facility where hazardous waste is placed in or on the land and which is not a waste pile, a land treatment facility, a surface impoundment, an underground injection well, a salt dome or salt bed formation, an underground mine, a cave, or a CAMU. For the purposes of this permit, all regulated units at Site A are closed landfills.

r. "Owner" shall mean U.S. Ecology of Idaho, Inc.

s. “Permit" shall mean this Permit issued by the Idaho Department of Environmental Quality.

t. "Permittee" or "USEI" shall mean U.S. Ecology of Idaho, Inc.

u. “Post-closure care period” shall mean a thirty-year period beginning when a hazardous waste management unit is certified as closed and during which time U.S. Ecology shall be required to maintain, monitor, and report in accordance with the requirements of [40 CFR 264 Subparts B, F, G, H, and N]. The post-closure care period is unit specific and may be more than thirty years. The Director may modify the post-closure care period applicable to a unit in order to protect human health and the environment.

v. "RCRA" shall mean the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. § 6901 et seq.

w. “Regulated unit” shall mean a waste pile, surface impoundment, land treatment unit or landfill that receives hazardous waste after July 26, 1982, and subject to the requirements of IDAPA 58.01.05.008 [40 CFR §§ 264.91 through 264.100].

x. "Release" shall mean any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes (including hazardous waste constituents) into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes or hazardous waste constituents).

y. "Remedial Action" shall mean actions required to reduce contaminate concentrations to achieve corrective action goals.

z. "Remediation waste" shall mean all solid and hazardous wastes, and all media (including ground water, surface water, soils, and sediments) and debris, which contain listed hazardous waste constituents or which themselves exhibit a hazardous waste characteristic, that are managed for the purpose of implementing corrective action requirements.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

aa. The term "SW 846" shall mean “Test Methods for Evaluating Solid Waste (Third Edition, as amended through Final Update III or latest edition).”

bb. "Schedule of compliance" shall mean a schedule of remedial and/or closure measures included in a permit, including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with the HWMA.

cc. "Solid Waste Management Unit" (SWMU) shall mean any discernable unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous wastes. Such units include any area at the Facility at which solid wastes have been routinely and systematically released. SWMUs are subject to 40 CFR § 264.101.

dd. The term "UHC" shall mean Underlying Hazardous Constituent. UHC means any constituent listed in [40 CFR § 268.48], Table UTS – Universal Treatment Standards, except fluoride, selenium, sulfides, vanadium, and zinc, which can reasonably be expected to be present at the point of generation of the hazardous waste at a concentration above the constituent – specific UTS Treatment Standard.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

ACRONYMS AND ABBREVIATIONS

For the purpose of this Permit the following acronyms and abbreviations shall apply:

ACI	American Concrete Institute
ACGIH	American Conference of Governmental Industrial Hygienists
ACL	Alternate Concentration Limit
ALR	Action Leakage Rate
ANSI	American National Standards Institute
APC	Air Pollution Control
APP	Aquifer Protection Permit
API	American Petroleum Institute
ASA	American Standards Association
ASME	American Society of Mechanical Engineers
AST	Aboveground Storage Tanks
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BAT	Best Available Technology
BMP	Best Management Practice
C	Celsius/Centigrade
CAO	Corrective Action Order
CAA	Clean Air Act, 42 USC Section 7401 et seq. (Federal)
CAMP	Corrective Action Monitoring Program
CAMU	Corrective Action Management Unit
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CESQG	Conditionally Exempt Small Quantity Generators
CFCs	Chlorofluorocarbons
CFR	Code of Federal Regulations
CGL	Comprehensive General Liability Insurance
CHP	Certified Health Professional
CIH	Certified Industrial Hygienist
cm	centimeter; 1/100 meter
CMP	Compliance Monitoring Program
CMU	Container Management Unit
CSA	Container Storage Area
CQA	Construction Quality Assurance
CQAP	Construction Quality Assurance Plan
CSP	Certified Safety Professional
DMP	Detection Monitoring Program
DOE	Department of Energy (Federal)

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

DOI	Department of the Interior (Federal)
DOT	Department of Transportation
DRE	Destruction/Removal Efficiency
EC	Emergency Coordinator
EIR	Exposure Information Report
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
EP TOX	Extraction Procedure Toxicity Test (RCRA)
EQL	Estimated Quantitation Limit
ESG	English Standard Gauge
ESH	Environmental Health and Safety
ESII	Envirosafe Services of Idaho, Inc.
F	Fahrenheit
ft.	feet / foot
FEMA	Federal Emergency Management Agency
FOIA	Freedom of Information Act
FR	Federal Register
FUSRAP	Formerly Utilized Sites Remedial Action Plan
GCL	Geosynthetic Clay Liner
GC/MS	Gas Chromatography/Mass Spectrometry
GPM	Gallons Per Minute
GPS	Ground Water Protection Standards.
GW	Ground Water
HCS	Hazard Communication Standard (OSHA)
HDPE	High Density Polyethylene
HHW	Household Hazardous Waste
HMTA	Hazardous Materials Transportation Act
HSWA	Hazardous and Solid Waste Amendment of 1984
HWMA	Hazardous Waste Management Act of 1983, Idaho Code 39-4401 et seq.
HWMU	Hazardous Waste Management Unit
IDAPA	Idaho Administrative Procedures Act
IDEQ	Idaho Department of Environmental Quality
IECC	Idaho Emergency Communication Center
in	Inch
Inc.	Incorporated
kg	Kilogram; 1,000 grams
km	Kilometer; 1,000 meters
lb	Pound
LD50	Lethal Dose Level 50%
LCRS	Leachate Collection and Removal System
LDCRS	Leachate Detection, Collection and Removal System
LDR	Land Disposal Restriction
LEL	Lower Explosive Limit
MACT	Maximum Available Control Technology

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

MCL	Maximum Contaminant Levels (SDWA)
MCLGs	Maximum Contaminant Level Goals (SDWA)
MDL	Minimum Detection Limit
mg/l	Milligrams per liter
µg/l	Micrograms per liter
µrem	Microrem
mil	1/1000 in
mm	Millimeter; 1/1000 meter
MOU	Memorandum of Understanding
MS	Mass Spectrometry
MSDS	Material Safety Data Sheets
NARM	Nuclear Accelerator Radioactive Material
NCP	National Contingency Plan
NCSA	National Crushed Stone Association
NEC	National Electric Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety & Health
NORM	Naturally Occurring Radioactive Material
NOV	Notice of Violation
NOX	Oxides of Nitrogen
NPDES	National Pollutant Discharge Elimination System
NRC	Nuclear Regulatory Commission
OSHA	Occupational Safety and Health Administration
OSWER	Office of Solid Waste and Emergency Response (US EPA)
O&M	Operation and Maintenance
oz	Ounce
PAH	Polynuclear Aromatic Hydrocarbons
PCB	Polychlorinated Biphenol
PCDF	Polychlorinated Dibenzofurans
PCE	Tetrachloroethylene, also known as Perchloroethylene
pCi	Picocuries
PE	Professional Engineer
PEL	Permissible Exposure Limits (OSHA)
PM10	Particulate Matter less than 10 microns in diameter
POTW	Publicly-Owned Treatment Works
ppb	Parts per billion
PPE	Personal Protective Equipment
ppm	Parts per million
ppmw	Parts per million by weight
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance/ Quality Control
RCRA	Resource Conservation and Recovery Act of 1976
RfD	Reference Dose

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

RG	Registered Geologist
RGN	Reactivity Group Numbers
RTK	Right-to-Know
SARA Title III	Emergency Preparedness and Community Right to Know
SCBA	Self-Contained Breathing Apparatus
SDWA	Safe Drinking Water Act
SOP	Standard Operating Procedures
STEL	Short Term Exposure Limit
SWMP	Stormwater Management Plan
SWMU	Solid Waste Management Unit
TCLP	Toxicity Characteristics Leaching Procedure
TLV	Threshold Limit Value
TCE	Trichloroethylene
TOC	Total Organic Carbon
TSCA	Toxic Substance Control Act
TSDF	Treatment Storage and Disposal Facility
UBC	Uniform Building Code
UFC	Uniform Fire Code
UHC	Underlying Hazardous Constituent
UL	Underwriter's Laboratories, Inc.
USEI	US Ecology Idaho, Inc.
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UV	Ultraviolet Light
VO	Volatile Organics
VOC	Volatile Organic Compound
WAP	Waste Analysis Plan
WLR	Warning Leakage Rate
WPQ	Waste Product Questionnaire
WSID	Waste Stream Identification Number
yd	Yard
yd^2	Square yard
yd^3	Cubic yard

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

MODULE I - STANDARD PERMIT CONDITIONS

I.A. EFFECT OF PERMIT

I.A.1. The Permittee is required to: maintain the closed hazardous waste landfill units; remove, treat and monitor contaminated ground water; and perform corrective action as expressly described in this Permit. Any storage, treatment, or disposal of hazardous waste by the Permittee at this Facility that is not authorized by this Permit, or by IDAPA 58.01.05.006 [40 CFR § 262.34], and for which a permit is required under Idaho Code § 39.4409 or Section 3005 of RCRA is prohibited.

I.A.2. Pursuant to IDAPA 58.01.05.012 [40 CFR § 270.4], compliance with this Permit generally constitutes compliance, for purposes of enforcement, with the Idaho Hazardous Waste Management Act (HWMA), as amended, except for the requirements not included in this Permit which become effective by future statute or regulatory changes, to include those requirements promulgated under IDAPA 58.01.05.011 [40 CFR Part 268] restricting the placement of hazardous waste in or on the land.

I.B. PERSONAL AND PROPERTY RIGHTS

This Permit does not convey any property rights of any sort, or any exclusive privilege; nor does this Permit authorize any injury to persons or property, or any invasion of other private rights, or any infringement of state or local laws.

I.C. ENFORCEABILITY

I.C.1. The terms and conditions of this Permit are enforceable pursuant to the HWMA or any other applicable federal, state, or local law. Violations of this Permit may result in civil penalties, in accordance with HWMA [Idaho Code § 39-4414] and the HWMA Civil Penalty Policy.

I.C.2. Any person who knowingly makes any false statement or representation in any application, label, manifest, record, report, permit, or other document filed, maintained, or used for the purposes of complying with the provisions of Idaho Code § 39-4415, shall be guilty of a misdemeanor and subject to the maximum daily fine allowed by law, or to imprisonment not to exceed one (1) year, or to both, for each separate violation or for each day of a continuing violation.

I.D. OTHER AUTHORITY

The Department expressly reserves any right of entry provided by law, and any authority to order or perform emergency or other response activities as authorized by law.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

I.E PERMIT ACTIONS

I.E.1. This Permit may be modified, revoked and reissued, or terminated for cause as specified in IDAPA 58.01.05.012 [40 CFR §§ 270.41, 270.42, and 270.43].

I.E.2. The filing of a request for a permit modification, or revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance on the part of the Permittee shall not stay the applicability or enforceability of any Permit Condition.

I.E.3. Except as provided by specific language in this Permit or except for the Director's approval of a Class 1 or 2 Permit Modification, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.42 (a) and (b)], any modification that substantially alters the Facility or its operation, as covered by this Permit, shall be administered as a Class 3 Permit Modification prior to such change taking place, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.42(c)].

I.E.4. The Director may modify this Permit when the standards or regulations on which the Permit was based have been changed by statute, standards or regulations have been amended, or changed by way of judicial decision after the effective date of this Permit.

I.E.5. Within forty-five (45) calendar days of a permit modification being put into effect or approved, the Permittee shall provide clean copies of the relevant portions of the Permit and Attachments revised (if not already reflected/provided in the change pages submitted with the Permit Modification Request), reprint the documents (as necessary) and submit to the Director. The Permittee shall submit an electronic version of all permit modifications and permit applications to the Director.

I.E.6. The Permittee shall ensure that Attachment 7, the permit modification tracking log, is up to date, consistent with Permit Condition I.E.5.

I.F. SEVERABILITY

I.F.1. The provisions of this Permit are severable and if any provision of this Permit or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby. Invalidation of any state or federal statutory or regulatory provision that forms the basis for any condition of this Permit does not affect the validity of any other state or federal statutory or regulatory basis for said condition.

I.F.2. In the event that a condition of this Permit is stayed for any reason, the Permittee shall continue to comply with the related applicable and relevant standards in IDAPA 58.01.05.008 [40 CFR Part 264] and conditions of the previous permit until final resolution of the stayed condition, unless compliance with the related applicable and relevant interim status standards

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

would be technologically incompatible with compliance with other conditions of this Permit that have not been stayed.

I.G. DUTY TO COMPLY

I.G.1. The Permittee shall comply with all conditions of this Permit, except that the Permittee need not comply with the conditions of this Permit to the extent and for the duration such noncompliance is authorized by an emergency permit (issued under IDAPA 58.01.05.012 [40 CFR § 270.61]). Any permit noncompliance, except under the terms of an emergency permit, constitutes a violation of RCRA, amended by HSWA and/or of HWMA, and is grounds for enforcement action, permit termination, modification, or revocation and reissuance of the permit and/or denial of a permit renewal application.

I.G.2. Compliance with the terms of this Permit does not constitute a defense to any action brought under Sections 3007, 3008, 3013, and 7003 of RCRA (42 U.S.C. §§ 6927, 6928, 6934 and 6973), or similar HWMA provisions, Sections 104, 106(a), or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) [42 U.S.C. §§ 9604, 9607, or 9606(a)], as amended by the Superfund Amendments and Reauthorization Act of 1986, or any other federal or state law governing protection of public health or the environment from any imminent and substantial endangerment to human health or the environment. However, compliance with the terms of this Permit does constitute a defense to any action alleging failure to comply with the applicable standards upon which this Permit is based.

I.H. DUTY TO REAPPLY

The Permittee must apply for a new permit, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.30(b)], at least 180 calendar days prior to the expiration date of this Permit, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.10(h)]. Failure to submit a timely permit application prior to completion of corrective action and post-closure care may result in enforcement action, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.51(c)].

I.I. PERMIT EXPIRATION

I.I.1. Except as renewed, modified, revoked, reissued, or terminated by the Director, this Permit shall automatically expire ten (10) years from the effective date of this Permit.

I.I.2. In accordance with IDAPA 58.01.05.012 [40 CFR § 270.50(d)], this Permit shall be reviewed five (5) years after the effective date and modified, as necessary, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.41].

I.J. CONTINUATION OF EXPIRING PERMIT

This Permit and all conditions herein shall continue in force until the effective

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

date of a new permit, if the Permittee has submitted a timely, complete application (under IDAPA 58.01.05.012 [40 CFR Part 270, Subpart B]), and through no fault of the Permittee, the Director has neither issued or denied a new permit under IDAPA 58.01.05.013 [40 CFR §124.15] on or before the expiration date of this permit.

I.K. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

It shall not be a defense for the Permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

I.L. DUTY TO MITIGATE

In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize releases to the environment resulting from the noncompliance, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.

I.M. DUTY TO PROVIDE INFORMATION

The Permittee shall furnish to the Director, within a reasonable time, any relevant information that the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Director, within five (5) days, copies of records required by this Permit.

I.N. INSPECTION AND ENTRY

Pursuant to IDAPA 58.01.05.012 [40 CFR § 270.30(i)], the Permittee shall allow the Director or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

I.N.1. Enter at reasonable times upon the Permittee's premises where a regulated Facility or activity is located or conducted, or where records are kept under the conditions of this Permit;

I.N.2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;

I.N.3. Inspect at reasonable times any portion of the Facility or off-site activities, equipment (including monitoring and control equipment), practices, or operations regulated, or required under this Permit; and

I.N.4. Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by RCRA or state law, any substances or parameters at any location.

I.O. MONITORING AND RECORDS

I.O.1. The Permittee shall retain records of all monitoring information (including all

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

calibration and maintenance records), copies of all reports required by this Permit, the certification required by IDAPA 58.01.05.008 [40 CFR § 264.73(b)(9)], and records of all data used to complete the application for this Permit, for a period of at least three (3) years from the date of the sample, measurement, report, certification, or recording unless a longer retention period is required by other conditions of this Permit. These periods may be extended by request of the Director, at any time, upon written notification to the Permittee. The retention times are automatically extended during any unresolved enforcement action regarding this Facility to three (3) years beyond the conclusion of any enforcement action.

I.O.2. The Permittee shall maintain at the Site B Facility, until post-closure is completed and certified by an independent, registered professional engineer: 1) a copy of this Permit and its Attachments and all modifications to this Permit, and 2) all monitoring records from surface water sampling, seep sampling, soil sampling, sediment sampling, ground water monitoring well sampling and associated ground water surface elevation recording, and ground water well installations.

I.O.3. Copies of all records maintained at the Permittee's Site B Facility shall be made available to the Department, the Director, and/or their authorized officers, employees, or representatives, within five (5) business days of the receipt of a hand-delivered or certified mail request for such. The Site B Facility contact for access to the Site A records is:

Environmental Manager
U.S. Ecology Idaho, Inc.
P.O. Box 400
Grand View, Idaho 83624
Telephone: (208) 834-2275

I.O.4. Pursuant to IDAPA 58.01.05.012 [40CFR § 270.30(j)(3)], records of monitoring information shall include:

I.O.4.a. The date, exact place, and time of sampling or measurements;

I.O.4.b. The name, title, and affiliation of the individual(s) who performed the sampling or measurements;

I.O.4.c. The date(s) analyses were performed;

I.O.4.d. The name, title, and affiliation of the individual(s) who performed the analyses;

I.O.4.e. The analytical techniques or methods used; and

I.O.4.f. The results of such analyses, including the Quality Assurance/Quality Control

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

summary.

I.O.5. Samples and measurements taken for monitoring purposes shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed shall be the appropriate method from IDAPA 58.01.05.005 [40 CFR Part 261, Appendix I], EPA's most recent edition of *Technical Enforcement Guidance Document* (hereinafter referred to as TEGD), or an equivalent method approved by the Director. Laboratory methods shall be those specified in the most recent edition of *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846* (herein referred to as SW-846), the most recent edition of *Standard Methods for the Examination of Wastewater*, or other alternate method approved in this Permit, or an equivalent method in accordance with Permit Condition I.O.6.

I.O.6. The Permittee may substitute analytical method(s) that are equivalent or superior to those specifically approved for use in this Permit, in accordance with the following:

I.O.6.a. The Permittee submits to the Director a request for substitution of analytical method(s) specifically approved for use in this Permit. The request shall provide information demonstrating that the proposed method(s) requested to be substituted are equivalent or superior in terms of sensitivity, accuracy, and precision (i.e., reproducibility); and

I.O.6.b. The Director notifies the Permittee, in writing, by certified mail or hand delivery, that the substitution of the analytical method(s) is approved. Such approval shall not require a permit modification under IDAPA 58.01.05.012 [40 CFR § 270.42].

I.O.7. Results of all ground water analyses required by this Permit shall be submitted to the Director within sixty (60) calendar days of the Permittee's receipt of all sample data from the laboratory, but in no case shall the period between the date of sampling and the date of submission of analytical results to the Director exceed one hundred and twenty (120) calendar days.

I.O.8. The Department may, during the life of this Permit, require the Permittee to revise the format(s) used to present the raw data and conclusions associated with the monitoring reports.

I.P. REPORTING PLANNED CHANGES

Within sixty (60) calendar days before any planned physical alteration or addition to the permitted Facility, the Permittee shall give notice to the Director of such planned physical alterations or additions.

I.Q. CERTIFICATION OF CONSTRUCTION OR MODIFICATION

I.Q.1. The Permittee may not commence storage, treatment, or disposal in a new

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

hazardous waste management unit or in a modified portion of an existing closed Hazardous Waste Management Unit, except as provided in IDAPA 58.01.05.012 [40 CFR § 270.42], until the Permittee has submitted to the Director by certified mail, express mail, or hand delivery a letter signed by the Permittee and a registered professional engineer certifying that the permitted unit(s) have been constructed or modified in accordance with the approved plans and specifications in compliance with this Permit and IDAPA 58.01.05.012 [40 CFR § 270.30(l)]; and

I.Q.1.a. The Director has reviewed and inspected the modified or newly constructed unit(s), and has notified the Permittee in writing that he finds the unit(s) to be in compliance with the conditions of this Permit or;

I.Q.1.b. If within fifteen (15) calendar days of the date of submittal required by I.Q.1. of this Permit the Permittee has not received notice from the Director of his or her intent to inspect, prior inspection is waived.

I.R. ANTICIPATED NONCOMPLIANCE

The Permittee shall give at least thirty (30) calendar days advance notice, in writing, to the Director of any planned changes in the permitted Facility or activity that might result in noncompliance with permit requirements. Such notice does not authorize any noncompliance with or modification of this Permit.

I.S. TRANSFER OF PERMIT

This Permit is not transferable to any person, except after notice to, and acceptance by, the Director. The Director may require modification or revocation and reissuance of the Permit, pursuant to IDAPA 58.01.05.012 [40 CFR § 270.41]. Before transferring ownership or operation of the Facility during the post-closure care period, the Permittee shall notify the new owner or operator in writing of the requirements of IDAPA 58.01.05.008 and .012 [40 CFR Parts 264 and 270] and this Permit.

I.T. TWENTY-FOUR HOUR REPORTING

I.T.1. In accordance with IDAPA 58.01.05.012 [40 CFR § 270.30(6)], the Permittee shall verbally report to the Director, any noncompliance with this Permit that might endanger human health or the environment. Any such information shall be reported, as soon as possible, but not later than twenty-four (24) hours from the time the Permittee becomes aware of the noncompliance. Potential endangerment to human health and the environment may include, but not be limited to, information concerning:

I.T1.a. A release of any hazardous waste that may endanger public drinking water supplies; or,

I.T.1.b. A release or discharge of hazardous waste, or of a fire or explosion at the

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Facility that could threaten human health or the environment outside the Facility; or,

I.T.1.c. Noncompliance with Permit Condition II.A.1. of this Permit.

I.T.2. The verbal description of the occurrence and its cause shall include the following (at a minimum):

- Name, title, and telephone number of the individual reporting;
- Name, address, and telephone number of the owner or operator;
- Name, address, and telephone number of the Facility;
- Date, time, and type of incident;
- Location and cause of the accident;
- Name and quantity of material(s) involved;
- The extent and description of injuries, if any;
- An assessment of actual or potential hazards to the environment and human health, where this is applicable;
- Description of any emergency action taken to minimize possible threat(s) to human health or the environment;
- Estimated quantity and disposition of recovered material that resulted from the incident; and
- Any other information necessary to fully evaluate the situation and to develop an appropriate course of action.

I.T.3. Within five (5) calendar days after the Permittee is required to provide verbal notification as specified in Permit Condition I.T.1. and I.T.2. of this Permit, the Permittee shall provide to the Director a written submission of the incident.

I.T.3.a The written submission shall include, but not be limited to, the following:

- Name, address, and telephone number of the individual reporting;
- A description including cause, location, extent of injuries, if any, and an assessment of actual or potential hazard(s) to the environment and human health outside the Facility, where this is applicable, of the incident (noncompliance and/or release);
- The period(s) in which the incident (noncompliance and/or release) occurred including exact dates and times;
- Whether the results of the incident remain a threat to human health and the environment (whether the noncompliance has been corrected and/or the release has been adequately remediated); and
- If no threat remains, the anticipated time it is expected to continue; the steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance; and/or steps taken or planned to adequately remediate the release.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

I.T.3.b. The Permittee need not comply with the five (5) calendar day, written notice requirement if the Director waives, in writing, the requirement, and the Permittee submits a written report within fifteen (15) calendar days from the time the Permittee is required to provide verbal notification, as specified in Permit Condition I.T.1. of this Permit. The twenty-four hour reporting telephone number is 800-632-8000 (Idaho Emergency Communication Center)

I.U. OTHER NONCOMPLIANCE

When the semi-annual ground water monitoring reports are submitted to the Director, the Permittee shall report all other instances of noncompliance, not otherwise reported under Permit Conditions I.R. and I.T. of this Permit. The reports shall contain the information described in Permit Condition I.T.3.a of this Permit. Reporting shall not constitute a defense for any noncompliance.

I.V. OTHER INFORMATION

Whenever the Permittee becomes aware that he/she failed to submit any relevant facts in the Permit Application or submitted incorrect information in a Permit Application, or in any report to the Director, the Permittee shall promptly submit such facts or information to the Director, in accordance with Permit Condition I.Y of this Permit.

I.W. SIGNATURE AND CERTIFICATION

All applications, reports, or other information submitted to the Director by the Permittee shall be signed and certified in accordance with IDAPA 58.01.05.012 [40 CFR §§ 270.11 and 270.30(k)].

I.X. CONFIDENTIAL INFORMATION

The Permittee may be able to make a confidentiality claim regarding information submitted to the Department. Any such claim shall be governed by Sections 39-4411 and 39-337 to 39-350 of the Idaho Code, Sections 58.01.05.004 [40 CFR § 260.2], 58.01.05.012 [40 CFR § 270.12] and 58.01.05.997, and any other applicable state or local law. The Department shall determine whether said information is exempt from disclosure pursuant to applicable law. Pursuant to those authorities, if no claim of confidentiality is made at the time of submission, the Department may make the information available to the public without further notice.

I.Y. REPORTS, NOTIFICATIONS AND SUBMISSIONS

All reports, notifications or other submissions, which are required by this Permit and IDAPA 58.01.05.012 [40 CFR § 270.5], shall be sent or given to the Director in duplicate by certified mail, express mail, or hand delivered to:

Director
c/o Hazardous Waste Program Manager

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Waste Management and Remediation Division
Idaho Department of Environmental Quality
1410 North Hilton
Boise, Idaho 83706-1255
(208)373-0502

Plus an additional copy to:

RCRA Permits Section
U.S. EPA Region 10
1200 Sixth Ave.
Seattle, WA 98101

The addresses and telephone number listed above are current as of the effective date of this Permit, and may be subject to change.

I.Z. BIENNIAL REPORT

The Permittee shall, by March 31 of each even-numbered year, submit a biennial report to the Department covering the Facility activities, in accordance with the applicable sections of IDAPA 58.01.05.008 [40 CFR § 264.75(a) through (j)].

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

MODULE II - GENERAL FACILITY CONDITIONS

II.A. OPERATION AND MAINTENANCE OF FACILITY

II.A.1. The Permittee shall, at all times, properly maintain and operate the Facility, as specified in this Permit, to minimize the possibility of a fire, explosion, or any unplanned sudden or nonsudden release of hazardous waste constituents to air, soil, ground water, or surface water that could threaten human health or the environment.

II.A.2. The Permittee shall, at all times, properly operate and maintain, in accordance with sound engineering and scientific practice, all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee so as to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities, or similar systems, only when necessary to achieve compliance with the conditions of this Permit.

II.B. FACILITY DESCRIPTION

The USEI Site A Facility is located near Bruneau, Idaho. The Facility received hazardous waste from 1973 to 1983. The waste was disposed of in abandoned missile silos that were closed in-place and capped in 1997. A CAMU was designated at the Facility to assist in the closure of Site A. A complete legal description of the Facility is presented in Attachment 1 of this Permit.

II.C. GENERAL INSPECTION REQUIREMENTS

II.C.1 The Permittee shall follow the inspection schedules, as provided in Attachment 2, and Permit Condition V.C.

II.C.2. The Permittee shall remedy any deterioration or malfunction discovered by an inspection, as required by IDAPA 58.01.05.008 [40 CFR § 264.15(c)] and Attachment 2 of this Permit, on a schedule approved by the Director.

II.C.3. The Permittee shall maintain a copy of the Inspection Plan, included as Attachment 2 of this Permit, at the Site B Facility. Inspection reports shall be recorded and maintained, as required by IDAPA 58.01.05.008 [40 CFR § 264.15(d)], for at least three (3) years from the inspection date.

II.D. PERSONNEL TRAINING

The Permittee shall ensure that all personnel who are involved in the operation, inspection, maintenance, or any other post-closure activity at the

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Facility are instructed in the proper operation of the equipment and instrumentation, including: training in inspection and record keeping procedures; hazardous waste management, safety, and emergency procedures, as applicable to their job description; location of fire extinguishers, local emergency contacts for police and fire departments; and the location of the nearest telephone, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.14(b)(12)] and IDAPA 58.01.05.008 [40 CFR §§ 264.16 and 264.14(b)].

II.E. RECORD KEEPING

II.E.1. In addition to record keeping and reporting requirements specified elsewhere in this Permit, the Permittee shall maintain a written Operating Record at the Permittee's Site B Facility until post-closure is completed, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.73], including at least the following:

II.E.1.a. A map showing the location of the closed hazardous waste management units;

II.E.1.b. A map designating the monitoring zone and location of all on-site and off-site ground water recovery and monitoring wells;

II.E.1.c. Records and results of the Operation and Maintenance activities in accordance with Attachment 2 of this Permit;

II.E.1.d. Records and results of inspections performed in accordance with Attachment 2 of this Permit; and

II.E.1.e. Records and results of ground water sampling and analysis to include results of all monitoring, testing, and QA/QC data gathered, in accordance with Module III and any other applicable sections of this Permit.

II.E.2. The Permittee shall maintain at the Site B Facility, an Equipment Information Manual for ground water monitoring, and corrective action equipment. This will list suppliers, manufacturers, and installers of all such equipment used at the Facility, and will include the available manufacturer's literature on operation and maintenance. This manual will be kept up-to-date, and equipment will be operated and maintained according to the manufacturer's literature.

II.E.3. If administrative information (such as names, phone numbers, addresses) are specified in this Permit, the Permittee is hereby authorized to revise said lists provided the substitute has completed all requisite training prior to assuming responsibility. Such administrative changes shall not be considered a modification of this Permit and the change shall be documented in the administrative record. The format of tables, forms, and figures are not subject to the requirements of this Permit and may be revised at the Permittee’s discretion

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Equipment replacement/maintenance or upgrade with functionally equivalent components (e.g., valves, pump, controls, etc.), which do not require a change to the permit conditions, permit attachments, or drawings, will be completed and documented under the work control process as maintenance activities under Permit Condition II.A.1., and do not require a modification of the permit.

If the Department determines that the substitution was not equivalent or superior to the original, it will notify the Permittee that the Permittee's claim of equivalency has been denied, the reasons for the denial, and that the original material or equipment must be used. If the product substitution is denied, the Permittee shall comply with the original approved product specification, find an acceptable substitution, or apply for a permit modification, in accordance with Permit Condition I.D.4.

Use of such equivalent or superior items shall not be considered a modification of the Permit, except as follows:

II.E.3.a. The Permittee shall submit to the Director a Class 1 Permit Modification, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.42], whenever the Facility changes its Emergency Coordinator; and

II.E.3.b. The format of tables, forms, and figures are subject to the requirements of Permit Condition I.O.8. of this Permit and may not be revised without prior approval of the Director unless Permit Condition V.C.4 is met.

II.E.3.c. Items that shall not be considered under equivalent materials/information include changes in field procedures, waste handling, or sample analyses. In the event, the Permittee wants to substitute field procedures, waste handling methods or sample analyses during the term of this Permit, a written request and the Department's approval will be required before implementation.

II.F. SECURITY

The Permittee shall comply with the security provisions of IDAPA 58.01.05.008 [40 CFR §§ 264.14(b) and (c), 264.117(b) and (d)], as described in Attachment 2 of this Permit, and as follows:

II.F.1. The Facility, as specified in Attachment 2 of this Permit, shall have a 6 foot-high, chain-link security fence topped with three strands of barbed wire surrounding the Facility.

II.F.2. A locked chain-link security gate topped with three strands of barbed wire shall control access to the Facility.

II.F.3. Warning signs, meeting the requirements of IDAPA 58.01.05.008 [40 CFR § 264.14(c)], shall be posted at the entrance and along the fence on each side of the Facility.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

MODULE III - GROUND WATER MONITORING

III.A. GROUND WATER MONITORING PROGRAMS

The ground water monitoring programs, applicable under the terms of this Permit, shall be undertaken in accordance with IDAPA 58.01.05.008 [40 CFR §§ 264.97 through 264.100] is summarized in Table III-1 and as follows:

lll.A.1. A Detection Monitoring Program (DMP) is in effect, as of the effective date of this Permit, for monitoring wells ~~AMW-4, APW-10,~~ AOB-11, ~~AOB-12,~~ AMW-13, ~~AMW-14~~, and AMW-15. AMW-16 is in the Compliance Monitoring Program (CMP), and shall remain in the CMP until the conditions of Permit Condition III.A.3 are met.

III.A.2. The DMP shall remain in effect until:

III.A.2.a. The detection monitoring criteria, listed in Table III-2 as the Practical Quantitation Limits (PQLs) for each analyte, are demonstrated through Permit Condition III.F.2 to have been exceeded, at which time the Permittee shall proceed in accordance with Permit Condition III.A.3, or III.A.4; or

III.A.2.b. Until the post-closure care period is over.

III.A.3. The Compliance Monitoring Program (CMP) shall be put into effect at such time as the detection monitoring criteria (PQLs) are demonstrated through Permit Condition III.F.2 to have been exceeded. A well will remain in the CMP until:

III.A.3.a. The detection monitoring criteria (PQLs) as listed in Table III-2 have not been exceeded during four (4) consecutive CMP sampling events, at which time the Permittee shall return the well to the DMP; or,

III.A.3.b. The compliance monitoring criteria, listed in Table III-2 of this Permit as the Ground Water Protection Standards (GPSs), are demonstrated through Permit Condition III.G.3 to have been exceeded, at which time the Permittee shall proceed in accordance with Permit Condition III.A.4; or,

III.A.3.c. If two (2) or more constituents exceed the PQL but not the GPS, a cumulative risk shall be calculated for both carcinogenic and non-carcinogenic compounds. If the results of this risk assessment indicate a cumulative cancer risk greater than 1×10^{-4}, or a non-carcinogenic cumulative hazardous quotient exceeding 1, the Permittee shall comply with Permit Condition III.A.4.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Table III-1

GROUND WATER MONITORING CRITERIA FOR THE GROUND WATER MONITORING PROGRAMS		
Monitoring Well Program	**Begin**	**Monitoring Criteria**
DMP	At permit issuance for all monitoring wells except AMW-16, or in accordance with permit condition III.A.2.	Exceedance of Table III-2 PQL.
CMP	At permit issuance for monitoring well AMW-16, or in accordance with permit condition III.A.3.	Analytical results indicate contamination equal to or below GPS in Table III-2 but greater than the PQL.
CAMP	In accordance with permit condition III.A.4.	Exceedance of GPS for any constituents in Table III-2.*

*Exceedance of a 1 x 10^{-4} risk in accordance with Permit Condition III.A.3.c.

III.A.4. A Corrective Action Monitoring Program (CAMP), in accordance with 40 CFR § 264.100, shall be put into effect at such time as the compliance monitoring criteria are exceeded in any monitoring well in accordance with Permit Conditions III.A.2.a, III.A.3.b or III.A.3.c during the post-closure care period. The Permittee shall submit to the Director, a Corrective Action Work Plan in accordance with IDAPA 58.01.05.008 [40 CFR § 264.100], within ninety (90) days of the confirmed exceedance. Appendix O, of the August 2006, Part B permit application is not adequate to satisfy the corrective action criteria of 40 CFR § 264.100. The CAMP shall remain in effect until the compliance monitoring criteria listed in Table III-2, or the risk criteria in Permit Condition III.A.3.c, are not exceeded during four (4) consecutive CAMP events. At such time, the appropriate monitoring program shall be reactivated; or until such time as the Director approves a Permit Modification for a replacement monitoring program and schedule.

III.A.5. Additional detection monitoring, compliance monitoring, or corrective action wells and/or programs may be added to the detection monitoring, compliance monitoring, or corrective action programs in the future, at the discretion of the Director, based upon future ground water sampling results.

III.B. WELL MAINTENANCE AND CONSTRUCTION

III.B.1. The Permittee shall construct any new monitoring well in accordance with *EPA's Technical Enforcement Guidance Document (latest edition)* and Attachment 4 of this Permit.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

- The Permittee shall perform a slug test or pumping test for all new monitoring wells during construction/development to determine hydraulic conductivity. This data may be used at a later date to determine adequate performance of the monitoring well.

- The Permittee shall submit to the Director, a copy of the well construction record and boring logs, with the as-built drawings for each well, within sixty (60) days after completion of each well.

III.B.2 The Permittee shall inspect and maintain all monitoring wells throughout the post-closure care period, in accordance with Attachment 4 of this Permit. The Permittee shall maintain borehole integrity of each monitoring well in accordance with IDAPA 58.01.05.008 [40 CFR § 264.97(c)]. The Permittee shall maintain all monitoring wells in good working order, making necessary repairs in a timely manner, so that the sampling program is not hindered or delayed.

III.B.3. The need for maintenance shall not constitute grounds for missing a sampling event. The only reason this would constitute grounds for missing a scheduled sampling event would be the accidental destruction of the well. Under no circumstances shall a monitoring well remain out of commission for two (2) consecutive sampling events. The construction of the repair or replacement shall be in accordance with Attachment 4 of this Permit. If a monitoring well/piezometer must be replaced for any reason during the term of this Permit, it shall be replaced within ninety (90) calendar days of the date taken out of service, and/or be fully operational at the time of the next sampling event.

III.B.4. Replacement of Destroyed Wells: In the event a monitoring well is destroyed, the Permittee shall:

- Notify the Director within seven (7) calendar days of discovery of the destroyed well.
- The Permittee shall immediately propose a new location for a replacement well that is neither less than twenty (20) feet, nor more than fifty (50) feet from the original destroyed well, or other suitable location upon approval from the Director.
- The Permitted shall plug and abandon the destroyed well in accordance with the Idaho Department of Water Resources' abandonment criteria.
- The Permittee shall notify the Director at least five (5) days before installation of any replacement wells. Replacement wells shall be constructed in accordance with Permit Condition III.B.1, IDAPA 58.01.05.008 [40 CFR §

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

264.97], and Attachment 4 of this Permit.

III.C. GROUND WATER MONITORING WELLS

III.C.1. The Ground water Monitoring Network shall be comprised of the wells listed in Permit Condition III.A.1, and in Table III-3, and shown in Figure 1.

III.C.1.a If at anytime during the post-closure care period, a perched water zone is identified (whether it is seasonal or manmade), the Permittee shall submit a plan for the Director's review and approval, within sixty (60) calendar days of the discovery. The plan shall include a proposal for perched zone monitoring wells to determine the perched water characteristics and flow path from source to point of termination, and a proposed schedule for the drilling and completion of the additional wells.

III.C.2. The Permittee may at any time petition the Director to modify the Ground water Monitoring Network and/or monitoring frequency. All changes to the Ground water Monitoring Network shall be through permit modification, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.42] and Permit Condition I.E.3.

III.D. GROUND WATER SAMPLING & ANALYSIS

III.D.1. The Permittee shall use the techniques and procedures specified in this Permit, and Attachments 4 and 5 of this Permit when collecting, preserving, shipping, tracking, controlling, and analyzing ground water samples. The Permittee shall notify the Director of all planned sampling events at least five (5) working days in advance of the planned sampling, and shall notify the Director of all other sampling events, as soon as possible prior to the event.

III.D.2. The Permittee shall collect, and have analyzed a minimum of one duplicate sample for every twenty (20) samples collected for analysis (the location to be determined on a rotating basis with preference given to any compliance well). The results of the analysis of these samples shall be presented in the reports required by Permit Condition III.H.

III.D.3. The Permittee shall collect a minimum of one (1) equipment rinsate sample for every twenty (20) samples collected.

III.D.4. Field measurements of field parameters including pH, temperature, and specific conductivity shall be measured and recorded at each monitoring well, as specified in Attachments 4 and 5. Pre-sample purging shall be conducted in accordance with Attachments 4 and 5.

III.D.5 The Permittee shall, throughout the post-closure care period, sample all wells listed in Permit Condition III.A.1. on a semiannual basis, in accordance with Attachments 4 and 5 of this Permit, for the parameters identified in Table III-2.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

The Permittee shall perform this analysis in accordance with Method 8260 of the Third Edition, or latest, of EPA SW-846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," or an equivalent or superior method, with prior Director approval.

III.D.6. During detection and/or compliance monitoring, the Permittee shall complete the spring monitoring event during the months of April, May, or June, and the fall monitoring during September, October, or November.

III.D.7. If problems are identified with either the field sampling procedures, or the laboratory QA/QC, the need to resample shall be at the discretion of the Director.

III.D.8. If the ground water is found to contain any constituent(s) with concentrations above a GPS of 1×10^{-4} risk (or 1×10^{-4} cumulative risk) as listed in Table III-2, the Permittee shall manage all purged ground water as a hazardous waste. The Permittee shall store all purged ground water exceeding a GPS in a secure location until undergoing treatment at Site B. If ground water exceeds 1×10^{-4} risk (or 1×10^{-4} cumulative risk), and is to be stored on-site for more than ninety (90) days, the Permittee shall submit a permit modification request containing all information required under IDAPA 58.01.05.012 [4O CFR § 270.14] for the permitting of hazardous waste storage units or containers.

III.E. GROUND WATER ELEVATION

III.E.1. The Permittee shall determine the ground water surface elevation at each monitoring well or piezometer before each sampling event. The Permittee shall collect all water elevation measurements for the entire Ground water Monitoring Network within a twenty-four (24) hour period when calculating semi-annual flow direction and velocities.

III.E.2. The Permittee shall semi-annually calculate the ground water flow direction and rate until the end of the post-closure care period. The method used for this calculation shall be as described in Attachments 4 and 5. Ground water flow rates, directions, contour maps, and summary tables shall be submitted to the Director with each semi-annual ground water sampling event.

III.F. DETECTION MONITORING PROGRAM

III.F.1. Detection Monitoring Sampling Parameters and Frequency

As of the effective date of this Permit, the Permittee shall sample the detection monitoring wells in accordance with Permit Condition III.A.1. The Permittee shall collect and analyze samples for the VOCs listed in Table III-2 of this Permit, in accordance with Permit Condition III.D.

III.F.2. Detection Monitoring Criteria and Data Evaluation

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

The criteria for evaluating data from each detection monitoring sampling event shall be to compare the sample analytical results with the Detection Monitoring Criteria (the PQLs) in Table III-2 of this Permit, as follows:

III.F.2.a. If the analytical results are less than or equal to the PQLs in Table III-2, the Permittee shall continue the DMP until Permit Condition III.A.2.b. has been satisfied; or,

III.F.2.b. If the analytical results exceed the PQLs listed in Table III-2, the Permittee shall comply with Permit Condition III.F.3.

III.F.3. Response to Exceedance of Detection Monitoring Criteria

III.F.3.a. Upon detection of any parameter(s) that exceeds the PQLs specified in Table III-2, the Permittee shall perform the following:

III.F.3.a.1. Notify the Director of this finding, in writing, within seven (7) calendar Days and;

III.F.3.a.2. Comply with Permit Condition III.F.5, or at the Permittee's discretion, immediately collect two verification samples from all affected well(s), purging the well(s) between samples, and reanalyze both samples for all parameters listed in Table III-2.

III.F.3.b. If analytical results from either verification sample confirms the detection of constituents in concentrations that exceed the Detection Monitoring Criteria given in Table III-2, the affected well(s) shall be sampled within thirty (30) calendar days and analyzed for the constituents identified in IDAPA 58.01.05.008 [40 CFR Part 264, Appendix IX]. The Permittee shall notify the Director in writing within seven (7) days of making this finding and submit all analytical results. Within ninety (90) calendar days of confirmation of an exceedance, the Permittee shall perform the requirements of either III.F.3.c. or III.F.3.d.

III.F.3.c. The Permittee shall submit to the Director a report that includes the following:

III.F.3.c.1. A summary of the results of the Appendix IX analysis, required by Permit Condition III.F.

III.F.3.c.2. A determination as to the monitoring program that will be initiated based upon a comparison of analytical results to the Compliance Monitoring Criteria and Corrective Action Monitoring Criteria presented in Table III-2 of this Permit.

IIII.F.3.d. The Permittee may choose to demonstrate, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.98(g)(6)], that an off-site source caused the increase, or that the increase resulted from an error in sampling, analysis, or evaluation. When required by IDAPA 58.01.05.008 [40 CFR § 264.98(g)(6)(iii)], the Permittee shall submit an application for a permit modification to make any appropriate changes to the compliance monitoring

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

program at the Facility, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.42].

III.F.4. If the Permittee successfully demonstrates to the Director that a source from a non-regulated unit caused the exceedance or that the exceedance resulted from an error in sampling, analysis or evaluation, the Director shall notify the Permittee to remain in the detection monitoring program. Otherwise, the Director shall inform the Permittee that he shall comply with Permit Condition III.F.3.c. within the time frame to be established by the Director. This period will not be greater than sixty (60) calendar days.

III.F.5. If the Permittee determines that verification samples are not warranted, the Permittee may forgo verification sampling and comply with the requirements of either Permit Condition III.F.3.c. or III.F.3.d.

III.G. Compliance Monitoring Program

III.G.1. Compliance Monitoring Wells:

As of the effective date of this Permit, monitoring well AMW-16 shall be included in the compliance monitoring program. All other compliance monitoring wells shall be determined through permit modification, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.42], and Permit Condition I.E.3.

III.G.2. Compliance Monitoring Sampling Parameters and Frequency:

III.G.2.a. During the Compliance Monitoring Program (CMP), the Permittee shall sample wells in accordance with Permit Condition III.A.3. The Permittee shall collect and analyze the samples for VOCs listed in Table III-2 of this Permit, in accordance with Permit Condition III.D.

III.G.2.b. Every three years, all designated CMP wells shall be analyzed for all constituents listed in IDAPA 58.01.05.008 [40 CFR Part 264, Appendix IX]. As a result of this sampling, any newly identified compounds shall be added to the existing list of analytes in Table III-2, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.99(g)] and through permit modification, in accordance with IDAPA 58.01.05.012 [40 CFR § 270.42]. Upon detection of any additional monitoring constituents, as a result of the Appendix IX sampling, the Permittee may resample within thirty (30) days and repeat the Appendix IX analysis. The Permittee shall submit the resample analytical results to the Director. If the second analysis confirms the presence of the new constituents, the Permittee shall, within seven (7) calendar days of receiving the data, notify the Director in writing of the findings.

III.G.3. Compliance Monitoring Criteria and Data Evaluation:

The criteria for evaluating data from each compliance monitoring sampling

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

event shall be to compare the sample analytical results with the compliance monitoring criteria (the Ground water Protection Standards) in Table III-2 of the Permit, as follows:

III.G.3.a. If the analytical results for the CMP well(s) are less than, or equal to the compliance monitoring criteria in Table III-2 (GPS), the Permittee shall continue the CMP until Permit Condition III.A.3 has been satisfied; or,

III.G.3.b. If the analytical results from any well listed in Permit Condition III.A.1. of this Permit exceed the 1×10^{-4} risk criteria (GPS) in accordance with Permit Condition III.A.3.c, the Permittee shall comply with Permit Condition III.A.4.

III.G.4. Response to Exceedance of Compliance Monitoring Criteria: If the analytical results of samples taken from any well listed in Permit Condition III.A.1. exceed the Compliance Monitoring Criteria (GPS) in Table III-2, the Permittee shall institute a Corrective Action Monitoring Program for that well, in accordance with Permit Condition III.A.4; and,

III.G.4.a. Notify the Director of the finding (in writing) within seven (7) calendar days of receipt of the analytical results, identifying the presence of contaminants at or above the established GPSs, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.99(h)(1)]. At this time, the Permittee may elect to immediately collect two (2) verification samples from any affected well(s), purging the well(s) between samples, and reanalyze for all compounds required in the Compliance Monitoring Program. If analytical results from either verification sample confirm the detection of compounds above the Compliance Monitoring Criteria, as specified in Tables III-1 and III-2, then the Permittee shall:

III.G.4.b. Submit to the Director a Corrective Action Plan, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.100], applicable to the affected area(s) and constituents, within 120 calendar days of receipt of the analytical results, identifying the presence of contaminants at or above the established GPSs; or;

III.G.4.c Submit to the Director, a report demonstrating that another source (other than a Past Practice Unit or regulated unit) caused the contamination and/or that the reported contaminant concentrations resulted from an error in sampling, analysis, or evaluation. In making this demonstration, the Permittee shall follow procedures in accordance with IDAPA 58.01.05.008 [40 CFR § 264.99(i)]:

- Notify the Director, in writing, within seven (7) calendar days of the Permittee's intent to make such a demonstration;

- Within ninety (90) days, submit a report to the Director that demonstrates

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

that a source (other than the Past Practice Unit or regulated unit) caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from an error in sampling, analysis, or evaluation;

- Within ninety (90) days, submit to the Director an application for a permit modification to make any appropriate changes to the Compliance Monitoring Program at the Facility; and,

- Continue ground water monitoring for the affected well(s), in accordance with the Compliance Monitoring Program, if DEQ has approved the report that an off-site source caused the contamination.

III.G.5. The Permittee shall continue the Compliance Monitoring Program addressing all zones of saturation at the affected well(s) until:

III.G.5.a. Constituents identified in the affected well(s) do not exceed the limit specified in Table III-2 for four (4) consecutive sampling events; or,

III.G.5.b. The Permittee enters into a Corrective Action Program under IDAPA 58.01.05.008 [40 CFR § 264.101] for the affected area(s).

III.G.6. If the Permittee determines that the Compliance Monitoring Program no longer satisfies the requirements of the IDAPA 58.01.05.008 [40 CFR § 264.99], the Permittee shall, within ninety (90) days, submit an application for permit modification to make any appropriate changes to the program, in accordance with IDAPA 58.01.05.008 [40 CFR § 264.99(j)].

III.G.7. In the event VOCs are detected above a PQL in an up-gradient or background monitoring well, the well shall be incorporated in the Compliance Monitoring Program in accordance with Permit Condition III.G.1.

III.H. Data Reporting for Detection and Compliance Monitoring

During detection and/or compliance monitoring, the Permittee shall complete the spring monitoring event during the months of April, May, or June and the fall monitoring during September, October, or November. The Permittee shall submit within sixty (60) days of receipt of all analytical data, a semi-annual report to the Director that shall include at a minimum:

III.H.1. A narrative summary of ground water monitoring data which has been collected to-date, and a detailed listing of the monitoring and analytical data obtained since submitting the previous report, including laboratory quality assurance and quality control (QA/QC) information, and all newly identified compounds from the Appendix IX testing if applicable;

III.H.2. A table summary of the ground water elevations collected in accordance with Permit Condition III.D. The results of ground water flow direction and rate calculations shall be submitted semi-annually, and shall include a statement

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

that either:

III.H.2.a The data indicate that the monitoring well network(s) as described in this Permit are still valid for the purpose of satisfying the requirements of IDAPA 58.01.05.008 [40 CFR § 264.97(a)]; or

III.H.2.b The data indicate that an in-depth evaluation of the monitoring well network is warranted and a proposal to modify the monitoring well network, including a schedule for such, shall be submitted to the Director within ten (10) calendar days of the submittal of this statement.

III.H.3. Equations, calculations, and parameters used to calculate ground water velocities and direction collected in accordance with Permit Condition III.D; and

III.H.4. A summary of maintenance work done on ground water monitoring equipment.

III.I. GROUND WATER PROTECTION STANDARDS

Groundwater Protection Standards (GPSs) for any newly-identified chemical constituent shall be calculated using the EPA Regional Screening Levels for tapwater for a 1×10^{-4} risk (1 in 10,000 risk).

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Table III-2

Ground water monitoring analytes, detection limits (PQL), and ground water protection standards (GPS)			
Analyte (by Method 8260b)	**CAS Number**	**PQL (ug/L)**	**GPS* (ug/l)**
Benzene	71-43-2	1	1.7E+01
Bromodichloromethane	75-27-4	1	1.3E+01
Bromoform	75-25-2	1	3.3E+02
Bromomethane	74-83-9	1	7.5E+02
Carbon Tetrachloride	56-23-5	1	4.6E+01
Chlorobenzene	108-90-7	1	7.8E+03
Chlorodibromomethane	124-48-1	1	8.7E+01
Chloroethane	75-00-3	1	2.1E+06
Chloroform	67-66-3	2	2.2E+01
Chloromethane	74-87-3	1	1.9E+04
1,1-Dichlorethane	75-34-3	1	2.8E+02
1,2-Dichloroethane	107-06-2	1	1.7E+01
1,1-Dichloroethylene	75-35-4	1	2.8E+04
Cis-1,2-Dichloroethylene	156-59-2	1	3.6E+03
Trans-1,2-Dichloroethylene	156-60-5	1	3.6E+04
1,2-Dichloropropane	78-87-5	1	4.4E+01
1,3-Dichloropropene	542-75-6	1	4.7E+01
Ethyl benzene	100-41-4	1	133,987
Methylene Chloride	75-09-2	1	1.1E+03
1,1,2,2-Tetrachloroethane	79-34-5	1	7.6E+00
Tetrachloroethylene (PCE)	127-18-4	1	1.1E+03
Toluene	108-88-3	1	1.1E+05
1,1,1-Trichloroethane	71-55-6	1	8.0E+05
1,1,2-Trichloroethane	79-00-5	1	2.8E+01
Trichloroethylene (TCE)	79-01-6	1	4.9E+01
1,1,2-Trichloro-1,2,2-Trifluoroethane (CFC 113)	76-13-1	1	5.5E+06
Vinyl Chloride	75-01-4	1	1.9E+00

* Source: US EPA Regional Screening Levels May 2016 for tapwater, https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-may-2016 Risk =1E-04
All detected constituents from each monitoring well will be added together to determine cumulative risk

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

TABLE III-3

Ground Water Monitoring Well Network and Well Construction Details							
Well No.	**TOC Elevation (feet)**	**Total Depth (feet)**	**Casing Depth (feet)**	**Casing Diameter (inches)**	**Open Well Diameter (inches)**	**Pump Depth (feet)**	**Proposed Use**
~~AMW-4~~	~~3646.94~~	~~1,005~~	~~300~~	~~6~~	~~6~~	~~953~~	~~Downgradient Monitoring Well~~
~~AMW-6~~	~~3628.71~~	~~997~~	~~397~~	~~6~~	~~6~~	~~NA~~	~~Piezometer~~
~~AMW-7~~	~~3656.16~~	~~1,000~~	~~347~~	~~6~~	~~6~~	~~NA~~	~~Piezometer~~
~~APW-10~~	~~3623.22~~	~~1,050~~	~~296~~	~~8~~	~~8~~	~~931~~	~~Downgradient Monitoring Well~~
AOB-11	3616.63	1,003	300	8	8	927	Downgradient Monitoring Well
~~AOB-12~~	~~3620.94~~	~~1,000~~	~~302~~	~~8~~	~~8~~	~~928~~	~~Downgradient Monitoring Well~~
AMW-13	3624.87	1,000	400	8	8	937	Downgradient Monitoring Well
~~AMW-14~~	~~3627.00~~	~~1,000~~	~~400~~	~~8~~	~~8~~	~~946~~	~~Downgradient Monitoring Well~~
AMW-15	3664.88	1,000	300	8	8	958	Monitoring Well
AMW-16	3645.95	1,020	300	8	8	NA	Downgradient Monitoring Well

NA = Not Applicable

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

MODULE IV - CORRECTIVE ACTION

IV.A. SOLID WASTE MANAGEMENT UNITS (SWMUs)

IV.A.1. The Director may require corrective action, as specified in the following permit conditions for any newly identified Solid Waste Management Units (SWMUs), and in accordance with IDAPA 58.01.05.008 [40 CFR § 264.101], where newly identified SWMUs are those not documented in the previous RCRA Facility Assessment Report, or Facility Administrative Record maintained by the Department as having undergone corrective action.

IV.A.2. The Permittee shall conduct a corrective action investigation, in accordance with Permit Conditions IV.B through IV.H of this Permit, for each newly identified SWMU.

IV.B. STANDARD CONDITIONS

IV.B.1. Failure to submit the information required by the permit conditions within this Permit, or falsification of any submitted information, is grounds for termination of this Permit in accordance with IDAPA 58.01.05.012 [40 CFR § 270.43], and for an enforcement action pursuant to Permit Condition I.C of this Permit.

IV.B.2. All plans, reports, notifications, and other submissions to the Director, as required by the permit conditions of this Permit, shall be signed and certified in accordance with Permit Condition I.W of this Permit.

IV.B.3. The Permittee shall submit to the Director (by certified mail, express mail, or hand delivered to the address specified in Permit Condition I.Y of this Permit) a minimum of three (3) copies of each plan, report, notification, or other submissions required by the permit conditions within this Permit.

IV.B.4. All plans and schedules, as required by the permit conditions of this Permit (upon written approval from the Director) shall be incorporated into Module IV of this Permit upon completion of an appropriate comment period, in accordance with Permit Condition IV.H of this Permit. Any noncompliance with such approved plans and schedules shall be deemed noncompliance with this Permit.

IV.B.5. The Permittee shall only receive extension(s) of the specified Compliance Schedule due date(s) for the submittal(s), required by the permit conditions within Module IV of this Permit, upon written approval from the Director, in accordance with Permit Condition IV.H of this Permit.

IV.B.6. If the Director determines that further actions beyond those provided by the permit conditions within Module IV of this Permit, or changes to permit conditions stated herein, are warranted, the Director shall modify the permit, in accordance with Permit Condition IV.H of this Permit.

IV.B.7. All raw data (such as laboratory reports, drilling logs, bench-scale or pilot-scale data, and other supporting information gathered or generated during activities undertaken, pursuant to the permit conditions in Module IV of this

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Permit) shall be maintained at the Facility during the effective term of this Permit.

IV.C. NOTIFICATION REQUIREMENTS & ASSESSMENT OF NEWLY IDENTIFIED SWMUs

IV.C.1. The Permittee shall notify the Director, in writing (by certified mail, express mail, or hand delivery), of any newly identified SWMU(s). The Permittee shall submit written notification within thirty (30) calendar days of discovering the SWMU(s). The notification shall include the location of the new SWMU(s) and information on the suspected or known wastes at the site.

IV.C.2. Within one hundred fifty (150) calendar days following discovery of the SWMU(s), the Permittee shall submit to the Director (by certified mail or hand delivery), a SWMU Assessment Plan.

IV.C.3. The SWMU Assessment Plan shall include the information or the means by which the following information will be obtained:

IV.C.3.a. Information concerning past and present operations at the unit(s); and

IV.C.3.b. Any ground water, surface water, soil (surface or subsurface strata), or air sampling and analysis data needed to determine whether a release of hazardous waste and/or hazardous waste constituent(s) from such unit(s) has occurred, is occurring, or is likely to occur. The SWMU Assessment Plan shall demonstrate that the Sampling and Analysis Program (if applicable) is capable of yielding representative samples, and must include parameters sufficient to identify migration of hazardous waste and/or hazardous waste constituent(s) from the newly discovered SWMUs to the environment.

IV.C.4. The Permittee shall receive written approval from the Director for the SWMU Assessment Plan; or

IV.C.5. The Permittee shall receive written notice from the Director of the SWMU Assessment Plan's deficiencies, and the written notice will specify a due date for submittal of a revised Assessment Plan; or

IV.C.6. The Permittee shall receive written notice from the Director of the revisions incorporated, by the Director, in the SWMU Assessment Plan. The revised Assessment Plan shall become the approved SWMU Assessment Plan.

IV.C.7. The SWMU Assessment Plan, as approved by the Director and as specified in Permit Conditions IV.C.4, IV.C.5, and IV.C.6 of this Permit, shall be incorporated within this Permit, in accordance with Permit Condition IV.H of this Permit. The Permittee shall be notified in writing of the approval of the permit modification.

IV.C.8. The Permittee shall implement the approved SWMU Assessment Plan within thirty (30) calendar days of receiving written notice of the permit modification approval, specified in Permit Condition IV.C.7 of this Permit.

IV.C.9. The SWMU Assessment Plan shall contain a schedule, including the submission date for a SWMU Assessment Report.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

IV.C.10. The SWMU Assessment Report shall describe all results obtained from the implementation of the approved SWMU Assessment Plan. At a minimum, the report shall provide the following information for each new SWMU identified:

IV.C.10.a The SWMU location, identified on a map;

IV.C.10.b The type and function of the unit, including general dimensions and a structural description;

IV.C.10.c. The period during which the unit was operated; and

IV.C.10.d. All wastes that were or are being managed at the SWMU, including results of any sampling and analysis used to determine whether releases of hazardous wastes and/or hazardous waste constituent(s) have occurred, are occurring, or are likely to occur from the unit.

IV.C.11. Based on the results of SWMU Assessment Report, the Director shall determine the need for further investigations at specific unit(s) included in the SWMU assessment. If the Director determines that such investigations are needed, the Director will require the Permittee to prepare a plan for such investigations. This plan shall be reviewed for approval in accordance with the requirements of Permit Condition IV.D of this Permit.

IV.C.12 The Permittee shall notify the Director (in writing by certified mail, express mail, or hand delivery) of any release(s) of hazardous waste and hazardous waste constituent(s) discovered during the course of ground water monitoring, field investigation, environmental auditing, or other activities undertaken during the RCRA Facility Investigation (RFI).

The written notification shall be received by the Director no later than fifteen (15) calendar days after discovery. Such releases may be from already documented or newly identified units. The Director may require further investigation of the new releases. Further investigation, if required, shall be performed in accordance with the requirements of Permit Condition IV.D of this Permit.

IV.D. RCRA FACILITY INVESTIGATION (RFI)

IV.D.1. The Permittee shall conduct a RFI, as deemed necessary by the Director, to determine the nature and extent of known and suspected releases of hazardous wastes and/or hazardous waste constituent(s) originating from any location at the Facility including from a SWMU, as identified in accordance with Permit Condition IV.C of this Permit, and to gather data to support a Corrective Measures Study. The Permittee shall conduct the RFI in accordance with an approved Work Plan, completed in accordance with current guidance documents from EPA (*RCRA Facility Investigation Guidance, Volumes I through IV*, or equivalent).

IV.D.2. The Permittee shall conduct the RFI for each newly identified SWMU, in accordance with the schedule specified in Table IV-1 of this Permit.

IV.D.3. The RFI Compliance Schedules, specified in Table IV-1 of this Permit, may be modified in accordance with Permit Condition IV.H of this Permit.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

IV.E. INTERIM MEASURES

IV.E.1. If, during the course of any activity initiated in compliance with the permit conditions of Module IV of this Permit, the Director determines that a release or potential release of hazardous waste and/or hazardous waste constituent(s) from a SWMU poses a threat to human health or the environment, the Director may require the Permittee to perform specific interim measures.

IV.E.2. The Director shall notify the Permittee in writing of the requirement to perform the interim measures specified in the Interim Measures Plan, in accordance with Permit Condition IV.E.3 of this Permit. The Permittee shall comply with the specified Interim Measures Plan alternative (Permit Condition IV.E.3.a or IV.E.3.b of this Permit) designated in the written notification.

IV.E.3. The Permittee shall perform the requirements of the Interim Measures Plan, in accordance with the alternative specified in either Permit Condition IV.E.3.a or IV.E.3.b of this Permit.

IV.E.3.a. The Director shall determine specific actions to implement the interim measures. The Director shall provide an Interim Measures Plan with the written notification specified in Permit Condition IV.E.2 of this Permit; or,

IV.E.3.b. Within thirty (30) calendar days of receiving the written notification requiring the Interim Measures Plan, as specified in Permit Condition IV.E.2 of this Permit, the Permittee shall provide (by certified mail, express mail, or hand delivery) the Interim Measures Plan to the Director for approval.

IV.E.4. The Interim Measures Plan shall identify specific action(s) to be taken to implement the interim measures and a schedule for implementing the required measures. At a minimum, the Interim Measures Plan shall consider (but not be limited to) the following factors:

IV.E.4.a. Time required to develop and implement a final remedy;

IV.E.4.b. Actual and potential exposure of human and environmental receptors;

IV.E.4.c. Actual and potential contamination of drinking water supplies and sensitive ecosystems;

IV.E.4.d. The potential for further degradation of the medium absent of interim measures;

IV.E.4.e. Presence of hazardous waste in containers that may pose a threat of release;

IV.E.4.f. Presence and concentration of hazardous waste, including hazardous waste constituent(s) in solids that have the potential to migrate to ground water or surface water;

IV.E.4.g. Weather conditions that may affect the current levels of contamination;

IV.E.4.h. Risks of fire, explosion, or accident; and,

IV.E.4.i. Other situations that may pose threats to human health and the environment.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

IV.E.5. The Interim Measures Plan shall be incorporated into this Permit, in accordance with Permit Condition IV.H of this Permit.

IV.F. CORRECTIVE MEASURES STUDY AND IMPLEMENTATION

IV.F.1. Based on the results of the RFI, the Permittee shall identify, screen, and develop the alternative or alternatives for removal, containment, treatment and/or other remediation of the contamination. The Permittee shall conduct the Corrective Measures Study in accordance with an approved Work Plan, completed in accordance with current guidance documents from EPA (*RCRA Corrective Action Interim Measures Guidance – Interim Final, RCRA Facility Investigation Guidance, Volumes I through IV*, or equivalent).

IV.F.2. Upon the Director's approval of the Corrective Measures Study, pursuant to Permit Condition IV.F.1 of this Permit, the Permittee shall prepare and submit to the Director for approval (by certified mail, express mail, or hand delivery), the Corrective Measures Implementation Program Plan, in accordance with an approved Work Plan.

IV.F.3. Upon the Director's approval of the Corrective Measures Implementation Program Plan, pursuant to Permit Condition IV.F.2 of this Permit, the Permittee shall conduct the Corrective Measures Implementation Program Plan, in accordance with the approved Work Plan for the corrective measures design and construction.

IV.F.4. The Permittee shall conduct the Corrective Measures Study and prepare the Corrective Measures Implementation Program Plan, as specified in Permit Conditions IV.F.1 and IV.F.2 of this Permit, in accordance with the schedule specified in Table IV-2.

IV.F.5. The Permittee shall prepare and submit to the Director for approval a Compliance Schedule for conducting the Corrective Measures Implementation Program Plan, as required by Permit Condition IV.F.3 of this Permit.

IV.F.5.a. The Permittee shall provide a justification for each compliance date in the Compliance Schedule, based on the complexity of the Corrective Measures Implementation Program Plan, and reasonable contract and administrative time requirements.

IV.F.5.b. On or before the compliance date for submittal of the draft Corrective Measures Implementation Program Plan specified in Table IV-2 of this Permit, the Permittee shall submit to the Director for approval (by certified mail, express mail, or hand delivery) the Compliance Schedule and subsequent justification, pursuant to Permit Condition IV.F.5 of this Permit.

IV.F.5.c. Upon the Director's approval of the Corrective Measures Implementation Program Plan Compliance Schedule, the Compliance Schedule shall be incorporated into this Permit concurrently with the final Corrective Measures Implementation Program Plan, in accordance with IDAPA 58.01.5012 [40 CFR §§ 270.41 and 270.42].

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

IV.F.6. The Permittee shall conduct the Corrective Measures Implementation, as specified in Permit Condition IV.F.3 of this Permit, in accordance with Permit Condition IV.F.5 of this Permit.

IV.F.7. The Corrective Measures Study and Corrective Measures Implementation Compliance Schedules, specified in Table IV-2 of this Permit, shall be modified in accordance with Permit Condition IV.H of this Permit.

IV.G. REPORTING REQUIREMENTS

IV.G.1. The Permittee shall submit to the Director signed quarterly progress reports of all activities (i.e., SWMU Assessments, Interim Measures, RFIs, and/or Corrective Measures Studies) conducted, pursuant to the permit conditions of Module V of this Permit. The Permittee shall initially submit the quarterly progress reports no later than ninety (90) calendar days after being notified in writing that the approved SWMU Assessment Plan has been incorporated within Module IV of this Permit, through a permit modification.

IV.G.2. At a minimum, the quarterly progress reports shall contain the following:

IV.G.2.a. A description of the work completed;

IV.G.2.b. Summaries of all findings and all raw data;

IV.G.2.c. Summaries of all problems, or potential problems encountered during the reporting period, and actions taken or to be taken to rectify the problems; and

IV.G.2.d. Projected work for the next reporting period.

IV.G.3. The Permittee shall maintain copies of other reports, drilling logs, etc. at the Site B Facility during the effective period of this Permit. The Permittee shall provide copies of the said reports, logs, etc. to the Director upon request.

IV.G.4. As specified under Permit Condition IV.B.5 of this Permit, the Director may require the Permittee to conduct new or more extensive assessments, investigations, or studies (as needed) based on information provided in these progress reports or other supporting information.

IV.H. MODIFICATION OF THE CORRECTIVE ACTION SCHEDULE OF COMPLIANCE

IV.H.1. Requests for modifications of the final compliance dates, pursuant to the permit conditions in Module IV of this Permit, shall be submitted to the Director for approval, in accordance with IDAPA 58.01.05.012 [40 CFR §§ 270.41 and 270.42]. The Corrective Action Schedule of Compliance (final compliance dates), subject to modification, includes the following:

IV.H.1.a. The compliance date(s), as specified in Table IV-1 of this Permit, for submittal of the RFI Final Report;

IV.H.1.b. The compliance date(s), as specified in Table IV-2 of this Permit, for submittal of the Corrective Measures Study Report;

IV.H.1.c. The compliance date(s), as specified in Table IV-2 of this Permit, for submittal of the final Corrective Measures Implementation Program Plan, in accordance

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

with Permit Condition IV.F.2 of this Permit;

IV.H.1.d. Once established in accordance with Permit Condition IV.F.5 of this Permit, the compliance date(s) for submittal of the corrective measures final (100% completion) Design and Construction Plans, in accordance with Permit Condition IV.F.3 of this Permit;

IV.H.1.e. Compliance dates, as specified in Tables IV-1 and IV-2 of this Permit, for implementing the approved plans and/or reports; and

IV.H.1.f. Compliance dates for quarterly submittal of progress reports.

IV.H.2. Pursuant to IDAPA 58.01.5012 [40 CFR § 270.42(a)], the Compliance Schedules, specified by the Director, shall be modified if the Director determines that good cause exists for which the Permittee had no control, and for which there is no reasonable available remedy.

IV.H.3. If adequate funds for Corrective Measures Implementation are not available, the Director and the Department reserve the right to pursue any actions deemed necessary to protect human health and the environment, not excluding judicial recourse or termination of this Permit.

IV.H.4. The Permittee shall submit to the Director for approval a request for modifications of the interim compliance dates that do not affect the final compliance dates. If the Director approves the interim compliance date modifications, Tables IV-1 and/or IV-2 of this Permit shall incorporate the modified compliance dates as approved, and such change shall not be considered a permit modification under IDAPA 58.01.5012 [40 CFR § 270.41].

This space intentionally left blank.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

TABLE IV-1. RCRA FACILITY INVESTIGATION (RFI) COMPLIANCE SCHEDULE FOR NEWLY IDENTIFIED SOLID WASTE MANAGEMENT UNITS (SWMUs)

RFI ACTIVITY	DUE DATE
Submit Draft RFI-Phase II (Task II & III) Work Plan and Schedule	Within ninety (90) calendar days of the Director's notification that an RFI is needed, in accordance with Permit Condition IV.C.11 of this Permit.
Initiate RFI-Phase II (Task II & III) Activities	Within forty-five (45) calendar days of the Director's approval of the Task II and III Work Plan and Schedule.
Submit Task IV Draft Report	As specified in the Director's approved RFI-Phase II (Task II & III) Work Plan and Schedule.
Submit Task IV Final & Summary Reports	As specified in the Director's approved RFI-Phase II (Task II & III) Work Plan and Schedule.
Progress Reports on Tasks II through IV	Quarterly (every 90 days) beginning ninety (90) calendar days after the Director's approved RFI-Phase II (Task II & III) activities.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

TABLE IV-2. CORRECTIVE MEASURES STUDY AND IMPLEMENTATION COMPLIANCE SCHEDULE

CMS SUBMISSION/CMI SUBMISSION	DUE DATES
Submit CMS Work Plan (Appendix B, Task I & II)	Within sixty (60) calendar days of the RFI Final Report.
Submit Draft CMS Report (Appendix B, Task I, II & III)	Within three hundred (300) calendar days of the Director's approval of the CMS Work Plan.
Submit Final CMS Report (Appendix B, Task I, II & III)	Within sixty (60) calendar days of receiving the Director's comments on the Draft CMS Report.
Submit Draft CMS Program Plan (Appendix B, Task IV)	Within ninety (90) calendar days of the Director's approval of the Final CMS Report.
Submit Final CMS Program Plan (Appendix B, Task IV)	Within sixty (60) calendar days of receiving the Director's comments on the Draft CMI Program Plan.
Submit Corrective Measures Design Preliminary Design Approximately 30% Complete	As specified in the Director's approved CMI Program Plan.
Submit Corrective Measures Design Preliminary Design Approximately 60% Complete	As specified in the Director's approved CMI Program Plan.
Submit Corrective Measures Design Preliminary Design Approximately 95% Complete	As specified in the Director's approved CMI Program Plan.
Submit Final Corrective Measures Design	As specified in the Director's approved CMI Program Plan.
Progress Reports on Appendix B, Tasks I through IV	Quarterly, every ninety (90) calendar days, beginning 90 calendar days after the Director's approval of the Final RFI Report.
Submit Draft CQA Program Plan	As specified in the Director's approved CMI Program Plan.
Submit Final CQA Program Plan	Within sixty (60) calendar days of the Director's approval of the Draft CQA.
Construction of Corrective Measures	Within sixty (60) calendar days of the Director's approval of the Final CQA.
Pre-Final Inspection	Forty-five (45) calendar days following report of pre-final inspection.
Corrective Measures Construction Report	Within ninety (90) calendar days following completion of construction.
Corrective Measures Implementation Quarterly Progress Reports	Quarterly, every ninety (90) calendar days, beginning 90 calendar days after the Director's approval of the Final RFI Report.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

MODULE V - POST-CLOSURE CARE

V.A. POST-CLOSURE

Post-closure care, applicable under the terms of this Permit, shall be undertaken in accordance with IDAPA 58.01.05.008 [40 CFR §§ 264.117 through 264.120 and 264.310] and as follows:

V.A.1. The Permittee began post-closure care for the designated Facility and regulated units on February 9, 1998, following the Director's issuance of written approval of the Closure Certification Report.

V.A.2. Post-closure care shall continue for a minimum of thirty (30) years after closure activities have been completed.

V.A.3. Post-closure care shall be performed in accordance with Permit Module V and Attachment 2 of this Permit.

V.A.4. The Director can extend the post-closure period, if necessary, to protect human health or the environment.

V.B. POST-CLOSURE MAINTENANCE ACTIVITIES

V.B.1. The Permittee shall maintain the Facility as required by IDAPA 58.01.05.008 [40 CFR § 264.117 and § 264.310]. During the post-closure care period, the Permittee shall be responsible for conducting, as set forth in Attachment 2 of this Permit, the following inspections and maintenance activities:

V.B.1.a. Maintain the integrity and effectiveness of all final covers on the former Silos and associated structures, including making repairs to the caps, as necessary, to correct the effects of settling, subsidence, erosion, or other impacts;

V.B.1.b. Maintain the ground water monitoring system and, if applicable, all corrective action equipment;

V.B.1.c. Maintain the security of the Facility in accordance with IDAPA 58.01.05.008 [40 CFR § 264.14] including the locked gate and security fence, topped with barbed wire, and all posted warning signs;

V.B.1.d. Prevent run-on and run-off from eroding or otherwise damaging the final covers on the former Silos and associated structures; and,

V.B.1.e. Protect and maintain surveyed benchmarks used in complying with IDAPA 58.01.05.008 [40 CFR § 264.309].

V.C. POST-CLOSURE INSPECTION PLAN

The Permittee shall comply with the inspection requirements of IDAPA 58.01.05.008 [40 CFR § 264.15] and schedules as submitted under the terms of this Permit.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

V.C.1. The Permittee shall maintain copies of the inspection schedules, logs and tables of this Permit, as well as the Inspection Procedures, included as Attachment 2 of this Permit, at the locations designated in Permit Condition I.P. until the post-closure care period has been completed and certified.

V.C.2. The Permittee shall remedy, as required by IDAPA 58.01.05.008 [40 CFR § 264.15(c)], any deterioration or malfunction discovered by an inspection.

V.C.3. The Permittee shall record inspections on the Inspection Log Sheets included as Figure 4-1 in Attachment 2 of this Permit.

V.C.3.a. The Permittee shall retain the Inspection Log Sheets, for at least three (3) years from the date of the inspection.

V.C.3.b. The Permittee shall complete the Inspection Log Sheets by including the following information:

V.C.3.b.(1) The name of the inspector;

V.C.3.b.(2) The date and time of the inspection;

V.C.3.b.(3) The date and nature of any repairs or other remedial actions; and

V.C.3.b.(4) Notations as to the overall status of the items inspected, pertinent observations made, and the remedial action(s) needed and/or completed.

V.C.4. The Permittee may add inspection requirements to an existing inspection form in cases where such additional requirements will result in a more comprehensive or detailed Inspection Plan without a permit modification. These changes shall be noted in the Facility operating record and sent to the Director. The Permittee must submit a copy of the revised inspection form, for the Director’s approval, accompanied by a narrative explanation, to the Director within fifteen (15) calendar days of the date of the revision.

V.D. POST-CLOSURE PROPERTY USE

Post-closure use of property on or within areas in which hazardous wastes remain after closure must never be allowed to disturb the integrity of the final covers or the function of the Facility's monitoring systems, unless the Director finds the disturbance:

V.D.1. Is necessary to the proposed use of the property and will not increase the potential hazard to human health or the environment, or is necessary to reduce a threat to human health or the environment.

V.D.2. If the Permittee, or any subsequent owner or operator of the land upon which the hazardous waste disposal unit is located, wishes to remove hazardous waste and hazardous waste residues, any part of the closure cap or liner, or any contaminated soils, a request for a modification to this Permit shall be submitted in accordance with the applicable requirements of IDAPA 58.01.05.012 and .013 [40 CFR Parts 270 and 124]. The Permittee or

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

subsequent owner or operator of the land shall demonstrate that the removal of hazardous waste or hazardous waste residues shall satisfy the criteria of IDAPA 58.01.05.008 [40 CFR §§ 264.117(c) and 264.119].

V.E. CERTIFICATION

In accordance with IDAPA 58.01.05.008 [40 CFR §264.120], no later than sixty (60) calendar days after completion of the established post-closure period, the Permittee shall submit to the Director, by registered mail, certification that the post-closure care was performed in accordance with this Permit. The Permittee and an independent, registered professional engineer must sign the certification. Documentation supporting the independent, registered professional engineer's certification must be furnished to the Director, upon request, until the Director releases the Permittee from the post-closure care monitoring requirements under 40 CFR §264.145(i).

V.F. POST-CLOSURE MONITORING PLAN

The Permittee shall demonstrate compliance with the post-closure Monitoring Plan in accordance with IDAPA 58.01.05.008 [40 CFR §§ 264.118 and 264.310 (b)], and Attachment 2.

V.G. POST-CLOSURE COST ESTIMATE AND FINANCIAL ASSURANCE

V.G.1. The Permittee shall maintain a current post-closure cost estimate, prepared in accordance with IDAPA 58.01.05.008 [40 CFR § 264.144(a)], as presented in Attachment 3 of this Permit.

V.G.2. In accordance with IDAPA 58.01.05.008 [40 CFR 264.144(b)], the Permittee shall annually adjust the post-closure cost estimate for inflation prior to June 1st or, within sixty (60) days before the anniversary date of the current financial assurance instrument, and submit the revised cost estimate to the Director for review.

V.G.3. The Permittee shall submit a revised post-closure cost estimate within 30 days of any change in the Facility's post-closure operations.

V.G.4. All revised post-closure cost estimates, as approved by the Director, shall become incorporated into this Permit to amend Attachment 3.

V.G.5. The Permittee must keep the latest post-closure cost estimate and financial assurance documentation at the Site B Facility.

V.G.6. The Permittee shall demonstrate continuous compliance with IDAPA 58.01.05.008 [40 CFR § 264.145] by maintaining, at the Site B Facility, documentation for financial assurance (see IDAPA 58.01.05.008 [40 CFR § 264.151]) in at least the amount of the cost estimate required by Permit Condition V.G.1. The Director must approve changes in financial assurance mechanisms.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

V.H. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS

The Permittee shall comply with IDAPA 58.01.05.008 [40 CFR § 264.148] whenever necessary. In the event the financial assurance mechanism is to be canceled through failure of the financial institution, bankruptcy by the Permittee or moved to another institution, the Permittee will notify the Department and the Director a minimum of sixty (60) days before the event.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

FIGURE 1

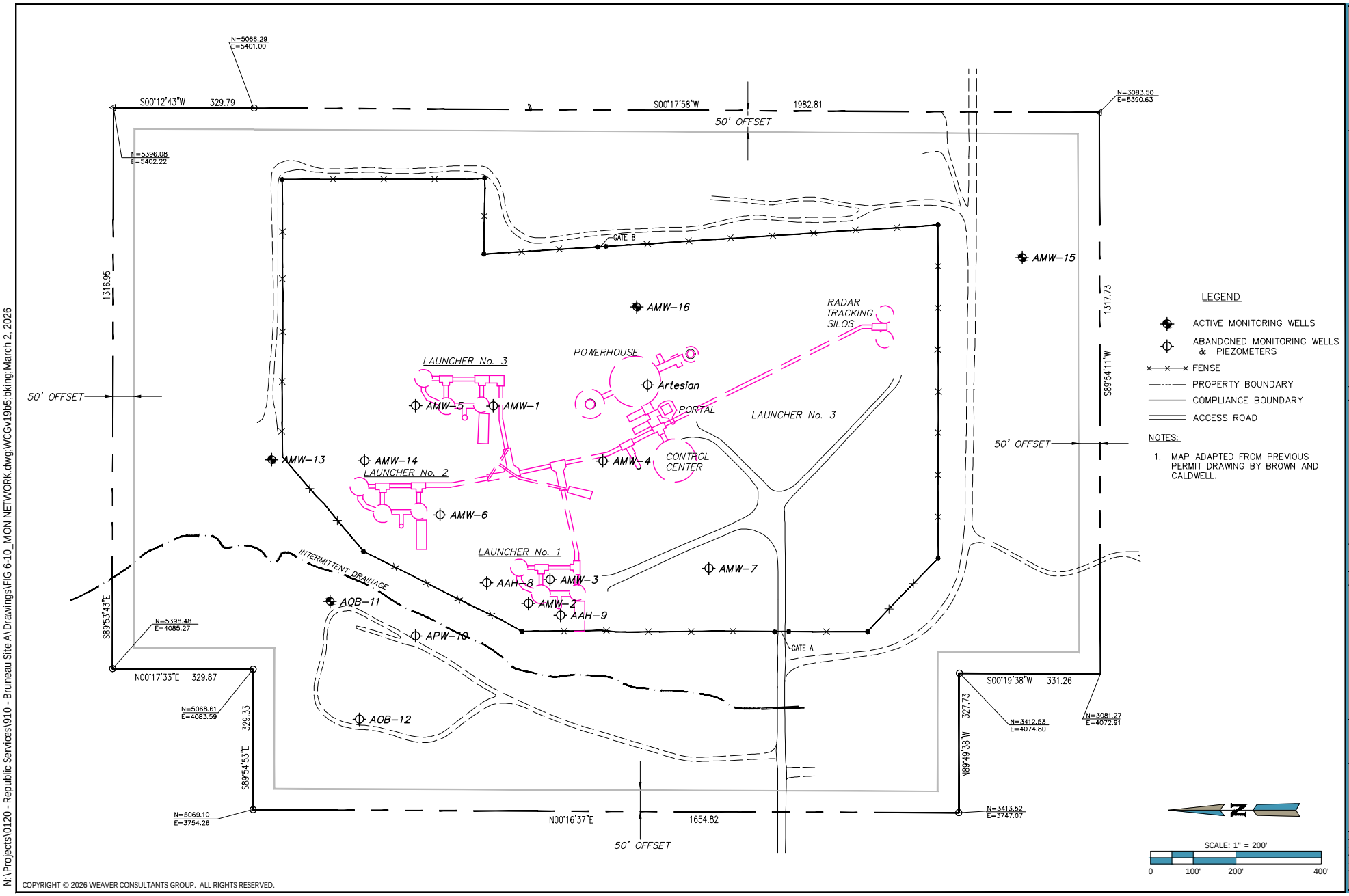
Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

~~[Place figure here]~~

Figure 1. Ground Water Monitoring Well Network

(Figure 6-10 of the Permit Application dated September 27, 2016)

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270



COPYRIGHT © 2026 WEAVER CONSULTANTS GROUP. ALL RIGHTS RESERVED.

N:\Projects\0120 - Republic Services\910 - Bruneau Site A\Drawings\FIG 6-10_MON NETWORK.dwg;WCGv19b5;bking;March 2, 2026

PREPARED FOR:
U.S. ECOLOGY OF IDAHO, INC.

MONITORING NETWORK
LOCATION MAP
US ECOLOGY IDAHO SITE A
BRUNEAU, IDAHO
OWYHEE COUNTY

No.	DATE	REVISION DESCRIPTION	BY

Weaver Consultants Group

WEAVER CONSULTANTS GROUP
9955 LEBANON ROAD
SUITE 400
MOUNT JULIET, TN 37122
(615) 939-4602
www.wcgrp.com

REUSE OF DOCUMENTS
This document, and the designs incorporated herein, as an instrument of professional service, is the property of Weaver Consultants Group, and is not to be used in whole or in part, without the written authorization of Weaver Consultants Group.

DRAWN BY:	BJK
REVIEWED BY:	XXX
DATE:	01/19/2026
FILE:	0120-910-DWG
CAD:	FIG 6-10_MON NETWORK.dwg

FIGURE 6-10

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Attachment 4

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

SECTION 6

Site Hydrogeology, Geochemistry, and Environmental Monitoring

6.1 PRIOR SITE ASSESSMENTS

The geology and hydrogeology of Site A have been characterized by a series of investigations that began in 1959 when the site was assessed for use as a missile base. ESII and USEI conducted investigations since 1980 to characterize the hydrogeology at the site and to design the groundwater monitoring system. Reports of these investigations have been provided to IDEQ and EPA Region X.

The following provides a synopsis of the investigations that have been incorporated into the site characterization described in this report. For a detailed discussion of each investigation, refer directly to the document of interest.

1. Shannon and Wilson, 1959. Report to U.S. Army Corps of Engineers District, Walla Walla, WA on Subsurface Investigations and Surveys, Special Site Studies, Site Number M-E4, Mountain Home Air Force Base, Idaho.

   This report was prepared for the U.S. Army Corps of Engineers prior to development of the site as a missile base. It provides general information on the climate and regional geology, with more detailed information on subsurface exploration, geophysical exploration, laboratory test results, groundwater studies, and foundation conditions. Eight test borings, ranging from 100 to 250 feet deep were drilled. Seventeen seismic lines totaling 8,030 linear feet of traverse were accomplished. Sources of recharge and general water supply conditions were investigated, and a test well was drilled to a depth of 2,500 feet. The test well had an estimated yield of at least 845 gallons per minute (gpm) and a static water level 813 feet below grade. The report recommended that a second well be drilled, as the first was not free-flowing. This second well was installed at a later date.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

2. Finite Resources, 1981. Wes Con A Site Groundwater Waiver Demonstration.

   This report included an attached report by Anderson and Kelly (1977) assessing the hydrology of the site. It relied on field reconnaissance, the Shannon and Wilson report, and several USGS reports. The report identified the deep artesian aquifer reported by Shannon and Wilson and speculated that a shallower perched, intermittent groundwater zone could exist during periods of wetter-than-normal precipitation. This report provided no original data.

3. J. M. Montgomery, 1984. Hydrogeologic Investigation for Envirosafe Services of Idaho, Inc., Bruneau, Idaho, Site A.

   The hydrogeologic study responded to an EPA-X administrative order. The study consisted of drilling, testing, retentive capacity analysis, and sampling. Three test wells were installed: one to 1,000 feet (AMW-3) and two to 250 feet (AMW-1 and AMW-2). Each hole was neutron-logged, and AMW-3 was caliper-logged. AMW-3 had a static water level of 930 feet. This report started the Phase I assessment.

4. CH_2M HILL, 1985. ESII Site A, Site Hydrogeology and Groundwater Monitoring Plan -Interim Status Report.

   A site characterization study was initiated to support the application for a Part B operating permit. The interim status report addressed the physiography, climatology, regional geologic setting, local geology, and local and regional hydrogeology. It identified aquifer characteristics based in part on the drilling logs for four additional test wells drilled into the 936-foot water-bearing zone. It also provided water quality data from samples collected from each of the test wells and additional television and geophysical logs of the boreholes.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

5. Morrison-Knudsen Engineers, Inc. 1988. Site Characterization - Phase I, ESII Site A, Bruneau, Idaho.

   This report continued the Phase I site characterization effort. It included field geologic mapping, remote sensing, a hydrogeologic assessment, facility construction details, waste history, potential monitoring techniques, and a plan for a Phase II field investigation program.

6. Morrison-Knudsen Engineers, Inc., 1987. Site Characterization - Phase II Interim Report, Site A, Bruneau, Idaho.

   This report provided more detail than Phase I on fault interpretations, dip of volcanic units, joint and fracture characterization (including rose diagrams), water level monitoring, and interpretation of groundwater flow directions. The work included a high resolution seismic reflection survey, borehole television surveys, water level, hydrographs, and potentiometric surface maps of the shallow aquifer.

7. Morrison-Knudsen Engineers, Inc., 1988. Site Characterization Report - Phase II, ESII Site A, Bruneau, Idaho.

   This report presented the results of additional Phase II site characterization work. The following specific tasks were performed and discussed in the report:

   - Coring of two angle holes under waste containing units
   - Rock core characterization
   - Organic vapor monitoring and chemical analysis
   - Monitoring pipe installation
   - Continuous water-level monitoring
   - Water-level monitoring and aquifer sampling

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

8. Morrison-Knudsen Engineers, Inc., 1990. Geohydrological Characterization Report, Phase III, ESII Site A, Bruneau, Idaho.

   Morrison-Knudsen Engineers, Inc. drilled a core hole (ACH-11A), production well (APW-10), and two observation wells (AOB-11 and AOB-12) for additional site characterization and to determine aquifer characteristics by conducting a 7-day pumping test. The production well was pumped for 7 days at up to 75 gpm. Water levels were monitored in the newly-installed wells and most existing wells. The transmissivity, storage coefficients, and barometric efficiencies of the upper aquifer were calculated. Water level responses recorded during the test indicate there is good hydraulic communication across the site. Faulting has provided recharge paths allowing deep regional geothermal artesian water to reach the uppermost aquifer.

9. Morrison-Knudsen Corporation, March 13, 1992. ESII Site A, Vadose Zone Characterization, Geologic Data Review Report.

   Geologic reports, maps, borehole logs, geophysical logs, and supporting literature were analyzed to compile data useful for characterizing the vadose zone underlying Site A. Geologic data and pertinent discussions regarding lithology, stratigraphy, fractures and fracture zones, porosity, flow contacts, and structure were presented in this report.

10. Daniel B. Stephens and Associates, Inc. (DBS), August 11, 1992. ESII Site A, Response to Item 9 in IDEQ's July 9, 1992, letter to ESI, Analytical Modeling of Solute Mixing in the Uppermost Aquifer.

    The vertical mixing depth of potential solute migration from the vadose zone into the uppermost aquifer was calculated using an analytical mathematical model. This calculation is relevant to the issue of selecting the appropriate depth of monitoring wells at Site A. The analysis shows that solutes entering the uppermost aquifer would be confined to a plume that is less than 30 feet below the top of the aquifer within a horizontal distance of 300 feet downgradient of the source. The existing monitoring wells are completed at least 50 feet into the uppermost aquifer, and therefore the depth of the existing monitoring wells appears to be sufficient to intercept potential solutes that enter the uppermost aquifer.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

11. Daniel B. Stephens and Associates, Inc. (DBS), August 11, 1992. ESII Site A, Vadose Zone Characterization, Supplemental Modeling Results.

    This report presents supplemental numerical modeling performed in response to the request for additional information by DEQ at a June 23, 1992, meeting in Boise, Idaho. IDEQ staff requested that additional numerical modeling be performed that would consider:

    1) an absence of confining layers in the vertical direction; and

    2) a geologic media with a saturated hydraulic conductivity of 1×10^{-3} centimeters per second (cm/sec).

    The saturated hydraulic conductivity of 1×10^{-3} cm/sec is not believed to be representative of the hydraulic properties of any significant component of the vadose zone underlying Site A. Utilizing the higher hydraulic conductivity, the wetting front advances rapidly, meeting the boundary of the modeled domain 20 meters below the bottom of the silo in approximately 3 years. These results are not particularly meaningful because of the unrealistically high saturated hydraulic conductivity.

12. Daniel B. Stephens and Associates, Inc. (DBS), August 18, 1992. Vadose Zone Characterization of ESII Site A.

    Hydrogeologic data from Site A were critically reviewed with regard to their adequacy for describing moisture flow in the vadose zone. Additional data were collected where needed so that numerical simulations of moisture flow could be performed. Numerical simulations of moisture flow were performed for a variety of initial and boundary conditions, using hydraulic properties measured on Site A materials. These simulations suggest that the extent of vertical and lateral migration of any potential releases from Site A disposal units would be limited. The simulation results indicate that moisture migration to the water table would be extremely unlikely. The results also indicate that the proposed groundwater compliance well network is properly located to detect any potential releases.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

13. Daniel B. Stephens and Associates, Inc. (DBSI), August 1992. Analysis of Optimum Borehole Interval for Monitor Wells at ESII Site A.

    This report supplements the summary of aquifer conditions under Site A and provides the basis for the borehole interval selected for new monitor wells. The well design is based on the general thickness and hydrologic properties of the upper aquifer.

14. Morrison-Knudsen Corporation, August 1992. Summary of Aquifer Conditions Underlying ESII Site A.

    The aquifer system underlying Site A consists of a deep geothermal water-bearing zone (geothermal aquifer) at approximately 2,000 feet below ground surface and another water-bearing zone (upper aquifer) approximately 1,000 feet below ground surface. The aquifers are interconnected by leakage as shown by the results of pumping tests and by the similarity in temperature and general chemistry. The emphasis of site characterization efforts has been to define the geohydrological conditions in the upper aquifer and the overlying vadose zone. The report provides a concise summary of the general thickness and hydrogeologic properties of the upper aquifer. The results of all the previous investigations have been used to characterize the hydrogeology at the site and to design an appropriate groundwater monitoring system for the site.

6.2 REGIONAL SETTING AND LOCAL LAND USE

Site A is located along the southern edge of the Western Snake River Plain on the edge of the upland mountain area of the Bruneau Plateau. The Bruneau Plateau extends northerly to the Bruneau and Snake River Valleys. Elevations at Site A range from about 3,620 to 3,660 feet above mean sea level (msl). The area around the facility is sagebrush desert and is currently used for grazing range cattle. The nearest private property is an undeveloped 40-acre tract about 4 miles north of the facility where a well is used for stock watering. The nearest domestic groundwater withdrawal well is located approximately 8 miles north/northwest at a utility station. Additional wells approximately 8 miles away from Site A are used for irrigation and monitoring purposes. The nearest private residential well is approximately 10 miles northwest of the site. See Appendix I for well summary reports, well location maps, and selected well logs discussed in this section. A review of well logs available from the Idaho Department of Water Resources reveals that:

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

- The only well permits issued for the immediate vicinity of Site A (Township 9S, Range 5E, Owyhee County) are the monitoring wells installed by Envirosafe Services of Idaho, Inc. at Site A. (Townships are defined by township and range numbers and are generally thirty six square miles in area. Sections are generally 1 mile square or 640 acres, and there are generally 36 sections within a township.)
- There are no well logs recorded for Township 9S, Range 4E, which is west of Site A; nor in Township 9S, Range 6E, which is east of the site; Groundwater contour maps for Site A indicate that groundwater flows towards the northwest.
- In Township 8S, Range 5E, due north of Site A, there is one permitted well that is used for stock watering. This well is located in Section 16 and is reportedly 3,354 feet deep. This depth appears to be a typographic error, and the well is likely 354 feet deep. See original well log in Appendix I. Pumped yields are reported at a relatively low 24.5 gallons per minute, which is a further indication that the well is relatively shallow. This property is the closest privately-owned parcel in the vicinity of Site A, and the well location is slightly more than 4 miles north of the site.
- In Township 8S, Range 6E, northeast of Site A, there are two wells reported. Both are monitoring wells owned by the US Department of the Interior. One is in section 3 and one is in section 4. No additional information is available on these wells. Sections 3 and 4 are more than 9 miles away from Site A.
- An industrial well is reported in Township 8S, Range 4E, Section 9, eight miles north of Site A, which is indicated as being 200 feet deep. This well log appears to be filed in error, as the county location of the well is listed as Caribou County. No other well logs are recorded for Township 8S, Range 4E. There are 49 livestock, irrigation or domestic wells located in Township 7S, Range 4E, northwest of Site A. One of these appears to be one of the domestic wells closest to Site A; it serves a utility pump station located 8 miles northwest in Section 34. This well is finished in fractured lava rock at a depth of 288 feet below ground surface. The well produced 18 gallons per minute when pumped for one hour. No temperature data were reported.
- There are 35 irrigation, livestock, or domestic wells reported in Township 7S, Range 5E. A private domestic well is reported in Section 33, approximately 7 miles north of Site A. The well was drilled in 1994 and has a reported yield of 1,830 gallons per minute with a reported water temperature between 95 and 97º F. The well is finished in hard red rock at 1,319 feet

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

below ground surface. This appears to be the private domestic well closest to Site A. There is an additional irrigation well in Section 33, but there are no wells closer to Site A than this well and the domestic well described previously.

- In Township 7S, Range 6E, northeast of Site A, there are thirty-two irrigation, stock-watering or domestic wells recorded. An irrigation well in Section 34 is approximately 10 miles from the Site A property boundary. This well is finished to a depth of 300 feet in basalt. Water temperature is reported at 92° F with a yield of approximately 2,000 gallons per minute. Surface elevation at this site is approximately 2,400 feet above msl.

6.3 SITE GEOLOGY

6.3.1 General Stratigraphy

Recent and quaternary alluvium consisting of sediment sand, gravels, silt, and some thin basalt flows form the upper portion of the geologic subsurface at the site. The sediments range from a few feet to tens of feet in thickness but seldom exceed 50 feet in depth within the property boundary. Fill consisting of sand and gravel occurs in areas that were excavated during the construction of the site and during site closure work in 1996/1997. It appears that fill areas do not exceed 75 feet in thickness.

Underlying the alluvial fill material are silicic volcanics of Tertiary age which comprise the principal lithologic units underlying Site A. These rocks are part of the Idavada Group and consist mostly of rhyolite and related volcanic rocks. The volcanic sequence persists to a depth of at least 2,502 feet, which is the deepest well penetration at Site A. The sequence is comprised predominately of alternating units of variable thickness of porphyritic latite and associated glassy phases bounded by flow breccia and pyroclastics consisting of welded ash, tuff, and breccia. Figure 6-1 shows the location of geologic cross sections which are profiled in Figures 6-2 and 6-3.

6.3.2 Structure

Site A is located along the south edge of the Western Snake River Plain, which is considered part of a graben (down-dropped block), with west to northwest-trending high-angle faults occurring in nearly continuous zones along the north and south sides of the plain.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Site A is located near major fault structures along the southern margin of the Snake River "downwarp." Regional faulting, as mapped by others associated with the Snake River Plain, is concentrated within this area. Vertical displacements of several hundred feet have been measured on some of the regional faults.

One northerly trending fault lies approximately 1,000 feet south of the site along a tributary drainage of Sugar Creek and expresses as much as 100 feet of vertical displacement as indicated by topography. A second fault, as mapped by others, to the southeast, trends northwesterly and projects across the northern portion of the site. Indicated displacement of this fault is approximately 300 feet, with movement on the north side up, relative to down on the south side. This indicates that the facility lies within a graben feature.

Most of the sequences underlying the site are intensely jointed and fractured. General joint features, as exhibited by local mapping and subsurface boreholes, are "blocky" and "shingly." However, jointing created by magma cooling and fracturing associated with faulting and movement is complicated and nonsystematic and is highly variable from one unit to another. Some portions of thick flows appear dense, containing only minor fractures.

Field mapping, a lineament analysis of aerial photography, and a high resolution seismic survey indicate west to northwest trending lineaments and faults crossing the area. The dominant joint/fracture orientations at the site are N 15-25 º W and N65-75 º E (as illustrated in Figure 6-4) approximately parallel and perpendicular to the major structural trend. Most of the joints and fractures are high angle. The joint/fracture apertures are open and are generally less than 1 inch in width.

Two possible faults crossing Site A have been identified by seismic reflection and lineament analysis. The locations of the possible faults are shown in Figure 6-5. Fault E-E' (Figure 6-5) has apparently produced an area of higher hydraulic conductivities and upward leakage from the underlying regional thermal groundwater system. Fault F-F' (Figure 6-5) may be responsible for the steeper potentiometric gradients present across the southern portion of the site. The possible hydrogeologic impacts of Faults E-E' and F-F' are discussed in Section 6.4**.**

6.4 SITE HYDROGEOLOGY

6.4.1 Aquifer Identification

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

The deepest water-bearing zone known to exist at the site is at a depth of 2,076 feet below ground surface. The deep artesian wells which were once installed at the site were completed in this zone. This aquifer yields water at several hundred gallons per minute, and is under artesian conditions with a static water level about 835 feet below ground surface. Estimated static water level elevations of approximately 2,798 feet above mean sea level were measured in the artesian well. A minor water-bearing zone that produced 6 to 7 gpm was also encountered at 1,671 feet below ground surface, during construction of the artesian well (Shannon and Wilson, 1959).

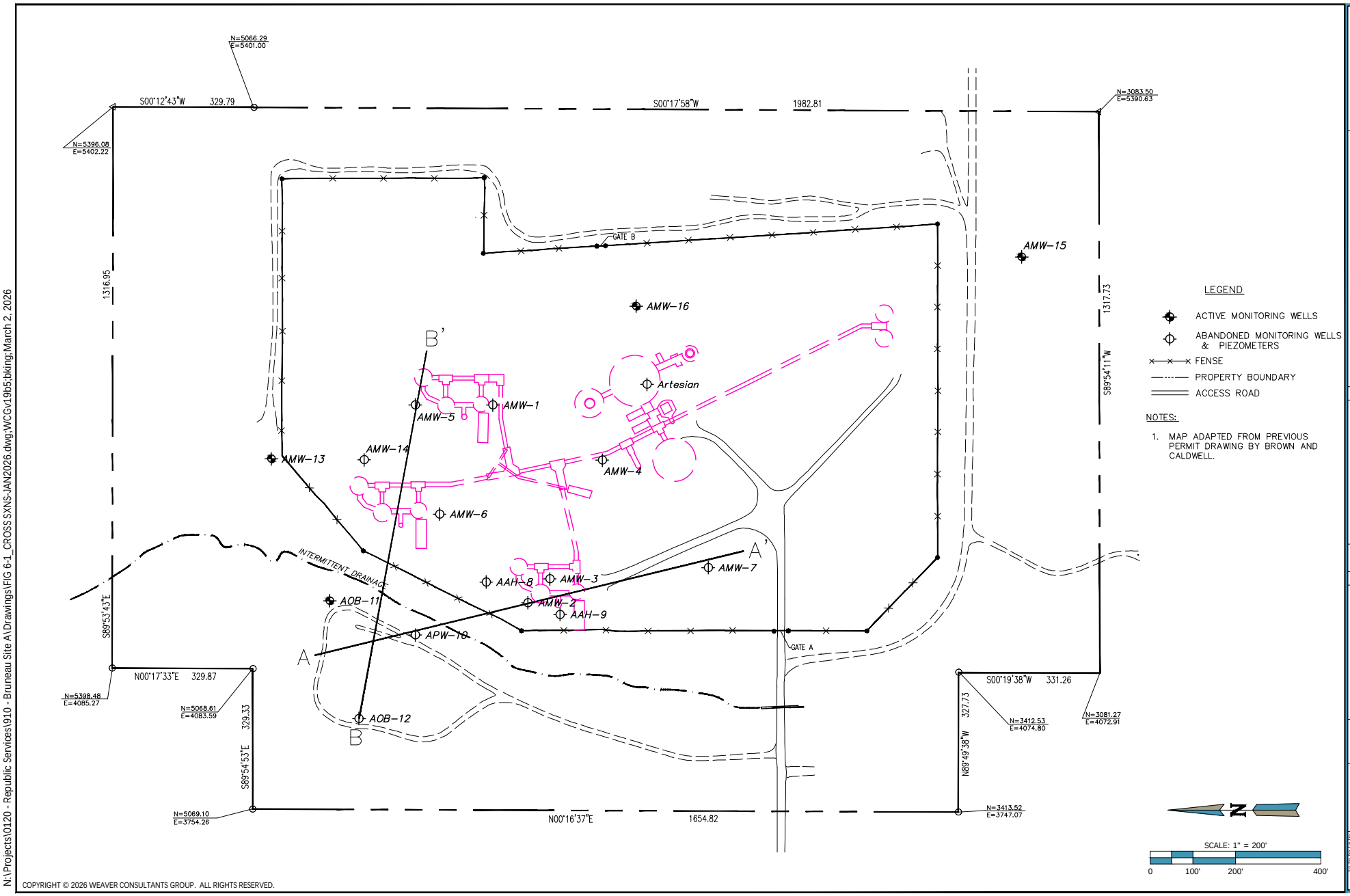
Earlier work by others in the area indicates the general flow of the deep thermal systems is generally north by northwest toward the Snake River (approximately 20 miles north).

The uppermost aquifer underlying Site A is within a laterally continuous rhyolite lava flow where groundwater occurs under semi-confined conditions. The transmissivity apparently is the result of sheeting joints within the rhyolite flow central interior.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Figure 6-1: Site Cross Section Plan

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270



N:\Projects\0120 - Republic Services\910 - Bruneau Site A\Drawings\FIG 6-1_CROSS SXNS-JAN2026.dwg;WCGv19b5;bking;March 2, 2026

COPYRIGHT © 2026 WEAVER CONSULTANTS GROUP. ALL RIGHTS RESERVED.

PREPARED FOR:
U.S. ECOLOGY OF IDAHO, INC.

SITE CROSS SECTION PLAN
US ECOLOGY IDAHO SITE A
BRUNEAU, IDAHO
OWYHEE COUNTY

No.	DATE	REVISION DESCRIPTION	BY

Weaver Consultants Group

WEAVER CONSULTANTS GROUP
9955 LEBANON ROAD
SUITE 400
MOUNT JULIET, TN 37122
(615) 939-4602
www.wcgrp.com

REUSE OF DOCUMENTS
This document, and the designs incorporated herein, as an instrument of professional service, is the property of Weaver Consultants Group, and is not to be used in whole or in part, without the written authorization of Weaver Consultants Group.

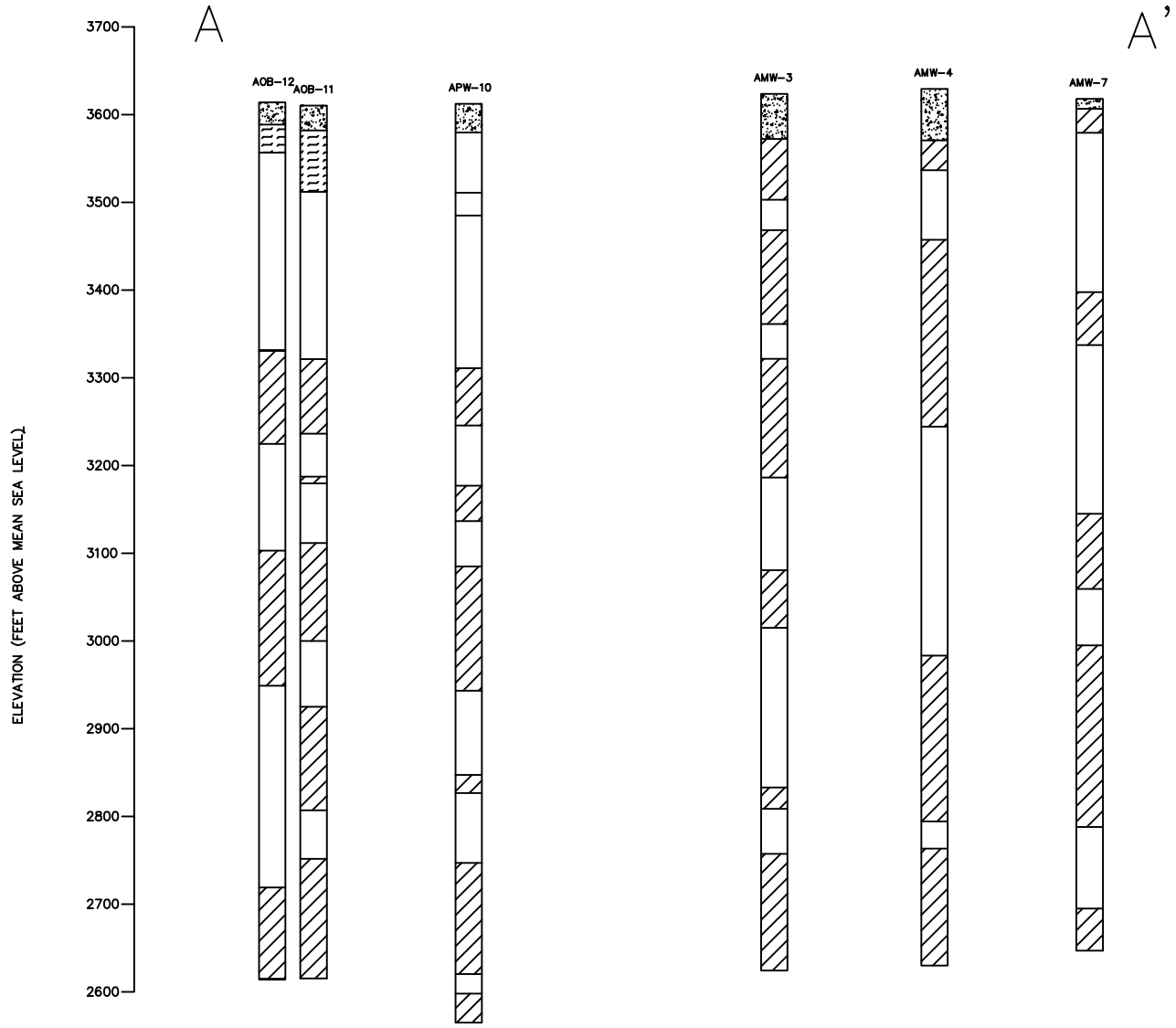
DRAWN BY:	BJK
REVIEWED BY:	JD
DATE:	01/19/2026
FILE:	0120-910-DWG
CAD FIG 6-1_CROSS SXNS-JAN2026.dwg	

FIGURE 6-1

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Figure 6-2: Generalized Geological Cross Section

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270



LEGEND

- SAND AND GRAVEL
- TUFF
- RHYOLITE
- LATITE

P:\CAD\ES\128199\FIGURE 6-2.DWG

BROWN AND CALDWELL
Boise, Idaho

N

100 0 100 200

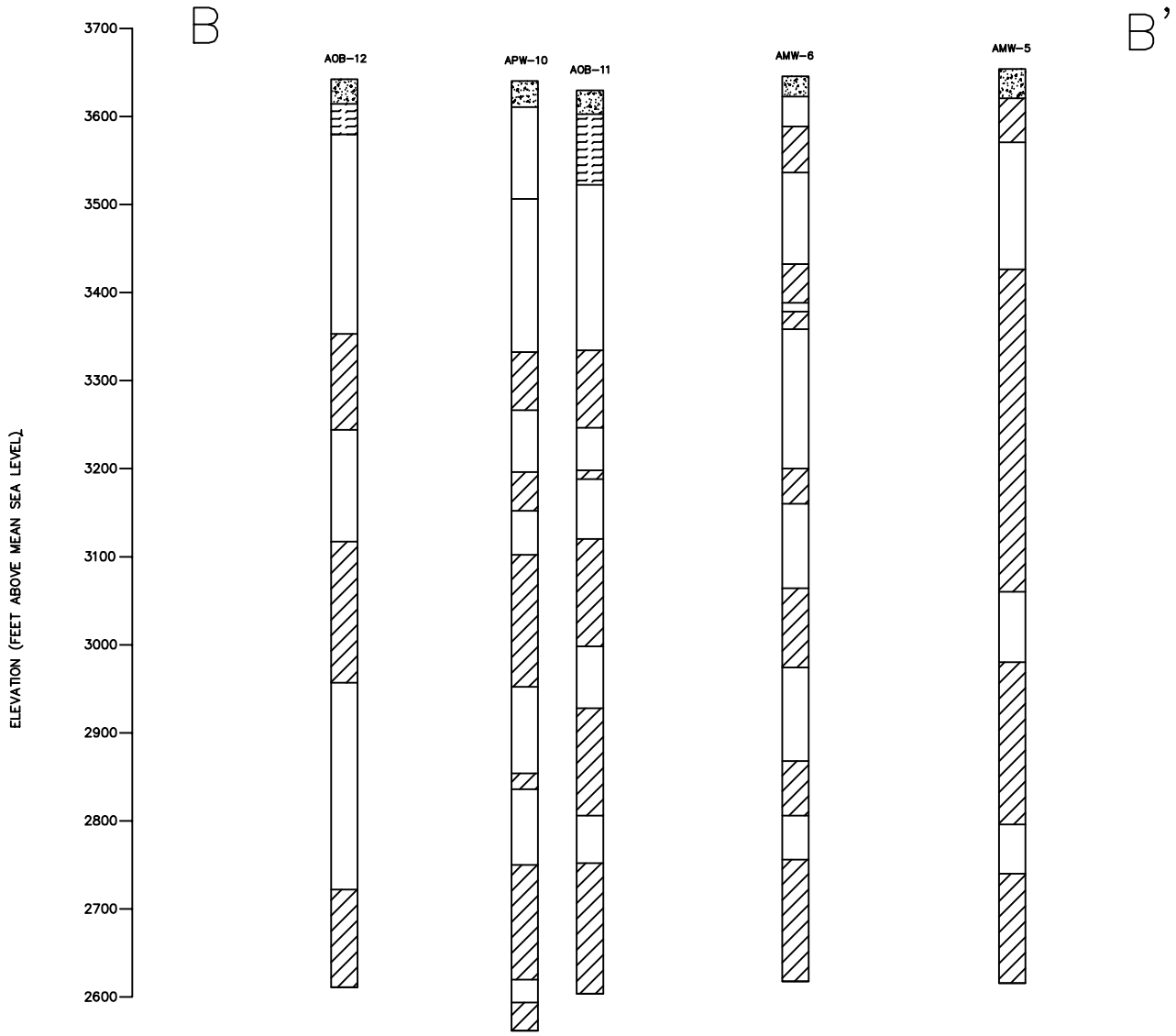
SCALE: 1 INCH = 200 FEET

FIGURE 6-2
GENERALIZED GEOLOGICAL CROSS SECTION
US ECOLOGY IDAHO SITE A
BRUNEAU, IDAHO
OWYHEE COUNTY

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Figure 6-3: Generalized Geological Cross Section

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270



LEGEND

- SAND AND GRAVEL
- TUFF
- RHYOLITE
- LATITE

P:\CAD\ES\128199\FIGURE 6-3.DWG

BROWN AND CALDWELL
Boise, Idaho

N

100 0 100 200

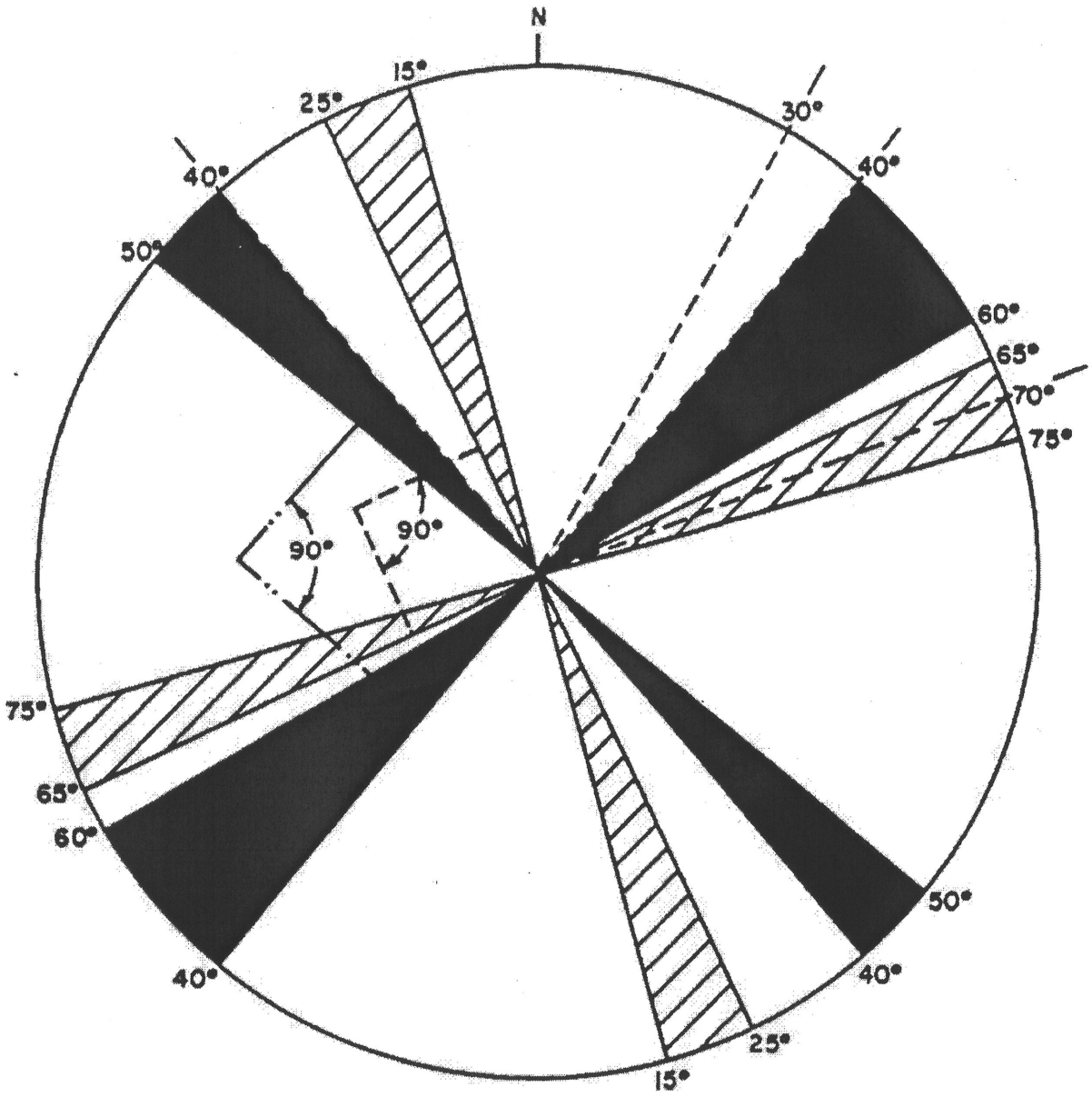
SCALE: 1 INCH = 200 FEET

FIGURE 6-3
GENERALIZED GEOLOGICAL CROSS SECTION
US ECOLOGY IDAHO SITE A
BRUNEAU, IDAHO
OWYHEE COUNTY

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Figure 6-4: Dominant Joint/Fracture Orientation

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270



ROWN AND CALDWELL
Boise, Idaho

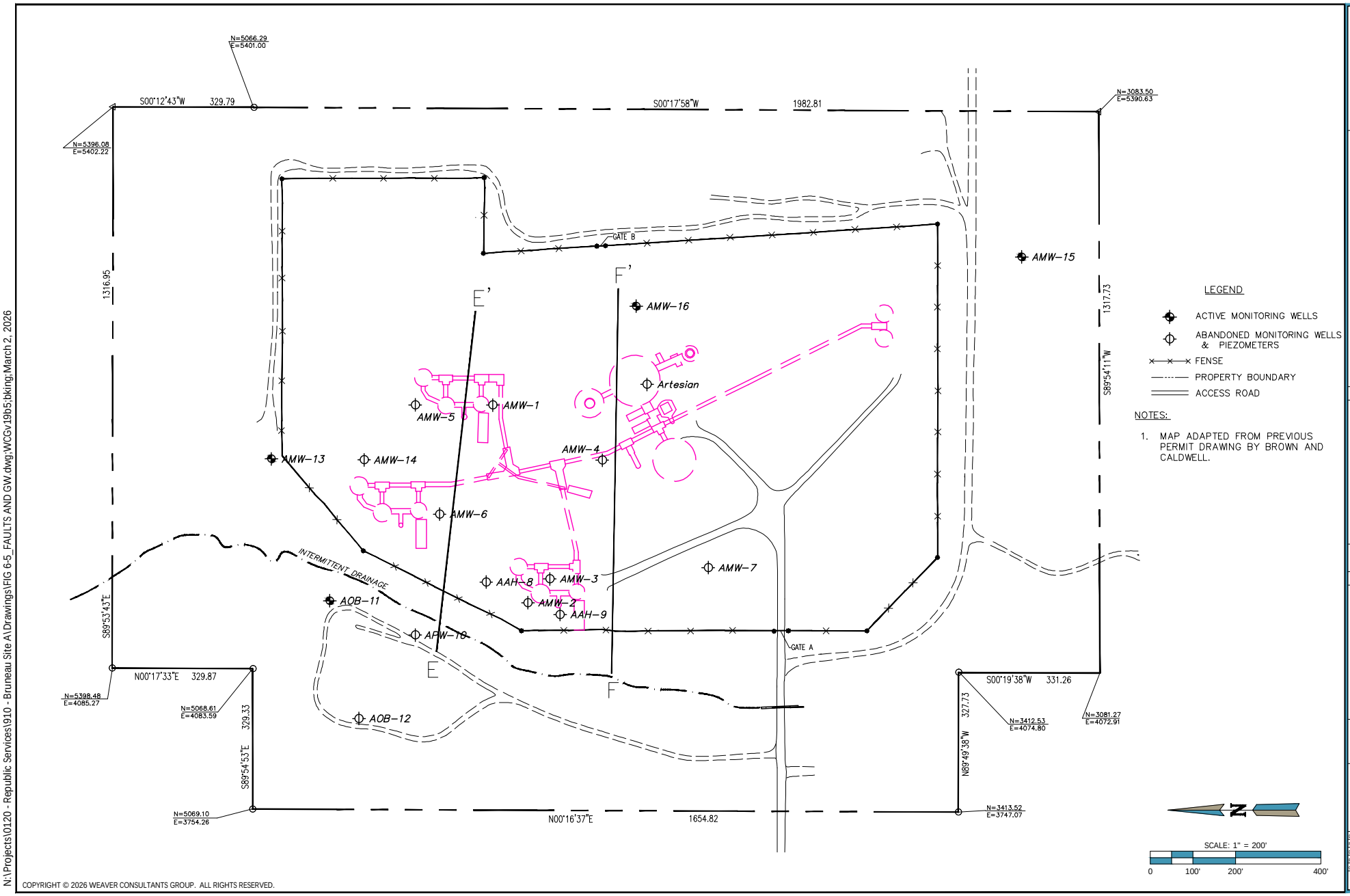
FIGURE 6-4
DOMINANT JOINT/FRACTURE ORIENTATION
US ECOLOGY IDAHO SITE A
BRUNEAU, IDAHO
OWYHEE COUNTY

P:\CAD\ES\128199\FIG6-4.DWG

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Figure 6-5: Location of Possible Faults

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270



COPYRIGHT © 2026 WEAVER CONSULTANTS GROUP. ALL RIGHTS RESERVED.

N:\Projects\0120 - Republic Services\910 - Bruneau Site A\Drawings\FIG 6-5_FAULTS AND GW.dwg;WCGv19b5;bking;March 2, 2026

PREPARED FOR: U.S. ECOLOGY OF IDAHO, INC.

LOCATION OF POSSIBLE FAULTS
US ECOLOGY IDAHO SITE A
BRUNEAU, IDAHO
OWYHEE COUNTY

No.	DATE	REVISION DESCRIPTION	BY

Weaver Consultants Group

WEAVER CONSULTANTS GROUP
9955 LEBANON ROAD
SUITE 400
MOUNT JULIET, TN 37122
(615) 939-4602
www.wcgrp.com

REUSE OF DOCUMENTS
This document, and the designs incorporated herein, as an instrument of professional service, is the property of Weaver Consultants Group, and is not to be used in whole or in part, without the written authorization of Weaver Consultants Group.

DRAWN BY:	BJK
REVIEWED BY:	XXX
DATE:	01/19/2026
FILE:	0120-910-DWG
CAD:	FIG 6-5_FAULTS AND GW.dwg

FIGURE 6-5

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Through review and correlation of borehole geophysics and television video logs, the uppermost aquifer was defined to extend from the top of the saturation (approximately 980 feet below land surface) to the depth at which significant groundwater ceased to enter a well. This analysis (Morrison Knudson, 1992) indicates that the thickness of the uppermost aquifer ranged between 37 and 52 feet. Less significant contributions of groundwater to the wells may occur from minor fractures or less porous strata at greater depths in the rhyolite sequence. There is sufficient separation between the uppermost aquifers and deeper aquifer sequences of volcanic rocks of relatively low hydraulic conductivity (as evidenced by the head differential of approximately 95 feet between the artesian well and shallow Site A wells) and the difference in hydrologic characteristics (artesian versus semi-confined), to identify the uppermost aquifer as the zone requiring monitoring at Site A.

Existing monitoring wells and piezometers are completed in the uppermost water-bearing zone. Static water level of the uppermost aquifer beneath Site A ranges from approximately 2,692~~705~~ feet to 2,672~~95~~ feet above mean sea level.

As detailed in previous reports, the uppermost aquifer is hydraulically connected to the regional artesian aquifer via upward leakage of groundwater through faults and fracture systems. Groundwater in the uppermost aquifer beneath Site A is provided via a fault zone(s) located south of the site and apparently up Fault E-E' (Figure 6-5).

Evidence of recharge to the uppermost aquifer from leakage up Fault E-E' was observed during the recovery portion of the 7-day pumping test described in the Phase III Report (Morrison Knudson, 1990). Water levels in AMW-6 apparently rose 6 to 8 feet above pretest static water levels and temporarily formed a "recharge mound" in the vicinity of the well.

Table 6-1 provides tabulated water level data for Site A as measured during sampling events from 1984 to the present. Additional water level data are contained in the various investigative reports previously submitted to IDEQ regarding Site A. Figures 6-6 and 6-7 show that water levels in the primary aquifer have decreased over time. There may be a connection between closure events of 1996/1997 and the changes in water table elevation. At closure, the last remaining artesian well was plugged and abandoned and transducers were installed to measure water table elevations. These transducers were removed in 1998 based on the belief that manual measurements would be more accurate and precise.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

6.4.2 Groundwater Flow Direction

USEI obtains water level (or piezometric head) measurements from all monitoring wells and piezometers prior to each sampling event or prior to purging the well if the water level was not measured prior to starting the semi-annual sampling event. To minimize error caused by variations in barometric pressure, USEI obtains all water level measurements within a single day; or within consecutive days, during which the barometric pressure changes by no more than 0.5 inches of Mercury. USEI uses this data to determine the direction and rate of the groundwater flow annually. USEI submits a written review of the adequacy of the groundwater monitoring system relative to observed groundwater flow direction with the contour map. Groundwater elevation data is presented in Table 6-1 and Figures 6-6 and 6-7.

Figure 6-8 presents the most recent groundwater contour map and Figure 6-9 presents a groundwater contour map based on 1993 data. As can be seen, groundwater contours are essentially unchanged over this 23 year period. Groundwater generally flows to the north-northeast across the southern portion of Site A and to the north and northwest across the northern half of the site. Flow lines appear to converge to the north of Silo 1 in the general vicinity of well AOB-11. Groundwater flow directions around the Silo 3 complex are less well-defined but generally also converge toward AOB-11. The convergence of groundwater flow lines and more widely spaced potentiometric surface contour lines shown in the vicinity of AOB-11 are consistent with the higher aquifer transmissivities determined for this area from the pumping test conducted by Morrison Knudson.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Table 6-1: Site A Water Level Elevations; Fall 1984 to Spring 2026~~16~~

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Table 6-1: Site A Water Level Elevations; Fall 1984 to Spring 2026

USEI SITE A													
WATER LEVEL ELEVATION BY DATE													
WELL NUMBER	**AMW3**	**AMW4**	**AMW5**	**AMW6**	**AMW7**	**APW-10**	**AOB-11**	**AOB-12**	**AMW-13**	**AMW-14**	**AMW-15**	**AMW-16**	**ART**
EASTING	8,825.18	9,103.34	9,234.58	8,978.12	8,849.83	8,694.40	8,775.55	8,499.14	8,499.14	8,499.14	8,499.14	8,499.14	NA
NORTHING	11,582.64	11,458.61	11,896.60	11,840.41	11,210.62	11,898.20	12,098.52	12,030.89	12,030.89	12,030.89	12,030.89	12,030.89	NA
TOC. ELEV.	3,635.77	3,646.13	3,638.73	3,627.91	3,654.81	3,622.22	3,615.20	3,619.42	3,624.87	3,627.00	3,664.88	3,645.95	3,633.70
TOC. ELEV. 2		3,646.94		3,628.71	3,656.16	3,623.22	3,616.63	3,620.94	3,624.87	3,627.00	3,664.88	3,645.95	
DATE	**AMW3**	**AMW4**	**AMW5**	**AMW6**	**AMW7**	**APW-10**	**AOB-11**	**AOB-12**	**AOB-13**	**AOB-14**	**AOB-15**	**AOB-16**	**ART**
28-Nov-84	2,698.60												
7-Jun-85	2,698.80												
26-Jun-85	2,695.60	2,696.50	2,699.40	2,705.70									
16-Jul-85	2,696.50	2,696.90	2,695.50	2,710.70									
17-Jul-85					2,703.60								
18-Jul-85		2,697.90											2,793.70
29-Jul-85	2,696.70	2,697.10	2,694.20	2,700.40	2,687.00								2,798.10
31-Jul-85				2,702.40									
8-Aug-85			2,694.70										
9-Aug-85		2,697.10		2,691.90	2,704.10								2,798.90
20-Aug-85	2,697.60	2,697.50	2,695.40	2,694.60	2,704.40								
21-Aug-85				2,695.60									
22-Aug-85					2,703.40								
30-Aug-85	2,696.70	2,698.50	2,696.00	2,695.70	2,704.20								2,790.70
4-Sep-85	2,698.70	2,700.10	2,697.00	2,696.90	2,706.30								
9-Sep-85	2,700.10	2,700.90	2,698.80	2,698.90	2,707.40								
12-Sep-85	2,700.20			2,699.20	2,707.90								
13-Sep-85	2,701.50	2,701.30	2,699.20	2,699.40	2,708.30								
26-Sep-85	2,700.90	2,701.30	2,700.50	2,700.00	2,708.20								
3-Oct-85	2,700.60	2,702.30	2,698.80	2,699.80	2,708.40								
10-Oct-85	2,702.00	2,702.60	2,699.90	2,700.50	2,709.60								
17-Oct-85	2,702.30	2,702.90	2,700.90	2,701.90	2,710.40								
24-Oct-85	2,702.20	2,702.90	2,701.10	2,701.20	2,709.80								
31-Oct-85	2,702.50	2,703.20	2,701.40	2,702.50	2,710.10								

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

DATE	AMW3	AMW4	AMW5	AMW6	AMW7	APW-10	AOB-11	AOB-12	AOB-13	AOB-14	AOB-15	AOB-16	ART
7-Nov-85	2,701.70	2,703.50	2,701.70	2,702.50	2,710.30								
14-Nov-85	2,703.20	2,703.60	2,701.60	2,702.40	2,710.10								
22-Nov-85	2,703.60	2,703.20	2,701.60	2,702.80	2,709.70								
19-Mar-86	2,705.00	2,709.80	2,703.80	2,703.70	2,711.90								
29-Sep-86	2,701.40	2,702.40	2,700.60	2,706.60	2,709.50								2,801.60
6-Nov-86	2,702.70	2,713.30	2,701.60	2,703.90	2,710.30								2,801.60
12-Dec-86	2,703.70	2,708.40	2,702.70	2,706.80	2,710.70								2,801.70
20-Jan-87	2,703.90	2,710.50	2,702.90	2,705.70	2,711.10								2,801.00
2-Mar-87	2,704.70	2,705.90	2,703.30	2,707.00	2,712.00								2,801.60
14-Apr-87	2,706.30	2,707.20	2,705.00	2,708.50	2,713.30								2,803.20
13-Jul-87			2,702.30										
28-Oct-87	2,702.90	2,703.70	2,701.80	2,704.70	2,710.90								2,801.30
26-Oct-88	2,702.40	2,702.90	2,701.10	2,701.10	2,710.40								
6-Apr-89	2,705.60	2,706.00	2,704.30	2,703.60	2,712.80								
16-Aug-89	2,702.70	2,703.50	2,701.20	2,700.10	2,710.70								2,793.90
30-Oct-89	2,702.20	2,703.10	2,700.90	2,702.80	2,710.70	2,700.00							2,801.10
8-Jan-90	2,696.10	2,695.50	2,695.00	2,694.80	2,706.80	2,694.10	2,693.40	2,692.70					
1-Mar-90	2,699.40	2,699.90	2,698.80	2,699.80	2,706.20	2,697.20	2,696.10	2,696.00					
2-Apr-90	2,706.50	2,707.80	2,705.50	2,706.00	2,713.90	2,704.70	2,702.90	2,703.10					2,801.50
25-May-90	2,706.20	2,707.80	2,705.40	2,706.20	2,714.20	2,703.90	2,701.40	2,701.80					2,802.60
8-Oct-90	2,704.00	2,704.90	2,702.70	2,702.40	2,712.10	2,701.90	2,699.60	2,699.80					2,797.80
19-Feb-91	2,706.70	2,707.40	2,705.40	2,705.10	2,714.10	2,704.50	2,701.80	2,702.10					
30-Apr-91	2,708.40	2,708.70	2,707.10	2,707.90	2,715.30	2,704.70	2,703.30	2,703.10					2,797.80
10-Oct-91	2,703.50	2,704.40	2,702.20	2,701.40	2,711.90	2,700.40	2,698.40	2,698.90					2,799.80
28-Apr-92	2,706.30	2,707.40	2,705.30	2,705.40	2,714.20	2,703.30	2,701.30	2,701.70					
29-Oct-92	2,704.30	2,704.60	2,702.30	2,700.90	2,711.90	2,700.60	2,698.50	2,699.00					2,800.40
11-May-93	2,707.90	2,708.50	2,706.50	2,705.10	2,714.90	2,704.70	2,702.80	2,702.50					2,801.30
14-Oct-93	2,704.30	2,704.70	2,702.30	2,701.00	2,712.00	2,700.60	2,698.60	2,699.00					2,800.80
1-Mar-97		2,709.30		2,705.70	2,716.90	2,706.90	2,705.00	2,707.60	2,703.10	2,705.80	2,721.70	2,707.50	
1-Jun-98		2,697.90		2,694.70	2,704.90	2,697.30	2,695.50	2,694.30	2,696.10	2,690.50	2,710.80	2,695.30	
28-Sep-98		2,699.10		2,692.60	2,705.90	2,695.30	2,694.30	2,695.40	2,697.20	2,695.80	2,708.50	2,694.10	

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

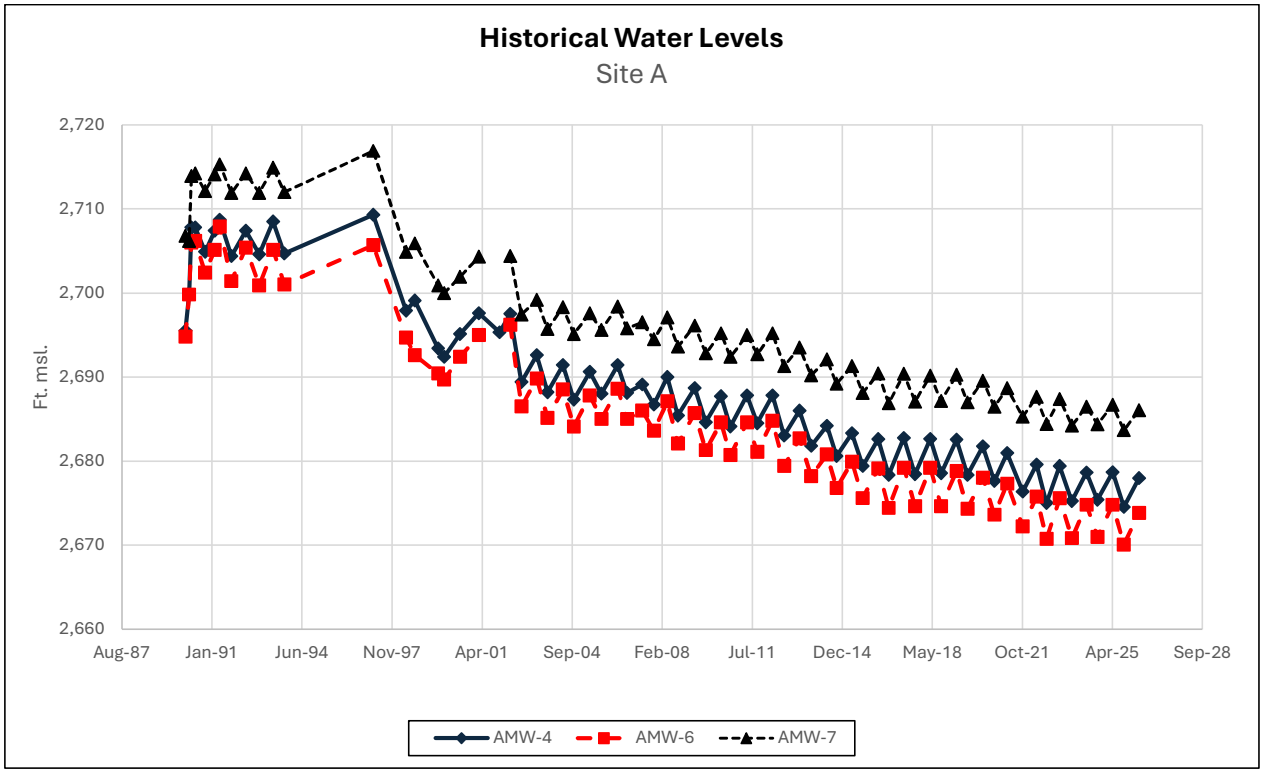
DATE	AMW3	AMW4	AMW5	AMW6	AMW7	APW-10	AOB-11	AOB-12	AMW-13	AMW-14	AMW-15	AMW-16	ART
18-Aug-99		2,693.40		2,690.40	2,700.90	2,691.20	2,689.20	2,689.50	2,691.10	2,690.80	2,706.40	2,689.90	
10-Nov-99		2,692.40		2,689.70	2,700.00	2,690.60	2,688.60	2,688.80	2,691.00	2,690.00	2,705.60	2,688.90	
19-Jun-00		2,695.10		2,692.40	2,701.90	2,692.90	2,691.10	2,691.50	2,692.50	2,692.90	2,702.80	2,691.40	
5-Mar-01		2,697.60		2,695.00	2,704.30	2,695.80	2,693.80	2,694.20	2,695.60	2,695.50	2,710.10	2,694.30	
18-Dec-01		2,695.30				2,693.40	2,691.60	2,691.90	2,693.10	2,690.80	2,710.10		
15-May-02		2,697.50		2,696.20	2,704.40	2,695.60	2,693.80	2,694.00	2,695.60	2,695.40	2,709.70	2,694.20	
17-Oct-02		2,689.40		2,686.50	2,697.40	2,687.30	2,685.50	2,685.70	2,687.00	2,686.90	2,703.10	2,685.70	
20-May-03		2,692.60		2,689.80	2,699.20	2,690.50	2,688.70	2,689.00	2,690.30	2,690.10	2,704.50	2,689.00	
13-Oct-03		2,688.20		2,685.10	2,695.70	2,685.80	2,683.90	2,684.20	2,685.50	2,685.40	2,701.50	2,684.10	
17-May-04		2,691.40		2,688.50	2,698.30	2,689.20	2,687.40	2,687.70	2,689.00	2,688.90	2,703.60	2,687.70	
13-Oct-04		2,687.30		2,684.10	2,695.10	2,684.90	2,683.10	2,683.40	2,684.60	2,684.50	2,700.90	2,683.30	
24-May-05		2,690.60		2,687.80	2,697.60	2,688.50	2,686.80	2,687.00	2,688.30	2,688.10	2,703.20	2,686.90	
2-Nov-05		2,688.00		2,685.00	2,695.60	2,685.70	2,683.90	2,684.00	2,685.50	2,685.40	2,701.20	2,684.10	
13-Jun-06		2,691.40		2,688.60	2,698.40	2,689.30	2,687.60	2,687.70	2,689.10	2,689.00	2,703.80	2,687.80	
24-Oct-06		2,688.10		2,685.00	2,695.80	2,685.80	2,683.90	2,684.20	2,685.50	2,685.40	2,701.40	2,684.20	
22-May-07		2,689.10		2,686.00	2,696.50	2,686.80	2,685.00	2,685.20	2,686.50	2,686.40	2,702.10	2,685.20	
29-Oct-07		2,686.70		2,683.60	2,694.50	2,684.30	2,682.40	2,682.70	2,684.10	2,683.90	2,700.30	2,682.70	
5-May-08		2,690.00		2,687.10	2,697.10	2,687.90	2,686.10	2,686.30	2,687.60	2,687.60	2,702.50	2,686.30	
30-Sep-08		2,685.40		2,682.10	2,693.60	2,682.90	2,681.00	2,681.20	2,682.60	2,682.50	2,699.20	2,681.20	
19-May-09		2,688.70		2,685.70	2,696.10	2,686.40	2,684.60	2,684.70	2,686.20	2,686.10	2,701.60	2,684.80	
20-Oct-09		2,684.60		2,681.30	2,692.80	2,682.10	2,680.30	2,680.40	2,681.80	2,681.70	2,698.60	2,680.50	
18-May-10		2,687.70		2,684.60	2,695.20	2,685.40	2,683.60	2,683.80	2,685.10	2,685.00	2,700.80	2,683.80	
27-Sep-10		2,684.10		2,680.70	2,692.40	2,681.50	2,679.60	2,679.90	2,681.20	2,681.20	2,698.20	2,679.90	
16-May-11		2,687.80		2,684.60	2,695.00	2,685.50	2,683.60	2,683.80	2,685.20	2,685.00	2,700.50	2,683.80	
4-Oct-11		2,684.50		2,681.10	2,692.70	2,681.90	2,680.10	2,680.30	2,681.60	2,681.50	2,698.60	2,680.30	
1-May-12		2,687.80		2,684.80	2,695.20	2,685.50	2,683.70	2,683.90	2,685.30	2,685.10	2,700.80	2,684.00	
10-Oct-12		2,683.00		2,679.40	2,691.30	2,680.20	2,678.30	2,678.50	2,680.00	2,679.80	2,697.40	2,678.60	
14-May-13		2,686.00		2,682.70	2,693.50	2,683.40	2,681.50	2,681.70	2,683.20	2,683.10	2,699.20	2,681.80	
22-Oct-13		2,681.80		2,678.20	2,690.20	2,679.00	2,677.10	2,677.20	2,678.60	2,678.50	2,696.20	2,677.30	
27-May-14		2,684.20		2,680.80	2,692.10	2,681.60	2,679.70	2,679.60	2,681.20	2,681.20	2,698.00	2,679.90	
7-Oct-14		2,680.60		2,676.80	2,689.20	2,677.60	2,675.60	2,675.80	2,677.10	2,677.10	2,695.40	2,675.90	
12-May-15		2,683.30		2,679.90	2,691.30	2,680.60	2,678.70	2,678.90	2,680.30	2,680.20	2,697.30	2,679.00	

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

DATE	AMW3	AMW4	AMW5	AMW6	AMW7	APW-10	AOB-11	AOB-12	AMW-13	AMW-14	AMW-15	AMW-16	ART
6-Oct-15		2,679.40		2,675.60	2,688.10	2,676.30	2,674.40	2,674.60	2,675.90	2,675.80	2,694.30	2,674.50	
11-May-16		2,682.60		2,679.10	2,690.40	2,680.00	2,678.00	2,678.30	2,679.60	2,679.50	2,696.40	2,678.30	
Fall 2016		2,678.34		2,674.41	2,686.86	2,675.22	2,673.23	2,673.44	2,674.77	2,674.80	2,693.68	2,673.45	
Spring 2017		2,682.74		2,679.21	2,690.36	2,680.02	2,678.13	2,678.34	2,679.77	2,679.60	2,696.08	2,678.25	
Fall 2017		2,678.44		2,674.61	2,687.06	2,675.32	2,673.43	2,673.54	2,674.97	2,674.80	2,693.28	2,673.65	
Spring 2018		2,682.64		2,679.21	2,690.16	2,680.02	2,678.13	2,678.34	2,679.77	2,679.60	2,695.78	2,678.25	
Fall 2018		2,678.54		2,674.61	2,687.16	2,675.22	2,673.33	2,673.54	2,674.97	2,674.80	2,693.28	2,673.55	
Spring 2019		2,682.54		2,678.81	2,690.26	2,679.62	2,677.73	2,678.04	2,679.37	2,679.30	2,695.48	2,677.45	
Fall 2019		2,678.34		2,674.31	2,686.96	2,675.12	2,673.23	2,673.44	2,674.77	2,674.70	2,693.28	2,673.35	
Spring 2020		2,681.74		2,678.01	2,689.56	2,678.82	2,676.83	2,677.14	2,678.57	2,678.40	2,694.78	2,677.25	
6-Oct-20		2,677.64		2,673.61	2,686.46	2,674.32	2,672.33	2,672.54	2,673.97	2,673.80	2,692.08	2,672.65	
6-Apr-21		2,680.94		2,677.31	2,688.66	2,677.82	2,675.83	2,676.24	2,677.47	2,677.50	2,694.08	2,676.45	
6-Nov-21		2,676.34		2,672.21	2,685.25	2,672.93	2,670.95		2,672.66	2,672.49	2,691.01	2,671.26	
17-May-22		2,679.59		2,675.78	2,687.61	2,676.42	2,674.52	2,674.76		2,676.05	2,693.13	2,674.24	
3-Oct-22		2,674.99		2,670.73	2,684.40	2,671.47	2,669.46	2,669.72	2,671.16	2,670.95	2,689.97	2,670.10	
3-Apr-23		2,679.40		2,675.57	2,687.38	2,676.19	2,674.48	2,674.69	2,676.07	2,675.87	2,693.09	2,675.64	
18-Sep-23		2,675.22		2,670.82	2,684.21	2,671.56	2,669.61	2,669.84	2,671.30	2,671.11	2,690.23	2,669.94	
8-Apr-24		2,678.64		2,674.80	2,686.48	2,675.38	2,673.45	2,673.72	2,675.16	2,674.99	2,692.23	2,673.80	
9-Sep-24		2,675.39		2,670.97	2,684.36	2,671.70	2,669.73	2,669.99	2,671.52	2,671.68	2,690.40	2,670.06	
7-Apr-25		2,678.65		2,674.79	2,686.68	2,675.37	2,673.52	2,673.75	2,675.34	2,675.15	2,692.38	2,673.95	
8-Sep-25		2,674.52		2,670.06	2,683.66	2,670.71	2,668.76	2,668.99	2,670.56	2,670.26	2,689.73	2,669.03	
6-Apr-26		2,677.94		2,673.82	2,686.04	2,674.43	2,672.57	2,672.79	2,674.27	2,674.10	2,691.90	2,672.90	
MAX. WL.	2,708.40	2,713.30	2,707.10	2,710.70	2,716.90	2,706.90	2,705.00	2,707.60	2,703.10	2,705.80	2,721.70	2,707.50	2,803.20
MIN. WL.	2,695.60	2,674.52	2,694.20	2,670.06	2,683.66	2,670.71	2,668.76	2,668.99	2,670.56	2,670.26	2,689.73	2,669.03	2,790.70
AVG. WL.	2,702.21	2,693.22	2,701.11	2,690.89	2,700.24	2,686.33	2,684.27	2,684.70	2,682.67	2,682.32	2,698.99	2,681.10	2,799.54
(n)	44	100	43	101	99	70	69	68	56	57	57	56	21

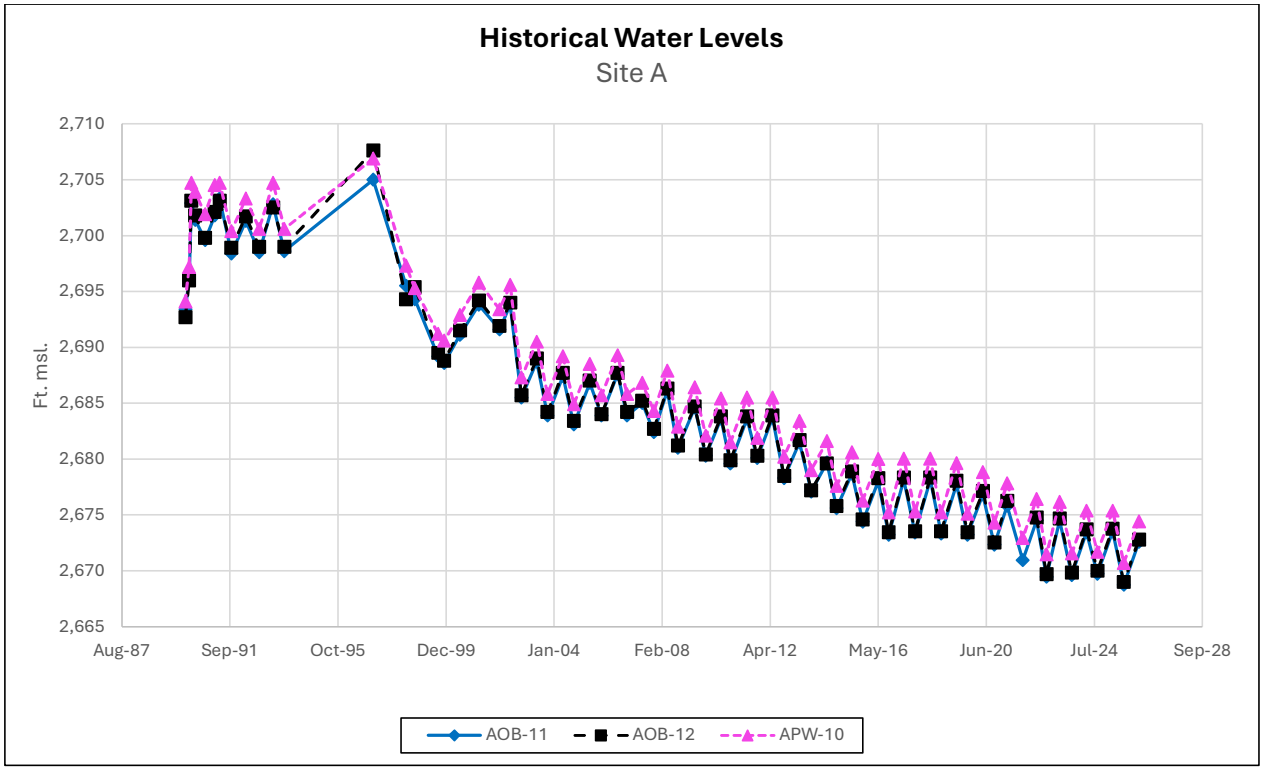
Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Figure 6-6: Site A Historical Water Levels in AMW 4, 6, & 7; 1990 to 2026~~16~~



Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

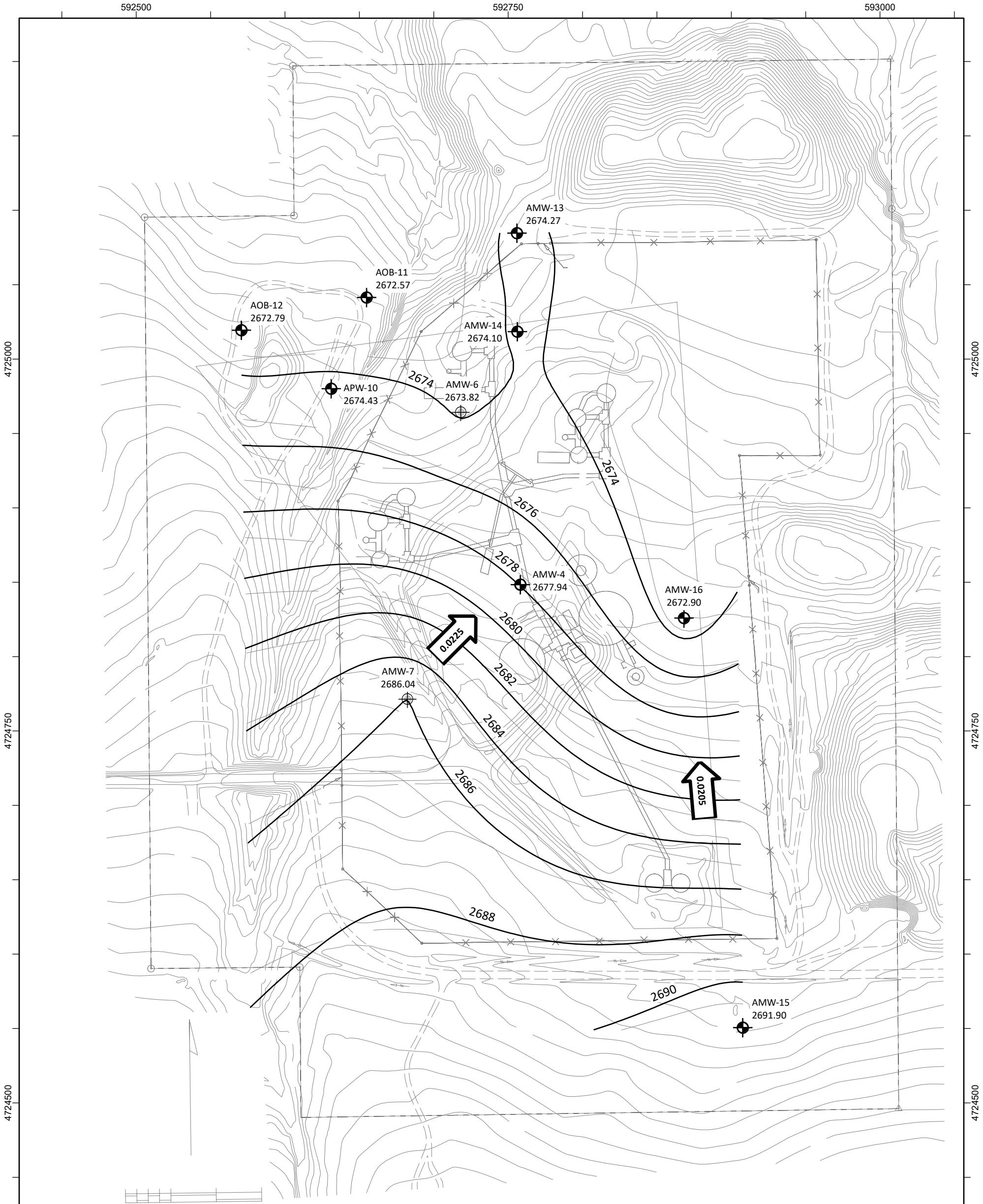
Figure 6-7: Site A Historical Water Levels in AOB-11, AOB-12 & APW-101; 1990 to 202616



Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

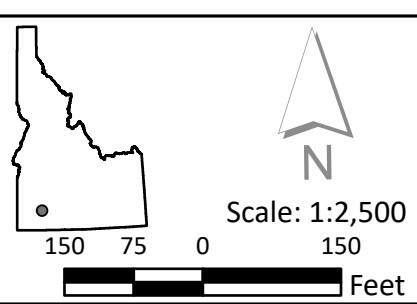
Figure 6-8: Groundwater Contour Map; 2026~~16~~

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270



Legend:

- Monitoring Well
- Piezometer
- Groundwater Elevation Contour (Feet Above Site Datum)
- Approximate Groundwater Gradient Direction and Magnitude (ft/ft)



Drawing 2

Potentiometric Surface and Groundwater Flow

Spring 2026 - USEI Site A

845 Railroad Street
Elko, NV, 89801
(775) 777-2931

Job # 21-16-113 Date: 5/8/2026

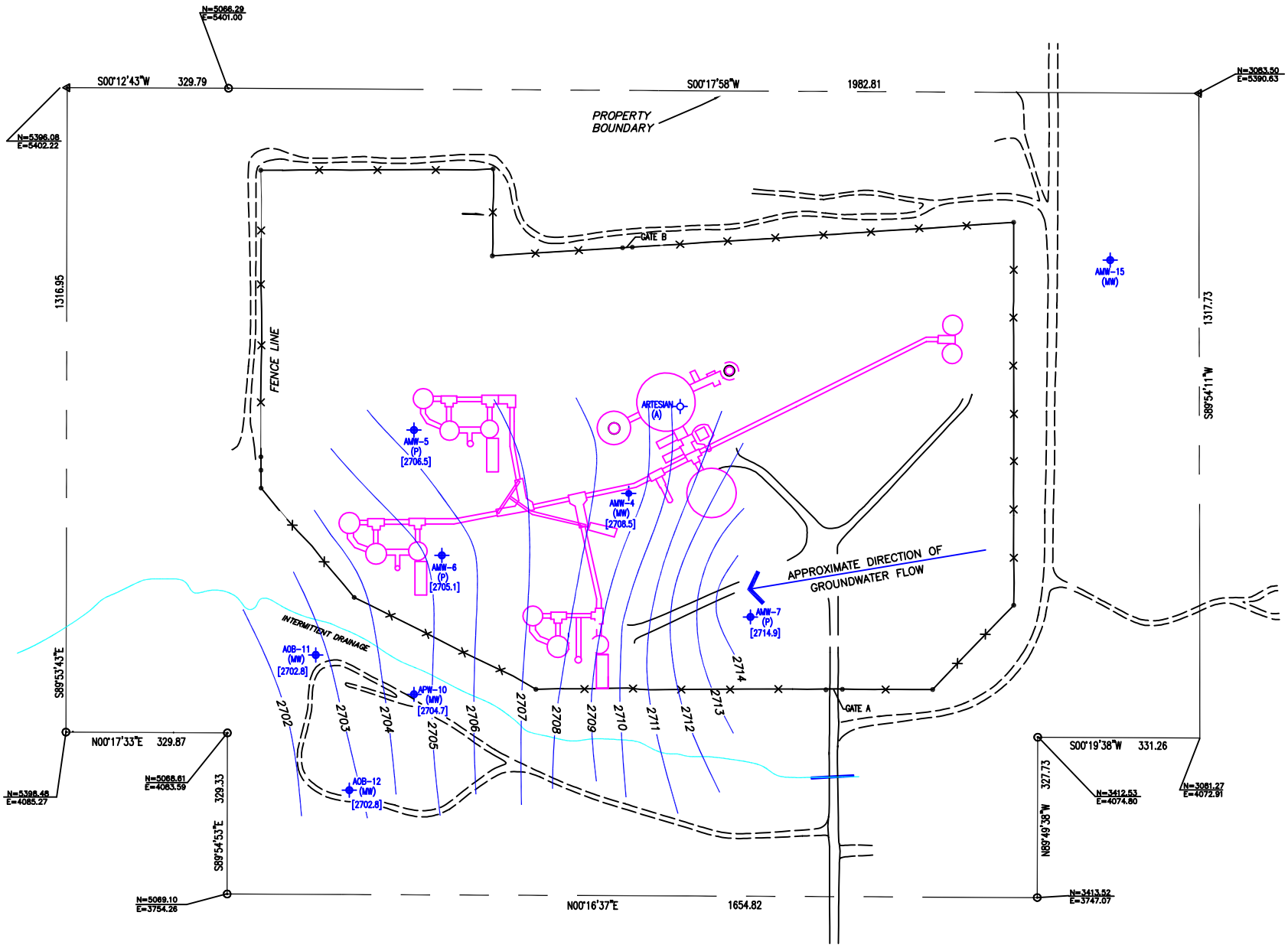
Notes:
1. Imagery Source: Esri World Topographic Map, Esri World Imagery for inset ().
2. Datum: WGS 1984 UTM Zone 11N.

Designed	
Drawn	TES
Approved	

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Figure 6-9: Groundwater Contour Map; 1993

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270



LEGEND

- GROUNDWATER MONITORING WELLS/PIEZOMETERS
- [2704.7] GROUNDWATER ELEVATION (5-11-1993)
- —2712— GROUNDWATER ELEVATION CONTOUR

P:\CAD\ES\128199\FIGURE 6-9.DWG

BROWN AND CALDWELL
Boise, Idaho

N

150 0 150 300

SCALE: 1 INCH = 300 FEET

FIGURE 6-9
GROUNDWATER CONTOUR MAP; 1993
SITE A BRUNEAU, IDAHO
OWYHEE COUNTY

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

There are two distinct gradient regimes across the site. The southern two-thirds of the site has steep northerly gradients while the northern one-third has much flatter gradients. In addition, the northern one-third of the site can be split into two sub-regimes. Gradients in the northwest corner are to the west-northwest. Across the northeast corner of the site, the gradients are nearly flat with no discernible gradient direction. A possible gradient divide is present in the vicinity of AMW-14. This divided feature and flat gradients in the northeast corner have been historically present, and have been discussed and illustrated in various site characterization reports. Fracturing associated with Fault E-E' may be responsible for the generally higher aquifer transmissivities present across the northern half of the site.

6.4.3 Aquifer Characteristics

The uppermost aquifer was found to behave as a leaky confined aquifer based on analysis of the pumping test data provided in the Phase III report (Morrison Knudson, 1990). Table 6-2 provides a summary of the aquifer properties and methods of analysis presented in the Phase III report. The Phase III report concludes that the upper aquifer has a transmissivity of about 11,500 gallons per day per foot (gpd/ft) and a storage coefficient of 0.037.

A report prepared by Feast Geosciences (*Hydraulic Conductivity, Effective Porosity and Groundwater Velocity Calculations, USEI Site A,* Letter, Chuck Feast to Jim Hancock, February 2, 2003) provides an updated assessment of the Morrison Knudson report as supplemented by literature data. (See Appendix J.) The transmissivity, hydraulic conductivity, storativity, and effective porosity values presented in this report were prepared following EPA guidance (*Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Interim Final Guidance,* EPA, 1979). These values have been used for groundwater velocity calculations in Site A semi-annual groundwater reports prepared since that date. Darcy Velocities for the site vary from 3 to 13 feet per day over the southern portion of the site and 1 to 4 feet per day in the northwestern portion.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Table 6-2: Summary of Results of Pumping Test Data Analysis

Well	Q	ds	b	T	K	S	Technique	Comments
APW-10	61	--	90	--	--	--	S/L	Data did not form drawdown curve
	75	4.22	90	4,700	0.0025	--	S/L	3,000m+
	75	--	90	--	--	--	t/t'	Data did not form recovery curve
AMW-3	61	0.53	20	30,300	0.071	0.00063	S/L	200-3,000m, u < .01
	75	1.12	20	17,600	0.042	0.0071	S/L	3,000-7,000 m, u > .02
	61	--	20	9,700	0.023	0.0028	Leaky	600-1,500m, x = 0.3
	75	0.80	20	24,700	0.058	--	t/t'	180-1,200m
AMW-4	61	0.53	45	30,300	0.032	0.0044	S/L	Poor data curve, <3,000m, u > 0.02
	75	0.97	45	20,400	0.021	0.0087	S/L	Poor date curve, >3,000m, u > 0.02
	75	--	45	9,000	0.0094	0.0090	Leaky	
	75	--	--	--	--	--	--	Data did not form recovery curve
AMW-5	61	0.23	61	69,900	0.054	0.00098	S/L	<3,000m, poor date curve, u > 0.02
	75	--	61	5,700	0.0044	0.0093	Leaky	Poor curve match, >2,000m
	75	0.24	61	82,400	0.064	--	t/t'	Poor recovery curve
AMW-6	61	1.13	63	14,200	0.011	0.0015	S/L	150-760M, u >0.02, lower T 700-2,000m
	61	--	63	12,900	0.0097	0.0015	L/L	70-840m, recharge 1,000-3,000m
	75	--	--	--	--	--	t/t'	Data did not form recovery curve
AMW-7	61	--	--	--	--	--	S/L	Data did not form drawdown curve
	61	--	31	13,400	0.020	0.018	L/L	Poor curve match

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Table 6-2: Summary of Results of Pumping Test Data Analysis (continued)

Well	Q	ds	b	T	K	S	Technique	Comments
	75	--	--	--	--	--	t/t'	Insufficient data
AOB-11	61	0.15	37	107,200	0.137	0.00026	S/L	40-3,000m, u <0.01
	75	0.72	37	27,400	0.035	0.055		3,000-7,000m, u>0.02
	61	--	37	22,500	0.029	0.0035	Leaky	150-1,500m, V – 0.3, lower T 1,500-3,000m
	75	0.34	37	58,100	0.074	--	t/t'	75-630m, lower T630-2, 800m
AOB-12	61	0.60	52	23,600	0.021	0.0018	S/L	30-400m, u >0.02, recharge 400-3,000m
	75	0.97	52	20,400	0.018	0.0085	S/L	3,000-7,000, u <0.02, recharge 7,000m +
	61	--	52	14,900	0.014	0.0021	Leaky	50-2,200m
	75	1.03	52	19,200	0.017	--	t/t'	30-250m
	75	0.47	52	42,100	0.038	--	t/t'	260-3,360m

Q = Pumping rate in gallons per minute (gpm)
ds = Rate of semilog drawdown (recovery) in ft/cycle
b = Estimated aquifer thickness (ft) based on geophysical logs
T = Transmissivity in gpd/ft
K = Calculated hydraulic conductivity in cm/sec
S = Storativity
S/L = Semi-Log (Cooper and Jacob, 1946)
L/L = Log-Log (Theis, 1935)
Leaky = Log-Log (Cooper, 1963)
t/t' = Theis time ratio
m = Minutes
u and v are discussed in referenced analytical technique (Source: Morrison Knudson, 1990)

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

6.5 GROUNDWATER MONITORING NETWORK

6.5.1 Location of Sub-Units

Wastes are contained in sub-units which were part of the missile base structures at Site A. As part of the corrective action for the site, potentially contaminated surface soils and general debris were placed in several of the missile base structures prior to those structures being capped. Consequently, the entire missile base structure, including surface and subsurface features, is considered a corrective action management unit (CAMU) (see Drawing 2005-1). Since the bulk of the wastes are in Silos 1 and 3, the well locations are more densely spaced in the areas downgradient of these units. The Idaho DEQ has determined that the requirements of 40 CFR §264 Subpart F apply to Site A. A point of compliance, as required by 40 CFR §264.95 (b)(2), is shown on Figure 6-10.

6.5.2 Monitoring Well Network Description

Modifications to the monitoring well network occurred during site closure. Well logs and other data were submitted to IDEQ in March 1997 in the closure certification report. Vertical boreholes AMW-1 and AMW-2, well AMW-3, and angle vadose wells AAH-8 and AAH-9 were plugged and abandoned. The Artesian Well was also plugged and abandoned. Monitoring well AMW-5 was plugged and abandoned shortly after closure. Two new downgradient wells, AMW-13 and AMW-14, were constructed. A new upgradient monitoring well, AMW-15, was installed and developed, and a new piezometer, AMW-16, was installed. In spring 2003, AMW-16 was fitted with a submersible pump and added to the detection monitoring system. Four monitoring wells (AMW-4, APW-10, AOB-12, and AMW-14) and two piezometers (AMW-6 and AMW-7) will be abandoned to reduce the monitoring network to the minimum number of wells required for groundwater monitoring at the site.

All monitoring wells are equipped with a submersible pump and a water level sounding tube constructed of type-304 stainless steel. The pumps are set near the top of the water column. During site closure work, pressure transducers were installed to measure water depth. These were removed in 1998 to rely on more accurate hand measurements.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

The groundwater monitoring well network now consists of four~~eight~~ wells completed in the uppermost aquifer ~~and two piezometers~~ as shown in Figure 6-10. ~~-~~Monitoring well ~~and piezometer~~ information is provided in Table 6-3.

~~59~~

Formatted: Left

The geological strata at Site A contain numerous layers of competent volcanic and pyroclastic flows. The casings installed in the Site A wells penetrate through several of these layers in approximately the first 300 to 400 feet below ground surface, and are sealed with cement. Beneath the casing, the wells are open boreholes extending about 600 to 700 feet to the saturated zone. (See Table 6-3). The adequacy of partially cased wells to protect groundwater from release of liquids at Site A was evaluated by simulation conducted by Daniel B. Stephens and Associates (DBS, August 19, 1992). This study provides additional information relative to the potential for older wells at Site A to enhance vertical migration of contaminants. This evaluation concluded that lateral spreading of contaminants would be less than 60 to 150 feet (approximately 20 to 50 meters) from the edge of a silo. Additionally, vertical migration under the most conservative set of assumptions was limited to about 200 feet beneath the silo. Thus, provided the wells are located at least 150 feet from waste management units, the potential for enhanced vertical migration of liquids down a partially cased borehole appears to be very low. However, gasses which are heavier than air may migrate to the open areas of the boreholes, descend to the water table, and partition into groundwater within the wells.

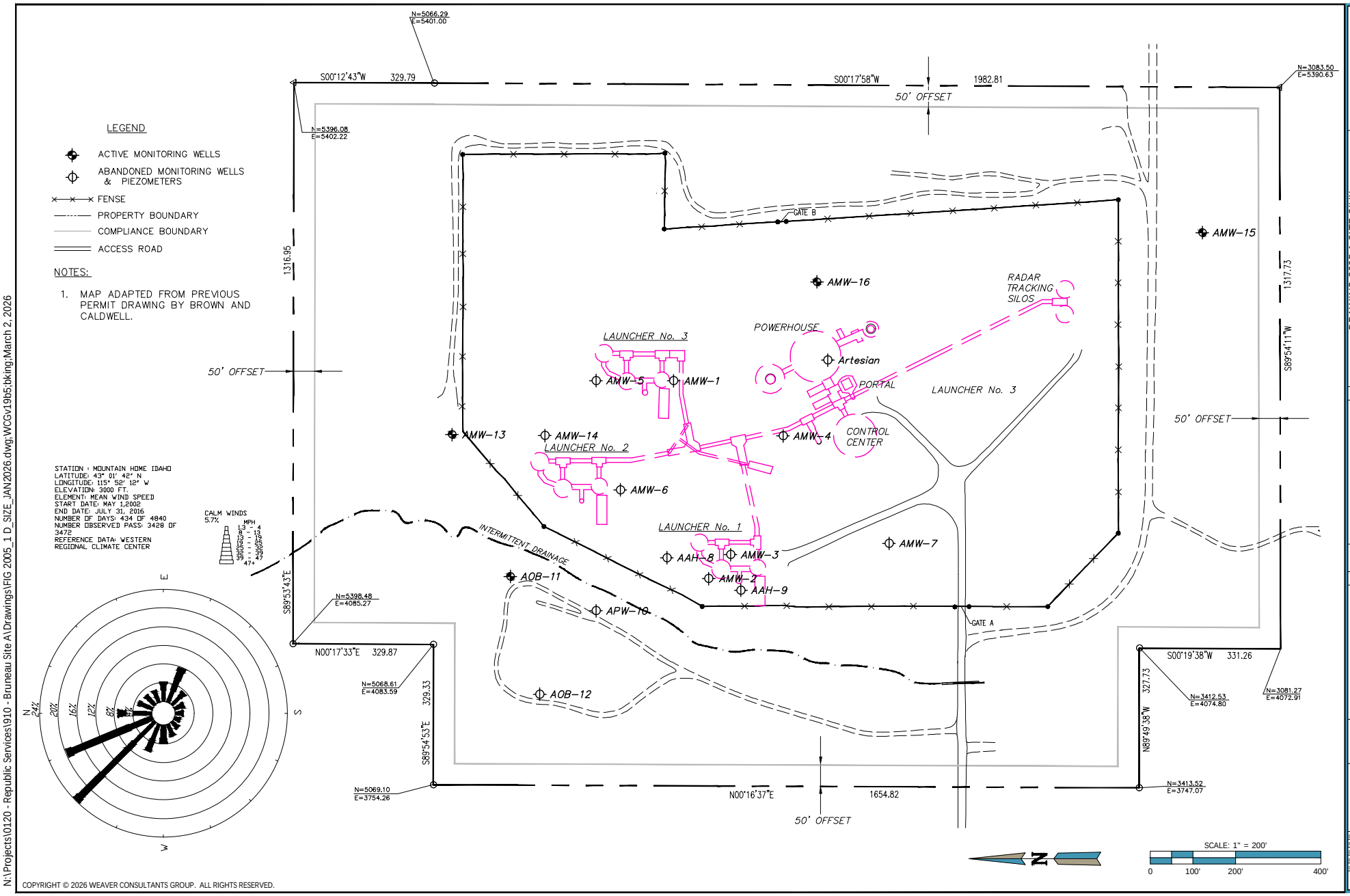
Compounds of petroleum hydrocarbons have been found in some wells at the site, and the Idaho DEQ has concluded that these constituents are not from a regulated unit. A recent report on testing of residuals taken from a failed pump motor (Letter, January 31, 2006, "Report on Motor Residuals Test") supports the Agency's assessment. (See Appendix K.) The report showed that petroleum hydrocarbons were present in pump motor residuals in concentrations and locations that would account for constituents detected in prior groundwater samples. In addition, wells with detectable petroleum hydrocarbons frequently showed no further detections when failed pump motors were replaced.

Remaining constituents (such as chloroform) detected in recent years (See Table 6-5) are volatile organic compounds which are denser than air and which could have migrated from disposal areas into the vadose zone and preferentially followed boreholes to the water surface. Chloroform and similar constituents have been detected sporadically in small concentrations, and the lack of any geographic

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

pattern or consistency in their appearance is an additional characteristic of the vagaries of gas migration and partitioning.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270



COPYRIGHT © 2026 WEAVER CONSULTANTS GROUP. ALL RIGHTS RESERVED.

PREPARED FOR: U.S. ECOLOGY OF IDAHO, INC.

DRAWING 2005-1 SITE CIVIL FEATURES
US ECOLOGY IDAHO SITE A
BRUNEAU, IDAHO
OWYHEE COUNTY

No.	DATE	REVISION DESCRIPTION	BY

Weaver Consultants Group
WEAVER CONSULTANTS GROUP
9955 LEBANON ROAD
SUITE 400
MOUNT JULIET, TN 37122
(615) 939-4602
www.wcgrp.com

REUSE OF DOCUMENTS
This document, and the designs incorporated herein, as an instrument of professional service, is the property of Weaver Consultants Group, and is not to be used in whole or in part, without the written authorization of Weaver Consultants Group.

DRAWN BY:	BJK
REVIEWED BY:	XXX
DATE:	01/19/2026
FILE:	0120-910-DWG
CAD:	FIG 2005_1 D_SIZE_JAN2026.dwg

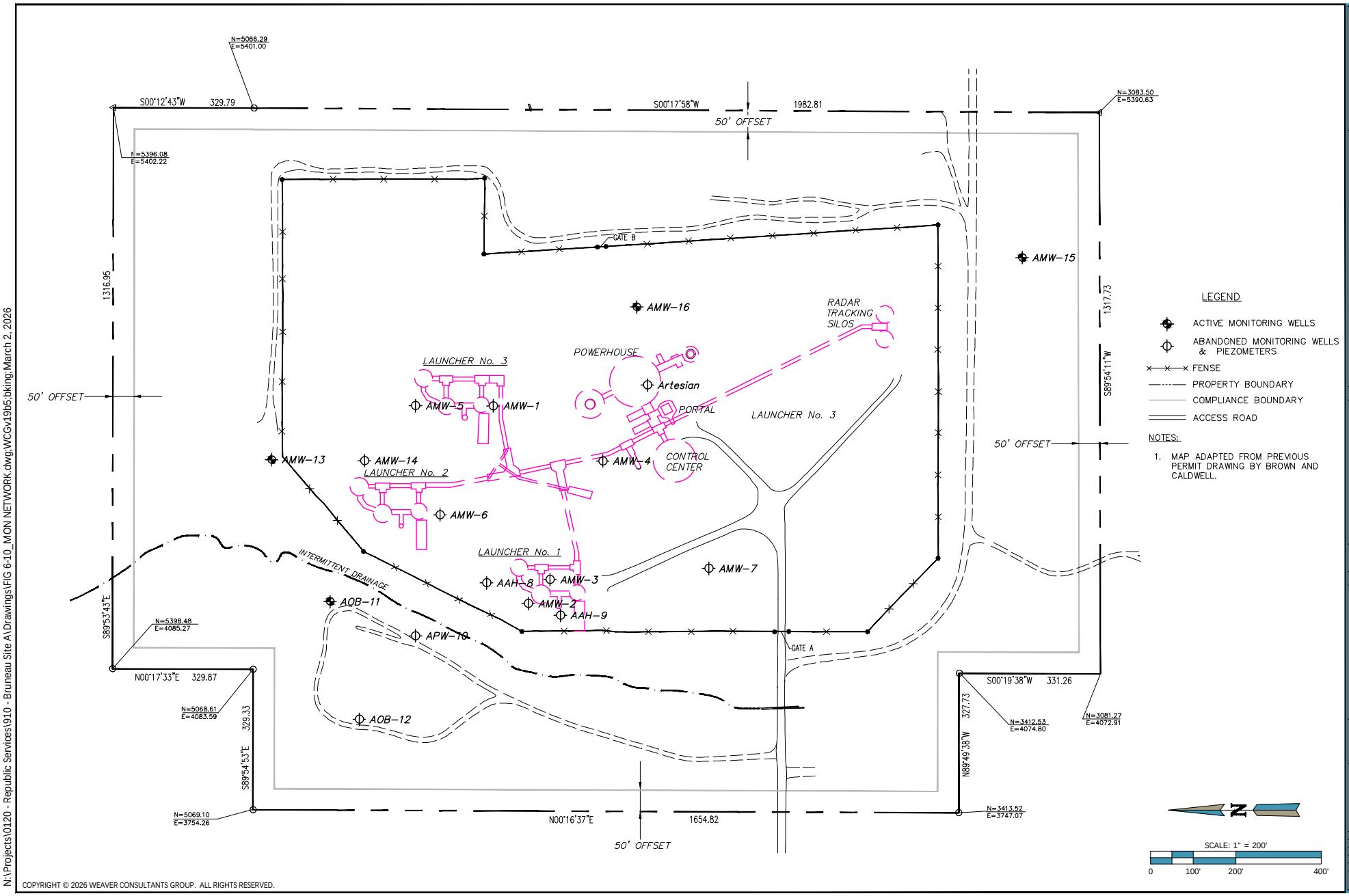
DRAWING 2005-1

N:\Projects\0120 - Republic Services\910 - Bruneau Site A\Drawings\FIG 2005_1 D_SIZE_JAN2026.dwg;WCGv19b5;bking;March 2, 2026

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Figure 6-10: Monitoring Network Location Map

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270



COPYRIGHT © 2026 WEAVER CONSULTANTS GROUP. ALL RIGHTS RESERVED.

N:\Projects\0120 - Republic Services\910 - Bruneau Site A\Drawings\FIG 6-10_MON NETWORK.dwg;WCGv19b5;bking;March 2, 2026

PREPARED FOR:
U.S. ECOLOGY OF IDAHO, INC.

MONITORING NETWORK
LOCATION MAP
US ECOLOGY IDAHO SITE A
BRUNEAU, IDAHO
OWYHEE COUNTY

No.	DATE	REVISION DESCRIPTION	BY

Weaver Consultants Group

WEAVER CONSULTANTS GROUP
9955 LEBANON ROAD
SUITE 400
MOUNT JULIET, TN 37122
(615) 939-4602
www.wcgrp.com

REUSE OF DOCUMENTS
This document, and the designs incorporated herein, as an instrument of professional service, is the property of Weaver Consultants Group, and is not to be used in whole or in part, without the written authorization of Weaver Consultants Group.

DRAWN BY:	BJK
REVIEWED BY:	XXX
DATE:	01/19/2026
FILE:	0120-910-DWG
CAD:	FIG 6-10_MON NETWORK.dwg

FIGURE 6-10

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Table 6-3: Well Construction Details; Site A, Bruneau, Idaho

Well Construction Details						
Well No.	**Top of Casing Elevation (ft. above msl)**	**Total Depth (ft.)**	**Casing Depth (ft.)**	**Casing Diameter (in.)**	**Open Well diameter (in.)**	**Use**
AMW-4	3646.94	1,005	300	6	6	Downgradient Detection Monitoring Well (Abandoned)
AMW-6	3628.71	997	397	6	6	Piezometer (Abandoned)
AMW-7	3656.16	1,000	347	6	6	Piezometer (Abandoned)
APW-10	3623.22	1,050	296	8	8	Downgradient Detection Monitoring Well (Abandoned)
A0B-11	3616.63	1,003	300	8	8	Downgradient Detection Monitoring Well
AOB-12	3620.9	1,000	302	8	8	Downgradient Detection Monitoring Well (Abandoned)
AMW-13	3624.87	1,000	400	8	8	Downgradient Detection Monitoring Well
AMW-14	3627	1,000	400	8	8	Downgradient Monitoring Well (Compliance Monitoring) (Abandoned)
AMW-15	3664.88	1,000	300	8	8	Background Monitoring Well
AMW-16	3645.95	1,020	300	8	8	Downgradient Monitoring Well (Compliance Monitoring)

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

6.5.3 Well Maintenance

The monitoring wells are inspected as part of the overall site inspection and monitoring schedules. Maintenance activities are documented and kept on file with the groundwater monitoring records throughout the post-closure care period.

6.6 GROUNDWATER SAMPLING AND ANALYSIS

6.6.1 Introduction to Groundwater Monitoring Programs

The groundwater monitoring program at Site A follows the standards for groundwater monitoring at hazardous waste landfills established in 40 CFR, Part 264, Subpart F. Detection monitoring, compliance monitoring, corrective action monitoring, and the special case of dense non-aqueous phase liquids are discussed below.

6.6.2 Detection Monitoring

Detection monitoring under the existing permit includes sampling designated monitoring wells on a semiannual basis. Individual parameters and specific trigger values are used to determine if resampling, expanded laboratory testing, compliance monitoring or further assessment is warranted. As noted below, sampling may also occur at other-than-scheduled times depending on analytical results and their comparison with method detection limits or with groundwater protection standards specified in the permit.

USEI currently analyzes groundwater samples for the 27 volatile organic compounds (VOCs) listed in Table 6-4, using U.S. EPA SW-846 Method 8260. The 27 compounds are the most mobile, soluble, and easily detectable by-products associated with a potential release of organic wastes from disposal units on site. The groundwater protection standards shown in Table 6-4 are based on the U.S. EPA Regional Screening Levels, May 2016 version, for tapwater at a 1×10^{-4} cancer risk level. This risk is calculated as a cumulative risk. That is, risks for all detected constituents are added together. Groundwater protection standards apply to all wells in the compliance monitoring program. This level of protection was chosen due to the remoteness of Site A and the lack of possible points of exposure within 4 miles of the site.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Detectable VOC concentrations are compared to the Practical Quantitation Limit (PQL) in Table 6-4. When concentrations above the PQL appear, USEI notifies the IDEQ Director in writing within seven calendar days, and decides whether to:

- Immediately collect two independent verification samples from any affected well, or
- Demonstrate that either an off-site source caused the increase, or that the increase resulted from an error in sampling, analysis, or evaluation, or
- Sample the well for constituents listed in 40CFR, Part 264, Appendix IX (a combination of 222 elements and compounds classified as volatile and semi-volatile compounds, metals and inorganics, pesticides, herbicides, PCBs, dioxins and furans), and prepare a report providing results of this testing, and proposing changes needed to the monitoring program based on comparing analytical results to the groundwater protection standards shown on Table 6-4.

If analytical results from both verification samples fail to confirm the detection of VOCs above the Practical Quantitation Limit, USEI resumes detection monitoring after notifying the IDEQ Director that the detection monitoring program is being resumed.

If analytical results from either verification sample confirm the presence of any VOC constituent above the PQL, USEI notifies the IDEQ Director within 7 days, and resamples the affected well for *Appendix IX* elements and compounds within 30 days, and submits a report within 60 days of sampling that either:

- Demonstrates that an off-site source caused the increase, or that the increase resulted from an error in sampling, analysis, or evaluation, or
- Provides results of the *Appendix IX* testing, and proposes changes to the monitoring program based on comparing analytical results to the groundwater protection standards shown on Table 6-4.

If USEI proposes (or the Director requires) that the affected well be entered into the compliance monitoring program, this change occurs after a permit modification has been prepared, submitted, reviewed, offered for public comment, and approved.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Table 6-4: Twenty Seven Selected VOC Compounds, CAS Numbers, Practical Quantitation Limits (PQLs), and Groundwater Protection Standards (GPSs)

Analyte (by Method 8260b)	CAS Number	PQL (ug/L)	GPS (ug/l)
1,1,2,2-Tetrachloroethane	79-34-5	1	7.6E+00
1,1,1-Trichloroethane	71-55-6	1	8E+05
1,1,2-Trichloro-1,2,2-Trifluoroethane (CFC 113)	76-13-1	1	5.5E+06
1,1,2-Trichloroethane	79-00-5	1	2.8E+01
1,1-Dichlorethane	75-34-3	1	2.8E+02
1,1-Dichloroethylene	75-35-4	1	2.8E+04
1,2-Dichloroethane	107-06-2	1	1.7E+01
1,2-Dichloropropane	78-87-5	1	4.4E+01
Benzene	71-42-2	1	4.6E+01
Bromodichloromethane	75-27-4	1	1.3E+01
Bromoform	75-25-2	1	3.3E+02
Bromomethane	74-83-9	1	7.5E+02
Carbon Tetrachloride	56-23-5	1	4.6E+01
Chlorobenzene	108-90-7	1	7.8E+03
Chlorodibromomethane	124-48-1	1	8.7E+01
Chloroethane	75-00-3	1	2.1E+06
Chloroform	67-66-3	2	2.2E+01
Chloromethane	74-87-3	1	1.9E+04
Cis-1,2-Dichloroethylene	156-59-2	1	3.6E+03
1,3-Dichloropropene	542-75-6	1	4.7E+01
Ethyl benzene	100-41-4	1	1.5E+02
Methylene Chloride	75-09-2	1	1.1E+03
Tetrachloroethylene (PCE)	127-18-4	1	1.1E+03
Toluene	108-88-3	1	1.1E+05
Trans-1,2-Dichloroethylene	156-60-5	1	3.6E+04
Trichloroethylene (TCE)	79-01-6	1	4.9E+01
Vinyl Chloride	75-01-4	1	1.9E+00

* Source: US EPA Regional Screening Levels May 2016, https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-may-2016
Risk=1E-04

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

If the IDEQ Director concurs in the demonstration that an off-site source caused the increase, or that the increase resulted from an error in sampling, analysis, or evaluation, then the subject well is returned to the detection monitoring program.

If the IDEQ Director does not concur in the demonstration, then the Director will notify USEI to undertake *Appendix IX* sampling, prepare a report comparing the results with the groundwater protection standards shown on Table 6-4, and identifying changes needed in the monitoring program, all within 45 days of notice. *Appendix IX* testing results may not be used in this case to demonstrate that an off-site source caused the increase, or that the increase resulted from an error in sampling, analysis, or evaluation.

Analytical results are also compared to both detection monitoring criteria (the PQLs) and to compliance monitoring criteria (the GPSs). If two or more constituents exceed the PQL, but not the GPS, a risk assessment is completed using U.S. EPA Regional Screening Levels to determine whether a risk 1×10^{-4} excess incidence of cancer has been exceeded. If this risk level has been exceeded, then the affected well enters the Corrective Action Monitoring Program described below.

If analytical results for wells in the detection monitoring program indicate that the groundwater protection standards of Table 6-4 are exceeded, then the well shall enter the Corrective Action Monitoring Program.

Figure 6-11 provides a diagram of the decisions required to respond to groundwater monitoring data at Site A.

6.6.3 Compliance Monitoring

One site well (AMW-16) is currently included in the compliance monitoring program. In compliance monitoring, designated wells are sampled semi-annually for the Table 6-4 compounds and every three years for the *Appendix IX* elements and compounds. If new elements or compounds are detected as a result of the *Appendix IX* testing, then they are added to the existing list of analytes. This is done through a USEI notice to the IDEQ Director and through a subsequent permit modification, which is issued after an opportunity for public comment. The groundwater

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

protection standard for any new chemical constituent shall be determined using US EPA Regional Screening Levels for tapwater at a 1 X 10^{-4} cancer risk level.

Once designated, a compliance monitoring well remains within this expanded analysis program until six consecutive samples indicate that Practical Quantitation Limits have not been exceeded.

If two or more constituents exceed the PQL, but not the GPS, a risk assessment considering ingestion and inhalation of groundwater is performed following permit conditions. If results of this risk assessment indicate a risk greater than 1 x 10^{-4} excess incidence of cancer in a residential scenario, then each affected well enters the Corrective Action Monitoring Program described below. This change is accomplished through a notice to the IDEQ Director and the preparation, submittal, and review of a permit modification which is afforded an opportunity for public comment prior to approval.

If the GPS is not exceeded, the well remains in the compliance monitoring program.

6.6.4 Corrective Action Monitoring Program

No Site A wells are in the corrective action monitoring program.

In corrective action monitoring, USEI will submit a plan to the IDEQ Director detailing protective measures for groundwater resources downgradient of each affected well. These measures may include alternative concentration limits, additional site investigation, or active remediation.

Concentration limits established for Corrective Action Monitoring are either equal to background values, a specified list of maximum concentrations for metals and pesticides, or alternative concentration limits that take into account:

- The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration,
- The hydrogeological characteristics of the facility and surrounding land,
- The quantity of groundwater and the direction of groundwater flow,
- The proximity and withdrawal rates of groundwater users,

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

- The current and future uses of groundwater in the area,
- The existing quality of groundwater, including other sources of contamination and their cumulative impact on groundwater quality,
- The potential for health risks caused by human exposure to waste constituents,
- The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents, and
- The persistence and permanence of the potential adverse effects.

In a Corrective Action Monitoring Program, the permit specifies the measures to be taken if hazardous constituents exceed concentration limits at the compliance point during the compliance period. Semi-annual reports on the effectiveness of the program are required.

6.6.5 Dense Non-Aqueous Phase Liquids

The monitoring approach adopted for Site A with regard to dense nonaqueous phase liquids (DNAPLs) consists of both an examination of groundwater concentrations for elevated values and an examination of site groundwater samples for the presence of phased liquids, sheens, or aromas. Any DNAPLs entering the aquifer will be accompanied by other non-DNAPL compounds and by a plume of dissolved compounds issuing from the DNAPLs. The monitoring programs for Site A will detect these dissolved phase compounds. In addition, samples of the first water discharged during the pre-sample purging are collected in a clear glass container and allowed to settle for 15 minutes and then inspected for indications of nonaqueous phase liquids, sheens, or aromas.

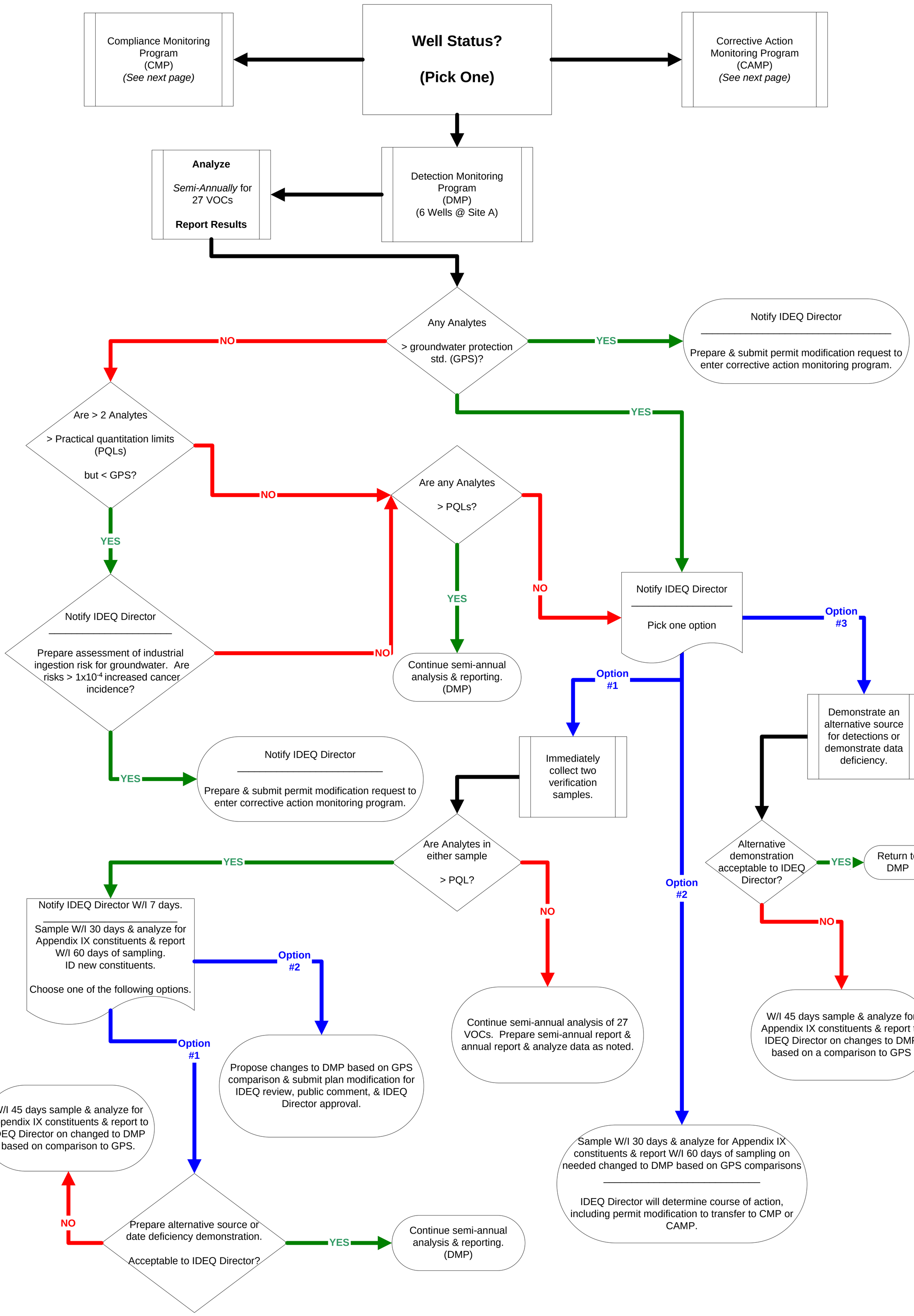
Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Figure 6-11: Groundwater Data Analysis Decision Diagram

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Figure 6-11
Groundwater Monitoring Data Analysis
Site A

18 Miles South of Bruneau, Owyhee County, Idaho



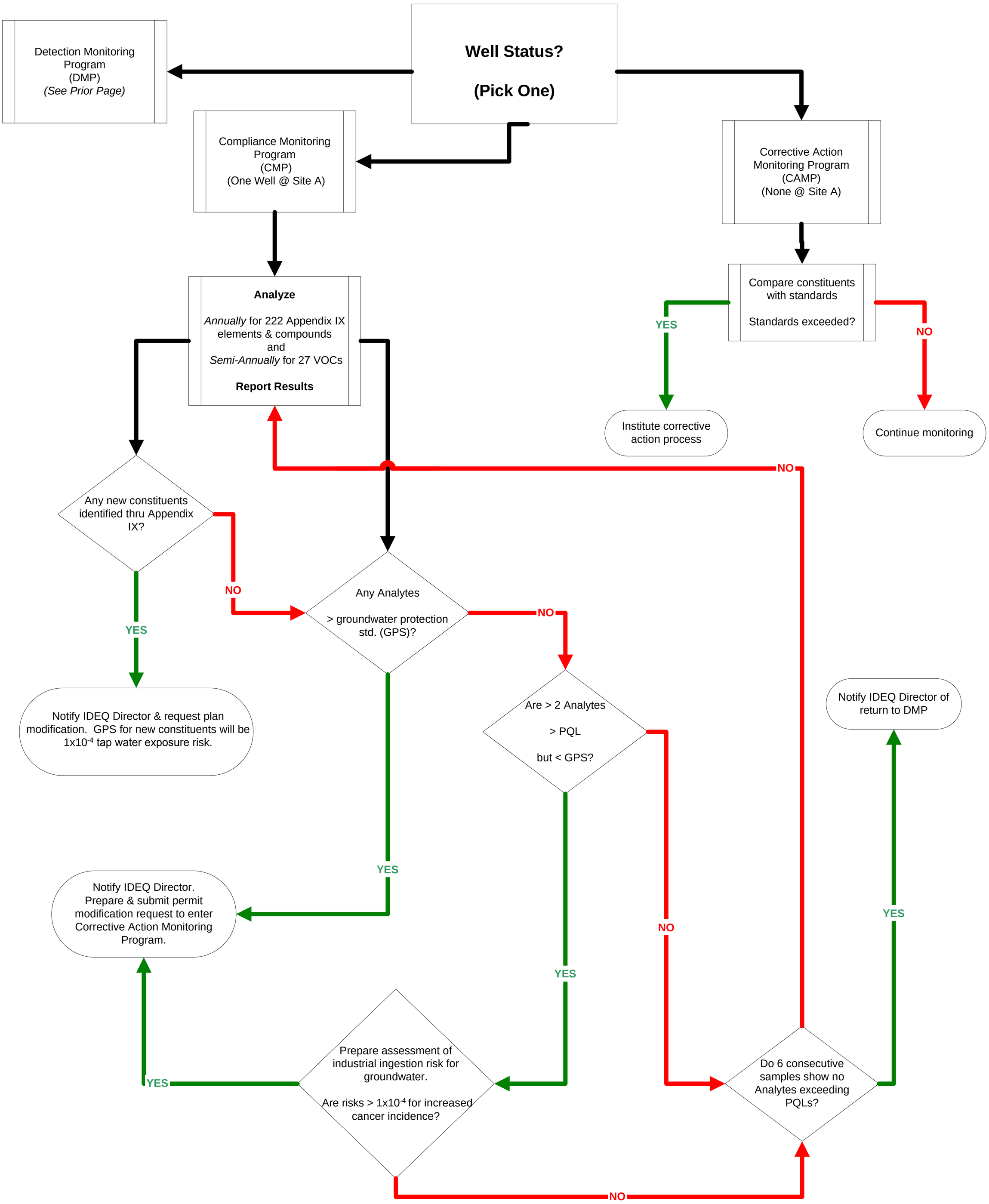
Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Figure 6-11: Groundwater Data Analysis Decision Diagram (continued)

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Figure 6-11 (continued)
Groundwater Monitoring Data Analysis
Site A

18 Miles South of Bruneau, Owyhee County, Idaho



Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

6.7 GROUNDWATER MONITORING DATA

6.7.1 Pre-1995 Data

Data collected from a variety of sources provide an indication of site conditions prior to closure work. In many cases, these data sources are no longer available since they were plugged and abandoned in 1996/1997. Data tables presented in the 2002 permit update are reproduced in Appendix L and results are summarized below.

6.7.1.2 Test Well

A test well was drilled to a total depth of 2,502 feet below ground surface in December, 1959, and plugged and abandoned on August 8, 1978. The well was artesian. A sample collected in December, 1959 was analyzed for selected inorganics, total dissolved solids and alkalinity. The sample temperature was reported as 126 º F and pH was 9.2. The Fluoride concentration was 17.5 mg/L, and Fluoride consistently appears in all subsequent water samples in similar concentrations whenever it is included among the list of analytes.

6.7.1.3 Artesian Well

An artesian well was also drilled in December 1959 to a total depth of 2,250 feet, and sampled annually from 1981 until 1991. This well was plugged and abandoned during closure work in 1996/1997.

Parameters listed in 40 CFR 265, *Appendix III* (the 21 interim primary drinking water standards) were quantified from 1984 through 1989. The artesian well was monitored for parameters specified in 40 CFR 265.92(b)(2) (the five inorganics establishing groundwater quality) and 40 CFR 265.92(b)(3) (the four parameters used as indicators of groundwater contamination) from 1985 through 1991. Seventeen samples were collected from 1984 to 1991, and four of these were analyzed for a broader range of analytes including VOCs, pesticides, semi-volatiles, metals, or PCBs.

Analytical results from all sampling events showed parameters listed in *Appendix III* were below maximum levels allowed or were not detected, except for fluoride. Fluoride levels were

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

consistently in the 15 to 20 mg/L range. The maximum contaminant level goal for fluoride is 4.0 mg/L. Elevated fluoride is common to geothermal aquifer systems as indicated in data for the test well and artesian well. The artesian well data presents useful information concerning background concentrations of indicator parameters and inorganic constituents such as arsenic and fluoride.

6.7.1.4 Well AMW-3

Results are available for AMW-3 (now abandoned) from 1984 to 1994. This well was located adjacent to Missile Silo 1, and was developed in the primary aquifer. Analytical parameters were similar to those cited for the Artesian Well, and 28 samples were collected over a span of 10 years. Three of these samples included analytical results for, PCBs, volatile and semi-volatile organics, or pesticides. Except as noted below, results were negative for organic constituents and pesticides.

Results from 1985 show concentrations of two phthalates; bis(2-ethylhexyl) phthalate and Di-n-octyl phthlalate. Further sampling events at this well did not include sampling for these parameters, therefore the source of the two phthalates cannot be verified. Chloroform was detected at 3.2 ug/L in the same sample, and further sampling events at AMW-3 did not include analysis for chloroform. As noted above, this well has been abandoned.

6.7.1.5 Well AMW-7

AMW-7 was drilled and constructed to a total depth of 980 feet in June 1985 and deepened to 1,000 feet in October 1989. Groundwater from AMW-7 was sampled and analyzed in July 1985 to establish background values for indicator parameters and inorganics. This testing was broadened somewhat and repeated in 1991. AMW-7 was sampled and analyzed in August and October 1989 for volatile and semi-volatile organics, PCBs, pesticides, and certain indicators. Trace levels of an organophosphorus compound were detected in the October 1989 sample from AMW-7. In January 1990, AMW-7 was resampled and analyzed for organophosphorus pesticides. No organophosphorus pesticides were detected in the analyses completed by four different labs.

The 1989 samples did not show the presence of chloroform or BETX compounds at levels greater than 5 ug/L, which was the method detection limit at the time.

AMW-7 ~~is now~~ was used as a piezometer until its abandonment on November 1, 2026.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

6.7.1.6 Well APW-10

APW-10 was drilled and completed in September 1989 to a total depth of 1,053 feet, and sampled and analyzed four times from 1989 to 1991. Four samples were collected from 1989 to 1991. APW-10 ~~continues in~~ was used as a downgradient monitoring well until its abandonment on November 1, 2026.

Initial sampling in September 1989 revealed no detectable concentrations of semi-volatiles. Trace levels of an organophosphorus compound were reported in an October 1989 sample. In January 1990, APW-10 was resampled (along with APW-7) and reanalyzed for organophosphorus pesticides. No organophosphorus pesticides were detected then, and none have been detected since.

In March 1990, at the conclusion of the 7-day pumping test, which purged 720,000 gallons of groundwater from the well, APW-10 was sampled and analyzed for PCBs, volatile and semi-volatile organics, pesticides and heavy metals. This sample and the sample from fall 1989 did not show the presence of chloroform or BETX compounds at levels greater than 5 ug/L, which was the method detection limit at the time.

6.7.2 Post-1995 Data

Site Groundwater monitoring from 1995 to 2006 concentrated on the analysis of 26 specified VOCs, with occasional sampling for the broader range of *Appendix IX* constituents (volatile and semi-volatile compounds, metals and inorganics, pesticides, herbicides, PCBs, dioxins and furans.). During the permit renewal in 2006, the list was increased to 27 constituents, which have been monitored since the permit was approved in 2007.

Table 6-5 presents analytical data concerning detection of VOCs from 1998 to present. The results demonstrate that VOCs occur sporadically at low concentrations at various locations. There is not currently enough data to delineate a groundwater contamination plume and, therefore, no groundwater contamination plume can be depicted in this permit application.

Analysis of the list of 27 constituents in Table 6-4 and the broad range of elements and compounds contained in U.S. EPA's *Appendix IX* list reveals the following:

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

- AMW-14; Appendix *IX* testing started in Fall 2001. Five detections of acetone, a common lab contaminant, were reported. Less than 15 µg/l of BTEX compounds were detected in one sample round; two measurements of chloroform were reported near the method detection limit (1 µg/L); and two measurements of 1,3,5 – trimethyl benzene (a petroleum fuel component) were reported at concentrations of 2.6µg/L and 1.8 µg/L. No additional detections of organic compounds have been reported since November 2004. AMW-15; one sample was analyzed for *Appendix IX* constituents in January 2003. Acetone was detected, however, benzene and toluene which were the basis for the *Appendix IX* analysis, were not detected. During the Fall 2011 groundwater sampling event cis-1,2-dichloroethylene and trichloroethylene were detected at 5.8 µg/L and 8.4 µg/L, respectively. Duplicate samples collected during the event showed no detections of any organic constituent. The well was re-sampled in November 2011; no organic compounds were detected during the resampling event. No other detections have been reported.
- AMW-16; three *Appendix IX* samples were analyzed prior to 2006. Each confirmed the presence of chloroform near the method detection limit (1 µg/L) and detected none of the other 221 elements and compounds included in the *Appendix IX* analysis. In November 2004, the permit was modified to place AMW-16 into the Compliance Monitoring Program, due to the continued presence of chloroform over the method detection limit. AMW-16 is in the Compliance Monitoring Program at this time and continues to have detections of chloroform >1 µg/L during most monitoring events.
- AOB-11; In October 2002, 1,1,1-trichloroethane was detected at a level of 1.0 µg/L. The well was re-sampled in December 2002; no organic constituents were detected. During the Spring 2016 sampling event benzene and toluene were detected at 1.3 µg/L and 1.5 µg/L, respectively. The confirmation sampling was performed in June 2016. The first confirmation sample collected contained benzene and toluene at 2.0 µg/L and 2.5 µg/L, respectively. There were no detections of VOCs in the second confirmation sample. Appendix IX sampling performed in July 2016 had detections of benzene and toluene at 1.5 µg/L and 1.5 µg/L, respectively. No other organic compounds were detected in the Appendix IX sample or duplicate sample. The pump motor is to be replaced as soon as possible and prior to the Spring 2017 sampling event.

Analytical results for inorganic constituents in Site A monitoring wells were addressed in several submittals; one in August 2002 concerning arsenic, chrome and lead in monitoring well AMW-

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

14, and one in 2004 which addressed arsenic in AMW-15 and AMW-16. See Appendix M and Appendix N. Based on U.S. EPA guidance, (Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, EPA 1989), a background concentration for arsenic in the groundwater at Site A was calculated as an Upper Tolerance Limit (95th percentile coverage level).[1] For background Monitoring Well AMW-15, the upper tolerance limit value is 0.038 mg/l.

The concentrations of arsenic in AMW-14 and AMW-16 during the Fall 2004 event were 0.033 and 0.030 mg/l respectively. These concentrations are less than the Upper Tolerance Limit of 0.038 mg/l, and within the range of reported data for AMW-15. The water chemistry data for Site A monitoring wells AMW-14, AMW-15 and AMW-16 indicates arsenic is present in these wells at about the same concentration. These concentrations are consistent with findings presented in the State of Idaho Groundwater Quality Monitoring report for 1993 for Snake River plain basalt aquifers, where arsenic concentrations are reported to range from <1 ug/L to 34 µg/L.

In addition, the US Geological Survey, (Hem, John D.; USGS Professional Paper 1473, *Study and Interpretation of the Chemical Characteristics of Natural Water*, *2nd edition,* p.207), indicates that, "Arsenic is commonly present in water of thermal springs." and provides examples of natural arsenic concentrations of 1.3 to 4.0 mg/L (1,300 to 4,000 µg/L) in thermal aquifers in Oregon and Nevada.

In a report on "Geothermal Investigations in Idaho" for the U.S. Geological Service, Young and Whitehead include a survey of geothermal wells in Township 7S and ranges 4E through 6E, which are located approximately 9 to 12 miles north of Site A in Owyhee County. In this zone, wells surveyed averaged 1,166 feet deep. Arsenic values ranged from 3 to 78 micrograms per litre, with an average of 19 and a standard deviation of 14 ug/L. (See Table 3 in "Geothermal Investigations in Idaho" Part 2, An Evaluation of Thermal Water in the Bruneau-Grand View Area, Southwest Idaho, Young, H.W. and Whitehead, R.L., Idaho Department of Water Resources Information Bulletin 30, 1975.)

Values consistent with regional observations for similar geologic conditions indicate that the arsenic found in groundwater at Site A represents the natural variability in the geothermal aquifer beneath the site.

[1] EPA 1989, Section 5-3, pages 5-20 through 5-24

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Table 6-5: Site A Historical Summary of VOCs in Monitoring Wells; 1998-2026~~16~~

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Table 6-5
Site A Historical Summary of VOC's in Monitoring Wells; 1998-2026

Well ID	Sample Date	1,2-DCP	1,1,1-TCA	1,1,2-TCA	1,3,5-TMB	ACE	B	BDM	Cis-1,2-DCE	CF	E	MC	MEK	T	TCE	X
		(µg/L)														
GPS[1]		44	800,000	28	--	--	17	13	3,600	22	133,987	1,100	--	11000	49	--
AMW-4	May-98						5.6							3.2		
AMW-4	Sep-98						19.0				0.7			28.0		
AMW-4	Dec-98						0.8									
AMW-4	Jan-99													0.7		
AMW-4	Oct-03					2.9										
AMW-4	Oct-22									3.9[f]						
AMW-4	Apr-26									2.23[h]						
AOB-11	Oct-02		1.0													
AOB-11	May-16						1.3							1.5		
AOB-11	Jun-16[c]						2.0							2.5		
AOB-11	Jul-16[d]						1.5							1.5		
AOB-11	Oct-16						4.3							7.5		
AMW-13	Oct-98						0.7							0.6		
AMW-13	Jun-99						0.7							0.6		
AMW-13	Dec-00						2.4							1.2		
AMW-13	May-01						2.3							2.4		
AMW-13	Dec-01						2.8							1.5		
AMW-13	May-02						1.8									
AMW-14	May-01									0.9						
AMW-14	May-03					2.5				1.1						
AMW-14	Oct-03				2.6	13.0	5.0			1.0				7.9		2.1
AMW-14	Nov-04					2.8[a]							2.6[a]			
AMW-14	Sep-23											1.4[g]				
AMW-15	Oct-02						8.5							2.5		
AMW-15	Dec-02						1.5							1.1		
AMW-15	Jan-03					18.0										
AMW-15	May-03						1.3									
AMW-15	Oct-03					5.0	3.2							3.1		
AMW-15	May-04						2.9							2.1		
AMW-15	Oct-04						18.0							24.0		
AMW-15	Oct-11								5.8[b]						8.4[b]	
AMW-16	May-04									1.2						
AMW-16	Jul-04									2.3						
AMW-16	Aug-04									1.2						
AMW-16	Oct-04									1.5						
AMW-16	Nov-04									2.0						
AMW-16	Nov-05									2.0						
AMW-16	Jun-06									2.4						
AMW-16	Oct-06									2.0						
AMW-16	May-06									2.1						
AMW-16	Oct-07									2.0						
AMW-16	May-09									2.1						
AMW-16	Oct-09									2.3						
AMW-16	May-10									2.5						
AMW-16	Oct-10									2.4						
AMW-16	May-11									3.5						
AMW-16	Oct-11									2.5						
AMW-16	May-12									3.0						
AMW-16	Oct-12									2.4						
AMW-16	May-13									2.7						
AMW-16	Oct-13									3.0						
AMW-16	May-14									3.3						
AMW-16	Oct-14									2.3						
AMW-16	May-15									3.2						
AMW-16	Oct-15									2.7						
AMW-16	May-16									2.4						
AMW-16	Oct-16									2.8						
AMW-16	Jul-17									3.3						
AMW-16	Oct-17									3.3						
AMW-16	Apr-18									3.7						
AMW-16	Sep-18									2.9						
AMW-16	Apr-19									2.5						
AMW-16	Sep-19									2.6						
AMW-16	May-20									2.6						
AMW-16	Oct-20									2.5						
AMW-16	Apr-21									2.4						
AMW-16	Nov-21									2.6						
AMW-16	May-22[e]															
AMW-16	Oct-22									2.3						
AMW-16	Apr-23									2.7						
AMW-16	Sep-23									2.4		2.5[g]				
AMW-16	Nov-23[g]									2.8						
AMW-16	Nov-23[g]									2.5						
AMW-16	May-24									2.48						
AMW-16	Sep-24									2.67						
AMW-16	Apr-25									2.39						
AMW-16	Sep-25									2.41						
AMW-16	Apr-26									2.68						
TB	Jan-03			2.4		2.4										
TB	May-03			3.5		3.5										

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Well ID	Sample Date	1,2-DCP	1,1,1-TCA	1,1,2-TCA	1,3,5-TMB	ACE	B	BDM	Cis-1,2-DCE	CF	E	MC	MEK	T	TCE	X
		(µg/L)														
GPS[1]		44	800,000	28	--	--	17	13	3,600	22	133,987	1,100	--	11000	49	--
TB	Jun-06	6.6		1.9												
TB	Oct-08									7.8						
TB	Sep-23											1.5[g]				
EB	Oct-03					11.0							5.9			
EB	Sep-23											0.75[g]				
FB	Jan-03					2.8										
FB	May-04					3.3										
FB	Oct-06							5.1		32.0						
FB	Oct-08									6.5						
FB	Sep-23											0.67[g]				
FB	Sep-23											1.0[g]				
FB	Nov-23											1.0[g]				

Compound Abbreviations:

1,2-DCP = 1,2-Dichloropropane
1,1,1-TCA = 1,1,1-Trichloroethane
1,1,2-TCA = 1,1,2-Trichloroethane
1,3,5-TMB = 1,3,5-Trimethylbenzene
ACE = Acetone
B = Benzene
BDM = Bromodichloromethane
Cis-1,2-DCE = Cis-1,2-Dichloroethylene
CF = Chloroform
E = Ethylbenzene
MC = Methylene Chloride
MEK = Methyl Ethyl Ketone
T = Toluene
TCE = Trichloroethylene
X = Total xylenes

Notes:

µg/L - microgram per liter
TB - Trip Blank
EB - Equipment Blank
FB - Field Blank
Blank Cell - Non-Detect
-Data collected prior to October 2021 was provided by Feast Geosciences, LLC.
-Laboratory analysis prior to Spring 2024 sampling event completed by TestAmerica/Eurofins . Spring 2024 and subsequent analysis completed by Pace Analytical Services LLC.
-Only sample dates and compounds with at least one analytical detection are listed.
-Wells may not be sampled for the same set of analytes each event, and reporting limits vary between samples and between dates.
-All detections are shown regardless of whether results were subsequently confirmed or blanks also contained analytes.
1. Groundwater Protection Standard (GPS) from USEPA Regional Screening Levels for tap water, May 2016 per USEI Site A Permit Table III-2.
a. AMW-14 Pump and motor lead were replaced immediately prior to sampling. ACE and MEK are common laboratory solvents found periodically in blank samples or are residual from new pump installation and are not believed present in the groundwater.
b. Reported in AMW-15 sample but not in sample duplicate. Lab results challenged but not resolved. Compounds are not believed to be present in the groundwater. Confirmation sample collected Nov-11 from AMW-15 had no compounds detected.
c. Verification sample from AOB-11.
d. Appendix IX sample from AOB-11.
e. AMW-16 not sampled due to pump failure.
f. Chloroform reported in AMW-4 sample and duplicate. Two verification samples collected November 15, 2022 with no VOC detctions. Chloroform is not believed to be in the groundwater.
g. Methylene Chloride reported in AMW-14, AMW-16, AMW-16 duplicate, two field blanks, equipment blank, and one trip blank during the Fall 2023 sampling event. MC has not been detected historically at Site A in any well, but is a common laboratory solvent. Lab results were challenged as being lab contamination, but not resolved. Verification samples were collected from AMW- 14 and AMW-16 on November 8, 2023 including duplicates, field blank, trip blank, and equipment blank. No MC was detected in the well or QC verification samples with the exception of the field blank. MC is not believed to be in the groundwater.
h. Chloroform reported in AMW-4 sample. Two verification samples collected May 20, 2026 with no VOC detctions. Chloroform is not believed to be in the groundwater.

General History of Wells:

May 1999. Demonstration report that BTEX in AMW-4 not from a regulated unit. October 1999. Demonstration report that BTEX in AMW-13 not from a regulated unit.
Mid-2001. Permit modification to move AMW-14 into Compliance Monitoring Program based on chloroform. March 2003. Demonstration report that BTEX in AMW-15 not from a regulated unit.
May 2003. AMW-16 incorporated into Detection Monitoring program, first sample.
February 2005. Permit modification to move AMW-16 into Compliance Monitoring Program based on chloroform. February 2007. AMW-14 moved back into Detection Monitoring Program based on 6 consecutive non-detects.
May 2016 - October 2016 AOB-11 pump failing.
August 2016. Demonstration report that BT in AOB-11 from pump motor. Well remained in Detection Monitoring program.
Spring 2017. Pump in AOB-11 replaced, no additional detections of BT.
Sep/Oct 2021. Pump in AMW-15 replaced, well bailed of sediment and video logged.
Sep/Oct 2022. Pump in AMW-16 replaced and well video logged.

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

Appendix B

Authorization To Abandon

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

RECEIVED
MAR 02 2026
IDAHO DEPT OF WATER RESOURCES
WESTERN REGION

Form 238(4)-2 02/2014
Page 1 of 2

ID NUMBER AMW-7 923831

51

State of Idaho Department of Water Resources
AUTHORIZATION TO ABANDON (DECOMMISSION) A WELL

1. **WELL OWNER INFORMATION:** (The well owner is the person who legally owns the property.)

   Name: U.S. Ecology Idaho, Inc. Site A
   Current Mailing Address: 20400 Lemley Road
   City: Grand View State: ID Zip Code: 83624
   Telephone: (208) 617-0930

2. **WELL LOCATION:** (GPS required in Degrees Decimal Minutes.)

   Twp. 9S, Rge. 5E, Sec. 04, ____ (10) 1/4 NE (40) 1/4 SE (160) 1/4
   Gov't Lot No. N/A County Owyhee Lat. 42° 40.191'N Long. 115° 52.139'W
   Street Address of Well Location: Missle Base Road
   City: N/A Lot, block and subdivision: N/A

3. **TYPE OF WELL:**

   ☐ DOMESTIC ☑ MONITORING ☐ IRRIGATION ☐ OTHER _____ (Describe)

4. **WELL INFORMATION:** (*Casing size, well depth & static water level data are required.)

   Well Tag Number: N/A Previous Drilling Permit Number: N/A
   Water Right Number: N/A - _____
   Well Log on File? (Provide if available) ☐Yes ☑No Temperature: ☐less than 85°F ☑greater than 85°F
   *Casing Size: 6" *Material: Steel *Well Depth 980' (measured)
   *Current Static Water Level: 971.8' below TOC (measured) Flowing Artesian? ☐ Yes ☑ No

5. **REASON FOR ABANDONMENT OF WELL:**
   Monitoring well is no longer required to satisfy permit requirements.

6. **PROPOSED METHOD OF ABANDONMENT:** (Must be consistent with IDAPA 37.03.09. This Application must be reviewed prior to commencement of abandonment.)
   Bentonite plugging, well head excavation, cutting, grouting, and backfilling, as outlined in "Work Plan for Monitoring Well Abandonment US Ecology Site A Landfill (IDD000773952)," by Weaver Consultants Group, dated June 11, 2025.

7. **Drilling company name:** Hiddleston Drilling & Pump Co. **company lic. No.** 35
8. **Date of abandonment:** TBD
9. **Applicants signature:** Day L. Dyl
10. **Title:** Driller **date:** 3-2-2026

ACTION OF THE DEPARTMENT OF WATER RESOURCES

This application for abandonment has been reviewed by IDWR on 3 / 2 / 2026

This review does not constitute an endorsement by IDWR of the proper abandonment of this well. Pursuant to Section 42-238(12), Idaho Code, all abandonments must meet the requirements of the Administrative Rules for Well Construction Standards. **Abandonment of this well will require the services of a well driller licensed in the State of Idaho unless a waiver has been granted.**

Signature of Authorized Department Representative

SENIOR WATER RESOURCE AGENT
Title

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

RECEIVED
MAR 02 2026
WATER RESOURCES
WESTERN REGION

Form 238(4)-2 02/2014
Page 1 of 2

ID NUMBER AMW-14 923830

51

State of Idaho Department of Water Resources
AUTHORIZATION TO ABANDON (DECOMMISSION) A WELL

1. **WELL OWNER INFORMATION:** (The well owner is the person who legally owns the property.)

   Name: U.S. Ecology Idaho, Inc. Site A
   Current Mailing Address: 20400 Lemley Road
   City: Grand View State: ID Zip Code: 83624
   Telephone: (208) 617-0930

2. **WELL LOCATION:** (GPS required in Degrees Decimal Minutes.)

   Twp. 9S, Rge. 5E, Sec. 04, ___ ___ 1/4 (10) NE 1/4 (40) SE 1/4 (160) 1/4
   Gov't Lot No. N/A County Owyhee Lat. 42° 40.321'N Long. 115° 52.082'W
   Street Address of Well Location: Missle Base Road
   City: N/A Lot, block and subdivision: N/A

3. **TYPE OF WELL:**

   ☐ DOMESTIC ☑ MONITORING ☐ IRRIGATION ☐ OTHER _____ (Describe)

4. **WELL INFORMATION:** (*Casing size, well depth & static water level data are required.)

   Well Tag Number: N/A Previous Drilling Permit Number: N/A
   Water Right Number: N/A - _____
   Well Log on File? (Provide if available) ☑Yes ☐No Temperature: ☐less than 85°F ☑greater than 85°F
   *Casing Size: 8" *Material: Steel *Well Depth 1000' (measured)
   *Current Static Water Level: 955.32' below TOC (measured) Flowing Artesian? ☐ Yes ☑ No

5. **REASON FOR ABANDONMENT OF WELL:**
   Monitoring well is no longer required to satisfy permit requirements.

6. **PROPOSED METHOD OF ABANDONMENT:** (Must be consistent with IDAPA 37.03.09. This Application must be reviewed prior to commencement of abandonment.)
   Bentonite plugging, well head excavation, cutting, grouting, and backfilling, as outlined in "Work Plan for Monitoring Well Abandonment US Ecology Site A Landfill (IDD000773952)," by Weaver Consultants Group, dated June 11, 2025.

7. **Drilling company name:** Hiddleston Drilling & Pump Co. **company lic. No.** 35
8. **Date of abandonment:** TBD
9. **Applicants signature:** Stacy Engel
10. **Title:** Driller **date:** 3-2-2026

ACTION OF THE DEPARTMENT OF WATER RESOURCES

This application for abandonment has been reviewed by IDWR on 3 / 2 / 2026

This review does not constitute an endorsement by IDWR of the proper abandonment of this well. Pursuant to Section 42-238(12), Idaho Code, all abandonments must meet the requirements of the Administrative Rules for Well Construction Standards. **Abandonment of this well will require the services of a well driller licensed in the State of Idaho unless a waiver has been granted.**

CJ
Signature of Authorized Department Representative

SENIOR WATER RESOURCE AGENT
Title

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

RECEIVED
MAR 02 2026
WATER RESOURCES
WESTERN REGION

Form 238(4)-2 02/2014
Page 1 of 2

51

ID NUMBER AMW-6 923832

State of Idaho Department of Water Resources
AUTHORIZATION TO ABANDON (DECOMMISSION) A WELL

1. **WELL OWNER INFORMATION:** (The well owner is the person who legally owns the property.)

   Name: U.S. Ecology Idaho, Inc. Site A
   Current Mailing Address: 20400 Lemley Road
   City: Grand View State: ID Zip Code: 83624
   Telephone: (208) 617-0930

2. **WELL LOCATION:** (GPS required in Degrees Decimal Minutes.)

   Twp. 9S, Rge. 5E, Sec. 04, ____ (10) 1/4 NE (40) 1/4 SE (160) 1/4
   Gov't Lot No. N/A County Owyhee Lat. 42° 40.300'N Long. 115° 52.118'W
   Street Address of Well Location: Missle Base Road
   City: N/A Lot, block and subdivision: N/A

3. **TYPE OF WELL:**

   ☐ DOMESTIC ☑ MONITORING ☐ IRRIGATION ☐ OTHER _____ (Describe)

4. **WELL INFORMATION:** (*Casing size, well depth & static water level data are required.)

   Well Tag Number: N/A Previous Drilling Permit Number: N/A
   Water Right Number: N/A - _____
   Well Log on File? (Provide if available) ☐Yes ☑No Temperature: ☐less than 85°F ☑greater than 85°F
   *Casing Size: 6" *Material: Steel *Well Depth 997' (measured)
   *Current Static Water Level: 957.74' below TOC (measured) Flowing Artesian? ☐ Yes ☑ No

5. **REASON FOR ABANDONMENT OF WELL:**
   Monitoring well is no longer required to satisfy permit requirements.

6. **PROPOSED METHOD OF ABANDONMENT:** (Must be consistent with IDAPA 37.03.09. This Application must be reviewed prior to commencement of abandonment.)
   Bentonite plugging, well head excavation, cutting, grouting, and backfilling, as outlined in "Work Plan for Monitoring Well Abandonment US Ecology Site A Landfill (IDD000773952)," by Weaver Consultants Group, dated June 11, 2025.

7. **Drilling company name:** Hiddleston Drilling & Pump Co. **company lic. No.** 35
8. **Date of abandonment:** TBD
9. **Applicants signature:** Daryl L. Dyer
10. **Title:** Driller **date:** 3-2-2026

ACTION OF THE DEPARTMENT OF WATER RESOURCES

This application for abandonment has been reviewed by IDWR on 3 / 2 / 2026

This review does not constitute an endorsement by IDWR of the proper abandonment of this well. Pursuant to Section 42-238(12), Idaho Code, all abandonments must meet the requirements of the Administrative Rules for Well Construction Standards. **Abandonment of this well will require the services of a well driller licensed in the State of Idaho unless a waiver has been granted.**

CJ
Signature of Authorized Department Representative

SENIOR WATER RESOURCE AGENT
Title

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

RECEIVED
MAR 02 2026
WATER RESOURCES
WESTERN REGION

Form 238(4)-2 02/2014
Page 1 of 2

ID NUMBER AMW-4 923836

51

State of Idaho Department of Water Resources
AUTHORIZATION TO ABANDON (DECOMMISSION) A WELL

1. **WELL OWNER INFORMATION:** (The well owner is the person who legally owns the property.)

   Name: U.S. Ecology Idaho, Inc. Site A
   Current Mailing Address: 20400 Lemley Road
   City: Grand View State: ID Zip Code: 83624
   Telephone: (208) 617-0930

2. **WELL LOCATION:** (GPS required in Degrees Decimal Minutes.)

   Twp. 9S, Rge. 5E, Sec. 04, SE (10) 1/4 NE (40) 1/4 SE (160) 1/4
   Gov't Lot No. N/A County Owyhee Lat. 42° 40.238'N Long. 115° 52.073'W
   Street Address of Well Location: Missle Base Road
   City: N/A Lot, block and subdivision: N/A

3. **TYPE OF WELL:**

   ☐ DOMESTIC ☑ MONITORING ☐ IRRIGATION ☐ OTHER _____ (Describe)

4. **WELL INFORMATION:** (*Casing size, well depth & static water level data are required.)

   Well Tag Number: N/A Previous Drilling Permit Number: N/A
   Water Right Number: N/A -
   Well Log on File? (Provide if available) ☑Yes ☐No Temperature: ☐less than 85°F ☑greater than 85°F
   *Casing Size: 6" *Material: Steel *Well Depth 1005' (measured)
   *Current Static Water Level: 971.55' below TOC (measured) Flowing Artesian? ☐ Yes ☑ No

5. **REASON FOR ABANDONMENT OF WELL:**
   Monitoring well is no longer required to satisfy permit requirements.

6. **PROPOSED METHOD OF ABANDONMENT:** (Must be consistent with IDAPA 37.03.09. This Application must be reviewed prior to commencement of abandonment.)
   Bentonite plugging, well head excavation, cutting, grouting, and backfilling, as outlined in "Work Plan for Monitoring Well Abandonment US Ecology Site A Landfill (IDD000773952)," by Weaver Consultants Group, dated June 11, 2025.

7. **Drilling company name:** Hiddleston Drilling & Pump Co. **company lic. No.** 35
8. **Date of abandonment:** TBD
9. **Applicants signature:** Daryl Clyde
10. **Title:** Driller **date:** 3-2-2026

ACTION OF THE DEPARTMENT OF WATER RESOURCES

This application for abandonment has been reviewed by IDWR on 3 / 2 / 2026

This review does not constitute an endorsement by IDWR of the proper abandonment of this well. Pursuant to Section 42-238(12), Idaho Code, all abandonments must meet the requirements of the Administrative Rules for Well Construction Standards. **Abandonment of this well will require the services of a well driller licensed in the State of Idaho unless a waiver has been granted.**

CY
Signature of Authorized Department Representative

SENIOR WATER RESOURCE AGENT
Title

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

RECEIVED
MAR 02 2026
WATER RESOURCES
WESTERN REGION

Form 238(4)-2 02/2014
Page 1 of 2

ID NUMBER APW-10 923838

51

State of Idaho Department of Water Resources
AUTHORIZATION TO ABANDON (DECOMMISSION) A WELL

1. **WELL OWNER INFORMATION:** (The well owner is the person who legally owns the property.)

   Name: U.S. Ecology Idaho, Inc. Site A
   Current Mailing Address: 20400 Lemley Road
   City: Grand View State: ID Zip Code: 83624
   Telephone: (208) 617-0930

2. **WELL LOCATION:** (GPS required in Degrees Decimal Minutes.)

   Twp. 9S, Rge. 5E, Sec. 04, SE (10) 1/4 NE (40) 1/4 SE (160) 1/4
   Gov't Lot No. N/A County Owyhee Lat. 42° 40.307'N Long. 115° 52.168'W
   Street Address of Well Location: Missle Base Road
   City: N/A Lot, block and subdivision: N/A

3. **TYPE OF WELL:**

   ☐ DOMESTIC ☑ MONITORING ☐ IRRIGATION ☐ OTHER _____ (Describe)

4. **WELL INFORMATION:** (*Casing size, well depth & static water level data are required.)

   Well Tag Number: N/A Previous Drilling Permit Number: N/A
   Water Right Number: N/A -
   Well Log on File? (Provide if available) ☑Yes ☐No Temperature: ☐less than 85°F ☑greater than 85°F
   *Casing Size: 8" *Material: Steel *Well Depth 1050' (measured)
   *Current Static Water Level: 951.52 below TOC (measured) Flowing Artesian? ☐ Yes ☑ No

5. **REASON FOR ABANDONMENT OF WELL:**
   Monitoring well is no longer required to satisfy permit requirements.

6. **PROPOSED METHOD OF ABANDONMENT:** (Must be consistent with IDAPA 37.03.09. This Application must be reviewed prior to commencement of abandonment.)
   Bentonite plugging, well head excavation, cutting, grouting, and backfilling, as outlined in "Work Plan for Monitoring Well Abandonment US Ecology Site A Landfill (IDD000773952)," by Weaver Consultants Group, dated June 11, 2025.

7. **Drilling company name:** Hiddleston Drilling & Pump Co. **company lic. No.** 35
8. **Date of abandonment:** TBD
9. **Applicants signature:** Daryl Clyde
10. **Title:** Dr. Ver. **date:** 3-2-2026

ACTION OF THE DEPARTMENT OF WATER RESOURCES

This application for abandonment has been reviewed by IDWR on 3 / 2 / 2026

This review does not constitute an endorsement by IDWR of the proper abandonment of this well. Pursuant to Section 42-238(12), Idaho Code, all abandonments must meet the requirements of the Administrative Rules for Well Construction Standards. **Abandonment of this well will require the services of a well driller licensed in the State of Idaho unless a waiver has been granted.**

Signature of Authorized Department Representative

SENIOR WATER RESOURCE AGENT
Title

Docusign Envelope ID: E93C7607-FED6-86DF-82D1-E450237C8270

RECEIVED
MAR 02 2026
WATER RESOURCES
WEST REGION

ID NUMBER AOB-12 923839

51

State of Idaho Department of Water Resources
AUTHORIZATION TO ABANDON (DECOMMISSION) A WELL

1. **WELL OWNER INFORMATION:** (The well owner is the person who legally owns the property.)

   Name: U.S. Ecology Idaho, Inc. Site A
   Current Mailing Address: 20400 Lemley Road
   City: Grand View State: ID Zip Code: 83624
   Telephone: (208) 617-0930

2. **WELL LOCATION:** (GPS required in Degrees Decimal Minutes.)

   Twp. 9S, Rge. 5E, Sec. 04, SE (10) 1/4 NW (40) 1/4 SE (160) 1/4
   Gov't Lot No. N/A County Owyhee Lat. 42° 40.322'N Long. 115° 52.218'W
   Street Address of Well Location: Missle Base Road
   City: N/A Lot, block and subdivision: N/A

3. **TYPE OF WELL:**

   ☐ DOMESTIC ☑ MONITORING ☐ IRRIGATION ☐ OTHER _____ (Describe)

4. **WELL INFORMATION:** (*Casing size, well depth & static water level data are required.)

   Well Tag Number: N/A Previous Drilling Permit Number: N/A
   Water Right Number: N/A -
   Well Log on File? (Provide if available) ☑Yes ☐No Temperature: ☐less than 85°F ☑greater than 85°F
   *Casing Size: 8" *Material: Steel *Well Depth 1000' (measured)
   *Current Static Water Level: 950.95' below TOC (measured) Flowing Artesian? ☐ Yes ☑ No

5. **REASON FOR ABANDONMENT OF WELL:**
   Monitoring well is no longer required to satisfy permit requirements.

6. **PROPOSED METHOD OF ABANDONMENT:** (Must be consistent with IDAPA 37.03.09. This Application must be reviewed prior to commencement of abandonment.)
   Bentonite plugging, well head excavation, cutting, grouting, and backfilling, as outlined in "Work Plan for Monitoring Well Abandonment US Ecology Site A Landfill (IDD000773952)," by Weaver Consultants Group, dated June 11, 2025.

7. **Drilling company name:** Hiddleston Drilling & Pump Co. **company lic. No.** 35
8. **Date of abandonment:** TBD
9. **Applicants signature:** Doug Lemley
10. **Title:** Driller **date:** 3-2-2026

ACTION OF THE DEPARTMENT OF WATER RESOURCES

This application for abandonment has been reviewed by IDWR on 3 / 2 / 2026

This review does not constitute an endorsement by IDWR of the proper abandonment of this well. Pursuant to Section 42-238(12), Idaho Code, all abandonments must meet the requirements of the Administrative Rules for Well Construction Standards. **Abandonment of this well will require the services of a well driller licensed in the State of Idaho unless a waiver has been granted.**

Signature of Authorized Department Representative

SENIOR WATER RESOURCE AGENT
Title