Final Report

Feasibility Study

Eagle Zinc Superfund Site

Hillsboro, Illinois

WA No. 102-RICO-B5Y7/Contract No. EP-S5-06-01

Prepared for

May 2012

Prepared by

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Executive Summary

A feasibility study (FS) was conducted to develop and evaluate remedial alternatives for operable unit 2 for the Eagle Zinc Superfund Site, in Hillsboro, Illinois. A draft FS report was prepared by ENVIRON on behalf of the potentially responsible parties in 2006 and a supplemental FS report was prepared by CH2M HILL on behalf of the U. S. Environmental Protection Agency in 2008. Additional site data were collected as part of a supplemental remedial investigation (SRI) in 2010, and this FS report reflects the updated conceptual site model and human health risk assessment (HHRA). This report was prepared for the U.S. Environmental Protection Agency under Contract No. EP-S5-06-01, Work Assignment No. 102-RICO-B5Y7.

Site investigations have been performed at operable unit 2 at the Eagle Zinc Site since 1982, and more recently, remedial investigations and SRIs have been performed to investigate and characterize the extent and fate and transport of contamination, to assess risk posed to human health and the environment, and to identify the constituents requiring further action. Arsenic and lead were identified in residue while arsenic was identified in onsite soils. Synthetic precipitation leaching procedure metal concentrations in residue with potential to leach to groundwater and to surface water were identified. Cadmium, zinc, and manganese were identified in onsite and offsite surface water. Arsenic, cadmium, copper, lead, manganese, and zinc were observed in both onsite and offsite sediment. Cadmium and zinc were identified in groundwater. Their occurrence may be attributed to monitoring perched water within the residue, flush-mounted monitoring well with surface completion potentially impacted by residue and surface water, and a potentially compromised monitoring well.

An HHRA evaluated site data consisting of site-specific SRI metals as well as the older data set including a full range of metals. As a result, the HHRA included aluminum, beryllium, iron, thallium, and vanadium in addition to the site-specific metals used for determining nature and extent of contamination. Evaluation of the site data identified unacceptable human health risks for future exposure to residue and soil by onsite industrial and onsite construction workers. Chemicals of concern (COCs) in residue and soil that pose unacceptable risk to future onsite industrial workers consist of antimony, lead, and zinc, and COCs that pose unacceptable risk to future onsite construction workers consist of antimony, cobalt, lead, nickel, and zinc. Evaluation of site data identified unacceptable ecological risk. The COCs in surface water that pose unacceptable risk to ecological receptors consist of total and dissolved cadmium and total and dissolved zinc. The COCs in sediment that pose unacceptable risk to ecological receptors consist of total cadmium and total zinc.

The object of the FS was to develop and evaluate remedial alternatives to address potential unacceptable risk to human health and environment and to meet applicable or relevant and appropriate requirements. As part of the evaluation, chemical-, action-, and location-specific applicable or relevant and appropriate requirements were evaluated to develop remedial alternatives. The remedial action objectives (RAOs) in Table ES-1 were established based on regulatory requirements, standards, and guidance for residue and soil, groundwater, surface water, and sediment.

TABLE ES-1
Remedial Action Objectives
Eagle Zinc Superfund Site

RAO	Purpose
Residue and Soil	• Prevent the exposure to industrial and construction workers from COC concentrations in residue and soil that exceed the excess lifetime cancer risk (ELCR) of 1 × 10-4, a hazard index of 1, or the regional screening level. • Prevent residue erosion of COCs into the surrounding water bodies so that preliminary remediation goals (PRGs) are not exceeded in those water bodies or the sediment. • Minimize leaching of COCs into the groundwater that discharges into surrounding water bodies in order to prevent unacceptable risk to aquatic receptors.
Surface water	• Minimize the discharge of COCs exceeding the PRG into the surrounding surface water bodies in order to prevent unacceptable risk to aquatic receptors.
Surface Water and Sediment	• Prevent unacceptable risk to aquatic receptors from COCs that exceed the PRGs in the surface water and/or sediment within a reasonable timeframe.

PRGs were developed for residue and soil, groundwater, surface water, and sediment based on the RAOs. General response actions (GRAs) are actions that will accomplish the RAOs. GRAs were identified, and due to the limited number of GRAs for remediation of groundwater, surface water, and sediment, specific remedial technologies within each remaining GRA were not screened but were assembled into remedial alternatives, as appropriate. Within each remaining GRA for residue, potential remedial technologies were screened on the basis of effectiveness, implementability, and cost. Finally, the following four remedial alternatives were developed and assessed using the seven National Oil and Hazardous Substances Pollution Contingency Plan evaluation criteria and compared in terms of ability to satisfy the criteria: Alternative 1—No Action; Alternative 2—Immobilization, and Illinois Administrative Code (IAC) 807-Compliant Soil Cover (18 acres); Alternative 3—Immobilization, IAC 807 Compliant Soil Cover, and Stream Realignment (22 acres); and Alternative 4—Immobilization, IAC 811 Compliant Cap, and Stream Re-alignment (22 acres).

Alternative 1 does not meet the threshold evaluation criteria. Alternatives 2, 3, and 4 meet the threshold criteria. Alternatives 2, 3, and 4 are considered protective because each addresses the human health and environmental risks associated with the site. The alternatives differ in how they address the main risks posed at the site (the residue). Alternatives 2 and 3 would continue to allow some infiltration through the residue. As a result, it is likely that risks to ecological receptors from exposure to cadmium and zinc in surface water in the western drainage will continue in the future. Alternative 4 would virtually eliminate infiltration through the residue. As a result, it is likely that risks to ecological receptors from exposure to cadmium and zinc in surface water in the western drainage will no longer be present. Alternatives 2, 3, and 4 will reduce some contaminant mass due to immobilization of select residue piles. Alternatives 3 and 4 will more quickly eliminate unacceptable risk to ecological receptors due to excavation of sediments in stream and pond bottoms, whereas with Alternative 2 there are uncertainties and difficulty in reliably estimating the time required for sediments to naturally attenuate such that there will be no potentially unacceptable risks to ecological receptors.

Alternative 4 incorporates a low-permeability IAC 811 compliant cap that would virtually eliminate infiltration through the residue. Infiltration through the IAC 807-compliant cover would be reduced under Alternatives 2 and 3 but not to the extent as with Alternative 4. As a result, the time until ARARs are met for groundwater and surface water is similar for Alternatives 2 and 3 and likely requires several decades. The time until groundwater and surface water PRGs are met would be much shorter for Alternative 4.

The preferred alternative will be presented in the proposed plan. In accordance with the National Oil and Hazardous Substances Pollution Contingency Plan, the proposed plan, and other documents in the administrative record, will be released to the public for review and comment. The preferred remedy may be modified based on the comments received.

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Acronyms and Abbreviations

amsl	above mean level
AOC	area of concern
ARAR	applicable or relevant and appropriate requirement
bgs	below ground surface
CERCLA	Comprehensive Environmental Response Compensation Liability Act
CFR	*Code of Federal Regulations*
cm/sec	centimeters per second
COC	chemical of concern
COPC	chemical of potential concern
CWA	Clean Water Act
ELCR	excess lifetime cancer risk
FS	feasibility study
GRA	general response action
HELP	Hydrologic Evaluation of Landfill Performance
HHRA	human health risk assessment
HI	hazard index
IAC	Illinois Administrative Code
IEPA	Illinois Environmental Protection Agency
IWQS	Illinois Water Quality Standards
LDR	landfill disposal restriction
LUST	leaking underground storage tank
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
OU2	operable unit 2
PRG	preliminary remediation goal
RAO	remedial action objective
RCRA	Resource Conservation and Recovery Act
RI	remedial investigation
SLERA	screening-level ecological risk assessment
SPLP	synthetic precipitation leaching procedure
SRI	supplemental remedial investigation
SWPPP	stormwater pollution prevention plan
TACO	Tiered Approach to Corrective Action Objectives
TBC	to be considered
TCLP	toxic characteristic leaching procedure
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
UST	underground storage tank

SECTION 1

Introduction

A feasibility study (FS) was conducted to develop and evaluate remedial alternatives for operable unit 2 (OU2) for the Eagle Zinc Superfund Site, in Hillsboro, Illinois. A draft FS report was prepared by ENVIRON in 2006, and a supplemental FS was prepared by CH2M HILL in 2008. Additional site data were collected as part of a supplemental remedial investigation (SRI) in 2010, and this FS report reflects the updated conceptual site model and human health risk assessment (HHRA). This report was prepared for the U.S. Environmental Protection Agency (USEPA) under Contract No. EP-S5-06-01, Work Assignment No. 102-RICO-B5Y7.

1.1 Site Setting

The site is located in a mixed industrial/commercial/residential area of the Township of Hillsboro, Illinois, in Montgomery County (Figure 1-1). The area that encompasses the site is zoned as commercial/industrial. The site is bordered on the east by Industrial Park Drive and by the Litchfield Bituminous Corporation, on the north by Smith Road, Hayes Abrasives, and by the City of Hillsboro Water Treatment Plant, on the west by East Brailley Road and Street and residential housing, and on the south by Fuller Brothers Ready Mix Concrete facility, Vogel Lumber yard, and the University of Illinois Extension office. The site covers approximately 132 acres, with about 30 of the acres covered by buildings and various structures. Within the site there are approximately 23 structures that were previously used for facility operations. The structures are included as operable unit 1 and are planned for demolition and placement in a covered temporary demolition management cell. The site also contains several railroad spurs, residual material, two stormwater retention ponds, one larger pond in the southwestern portion of the site, one small pond in the southeastern portion of the site, and several roads, all of which were used for facility operations (Figure 1-2). Active industrial operations at the site ceased in 2003.

1.2 Operational History

From 1912 to 2001, the site was used for smelting and for manufacturing sulfuric acid, zinc oxide, and leaded zinc oxide. Residuals from plant operations were placed in residue piles that have been categorized based on the processes that generated them (ENVIRON 2004). Residue has been spread broadly across the surface of much of the southern and central portions of the Site over the years of plant operation.

The site originated as a zinc smelter facility under the name Lanyon Zinc Company in 1912. Lanyon Zinc Company produced various smelting products, including zinc and sulfuric acid. The facility was then purchased by Eagle-Picher Industries in 1919. Eagle-Picher Industries operated and produced zinc and sulfuric acid at the facility until about 1935. During the early 1920s, Eagle-Picher began manufacturing zinc oxide and lead zinc oxide. Manufacturing of lead zinc oxide continued until around 1958 and the production of zinc oxide continued until around 1980 when the facility was purchased by the Sherwin-Williams Company. In 1984, the facility was sold by the Sherwin-Williams Company to Eagle Zinc Company, a division of T.L. Diamond and Company. Eagle Zinc continued the production of zinc oxide until 2003 when the facility ceased industrial operations. A site history timeline is provided in Figure 1-3.

During industrial operations large amounts of ore and smelter waste were stored onsite, according to historical documents. The leaded zinc oxide that was made at the site was produced using the American process, which combined zinc ore concentrates with high levels of impurities. Waste materials generated from this process included slag, rotary kiln residue, muffle dross, metallic zinc particles, and refractory bricks. Significant portions of the site are currently covered with smelter waste and other materials associated with historical smelting operations. An estimated 43,500 cubic yards of residue waste currently resides onsite in 15 residue piles (CH2M HILL 2008). The volume of residue spread across the site and not in specific piles is estimated to be 210,000 cubic yards based on historical borings and investigations conducted during the SRI.

1.3 Regulatory History

The following information regarding the regulatory history of the site has been primarily summarized from the 2005 remedial investigation (RI) report (ENVIRON 2004), and secondary sources are indentified at the conclusion of the summations.

The zinc smelting facility was initially listed on the Comprehensive Environmental Response Compensation and Liability Information System by Sherwin-Williams in June 1981, as a discovery action. Sherwin-Williams filed USEPA form 8900-1, Notification of Hazardous Waste Site, in accordance with Section 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), which indicated that slag/residual material had been disposed of onsite. Results from the Illinois Environmental Protection Agency (IEPA) sampling event of residual materials indicated that the waste materials were not hazardous waste and that the site was not subject to Resource Conservation and Recovery Act (RCRA) permitting.

In addition to the CERCLA activities described above, IEPA also collected several sets of surface water samples from the southwest stormwater discharge and had the samples analyzed for metals. Detected concentrations above applicable state surface water quality standards for zinc, iron, lead, and copper in the surface water runoff (on one or more occasions) resulted in a notice of violation from IEPA. The notice of violation reportedly prompted Sherwin-Williams to remove approximately 18,000 tons of residue materials from 10 acres of the site.

The removal of a 500-gallon gasoline underground storage tank (UST) by Eagle Zinc in April 1998 resulted in the submission of a leaking UST (LUST) incident report to IEPA. To address the LUST incident, site classification and assessment activities were performed. Neither the soil samples nor any of the groundwater samples collected from the monitoring wells during the investigation contained detectable concentrations of benzene, toluene, ethyl benzene, and xylene compounds. Based on the sample results and discussions with IEPA, the LUST incident was classified as low-priority, and groundwater in the former tank area was monitored periodically for a period of 3 years. Since there were no detections of contaminants above applicable state groundwater standards, IEPA issued a No Further Remediation letter to Eagle Zinc for the former LUST in April 2004.

In May 1998, Eagle Zinc Company entered into an Interim Consent Order with the Illinois Attorney General and IEPA. Pursuant to the interim consent order, a site monitoring well installation and groundwater sampling program was conducted, a residual piles and underlying soils sampling program was initiated, and a stormwater pollution prevention plan (SWPPP) was prepared for submittal to IEPA. The site sampling programs resulted in submission of the March 1999 reports entitled *Interim Report of Residue Sampling and Analysis* and *Monitoring Well Installations and Groundwater Sampling Interim Report* (Goodwin and Broms, Inc. 1999) to IEPA.

In preparation of the SWPPP, Eagle Zinc determined that the site was subject to the National Pollutant Discharge Elimination System (NPDES) stormwater permitting requirements as per section 40 of the *Code of Federal Regulations* (CFR) 122.26 (b)(14)(ii). An NPDES Notice of Intent letter was prepared by Eagle Zinc Company and submitted to IEPA. In June 2000, IEPA issued NPDES Permit No. IL0074519 for the facility. The NPDES permit required monthly monitoring of NPDES Outfall 002 and submission of an annual inspection report to IEPA. A SWPPP was finalized for the site in December 2000. Following closure of the facility in early 2003, IEPA issued a public notice of the termination of the facility's NPDES stormwater permit in May 2003.

Based on the 1999 Interim Groundwater and Residue Sampling Reports, USEPA issued an Administrative Order on Consent with a Statement of Work to Eagle Zinc for a RI/FS for the site in December 2001. In response to the Administrative Order on Consent and Statement of Work, T. L. Diamond Corporation contracted ENVIRON to conduct an RI/FS for the site. ENVIRON completed an investigation of the site in 2005 and submitted the following reports:

- RI report to USEPA in January 2005
- RI addendum in February 2006
- FS in May 2006

In March 2007, IEPA used the data collected from previous site investigations to complete the Hazard Ranking System record for the site to determine if the site should be placed on the National Priorities List (NPL). The site's overall Hazard Ranking System score of 50.00 placed the site above the established cutoff of 28.50, making the

site eligible to be included on the NPL. Based on the overall score, IEPA recommended that the site be included on the NPL, and the site was officially placed on the list in September 2007.

In November 2011, an environmental covenant was filed under the Illinois Uniform Environmental Covenant Act. The environmental covenant identifies activity and use limitations for the property and is included as Appendix A.

1.4 Previous Investigations

Various investigations have been conducted at the Eagle Zinc Site since 1982. Information regarding the site investigations is available in the following documents:

- *Environmental Risk Assessment*, Risk Science International, 1982
- P*reliminary Site Assessment*, Illinois Environmental Protection Agency, 1984
- *Illinois Environmental Protection Agency Expanded Site Inspection*, Illinois Environmental Protection Agency, 1993
- *Illinois Environmental Protection Agency LUST Investigation*, Goodwin and Broms, Inc., and Philip Services Corporation, 1998
- *Site Groundwater Sampling Investigation*, Goodwin & Broms, Inc., 1999
- *Remedial Investigation*, ENVIRON, 2005
- *Remedial Investigation Addendum*, ENVIRON, 2005
- *XRF Sampling of Building and Confirmation Sampling*, Illinois Environmental Protection Agency, 2008
- *Supplemental Remedial Investigation*, CH2M HILL, 2012

1.5 Objectives and Scope

According to the USEPA's *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, Interim Final* (1988) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), an FS is conducted by developing remedial alternatives, screening those alternatives to reduce the number, and analyzing selected alternatives in detail. The object of an FS is to develop and evaluate alternatives that will address potential unacceptable risk to human health and the environment and to satisfy applicable or relevant and appropriate requirements (ARARs). The following steps were used to develop and evaluate remedial alternatives for OU2 at the Eagle Zinc Site:

1. Identify ARARs.
2. Develop remedial action objectives (RAOs).
3. Determine preliminary remediation goals (PRGs) and areas exceeding the PRGs.
4. Evaluate chemicals of concern (COCs) against remediation goals.
5. Develop general response actions (GRAs).
6. Develop and screen technologies and process options.
7. Develop remedial alternatives.
8. Perform detailed analysis of remedial alternatives.
9. Perform comparative analysis of each alternative's ability to satisfy the evaluation criteria.

SECTION 2

Conceptual Site Model

Section 2 summarizes site characteristics regarding site residue, soils, hydrogeology, surface water hydrology, nature, extent, fate, and transport of contamination, and COCs identified by the risk assessment performed during the RI and SRI. COCs are chemicals that may pose risk to human health or the environment and are evaluated in the FS.

2.1 Residue

Residue covers a significant portion of the site's surface (Figure 2-1 and Appendix B, Figures B-1 through B-4). The topography of the site is fairly variable across the site with an elevation range between 595 and 640 feet above mean sea level (amsl) (Figure 2-1). The highest ground elevation point is in the northwest corner of the site, and the lowest ground elevation point is in the southwest corner. Ground elevation is predominately dependent upon the thickness of the residue material at the surface. Residue thickness varies from 0 to 28 feet.

The onsite area is broken up into four areas for the purpose of evaluation of residue thickness across the site (Appendix B: Figures B-1 through B-4). Based on boring logs, residue thickness in the southwestern area of the site (designated as Area 1) varies from 0 to 28 feet with an average of 6.5 feet (Appendix B: Figure B-1). Residue thickness in the central southernmost portion of the site (designated as Area 2) varies from 0 to 6 feet with an average of 1.6 feet (Appendix B: Figure B-2). Residue thickness in the central portion of the site (designated as Area 3) varies from 0 to 9 feet with an average of 2.2 feet (Appendix B: Figure B-3). Residue thickness in the area immediately north of the central portion of the site (designated as Area 4) varies from 0 to 6 feet, with an average of 1.5 feet (Appendix B: Figure B-4).

2.2 Soil

Thickness of the unconsolidated overburden underneath the site has not been determined; however, the thickness of glacial till in Montgomery County has been determined to range between 50 to 100 feet thick. The physical characteristics of the glacial till present beneath the site are consistent with the Vandalia Member of the Glasford Formation. The Vandalia Member is composed of relatively sandy, compact glacial till that is gray in color where unoxidized and contains numerous lenticular beds of silt, sand, and gravel. The Vandalia Till averages 43 percent sand, 38 percent silt, and 19 percent clay (Illinois State Geologic Survey 1969). Analysis of the soil boring logs associated with the newly installed deeper monitoring wells indicate the presence of the Vandalia Till at depths ranging from 5 feet below ground surface (bgs) to about 22 feet bgs. The compact glacial till is gray or grayish-brown in color, dense, relatively impermeable, and composed of an erratic assortment of clay, silt, sand, and gravel lenses (CH2M HILL 2012).

Lithologic descriptions were taken from soil boring logs from the SRI investigation and used to construct a geologic cross section to determine if any geologic trends were present. Figure 2-2 identifies the location of the geologic cross section line A-A', and the geologic cross section is presented in Figure 2-3. Analysis of the soil boring logs and the geologic cross section indicates that the loess deposits are primarily composed of a mixture of silt and clay that ranges in thickness between 0 to 20 feet. The geologic cross section indicates that the loess deposits cover the entire site, with the exception of the southwest corner. The geologic cross section indicates that below the loess deposit lies relatively compact glacial till composed of varying percentages of clay, silt, sand, and gravel. Thin, isolated loose sand lenses were encountered at depths as shallow as 12 feet bgs and as deep as 28 feet bgs, ranging in thickness up to 3 feet. Sand lenses in glacial till are typically not continuous, and there is no evidence that the sandy layers within the till extend across more than one or two monitoring well locations.

The base glacial till is undefined, due to the fact that no soil borings have been advanced to the depths necessary to define its total thickness.

Beneath the loess and glacial till resides native bedrock composed of Pennsylvanian-age Bond Formation. The unit ranges between 100 and 300 feet in thickness and is primarily composed of limestone with some beds of shale and sandstone (Illinois State Geologic Survey 2011).

2.3 Surface Water Hydrology

Surface water features within the site and within the immediate vicinity of the site consist of one intermittent drainage ditch, two ephemeral streams, two stormwater retention ponds, and two surface water ponds (Figure 1-2). Surface water runoff appears to feed all of the aforementioned surface water features with the exception of the southeastern surface water pond.

The intermittent drainage ditch flows east to west along the site's southern property line. The drainage ditch is approximately 1 to 2 feet wide and fills up with a couple of inches of runoff water only after moderate to heavy rainfall events. The drainage ditch eventually feeds into the City of Hillsboro's gravity-feed State Highway 16 drainage ditch near the southwest corner of the site. The drainage ditch loops around the southern embankment of the surface water pond in the southwest corner of the site and drains into the westward flowing ephemeral stream.

The branches of the westward flowing ephemeral stream originate in the center of the site. Surface water runoff from the surrounding area collects in several drainage swales and flows either south, west, or southwest, depending upon the branch, before converging into one branch and discharging into the manmade southwestern surface water pond. The main branch of the ephemeral stream is at times between 4 to 8 feet wide and can quickly fill up with a couple feet of runoff water during rainfall events. Heavy rainfall events frequently cause surface water to flow over the western bank of the pond at NPDES Outfall 001 and discharges into an unnamed tributary of the Middle Fork Shoal Creek. Middle Fork Shoal Creek eventually flows into Shoal Creek approximately 6 miles southwest of the site.

The branches of the northeastward flowing ephemeral stream originate near the site's eastern property line. Surface water runoff from the surrounding area collects in several drainage swales and flows either north, south, or southeast, depending upon the branch, before converging into one branch along the site's eastern property line. The main branch of the ephemeral stream is at times between 2 to 4 feet wide onsite and can quickly fill up with a couple feet of runoff water during rainfall event. The ephemeral stream eventually turns east and flows offsite underneath Industrial Park Drive before turning again to the northeast and discharging into Lake Hillsboro.

The two manmade stormwater retention ponds are located near the site's eastern boundary line along Industrial Park Drive. The manmade stormwater retention ponds were installed in response to the NPDES permit that was issued and dated June 20, 2000 (IEPA, Bureau of Water 2007). Stormwater collects in the retention ponds only after moderate to heavy rainfall events. Only after prolonged periods of heavy rainfall events will surface water flow over the bank of the northern retention pond at NPDES Outfall 002 and discharges into the northeastward flowing ephemeral stream (Figure 1-2).

The southeastern surface water pond is located between two railroad spurs near the site's southern boundary line. The surface water pond appears to receive no surface water runoff and has no inlet or outlet.

2.4 Hydrogeology

Groundwater flows predominantly in water-bearing sand and gravel lenses within the unconsolidated overburden. Depth to groundwater across the investigation area is relatively shallow, typically between 2 to 6 feet bgs (CH2M HILL 2012). Analysis of groundwater levels taken from site monitoring wells indicates that the groundwater table is relatively stable and does not significantly fluctuate; however, due to seasonal variations in precipitation, minor fluctuations in the groundwater table do occur throughout the year, normally 1 to 3 feet. The groundwater table within investigation area is typically at its highest elevations in early spring, between 629 and 595 feet amsl, and at its lowest elevation in late fall, between 628 and 593 feet amsl.

Analysis of the topographic map, geologic cross section, and potentiometric surface maps (Figures 2-4 and 2-5) indicates that shallow groundwater flow is influenced by surface topography and that the groundwater flow directions are consistent throughout the seasons and over the years (CH2M HILL 2012). Shallow perched groundwater flows through the residue in the southwestern portion of the site due to the depths of residue in that area. This flow impacts the site streams since infiltration through the residue contributes to leaching of COC's into the shallow groundwater and subsequently into the streams. In general, groundwater flows away from the center of the site with groundwater flowing towards the southwest in the southwestern portion of the site,

towards the southeast in the southeastern portion of the site, towards the east and southeast in the eastern and northeastern portions of the site, and towards the north in the northern portion of the site.

Site aquifer (slug) tests were performed on four monitoring wells as part of the former underground storage tank investigation and results indicated hydraulic conductivity in the shallow water bearing zone that ranged from 1.1×10^{-4} centimeters per second (cm/sec) to 8.5×10^{-5} cm/sec (ENVIRON 2005). During the SRI, aquifer (slug) tests were performed on the ten newly installed monitoring wells. Permeabilities ranged from 5×10^{-4} cm/sec to 6×10^{-7} cm/sec. Seven of the 10 slug tests were less than 1×10^{-4} cm/sec. The geometric mean for the 10 wells tested is 3×10^{-5} cm/sec. The higher-permeability measurements from the three wells greater than 1×10^{-4} cm/sec likely represent thin (less than 3 feet), localized sand or silt lenses that are not laterally continuous. Overall, the permeability of the shallow groundwater at the site does not meet the Class I requirement of 1×10^{-4} cm/sec or greater. Based on this information and IEPA concurrence on a groundwater classification of Class II (SRI Report, CH2M HILL 2012), shallow groundwater at the site is considered Class II per 35 IAC Part 620 Sections 620.210 through 620.240.

2.5 Nature and Extent of Contaminant Summary

The nature and extent of contamination in residue, soil, groundwater, surface water, and sediment was delineated during the site investigations. The nature and extent is based on human-health-based screening criteria presented in the SRI report (CH2M HILL 2012).

2.5.1 Residue

Arsenic and lead were the only site-specific metals observed above their USEPA industrial regional screening level and Illinois soil background value in residue (Figure 2-6). However, toxic characteristic leaching procedure (TCLP) and synthetic precipitation leaching procedure (SPLP) analytical results indicate there is a low potential for arsenic in residue piles and for residue to migrate to groundwater and surface water at concentrations exceeding screening criteria. SPLP analytical results for lead suggest there is a potential for concentrations of total lead above screening criteria in residue to leach to groundwater and surface water at concentrations exceeding screening criteria. Despite the absence of concentrations of cadmium, copper, and zinc above screening criteria observed in residue piles and residue, elevated TCLP (cadmium only) and SPLP analytical data indicate there is potential for the metals in residue to migrate to groundwater and surface water at concentrations exceeding screening criteria. SPLP metal concentrations in residue with potential to leach to groundwater and to surface water are presented in Figures 2-7 and 2-8.

2.5.2 Soil

Arsenic was the only site-specific metal observed in both onsite and offsite soil above its respective USEPA regional screening level and Illinois soil background value. Elevated total arsenic was observed in subsurface soil beneath the residue; however, 8 percent of the samples were only slightly above the Illinois soil background value for arsenic. Due to the few occurrences of arsenic only slightly above the Illinois background value, total arsenic in subsurface beneath the residue is likely naturally occurring. Subsurface soil beneath the residue does not appear to be impacted by metals in the residue and residue piles.

Elevated total arsenic was observed in onsite surface soil as well; however, only a limited number (5 out of 18) of the elevated concentrations were observed above its Illinois background value, indicating total arsenic in onsite surface soil is likely naturally occurring. Onsite surface soil does not appear to be impacted by metals in the residue and residue piles.

Elevated total arsenic was observed in offsite surface and subsurface soil and surface and subsurface soil samples collected within the southeastern triangular area. A limited number of samples were observed only slightly above the Illinois soil background value for arsenic and there was no indication of surface or subsurface disturbance within the offsite residential housing and onsite triangular areas (as presented in soil boring logs), indicating total arsenic in offsite surface and subsurface soil is likely naturally occurring.

Elevated total manganese was the only site-specific metal observed in offsite surface soil above USEPA residential regional screening level and Illinois soil background value. However, based on the low frequency of elevated

manganese, absence of elevated concentrations of or low-level concentrations of manganese in other site media including onsite residue and onsite soil, and SPLP analytical data indicating a low leaching potential for manganese, elevated total manganese in offsite surface soil is not considered site-related.

Total metal concentrations above screening criteria and background values in onsite soil are presented in Figure 2-9. Total metal concentrations in offsite soil are presented in Figure 2-10.

2.5.3 Surface Water

Total and dissolved cadmium and zinc concentrations above screening criteria were observed in onsite and offsite surface water and are likely associated with site operations.

Total lead, copper, and manganese above screening criteria were observed in onsite surface water at low frequencies. Total lead concentrations above screening criteria were observed in 2 of 18 surface water samples, while no concentration of dissolved lead was observed above screening criteria. It is likely that the total lead concentration above screening criteria in the two surface water samples is associated with suspended fines in the turbid, southern retention pond and underground culvert and is not representative of water quality that may be in the drainageways downstream. Total copper above screening criteria was observed in 1 of 18 surface water samples, while no concentrations of dissolved copper were observed above screening criteria. It is likely that the total copper concentration above screening criteria in the one surface water sample is associated with suspended fines in the turbid, underground culvert and is not representative of water quality that may be in the drainageways downstream. Total and dissolved manganese above screening criteria were observed in 1 of 18 onsite surface water samples at concentrations only slightly above its screening criteria. The onsite location is located on the northeast drainage way at the eastern property boundary. The offsite location downstream also has manganese above screening criteria. Total and dissolved manganese in surface water are likely attributed to site operations and specifically likely caused by manganese concentrations in groundwater.

Total lead and manganese above screening criteria were observed in offsite surface water at low frequencies. Total lead concentrations above screening criteria were observed in 1 of 8 surface water samples, while no concentrations of dissolved lead were observed above screening criteria. It is likely that the total lead concentration above screening criteria in the one surface water sample is associated with suspended fines in the turbid, intermittent drainage ditch that flows east to west along the site's southern property line. Total and dissolved manganese concentrations above screening criteria were observed in 1 out of 8 (1 out of 6 for dissolved manganese) offsite surface water samples at concentrations only slightly above its screening criteria. Manganese is considered a chemical of potential concern (COPC) in offsite surface water. However, no overall trend was observed in cadmium, copper, and zinc concentrations in surface water.

Metal concentrations in onsite and offsite surface water are presented in Figures 2-11 and 2-12.

2.5.4 Sediment

Total arsenic, cadmium, copper, lead, manganese, and zinc above screening criteria were observed above their respective ecological risk screening levels in onsite and offsite sediment. Total arsenic, cadmium, copper, lead, manganese, and zinc in onsite and offsite sediment are considered site-related and COPCs. Metal concentrations in onsite and offsite sediment are presented in Figures 2-11 and 2-12.

2.5.5 Groundwater

Monitoring wells with screen sand packs placed in residue (MW-4, MW-6, MW-7, MW-8, MW-9, and MW-11) that were resampled in 2010 generally declined significantly in total metals concentrations (decreased 50 to 90 percent) since 2003. The most probable explanation is that greater care was taken in low-flow groundwater sampling to avoid entrainment of residue suspended solids in the groundwater samples. Based on this, total metals sample results from 2003 may not be representative of groundwater. Even though the 2010 metal results are much lower than the 2003 results, total metals results from 2010 are particularly elevated in the wells, with several metals consistently exceeding groundwater and surface water screening levels. Results from the wells, as well as other older monitoring wells with screens in close proximity to residue, are representative of infiltration of metals residing in residue

perched above the original ground surface. While the results do not represent groundwater at the site, they are important relative to evaluating transport pathways to groundwater and surface water.

Total and dissolved cadmium and zinc were the only site-specific metals observed above the Illinois Class II groundwater standards in groundwater. Total and dissolved cadmium and zinc were observed above screening criteria in perched water below residue or within the visible residue boundary in 2010.

The occurrence of cadmium and zinc may be attributed to the monitoring perched water within the residue.

2.6 Contaminant Fate and Transport

Section 2.6 summarizes the relevant physical and chemical properties of site contaminants, fate and transport processes, and the transport pathways model based on chemicals detected at concentrations above the risk-based screening levels.

Residue present on the general facility area in stockpiles and distributed on the ground surface has been identified as the primary source material at the site based on the relationship between the concentrations of arsenic, cadmium, copper, lead, manganese, and zinc found in residue and the contaminants detected in surface water, sediments, and groundwater at the site. Site contaminants were not identified in onsite or offsite soil.

2.6.1 Physical and Chemical Nature of Contaminants

Chemical properties of the primary contaminants are discussed in this section. An understanding of the properties is necessary for the evaluation of the potential transport mechanisms of the contaminants and their persistence in the environment. The chemical properties of the primary contaminants are discussed in the following subsections by contaminant.

2.6.1.1 Cadmium, Copper, Lead, and Zinc

Cadmium, copper, lead, and zinc are discussed together because they have several features in common that affect their behavior in the environment. The four metals are natural elements in the earth's crust. The dominant species of the four metals in solution is a divalent cation (free or complexed) (Drever 1997). Under reducing conditions (anaerobic), in the presence of sulfur, the four metals form relatively insoluble sulfides. Based on RI observations and field measurements, oxidizing conditions are expected in the shallow groundwater. Measured dissolved oxygen levels in the water column were moderate, indicative of aerobic conditions.

In the absence of sulfur, copper is insoluble as the native metal. The remaining metals behave as they do in oxidizing environments in that they are relatively soluble at low pH and insoluble as carbonates/oxides/hydroxides at high pH. Copper, along with zinc and cadmium form anionic species at high pH; however, it is rare for pH values in nature to be sufficiently high enough for such species to form.

All members of this group are potentially affected by adsorption on iron and manganese oxyhydroxides and cadmium is also potentially affected by adsorption on calcite. Based on soil and groundwater sample results, concentrations of both iron and manganese are available in the environmental media at the site. Adsorption of the metals is pH-dependent. Lead adsorbs at the lowest pH (>3 to 5), followed by copper (>4.5 to 6), zinc (>5 to <7), and cadmium (>5.5 to 7.5) (Drever 1997). The pH of the slag and onsite soils is low enough to absorb cadmium, copper, and zinc but at or above the levels for the complete adsorption of lead. Therefore, lead would be expected to be the more mobile of the metals, since the range of pH levels found in residue sometimes fall above the optimal adsorption pH range for lead, limiting the adsorption of this metal. Once in groundwater, the higher pH of groundwater relative to the residue source material will help limit lateral or vertical migration of dissolved COPCs found in the groundwater.

The expected behavior of these metals in the environment can be summarized as follows: under oxidizing conditions and at low pH, they are all soluble and mobile. As pH rises, their concentrations tend to decrease, first because of adsorption (particularly lead and copper) and then because of the limited solubility of carbonates and oxides/hydroxides.

2.6.2 Fate and Transport of Contaminants

2.6.2.1 Source Areas

The stockpiled residue waste piles and residue present in a naturally crusted, congealed form is the source materials at the site. The congealed form is less prone to leaching than the stockpiled residue based on SPLP lead and cadmium results and is consolidated on a larger part of the general facility area. Any natural crusting of the residue surface binds the erodible material thereby reducing the erosion potential. Therefore, any air erosion of the residue would be expected to be limited. The distribution of the stockpiled residue has resulted in contaminants being redistributed across the general facility area.

The contaminants in source materials are all naturally occurring metals that are expected to persist over the long term. Under existing conditions, the source materials will remain in place, with a portion of the residue being further eroded from the residue piles and transported as sediments in the ditches draining the general facility area. The presence of the native clay layer will continue to minimize impacts from source contaminants (particularly lead and arsenic) to underlying soils through infiltration.

2.6.2.2 Soils

Contaminants associated with source materials (residue piles and residue) are present in the general facility area, but are not present in onsite and offsite soils above applicable screening criteria and naturally occurring levels. Migration of contaminants associated with source materials has been limited by the presence of a relatively impermeable clay layer present across the site, which has effectively minimized migration of contaminants in excess of the applicable screening criteria to the soil horizon underlying the source material.

2.6.2.3 Surface Water

Surface water samples collected from the western drainageway, eastern drainageway, southern and northern retention ponds, southeastern surface water pond, former cooling water pond, underground culvert, and intermittent drainage ditch that flows east to west along the site's southern property line indicate that contaminants (particularly cadmium and zinc) found in surface water are related to being present in a dissolved form, in addition to fines in the water. Dissolved metals are more mobile in the environment and are more available to aquatic life.

During surface water runoff events, absorbed contaminants and suspended fines are transported from the site to onsite surface water features—southern and northern retention ponds, southeastern surface water pond, former cooling water pond, underground culvert, and offsite feature), the intermittent drainage ditch that flows east to west along the site's southern property line, western drainageway to the unnamed tributary of the Middle Fork Shoal Creek, and eastern drainageway to Lake Hillsboro. Within the drainageways, as the flow rate decreases, the suspended fines will settle, and contaminants will be immobilized in the sediments, as discussed below.

2.6.2.4 Sediments

Source materials have contributed contaminants to the sediments in onsite surface water features (southern and northern retention ponds, southeastern surface water pond, former cooling water pond, underground culvert, and offsite surface water features), the intermittent drainage ditch that flows east to west along the site's southern property line, western drainageway to the unnamed tributary of the Middle Fork Shoal Creek, and eastern drainageway to Lake Hillsboro, with concentrations of contaminants fluctuating with distance from the general facility area. This indicates that contaminants may be attenuating to the fine-grained soils and mud found in the ephemeral streams, and it is possible that contaminants from other non-site-related activities may be contributing to the quality of sediments.

2.6.2.5 Groundwater

Concentrations of contaminants above screening criteria have been observed in shallow water perched within the residue and in groundwater just outside the residue or site boundary. Concentrations of contaminants were not observed above screening criteria in deep groundwater at the site.

Several monitoring wells located within the lateral extent of residue piles and residue areas were constructed with monitoring well screens, or tops of filter packs, at a depth similar to the depth of the surrounding residue

(MW-4, MW-6, MW-7, MW-8, MW-9, and MW-11). Surface water is filtrating through the residue and entering into the monitoring wells.

Once in groundwater, contaminants are being effectively attenuated by intervening silt and clays, which is expected to be the result of both the neutral pH levels found in natural formation groundwater and the subsurface geology, which together have, and will continue to, effectively attenuate the contaminants and limit any lateral or vertical migration of contaminants. The RI results indicate that the shallow groundwater is acting as a sink for contaminants where contaminants have migrated to shallow groundwater with limited migration occurring by advection and dispersion.

2.6.2.6 Air

Though source materials in the general facility area could potentially be transported by air migration, especially under dry and windy conditions, the RI and RI addendum results indicated that the deposition of airborne particles from the site have not impacted offsite areas. Onsite and offsite airborne deposition of particulate matter from residue piles is not considered a significant transport pathway at the site. The conclusion was based on the finding from the RI and RI addendum. RI findings were concluded based on a literature search concerning dust emissions from aggregate piles, prevailing wind direction information, and a series of well-distributed soil samples collected at residential properties in the vicinity of the site by IEPA in 1993. RI addendum findings were concluded based on emission rate calculations, dispersion modeling, and risk assessment based on deposition calculations.

Any contaminants that may be transport by air from the main facility area would be absorbed into the soils surrounding the facility area.

2.6.3 Transport Pathways

Various potential transport pathways could potentially influence the movement of contaminants from the source areas to various media including soil, surface water, sediment, and groundwater. The potential transport pathways included the following:

- Redistribution (of residue)
- Infiltration
- Surface water runoff (overland flow)
- Perched water lateral migration
- Groundwater migration through advection and dispersion
- Air transport (particulates, dust)

Based on the site investigations, infiltration and surface water runoff are the most important transport pathways for metal contaminants at the site.

2.6.3.1 Redistribution

As noted, residue thickness varies across the site. Although there is no formal documentation describing how the residue has been distributed outside of the particular stockpiled residue piles, the general perspective is that throughout daily operations residue was spread across the site to support traffic ways. Redistribution of residue on the general facility area has allowed contaminants to be distributed to larger portions of the former manufacturing area and in between the stockpiled residue piles, which is considered one of the primary transport mechanisms for contaminants in residue to migrate to other site media.

2.6.3.2 Infiltration

Infiltration of contaminants from source material to underlying soils at the site has been limited by the presence of the an upper silt and clay layer that ranges in thickness up to 20 feet bgs, which underlies both the general facility area where residue piles and residue reside, as indicated by the fact that contaminants in excess of screening criteria were generally not observed underlying the source materials. Some infiltration of contaminants from source materials to perched water has likely occurred in the general facility area. The highest concentrations and most occurrences of contaminants were observed in monitoring wells G-107, MW-1, MW-4, and MW-6 through MW-9, where perched water may enter into monitoring wells through screened or sand pack intervals

located within the residue. Perched water may also enter into monitoring well MW-1 as its integrity is likely compromised indicated by a highly turbid and dark brown to black color in the collected groundwater sample. Surface water may be entering into monitoring well location G-107 due to a flush-mounted surface completion.

2.6.3.3 Perched Water Lateral Migration

Perched water within residue likely migrates laterally to the drainageways due to the high permeability of the residue and underlying low permeability clay. Contaminants in the perched water that infiltrated the residue will likely migrate horizontally and discharge to the drainageways. Cadmium, lead, manganese, and zinc concentrations above screening criteria in surface water are likely a result of this lateral migration and discharge. This is also supported by the general absence of arsenic and copper concentrations above screening criteria in perched water in residue and surface water at the site.

2.6.3.4 Groundwater Migration through Advection and Dispersion

Lateral migration of contaminants in shallow groundwater through advection and dispersion has not occurred due to the subsurface geology of silts and clays, and the tendency of the metal contaminants to adsorb at the pH measured in the shallow groundwater.

Vertical migration of contaminants from shallow to deep groundwater through advection and dispersion has not occurred based on the lack of contaminants above applicable screening criteria in deep groundwater at MW-18.

2.6.3.5 Stormwater Runoff

Although off-site impact has been limited, sediment data collected from site investigations document that contaminants from source areas have been transported by stormwater runoff to site drainages and then by the western drainageway to the unnamed tributary of the Middle Fork Shoal Creek, and eastern drainageway to Lake Hillsboro. The transport mechanism is most important to the smaller-sized particles since increasing the surface area of residue make it more susceptible to erosion and transport by stormwater runoff.

2.6.3.6 Air Transport

The prevailing wind directions for the site are from the south and south-southwest. As a result, any impact to soil would be expected to be greatest in the area immediately north or north-northeast of the areas used for residue storage. Based on the results of the well-distributed soil samples collected at residential properties in the vicinity of the site by IEPA in 1993, there is no pattern to the properties with concentrations of contaminants above screening criteria that would suggest significant air transport of contaminants. Therefore, this demonstrates the lack of significance of this potential transport pathway even in close proximity to potential sources.

2.7 Human Health Risk Assessment Summary

An HHRA evaluated potential current and future risks associated with constituents detected at the site in the surface soil, subsurface soil, groundwater, and indoor air data. The evaluation included site data consisting of site-specific SRI metals as well as the older data set including a full range of metals. As a result, the HHRA included the metals aluminum, beryllium, iron, thallium, and vanadium in addition to the site-specific metals used for nature and extent of contamination. The HHRA methods and findings are summarized in the RI report (CH2M HILL 2012).

To facilitate risk-based decisions, the OU2 site was divided into one onsite exposure area (Exposure Area 2) and two offsite exposure areas (Exposure Areas 1 [residential housing area] and 3 [triangular-shaped area]). Based on current and reasonably foreseeable future site conditions (commercial/industrial), the following potential current and future human receptors were identified and evaluated in the HHRA:

- **Current Onsite Trespassers**—Adolescent trespassers who may contact onsite residues and surface soil and sediment/surface water in the onsite water bodies in Exposure Area 2.
- **Current/Future Offsite Residents**—Adult and child residents who may contact surface soil in offsite exposure areas (Exposure Areas 1 and 3).

- **Current/Future Offsite Recreational Users**—Adult and child recreational users who may contact offsite sediment and surface water in Exposure Areas 1 and 3. The current/future recreator scenario in the offsite ditch (Exposure Area 3) can be used to conservatively represent potential exposures by future city maintenance workers in the drainage ditch.
- **Future Onsite Industrial Workers**—Industrial workers who may contact onsite residues and surface soil, assuming the site is developed as an industrial facility without site remediation activities in the future (Exposure Area 2). The exposure scenario is also considered a conservative representation of future onsite groundskeepers.
- **Future Onsite Construction Workers**—Construction workers who may contact residues and surface/subsurface soil during future site redevelopment/construction activities in Exposure Area 2.
- **Future Offsite Construction Workers**—Construction workers who may contact surface/subsurface soil during future redevelopment/construction activities in Exposure Areas 1 and 3.

COCs were identified where the potential excess lifetime cancer risk (ELCR) or hazard index (HI) for a receptor group exceeded threshold values (a total ELCR of 1×10^{-4} or a target-organ-specific HI of 1.0). When a potential ELCR of 1×10^{-4} was exceeded for an exposure medium for a receptor group, the COPCs posing an individual ELCR greater than 1×10^{-6} in the environmental medium responsible for the unacceptable risks were identified as COCs. When a potential target-organ-specific HI exceeded 1.0 for an exposure medium for a receptor group, the COPCs posing a hazard quotient greater than 0.1 for that target organ in the environmental medium responsible for the unacceptable HI were identified as COCs. For lead, if the exposure model (ALM model) predicted more than 5 percent of the exposed population exceeding a blood lead level of 10 micrograms per deciliter, lead was identified as a COC for that potential receptor. Because risk estimates for onsite trespassers and offsite recreational users did not exceed threshold values, no COCs were identified for the receptor groups.

The COCs identified based on the conclusions of the revised HHRA are presented in the following subsections and in Table 2-1.

2.7.1 Future Industrial Workers

The noncancer HI estimate for future industrial workers exceeds the threshold value. For soil and residue (0 to 2 feet), antimony, zinc, and lead were identified as COCs. However, the cumulative ELCR was within the threshold value.

2.7.2 Future Construction Workers

The noncancer HI estimates for future construction workers exceed threshold values. For soil and residue (0 to 10 feet), antimony, cobalt, nickel, zinc, and lead were identified as COCs. However, the cumulative ELCR was within the threshold value.

2.8 Ecological Risk Screening Evaluation Summary

A screening-level ecological risk assessment (SLERA) was conducted for the Eagle Zinc Company Site by ENVIRON in 2004 as part of the RI report to evaluate whether valuable wildlife resources may be adversely impacted by exposure to site-related contaminants. The results of the SLERA indicated that elevated hazard quotients for selected receptors of concern in the Western and Eastern Drainage Areas are related to locally elevated levels of zinc and cadmium in surface water and sediment. The SLERA also concluded that additional information may be necessary to determine what, if any, further evaluation of offsite surface water and sediment is warranted for protection of valuable ecological resources.

A SLERA addendum was conducted for the Eagle Zinc site by ENVIRON in 2004 as part of the addendum to the RI report. The addendum was conducted to address USEPA concerns related to terrestrial ecological receptors and their potential exposures to constituents in onsite residue piles that may be transported away from the piles. Unlike a standard baseline risk assessment, hypothetical site data had been constructed using models. The

modeled data served as inputs to the SLERA addendum. Based on the data and ecological risk information developed, it was concluded that the ecological risks to terrestrial ecological receptors are negligible and, therefore, there is no need for any further action on the basis of ecological risk.

Analytical results from 2010 for surface water, sediment, soils, and residue were compared to the concentrations of chemicals detected in potentially site-impacted areas during investigations prior to 2010 to determine if the chemical concentrations detected in 2010 exceed those found during previous sample events. Within the Eastern Drainage Area, lead and manganese concentrations detected in surface water during the SRI exceeded those detected during historical sample events. However, lead and manganese concentrations exceeded historic maximum detected concentrations in only one and two of eight SRI surface water samples, respectively. Within the Western Drainage Area, copper and lead concentrations detected in surface water during the SRI exceeded those detected during historical sample events in approximately half of the SRI surface water samples. Within the Eastern Drainage Area, copper, manganese, and zinc concentrations detected in sediment during the SRI exceeded those detected during historical sample events. However, the concentrations of the metals exceeded historical maximum detected concentrations in only one to two of the nine SRI sediment samples. Within the Western Drainage Area, concentrations of manganese in sediment exceeded the historical maximum detected concentration in only one of eight SRI sediment samples, indicating only a minimal frequency of exceedance. Some metals with concentrations exceeding ecological screening levels were also detected in SRI surface soil samples at concentrations exceeding those detected during historical sample events. The metals consisted of copper, manganese, and zinc. However, the concentrations of the metals exceeded the historical maximum detected concentrations in only 1 or 2 of the 20 SRI surface soil samples, indicating only a minimal frequency of exceedance.

Although the SLERA concluded that there are no significant impacts to the terrestrial ecological community, there is significant risk to the aquatic organisms due to high levels of cadmium and zinc in sediment and surface water. The screening level for cadmium in sediment is 0.99 milligrams per kilogram (mg/kg) and 121 mg/kg for zinc. The zinc concentrations in the sediment range from 310 mg/kg to 245,000 mg/kg, significantly above the screening criteria and the probable effect concentration for zinc, which is 459 mg/kg. The cadmium concentrations in the sediment range from 0.91 mg/kg to 550 mg/kg. These levels are also significantly above the screening levels as well as the probable effect concentration (4.98 mg/kg). There are zinc and cadmium concentration in the surface water that exceed the Illinois Administrative Code (IAC) General Use Water Quality Standards and the Secondary Contact and Aquatic Life Standards – 0.0254 and 1 mg/L respectively. The surface water concentrations of zinc range from 0.155 to 26 mg/L.

The COCs identified based on the conclusions of the SLERA and SLERA addendum are presented in Table 2-1.

SECTION 3

Identification and Screening of Technologies

The following steps were taken to identify and screen remedial technologies for OU2 at the Eagle Zinc Site:

1. Identify ARARs.
2. Develop RAOs.
3. Determine PRGs and areas where they are exceeded.
4. Evaluate COCs against PRGs.
5. Develop general response actions.
6. Identify and screen technologies and process options.

3.1 Applicable or Relevant and Appropriate Requirements

Remedial actions must protect public health and the environment and address risks identified in the human health and ecological risk assessment. Section 121 of CERCLA requires that primary consideration be given to remedial alternatives that attain or exceed ARARs. The purpose of this requirement is to make CERCLA response actions consistent with other pertinent federal and state environmental requirements and adequately protect public health and the environment.

ARARs are grouped into three types: contaminant-specific, location-specific, and action-specific. The most critical ARARs are discussed in the following subsections. To-be-considered factors (TBCs) are non-promulgated advisories or guidance issued by federal or state government that are not legally binding and do not have the status of potential ARARs. In many circumstances, however, such factors will be considered, along with ARARs, in determining the level of cleanup required to protect human health and the environment. Table 3-1 lists potential ARARs, along with ARAR-specific status analysis relative to remediation at the site.

3.1.1 Chemical-specific ARARs

Chemical-specific ARARs include laws and requirements that establish health- or risk-based numerical values or methodologies for environmental contaminant concentrations or discharge. The contaminant-specific ARARs for the site can be classified into three categories: (1) residual concentrations of compounds that can remain at the site without presenting a threat to human health and the environment, (2) contaminant levels in discharges to surface waters, and (3) land disposal restriction (LDR) concentrations that must be achieved if the contaminated media is hazardous (characteristic hazardous waste or contains a listed hazardous waste) and is excavated and later disposed of offsite.

3.1.1.1 Residual Concentrations

There are no chemical-specific federal or Illinois ARARs for soil. TBCs for residual soil concentrations include the USEPA Region 9 PRGs and IEPA Tiered Approach to Corrective Action Objectives (TACO) remediation objectives. IEPA TACO remediation objectives are not ARARs because a facility may choose not to use them per Title 35 IAC 742.105 (a) and (b).

For groundwater the Illinois Water Quality Standards (IWQS) (IAC Part 620) for Class II aquifers are ARARs. Site groundwater is classified as Class II General Resource (CH2M HILL 2012).

IEPA TACO remediation objectives are not ARARs but are similar to the IWQS. For surface water, the IWQS (35 IAC Part 320), and Illinois Compiled Statutes 5 Section 13 are ARARs. The Federal Water Pollution Control Act, as amended by the Clean Water Act (CWA), also provides contaminant-specific water quality criteria for surface water, although these are TBC values rather than ARARs.

3.1.1.2 Contaminant Levels in Discharges to Surface Waters

The CWA established the NPDES, which is administered by IEPA. NPDES establishes allowable water quality limits for specific constituents in discharges to surface waters, including those from point sources and stormwater during construction.

The CWA also establishes water quality criteria for specific pollutants for the protection of human health and aquatic life. The federal water quality criteria are TBC as they are non-enforceable guidelines used by the state to set water quality standards for surface water.

3.1.1.3 Land Disposal Restriction Concentrations

The RCRA LDRs apply to remedial actions performed at the site that involve hazardous waste (such as residue piles that are hazardous and not excluded under 35 IAC Part 721,104(b)(7), otherwise known as the Bevill Exemption) and are excavated and taken offsite. No listed hazardous wastes are known to have been disposed at Eagle Zinc. However, 3 of the 15 residue piles tested for characteristic hazardous waste exceeding the TCLP limit of 5 mg/L for lead, making the 3 piles D008 characteristic hazardous waste if they not excluded from being hazardous waste (such as, by the Bevill Exemption) and if they are removed from the area of concern (AOC). The D008 waste and residue that exceeds the TCLP lead limit must be managed as a hazardous waste and must meet the LDR treatment standards for D008 characteristic hazardous waste (40 CFR 268.40). The LDR is 0.75 mg/L in the TCLP for lead extract, meaning that the treated characteristic hazardous waste residue that meets this standard can be disposed of in a Subtitle D landfill because it would no longer exhibit characteristics of a hazardous waste.

Soil that is a characteristic hazardous waste for lead must meet the LDRs for contaminated soil (40 CFR 268.49) prior to land disposal. Soil that is a characteristic hazardous waste for lead must meet a constituent concentration greater than the 90 percent reduction in the TCLP extract concentration or 7.5 mg/L for land disposal.

3.1.2 Action-specific ARARs

Action-specific ARARs regulate the specific type of action, technology under consideration, or the management of regulated materials. They generally set performance, design, or other similar action-specific controls or restrictions on particular kinds of activities related to management of hazardous substances or pollutants. The requirements are triggered by the remedial activities selected to accomplish a remedy. Since there are usually several alternative actions for any remedial site, very different requirements may apply. The action-specific requirements do not solely determine the remedial alternative, but indicate how or to what level treatment or cleanup will be achieved. CERCLA, RCRA, and the CWA regulations are the most important action-specific ARARs that may affect the RAOs and the development of remedial action alternatives at this site.

3.1.2.1 Comprehensive Environmental Response, Compensation, and Liability Act

CERCLA requires the selected onsite action to meet the substantive requirements of environmental rules and regulations that are ARARs. Offsite actions must comply with both administrative and substantive requirements of all applicable laws and regulations. CERCLA and the NCP also require that offsite facilities that receive any waste from a CERCLA site be approved per the “Offsite Rule.”

3.1.2.2 Resource Conservation and Recovery Act and Illinois Solid Waste Regulations

RCRA regulations governing the identification, management, treatment, storage, and disposal of solid and hazardous waste would be ARARs for alternatives that generate, store, treat or dispose of hazardous and solid waste. Such alternatives could include excavation of residue piles or soil and include the following requirements: waste management and treatment, container storage, manifesting, transportation, and disposal. The State of Illinois is authorized to administer the RCRA program, and the associated regulations are set forth in IAC Title 35 Subtitle G.

As noted, parts of the residue piles may be characteristic hazardous waste or may be excluded under the Bevill exemption. If the soil is characteristic hazardous waste and transported offsite or treated ex situ onsite, RCRA LDRs would apply, and treatment would be required in accordance with RCRA before disposal. RCRA generally prohibits the placement of “generated” hazardous waste in land-based units (for example, consolidated and capped) without meeting the LDRs and minimum technology requirements. However, USEPA recognized the need for flexibility in the RCRA program to allow for consolidation and in situ treatment of environmental media during remediation without triggering LDRs and minimum technology requirements. USEPA addressed the issue in the AOC policy, which allows wastes within an AOC to be consolidated or treated in situ without triggering LDRs or minimum technology requirements. The AOC interpretation may be applied to any hazardous remediation waste that is in or on the land. Note that hazardous remediation waste is generated when it is removed from the AOC or

placed in a management unit (for example, soil excavated and treated in containers). Therefore, RCRA treatment facility regulations would apply to onsite ex situ treatment of the residue piles and contaminated soil.

3.1.2.3 Clean Water Act

IEPA administers the following applicable programs for the Eagle Zinc alternatives that include stream relocation:

- NPDES
- Clean Construction or Demolition Debris
- 401 Water Quality Certification for U.S. Army Corps of Engineers (USACE) Section 404

The IEPA administers the NPDES program, which regulates discharges into waters of the U.S., including those from point sources and stormwater during construction.

USACE regulates dredge and fill activities in waters of the U.S. (including wetlands) under Section 404 of the CWA. Discharges associated with mechanized land clearing, ditching, channelization, and other excavation activities that destroy or degrade wetlands or other waters of the United States are regulated under Section 404. Although permits are not required for CERCLA onsite actions, substantive requirements must be met. The regulations state that no discharge of dredged or fill material will be permitted if it causes or contributes to violations of any applicable state water quality standard or violates any applicable toxic effluent standard or discharge prohibition under CWA Section 307. Regulations also prohibit discharges (or activities) that will cause or contribute to significant degradation of the waters of the United States. When a discharge (or activity) would degrade the waters of the United States, and there are no practicable alternatives to the discharge, compliance can be achieved generally through the use of appropriate and practicable mitigation measures to minimize or compensate for potential adverse impacts of the discharge (or activity) on the aquatic ecosystem. Section 404 requires a Section 401 water quality certification from IEPA, review by the U.S. Fish and Wildlife Service for compliance with the Endangered Species Act, and the State Historic Preservation Office for compliance with the National Historic Preservation Act. USACE regional permits may include substantive requirements that must be complied with. The IEPA Section 401 certification is a letter, not a permit issued by IEPA, that may contain substantive requirements. If an individual permit is required or the regional permit does not have 401 certification, IEPA will have to issue an individual 401 water quality certification for the project. An anti-degradation analysis would be prepared by IEPA and a public notice issued inviting comment on the analysis.

3.1.3 Location-specific ARARs

Location-specific ARARs are requirements that relate to the geographical position of the site. Examples of location-specific ARARs include state and federal laws and regulations that apply to the protection of wetlands, construction in floodplains, and protection of endangered species in streams or rivers. The most important location-specific ARARs for the Eagle Zinc Site are described in the following paragraphs.

The Fish and Wildlife Coordination Act protects fish and wildlife when actions modify the control or structure of a natural stream or body of water. The statute requires that any action take into consideration the effect that water-related projects would have on fish and wildlife, and then take action to prevent loss or damage to those resources.

The Illinois Department of Natural Resources, Office of Water Resources, regulates certain construction activities in floodways and floodplains of rivers, lakes, and streams through Part 3700. The rules apply to construction activities in the floodways of streams in urban areas where the stream drainage area is 1 square mile or more. The rules would apply to waterways without Federal Emergency Management Agency mapped floodways.

USACE regulation of dredge and fill activities in waters of the United States (including wetlands) under Section 404 of the CWA and the IEPA 401 water quality certifications as described in Section 3.1.2, Action-specific ARARs, are also location-specific ARARs.

Executive Order 11990 (Protection of Wetlands), 50 CFR § 6 Appendix A is a TBC. Executive Order 11990 requires that actions at the site be conducted in ways that minimize the destruction, loss, or degradation of wetlands.

Small wetland areas are adjacent to the onsite westward flowing ephemeral stream that originates in the center of the site.

3.2 Remedial Action Objectives

RAOs are developed based on ARARs and are site-specific objectives for the purpose of protecting human health and the environment. Once RAOs are designated, they serve as a basis for the development of remedial action alternatives necessary to meet the remediation goals. RAOs were developed for the media of concern that have unacceptable risks to human health and the environment based on the HHRA and SLERA findings. The media of concern for the Eagle Zinc Site are the residue and soil, groundwater, surface water, and sediment.

3.2.1 Residue and Soil

The following are the RAOs for residue and soil:

- Prevent the exposure to industrial and construction workers from COC concentrations in residue and soil that exceed the ELCR of 1×10^{-4}, an HI of 1, or the regional screening level.
- Prevent residue erosion of COCs into the surrounding water bodies so that PRGs are not exceeded in those water bodies or the sediment.
- Minimize leaching of COCs into the groundwater that discharges into surrounding water bodies in order to prevent unacceptable risk to aquatic receptors.

3.2.2 Surface Water and Sediment

The following is the RAO for surface water and sediment:

- Prevent unacceptable risk to aquatic receptors from COCs that exceed the PRG in the surface water and/or sediment within a reasonable timeframe.

The following is the RAO for surface water only:

- Minimize the discharge of COCs exceeding the PRG into the surrounding surface water bodies in order to prevent unacceptable risk to aquatic receptors.

3.3 Preliminary Remediation Goals

To meet the RAOs, PRGs were developed to define the extent of contaminated media requiring remedial action. In general, PRGs establish media-specific concentrations of COCs that will pose no unacceptable risk to human health and the environment. The PRGs were developed considering the following:

- Risk-based concentration levels corresponding to an ELCR between 1×10^{-4} and 1×10^{-6}, a chronic health risk defined by an HI of 1, or a significant ecological risk.
- Contaminant-specific ARARs and those “to be considered,” including IWQSs for Class II groundwater, IAC General Use Water Quality Standard and IAC Secondary Contact and Aquatic Life Standard
- Background concentrations of specific contaminants.

Tables 3-2, 3-3, 3-4, and 3-5 summarize the PRGs for residue and soil, groundwater, surface water, and sediment exposure pathways, respectively, for OU2 at the Eagle Zinc Site.

Residue COCs for human health direct contact, ingestion, and inhalation include antimony, lead, and zinc. Currently, the site is zoned industrial. Industrial land use is considered the most likely future land use. The USEPA industrial regional screening levels for soil apply to the residue and residue piles.

Groundwater PRGs are the Illinois Groundwater Quality Standards for Class II General Resource Groundwater. In addition, surface water PRGs discussed below were included for the groundwater perched within the residue because this groundwater discharges with minimal attenuation into the onsite drainageways.

In order to comply with the protection of aquatic life in surface water standard ARARs, PRGs were identified for copper, lead, and manganese, in addition to cadmium and zinc, for surface water (Table 2-1). Surface water PRGs include the National Ambient Water Quality Criteria and IWQS for general use, secondary contact, and aquatic life. Upstream background sample results are used as the PRG in cases where they exceed the standards. Sediment PRGs are based on probable effects levels, effects range medians, severe effects levels, and toxic effects thresholds as presented in MacDonald (2000).

3.4 Contaminated Media Exceeding PRGs

The areas and volumes of media that exceed the PRGs were developed by comparing investigative results with the applicable PRG. The following subsections discuss the media exceeding the PRGs.

3.4.1 Residue and Soil

Forty-seven residue/soil boring and residue pile samples exceed USEPA industrial regional screening levels, the PRGs for residue and soil, for one or more of the COCs. Most samples within the residue exceed at least one industrial PRG. Generally, soil below the residue does not exceed industrial PRGs. Figure 3-1 represents the area where PRGs are exceeded and present a human health risk from ingestion, dermal contact, and inhalation. The area where PRGs are exceeded is approximately 56 acres. The depth of residue is estimated based on the depth of residue and residue thickness encountered during historical and SRI investigations (Appendix B). An estimated 43,500 cubic yards of residue waste currently resides onsite in 15 residue piles (CH2M HILL 2008). The volume of residue spread across the site and not in specific piles is estimated to be 210,000 cubic yards based on historical borings and site investigations (CH2M HILL 2012).

An evaluation was conducted to identify the area of residue that may be contributing to the exceedance of groundwater and surface water above their respective PRGs. SPLP cadmium, SPLP lead, SPLP manganese, and SPLP zinc concentrations were observed above their respective PRGs, which identifies potential migration pathways to groundwater. SPLP metal concentrations above screening criteria suggest there is a potential for metals in residue and residue piles to leach to groundwater at concentrations exceeding screening levels in groundwater.

SPLP cadmium, SPLP copper, SPLP lead, and SPLP zinc concentrations were observed above their respective PRGs, which identifies potential migration pathways to surface water. SPLP metal concentrations above screening criteria suggest there is a potential for metals in residue and residue piles to leach to surface water at concentrations exceeding screening levels in surface water. The extent of residue that may be contributing to the exceedance of groundwater and surface water above their respective PRGs is within the extent of residue above the PRGs presented in Figure 3-1.

TCLP lead concentrations exceeded the RCRA hazardous criteria in 3 out of 15 residue piles (NP-14, RR1-3, and MP1-21; see Table IV-9 of the Technical Memorandum RI Phase 1: Source Characterization [ENVIRON 2003] and Figure 3-1).Table 3-6 summarizes the estimated volume of each pile exceeding RCRA hazardous criteria. Volume estimates are based on those presented in Table III-3 of the addendum to the RI report (ENVIRON 2004).

3.4.2 Groundwater

Groundwater is present in relatively impermeable clay, silty clay, and sandy clay that is present below the residue to a depth of about 15 feet below ground at the site. Perched water is also present in a relatively thin zone within the residue above the silty clay. The residue is expected to be much more permeable than the underlying soil. Rainfall would be expected to rapidly infiltrate, with minimal evapotranspiration losses, through the residue, flow

laterally on top of the silty clay, and discharge to the Eastern and Western Drainage Areas with only a relatively small proportion entering the silty clay.

The depth of contamination is limited to the shallow water within the residue. Groundwater in the shallow monitoring wells installed in 2010, which were all screened below the residue, did not show COCs above Class II groundwater standards. Groundwater 55 feet below the residue, monitored with a monitoring well installed in 2010, did not show COCs above Class II groundwater standards.

Nearly the entire site, including the area of the residue boundary, contains groundwater that exceeds the surface water PRGs (Figure 3-2). As water perched within residue discharges to surface water of the eastern and western drainageways, this area may potentially contribute to the surface water PRG exceedances.

3.4.3 Surface Water

Most surface water sample locations, other than the background location SW-WD-11, exceeded at least one PRG. Cadmium had the most and greatest exceedances of PRGs, followed by zinc. Cadmium and zinc exceeded PRGs in both the Western and Eastern Drainage Areas. The surface water locations exceeding PRGs are shown in Figure 3-3 along with the stream and ditch reaches exceeding PRGs.

3.4.4 Sediment

Sediment sample locations, other than location EZ-SD-ED-16 and the background location SD-WD-03, exceeded at least one PRG (Figure 3-4). Zinc had the most exceedances of PRGs, followed by cadmium (Table 4-5 SRI Report; CH2M HILL 2012). Cadmium and zinc exceeded PRGs in both the Western and Eastern Drainage Areas.

3.5 General Response Actions

After the RAOs and PRGs are developed, GRAs are identified to address them for affected media at the site. As defined in USEPA's *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, Interim Final* (1988), GRAs are media-specific actions that satisfy RAOs. Actions for mitigating risk posed by affected media may be applied individually or in combination. Table 3-7 summarizes the development of GRAs for achieving the RAOs in residue and soil, groundwater, surface water, and sediment.

3.6 Identify and Screen Technologies and Process Options

Due to the limited number of general response actions for remediation of groundwater, surface water, and sediment, specific remedial technologies within each remaining general response action were not screened but were assembled into remedial alternatives, as appropriate. Within each remaining general response action for residue, technology types and process options are identified and screened. Process options and entire technology types are eliminated from further consideration on the basis of technical implementability. Next, the technology processes considered to be implementable are evaluated in greater detail according to the following criteria:

- **Effectiveness** is the ability of the technology or process option to perform adequately to achieve the remedial objectives alone or as part of an overall system.
- **Implementability** refers to the relative degree of difficulty expected in implementing a particular measure under practical technical, regulatory, and schedule constraints.
- **Relative cost** is comparative only and is judged similar to the effectiveness criterion. It is used to preclude further evaluation of process options that are very costly where there are other choices that perform similar functions with comparable effectiveness. It includes construction and long-term operation and maintenance costs.

Table 3-8 summarizes the screening process for residue. Technologies and process options considered infeasible based on effectiveness, implementability, and costs are shown in shaded background. Screening was based on professional experience, published sources, and other relevant documentation.

SECTION 4

Detailed Analysis of Alternatives

4.1 Remedial Alternatives

The remedial technologies and process options that were retained in Section 3.6 were used in developing the remedial alternatives.

Most of the remedial components associated with the proposed remedial alternatives directly address the residue and residue piles that exceed PRGs (that is, immobilization, regrade, and a soil cover or cap). Regrading and soil cover or cap reduce infiltration through decreased permeability of surface soil (relative to residue) and increased evapotranspiration.

Surface water and sediment RAOs are addressed by remedial components that monitor contaminant concentrations in groundwater and the residue cover and cap components that minimize discharge of groundwater to surface water. The remedial components listed above reduce the flux of water through the residue and may result in a rapid reduction in COC concentrations in perched water that exceed PRGs, given the direct connection with rapid precipitation infiltration through the residue and subsequent discharge to the surface along the residue and native soil interface. Remedial components reduce leaching of COCs to perched water because perched water subsequently discharges to the surface and is therefore the primary reason for exceedances of surface water and sediment PRGs. Excavation, regrading, and soil cover or cap will also reduce erosion of residue into surface water drainage systems.

Sediment may be remediated by either excavation and disposal or by monitored natural attenuation. Excavation and disposal of sediment includes onsite disposal within the residue area to be covered or capped. Monitored natural attenuation relies on the remedial component of a soil cover or cap over residue to prevent erosion of contaminated residue and allow deposition of uncontaminated sediment over the existing sediment. The RAO for sediment is to prevent unacceptable risk to aquatic receptors from COC that exceed the PRG in the sediment within a reasonable timeframe.

The following subsections describe each remedial alternative.

4.1.1 Alternative 1—No Action

Alternative 1 provides a baseline evaluation of the proposed remedial alternatives, as required by the NCP. Under Alternative 1, no remedial actions would be conducted at the site. Direct contact with residue and soil would be a risk to industrial and construction workers if the residue were remained as is, or was further redistributed across the site in the future. Surface water would continue to exceed PRGs as a result of residue leaching to water perched in residue and impacted groundwater perched in residue discharging to surface water drainage systems. Sediment would remain a potential risk to ecological receptors.

For cost estimating purposes (Appendix D), 5-year reviews would be conducted for an estimated 30-year period of time in accordance with USEPA guidance. The 30-year period is used primarily to help ensure consistency when comparing different remedial alternatives. Remedial activities, however, including 5-year reviews, may continue beyond the 30-year period. At a minimum (as indicated above), 5-year reviews would continue at the site as long as hazardous substances, pollutants, or contaminants remain onsite above levels that allow for unlimited use and unrestricted exposure.

4.1.2 Alternative 2—Immobilization and IAC 807-Compliant Soil Cover

The main components of Alternative 2 are illustrated on Figure 4-1 and are discussed in the following subsections.

4.1.2.1 Institutional Controls

Deed notices and restrictive covenants would be added to the property's deed to notify future property owners that the residue and soil present at the site pose risks to human health and the environment. Measures would be taken to ensure that land-use restrictions would be maintained through future property transfers and

acquisitions. The restrictive covenant that prevents use of onsite groundwater would be maintained, and additional institutional controls would be included to control excavation and disposal of the residue.

4.1.2.2 Monitoring and Assessment

Groundwater, surface water, and sediment would be monitored. Groundwater, surface water, and sediment would be sampled quarterly for the first 2 years following implementation of the remedial action. Results would be evaluated and compared against PRGs, as presented in Tables 3-1 through 3-5. Pending analytical results, groundwater, surface water, and sediment monitoring may be reduced to annual sampling. The cost estimate assumes semiannual sampling after the first 2 years. An annual monitoring report would be prepared documenting analytical results, site inspections and trend analyses, and recommendations for proposed changes in the scope and frequency of the monitoring program, if appropriate. Alternative 2 assumes that eight monitoring wells and five colocated surface water and sediment locations would be sampled and analyzed for metals.

4.1.2.3 Onsite Immobilization of Residue Piles NP-14, RR1-3, and MP1-21

Residue piles that exhibit the characteristic of leachability (NP-14, RR1-3, and MP1-21) would be consolidated into one designated area and treated in situ using immobilizing agents to meet the SPLP, as well as TCLP-based PRGs for lead. The treated residue piles would be consolidated within the soil cover area (identified below) and then covered with clay and topsoil to form a soil cover. An option that includes offsite treatment and disposal of the residue piles at an appropriate disposal facility has been included in the cost estimate (Appendix D).

Immobilization is possible with agents such as phosphate, sulfide, or cement-based and use of specific agents would be determined during design. Bench-scale tests of the residue would be performed to evaluate several agents. The immobilization mix would be chosen based on cost effectiveness and ability to prevent leaching of contaminants at concentrations exceeding regulatory standards. The estimated volume of soil to be treated is approximately 2,100 cubic yards. The volume of the residue piles was determined during the draft FS (ENVIRON 2006).

4.1.2.4 Consolidation, Grading, and Cover of Residue and Residue Piles Exceeding PRGs

Loose residue and residue piles that exceed the PRGs, including that estimated within the southwestern surface water pond and the northwest portion of the site, would be consolidated within the southern portion of the existing residue boundary (Figure 4-1), graded, and covered with clay and topsoil. A thin layer of soil immediately below the residue will also be excavated to enable residue intermixed with the soil to be removed. The amount of soil to be removed from below the residue will be determined during excavation based on visual evidence and soil sampling results. Post-excavation confirmation sampling will be completed in order to verify the limits of excavation. The future temporary demolition management cell containing operable unit 1 demolition debris would be dismantled and incorporated into the residue area to be covered (Basis of Design [CH2M HILL 2011]). In addition, sediment from the two small onsite ponds would be remediated by monitored natural attenuation. Monitored natural attenuation relies on the remedial component of the soil cover over residue to prevent erosion of contaminated residue and allow deposition of uncontaminated sediment over the existing sediment. The area of residue to be covered is approximately 18 acres. The volume of residue outside the cover area to be consolidated is estimated to be 191,000 cubic yards, which is based on residue thicknesses identified during site investigations (Appendix B). The volume of surface soil outside the cover area to be consolidated and placed under the cover is estimated to be 62,220 cubic yards based on an excavation depth of 1 foot over the area outside the cover area but within the residue boundary (Figure 4-1). The specific location and dimensions of the consolidation and cover area would be determined during the design and would be consistent with future site development.

The area chosen for the consolidated placement of residue would first be cleared, grubbed, and regraded to establish the required design slopes (assumed to be 9 percent slopes but would be determined during the design). The final slopes of the soil cover would be designed to promote runoff while minimizing the potential for erosion. The residue would be covered with an IAC 807-compliant soil cover consisting of a compacted layer of no less than 24 inches of suitable material. The specific soil type for the soil cover would be selected in design, but for cost estimating purposes, it is assumed that the soil cover would consist of 24 inches of low-permeability clay and 6 inches of topsoil. The vegetated soil cover would prevent direct contact with the residue and the controlled

surface water drainage systems designed to keep surface water flow away from the consolidation area are expected to reduce infiltration through the residue and therefore reduce leaching of contaminants to perched water and exceedances of surface water and sediment standards.

4.1.3 Alternative 3—Immobilization and IAC 807-Compliant Soil Cover and Stream Re-alignment

The main components of Alternative 3 are illustrated in Figure 4-2 and are discussed in the following subsections.

4.1.3.1 Institutional Controls

Alternative 3 institutional controls are the same as those for Alternative 2.

4.1.3.2 Monitoring and Assessment

Alternative 3 monitoring and assessment is the same as that for Alternative 2, with the exception that sediment would not be monitored since it would actively be remediated under Alternative 3.

4.1.3.3 Immobilization of Residue Piles NP-14, RR1-3, and MP1-21

Alternative 3 immobilization of residue piles is the same as that for Alternative 2.

4.1.3.4 Consolidation and Cover of Residue, Residue Piles, and Soils Exceeding PRGs

Alternative 3 consolidation and cover of residue, residue piles, and soils exceeding PRGs is the same as that for Alternative 2; however, the area to be covered would be approximately 22 acres. The volume of residue outside the cover area to be consolidated is estimated to be 168,000 cubic yards, which is based on residue thicknesses identified during site investigations (Appendix B). The volume of surface soil outside the cover area to be consolidated and placed under the cover is estimated to be 58,000 cubic yards, based on an excavation depth of 1 foot over the area outside the cover area but within the residue boundary (Figure 4-2). The assumed required design would be 7 percent slopes (but would be determined during the design). The vegetated soil cover would prevent direct contact with the residue and the controlled surface water drainage systems designed to keep surface water flow away from the consolidation area are expected to reduce infiltration through the residue and therefore reduce leaching of contaminants to perched water and exceedances of surface water and sediment standards.

4.1.3.5 Stream Re-alignment, Sediment Excavation, and Onsite Consolidation

The westward flowing ephemeral stream that originates in the center of the site and flows to the southwestern corner of the site would be realigned to reduce surface water interaction with existing residue and to return the ephemeral stream to its natural flow pattern (Figure 4-2). The upper reaches of the stream would be shifted to the west and flow would be redirected towards the western site boundary. Prior to reaching the western site boundary the stream would be directed towards the south. The lower reaches of the stream would be shifted to the southwest around the northern shoreline of the surface water pond where it would be realigned to flow into its current path west of the site boundary. For cost estimating purposes, the new stream length is assumed to be 3,200 linear feet with bankfull dimensions of 8 feet wide and 1 foot deep. The wetland along the ephemeral stream would be excavated to accommodate the stream realignment. A new wetland footprint would be constructed (assumed to be 2.4 acres) to retain some of the wetland functions and habitat currently present onsite, as well as serve as storage capacity during larger storm events. Sediment from the former stream bed bottom would be excavated, as needed, and consolidated with residue underneath the soil cover. The existing surface water pond, stream, and wetland would be filled with soil excavated from the construction of the new stream channel and new wetland.

Sediment from the ditch and stream located along the southern perimeter of the site, the two small onsite ponds, and offsite tributary to the northeastern stream system that drains toward Lake Hillsboro would be remediated by excavation and onsite disposal under the soil cover. The banks of this 840-linear-foot offsite reach would be restored using typical bioengineering bank stabilization techniques.

The new stream, wetland, and offsite reach would be stabilized with native grass seed and native riparian trees and shrubs.

4.1.4 Alternative 4—Immobilization, IAC 811-Compliant Cap, Stream Re-alignment

The main components of Alternative 4 are illustrated in Figure 4-2 and are discussed in the following subsections.

4.1.4.1 Institutional Controls

The Alternative 4 institutional controls are the same as those for Alternative 2.

4.1.4.2 Monitoring and Assessment

The Alternative 4 monitoring and assessment are the same as those for as Alternative 2, with the exception that sediment would not be monitored since it would actively be remediated under Alternative 4.

4.1.4.3 Immobilization of Residue Piles NP-14, RR1-3, and MP1-21

The Alternative 4 immobilization of residue piles is the same as that for Alternative 2.

4.1.4.4 Consolidation and IAC 811 Cap of Residue and Residue Piles Area Exceeding PRGs

The Alternative 4 consolidation, etc. is the same as that for Alternative 3; however, the residue would be covered with an IAC 811-compliant cap instead of an IAC 807-compliant soil cover. The specific cap cross section would be selected in design, but for costing purposes it is assumed that the cross section would include (top to bottom) 0.5 foot of top soil, 3 feet of soil for freeze-thaw protection, double-sided geocomposite, 40-mil linear low-density polyethylene geomembrane, and 2-feet of low-permeability clay soil or a geosynthetic clay liner, and would then be vegetated. The assumed required design would be 7 percent slopes (but would be determined during the design). The cap would prevent direct contact, eliminate erosion of residue, and minimize infiltration through the residue, thus reducing the exceedance of surface water and sediment standards.

4.1.4.5 Stream Re-alignment, Sediment Excavation, and Onsite Consolidation

The Alternative 4 stream re-alignment, sediment excavation, and onsite consolidation is the same as that for Alternative 3.

4.1.5 Hydrologic Evaluation of Landfill Performance Model

USEPA's Hydrologic Evaluation of Landfill Performance (HELP) model was used to evaluate how soil covers and caps would reduce current infiltration. The HELP model is a quasi-two-dimensional hydrologic model for conducting water balance analyses of landfills, cover systems, and other solid waste containment facilities. Model input includes weather, soil, and design data. The primary purpose of the model is to compare infiltration volumes and head of precipitation built up in the various cover design alternatives. Version 3.07 of the HELP model was used to simulate hydrologic processes of the remedial alternatives. The model was run with precipitation station data from East St. Louis, Illinois. Synthetic data for weather parameters such as temperature, evapotranspiration, and solar radiation were generated for the location in the HELP model. Alternatives 1, 2, 3, and 4 were modeled for comparison purposes. Table 4-1 summarizes the major assumptions included in each of the scenarios and the results. Refer to Appendix C for the complete set of input values and results.

The model results show that minimal infiltration to the groundwater table would be expected for Alternatives 2 and 3 and at nearly a similar rate for both alternatives. However, virtually no infiltration to the groundwater table would be expected for Alternative 4.

4.2 Detailed Analysis of Remedial Alternatives

The detailed analysis of alternatives presents the information needed to compare the remedial alternatives. The analysis consists of a detailed evaluation of each alternative against the evaluation criteria, followed by a comparative evaluation. Table 4-2 discusses each alternative against the evaluation criteria presented in Section 4.2.

4.2.1 Evaluation Criteria

The evaluation criteria allow comparison of the relative performance of the alternatives and provide a means for identifying their relative advantages and disadvantages. In accordance with the NCP, remedial actions must accomplish the following:

- Be protective of human health and the environment
- Attain ARARs or provide justification for waiving ARARs that cannot be achieved
- Be cost-effective
- Use permanent solutions and alternative treatment technologies or resource-recovery technologies to the maximum extent practicable
- Satisfy the preference for treatment that reduces toxicity, mobility, or volume as a principal element

The NCP also emphasizes long-term effectiveness and related considerations, including the following:

- Long-term uncertainties associated with land disposal
- Goals, objectives, and requirements of the Solid Waste Disposal Act
- Persistence, toxicity, and mobility of hazardous substances and their constituents, and their propensity to bioaccumulate
- Short- and long-term potential for adverse health effects from human exposure
- Long-term maintenance costs
- Potential for future remedial action costs if the selected remedial action fails
- Potential threat to human health and the environment associated with excavation, transportation, disposal, or containment

Provisions of the NCP require that each alternative be evaluated against nine criteria listed in 40 CFR 300.430(e)(9). The criteria were published in the *Federal Register* for March 8, 1990 (USEPA 1990), to provide grounds for comparing the relative performance of the alternatives and identifying their advantages and disadvantages. The approach is intended to provide sufficient information to adequately compare the alternatives and to select the most appropriate alternatives for implementation at the site as a remedial action. The following are the evaluation criteria:

1. Overall protection of human health and the environment
2. Compliance with ARARs
3. Long-term effectiveness and permanence
4. Reduction of toxicity, mobility, or volume through treatment
5. Short-term effectiveness
6. Implementability
7. Cost
8. State acceptance
9. Community acceptance

The criteria are divided into three groups: threshold, balancing, and modifying criteria. Threshold criteria must be met by a particular alternative for it to be eligible for selection as a remedial action. There is little flexibility in meeting the threshold criteria—either they are met by a particular alternative or that alternative is not considered acceptable. The two threshold criteria are (1) overall protection of human health and the environment, and (2) compliance with ARARs. If ARARs cannot be met, a waiver may be obtained in situations where one of the six exceptions listed in the NCP occur (see 40 CFR 300.430 (f)(1)(ii)(C)(1 to 6).

Unlike the threshold criteria, the five balancing criteria weigh the tradeoffs among alternatives. A low rating on one balancing criterion can be compensated by a high rating on another. The following are the five balancing criteria:

- Long-term effectiveness and permanence
- Reduction of toxicity, mobility, or volume through treatment
- Short-term effectiveness

- Implementability
- Cost

The modifying criteria are community and state acceptance, which are evaluated following public comment and are used to modify the recommended alternative. The remaining seven evaluation criteria, encompassing both threshold and balancing criteria, are briefly described in the following subsections.

4.2.1.1 Threshold Criteria

To be eligible for selection, an alternative must meet the two threshold criteria described below, or in the case of ARARs, must justify for an appropriate waiver.

Overall Protection of Human Health and the Environment

Protectiveness is the primary requirement that remedial actions must meet under the CERCLA (1980). A remedy is protective if it adequately eliminates, reduces, or controls current and potential risks posed by the site through each exposure pathway. The assessment against this criterion describes how the alternative achieves and maintains protection of human health and the environment.

Compliance with ARARs

Compliance with ARARs is one of the statutory requirements of remedy selection. ARARs are cleanup standards, standards of control, and other substantive environmental statutes or regulations that are either “applicable” or “relevant and appropriate” to the CERCLA cleanup action (42 United States Code 9621 [d] [2]). Applicable requirements address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstances at a CERCLA site that are legally applicable. Relevant and appropriate requirements are those that while not applicable, address problems or situations comparable to those encountered at the CERCLA site, and therefore, their use is well-suited to environmental or technical factors at that site. The assessment against this criterion describes how the alternative complies with ARARs or presents the rationale for waiving an ARAR. Section 3.1 contains a discussion of potential ARARs for OU2 at Eagle Zinc Site.

4.2.1.2 Balancing Criteria

The five balancing criteria weigh the tradeoffs among the remedial alternatives.

Long-term Effectiveness and Permanence

This criterion reflects CERCLA’s emphasis on implementing remedies that will ensure protection of human health and the environment in both the long and the short term. Assessing alternatives against this criterion evaluates the residual risks at a site after remedial action is complete, or when a no-action alternative is chosen and includes evaluation of the adequacy and reliability of controls.

Reduction of Toxicity, Mobility, or Volume through Treatment

This criterion addresses the statutory preference for remedies that use treatment as a principal element. Assessment against this criterion evaluates the anticipated performance of a specific treatment technology used in the alternative. The criterion is specific to evaluating only how treatment reduces toxicity, mobility, or volume, and does not address containment actions such as capping.

Short-term Effectiveness

This criterion addresses short-term impacts of the alternatives. Assessment against this criterion examines the effectiveness of alternatives in protecting human health and the environment (that is, minimizing risks associated with an alternative) during the construction and implementation of a remedy until the response objectives have been met.

As outlined by USEPA (1988), the criterion includes four analysis factors: (1) protection of the community during remedial actions, (2) protection of workers during remedial actions, (3) environmental impacts, and (4) time until remedial response objectives are achieved.

Implementability

The implementability criterion relates to the technical and administrative feasibility of executing an alternative and the availability of various services and materials required during its implementation. Technical feasibility includes construction, operation, reliability of technology, ease of undertaking additional remedial action, and monitoring. Administrative feasibility refers to the activities needed to coordinate with other offices and agencies (for example, local permits). Availability of services and materials includes the following: availability of adequate offsite treatment, storage capacity, and disposal services; necessary equipment and specialists; services and materials; and prospective technologies.

Cost

Cost encompasses engineering, construction, and operation and maintenance costs incurred over the life of the project. Assessment against this criterion is based on the estimated present worth of each alternative. Present worth is a method of evaluating expenditures, such as construction and operation and maintenance, that occur over different lengths of time. Using present worth allows comparison of costs for remedial alternatives by discounting costs to the year in which the alternative is implemented. The present worth of a project represents the amount of money that, if invested in the initial year of the remedy and disbursed as needed, would be sufficient to cover costs associated with the remedial action. As stated in the RI/FS guidance (USEPA 1988), these estimated costs are expected to provide an accuracy of +50 to -30 percent. USEPA provided additional guidance on preparing feasibility study cost estimates in 2000 (USEPA 2000). Appendix D provides a breakdown of the cost estimate for each alternative.

The level of detail required to analyze each alternative against the evaluation criteria depends on the nature and complexity of the site, the types of technologies and alternatives being considered, and other project-specific considerations. The analysis is conducted in sufficient detail to understand the significant aspects of each alternative and to identify the uncertainties associated with the evaluation.

The cost estimates presented herein were developed strictly for comparing the alternatives. The final costs of the project and the resulting feasibility will vary from the cost estimates depending on actual labor and material costs, competitive market conditions, actual site conditions, final project scope, implementation schedule, the firm selected for final engineering design, and other variables. Because of these factors, project feasibility and funding needs must be reviewed before specific financial decisions are made or project budgets are established to help ensure proper project evaluation and adequate funding.

The cost estimates are order-of-magnitude estimates having an intended accuracy range of +50 to -30 percent. The range applies only to the alternatives as they are defined in Section 4.1 and does not account for changes in scope. Selection of specific technologies or processes to configure remedial alternatives is intended not to limit flexibility during remedial design, but to provide a basis for preparing cost estimates. The specific details of remedial actions and cost estimates would be refined during final design.

4.3 Comparative Analysis of Remedial Alternatives

Following the detailed analysis of the remedial alternatives, it was necessary to compare how well each alternative satisfied the evaluation criteria. The comparative analysis results for remedial alternatives are summarized in the following subsections.

4.3.1 Overall Protection of Human Health and the Environment

A remedy is protective if it adequately eliminates, reduces, or controls risks (USEPA 1988). Alternative 1 is not considered protective of public health because unacceptable risk to industrial and construction workers would exist under future industrial land use. Alternative 1 is not considered protective of the environment because of potential unacceptable risks to ecological receptors. Potential adverse impacts to aquatic and terrestrial receptors may occur if residue piles are disturbed in the future.

Alternatives 2, 3, and 4 are considered protective because each addresses the human health and environmental risks associated with the site. The alternatives differ in how they address the main risks posed at the site (the residue). Alternatives 2 and 3 would continue to allow some infiltration through the residue. As a result it is likely that risks to ecological receptors from exposure to cadmium and zinc in surface water in the western drainage will continue in the future. Under Alternative 2, the stream and pond will remain in place and, although residue within the pond is proposed for excavation (Figure 4-1), contaminated stream sediments will remain and the risk reduction will be lower than that expected with Alternative 3. Alternative 3 will be more protective than Alternative 2 due to excavation of the stream sediments, realignment of the stream away from the residue, and the elimination of the southwest pond. Alternative 4 would virtually eliminate infiltration through the residue. As a result, it is likely that risks to ecological receptors from exposure to cadmium and zinc in surface water in the western drainage will no longer be present.

Alternatives 2, 3, and 4 would place the loose residue, residue piles, and three immobilized residue piles onsite beneath either an IAC 807 compliant soil cover or a low-permeability IAC 811 compliant cap. As an option, the three residue piles exceeding TCLP could be immobilized and appropriately disposed of offsite. The cover and cap, along with institutional controls, are considered equally protective in preventing direct contact risks to future industrial or construction workers by preventing the exposure route.

4.3.2 Compliance with ARARs

Alternatives other than Alternative 1 comply with ARARs. They differ largely in the time to achieve groundwater and surface water ARARs. This time may be on the order of decades, though the alternatives would eventually achieve groundwater and surface water standards. The time to achieve the PRGs is largely dependent on the amount of continued leaching through the residue. Leaching in turn is dependent on the amount of infiltration through the residue and soil. Table 4-1 summarizes the estimated infiltration under each alternative.

Alternatives 2, 3, and 4 address the three residue piles that exceed TCLP through onsite immobilization, and either placement beneath a soil cover or cap or offsite disposal at either a Subtitle C or D landfill. This would eliminate leaching of COCs at levels causing groundwater and surface water PRG exceedance.

Alternative 4 incorporates a low-permeability IAC 811 compliant cap that would virtually eliminate infiltration through the residue (Table 4-1). Infiltration through the IAC 807-compliant cover would only be reduced under Alternatives 2 and 3 but not to the extent as with Alternative 4 (Table 4-1). As a result, the time until ARARs are met for groundwater and surface water is similar for Alternatives 2 and 3 and likely requires several decades. The time until groundwater and surface water PRGs are met would be shorter for Alternative 4.

4.3.3 Long-term Effectiveness and Permanence

Alternatives other than Alternative 1 have similar levels of long-term effectiveness and permanence. Alternative 4 offers somewhat greater long-term effectiveness than Alternatives 2 and 3 because the IAC 811 compliant cap would virtually eliminate infiltration through the residue and as a result it is likely that risks to ecological receptors from exposure to cadmium and zinc in surface water in the western drainage will be eliminated. Alternatives 2 and 3 will continue to allow some infiltration through the residue and as a result it is likely that risks to ecological receptors from exposure to cadmium and zinc in surface water in the western drainage will continue in the future.

4.3.4 Reduction of Toxicity, Mobility, and Volume through Treatment

Alternatives 2, 3, and 4 include treatment to reduce the leaching of lead in an estimated 2,100 cubic yards of residue. Each alternative would use similar immobilization agents to reduce mobility of lead in residue and prevent leaching. The alternatives are considered similar relative to this criterion.

4.3.5 Short-term Effectiveness

The six alternatives have minimal impact with respect to the exposure of workers, the community, or the environment during remedial construction, assuming adequate monitoring is conducted and mitigative actions are taken. Most important will be adherence to proper health and safety protection for workers, control of dust emissions during excavation and loading of trucks, as well as control of erosion during excavation through silt fencing.

Alternatives 3 and 4 have greater potential than Alternative 2 to have adverse environmental impacts during construction because more of the site and offsite stream location would undergo excavation. Covering the southwest pond and stream realignment would result in the destruction of the existing ecological habitat in the pond and stream bed in the eastern and western drainage areas and wetland adjacent to the eastern drainage area. However, a new stream bed will be created that does not have contaminated sediment present, and a new wetland pocket will be constructed.

The time until RAOs for protection of workers are met ranges from 3 to 5 months. Alternatives 3 and 4 would take the longest to construct (5 months), whereas Alternative 2 would require only 3 months. However, there are uncertainties and difficulty in reliably estimating the time required for sediments to naturally attenuate such that there will be no potentially unacceptable risks to ecological receptors with Alternative 2. It is expected though that several decades would likely be required before remedial goals are met as a result of natural deposition of uncontaminated sediment.

4.3.6 Implementability

Alternatives 3 and 4 would be more difficult to implement than Alternative 2. The main technical challenge is the steep topography that would be encountered with the stream realignment.

4.3.7 Cost

Appendix D presents an overview of the cost analysis performed and the detailed breakdowns for each alternative. Table 4-2 presents a cost summary.

Excluding Alternative 1, the lowest cost alternative is Alternative 2 with a present worth of $16,300,000. Alternative 3 is the next least costly alternative with a present worth of $19,500,00. Alternative 4 is considerably more costly, with a present worth of $25,500,000, largely because of the low permeability IAC 811-compliant cap and the creek realignment. The more aggressive approach adopted by Alternatives 3 and 4 reflect some cost-effectiveness in providing more certainty in eliminating risk as well as eliminating a significant amount of long-term monitoring by completing restoration of the wetland area. The sediment excavation and re-routing of the stream add only approximately 10 percent additional cost.

SECTION 5

Summary and Conclusions

The object of the FS was to develop and evaluate remedial alternatives to address unacceptable risk to human health and environment and to meet ARARs. As part of the evaluation, chemical-, action-, and location-specific ARARs were evaluated to develop remedial alternatives. The following RAOs were established based on regulatory requirements, standards, and guidance:

- Residue and soil:
  - Prevent the exposure to industrial and construction workers from COC concentrations in residue and soil that exceed the ELCR of 1×10^{-4}, an HI of 1, or the regional screening level.
  - Prevent residue erosion of COCs into the surrounding water bodies so that PRGs are not exceeded in those water bodies or the sediment.
  - Minimize leaching of COCs into the groundwater that discharges into surrounding water bodies in order to prevent unacceptable risk to aquatic receptors.
- Surface water only:
  - Minimize the discharge of COCs exceeding the PRG into the surrounding surface water bodies in order to prevent unacceptable risk to aquatic receptors.
- Surface water and sediment:
  - Prevent unacceptable risk to aquatic receptors from COCs that exceed the PRG in the surface water and/or sediment within a reasonable timeframe.

PRGs were developed for residue and soil, groundwater, surface water, and sediment based on the RAOs. First, GRAs were identified. Due to the limited number of GRAs for remediation of groundwater, surface water, and sediment, specific remedial technologies within each remaining general response action were not screened but were assembled into remedial alternatives, as appropriate. Then, within each remaining general response action for residue, potential remedial technologies were screened on the basis of effectiveness, implementability, and cost. Finally, four remedial alternatives were developed and assessed using the seven NCP evaluation criteria and compared in terms of ability to satisfy the criteria:

- Alternative 1—No Action
- Alternative 2—Immobilization and IAC 807-Compliant Soil Cover (18 acres)
- Alternative 3—Immobilization, IAC 807-Compliant Soil Cover, and Stream Re-alignment (22 acres)
- Alternative 4—Immobilization, IAC 811-Compliant Cap, and Stream Re-alignment (22 acres)

Alternative 1 does not meet the threshold evaluation criteria. Alternatives 2, 3, and 4 meet the threshold criteria. Alternatives 2, 3, and 4 are considered protective because each addresses the human health and environmental risks associated with the site. The alternatives differ in how they address the main risks posed at the site (the residue). Alternatives 2 and 3 would continue to allow some infiltration through the residue. As a result, it is likely that risks to ecological receptors from exposure to cadmium and zinc in surface water in the western drainage will continue in the future. Alternative 3 would virtually eliminate infiltration through the residue. As a result, it is likely that risks to ecological receptors from exposure to cadmium and zinc in surface water in the western drainage will no longer be present. Alternatives 2, 3, and 4 will reduce some contaminant mass due to immobilization of select residue piles. Alternatives 3 and 4 will more quickly eliminate unacceptable risk to ecological receptors due to excavation of sediments in stream and pond bottoms, whereas with Alternative 2 there are uncertainties and difficulty in reliably estimating the time required for sediments to naturally attenuate such that there will be no potentially unacceptable risks to ecological receptors.

Alternative 4 incorporates a low-permeability IAC 811 compliant cap that would virtually eliminate infiltration through the residue (Table 4-1). Infiltration through the IAC 807-compliant cover would be reduced under Alternatives 2 and 3 but not to the extent as with Alternative 4 (Table 4-1). As a result, the time until ARARs are met for groundwater and surface water is similar for Alternatives 2 and 3 and likely requires several decades. The time until groundwater and surface water PRGs are met would be much shorter for Alternative 4. The more aggressive approach adopted by Alternatives 3 and 4 reflect cost-effectiveness in providing more certainty in eliminating risk as well as eliminating a significant amount of long-term monitoring by completing restoration of the wetland area.

The preferred alternative will be presented in the proposed plan. In accordance with the NCP, the proposed plan, and other documents in the administrative record, will be released to the public for review and comment. The preferred remedy may be modified based on the comments received.

SECTION 6

References

Agency for Toxic Substances and Disease Registry. 2007. Toxicology Profile for Arsenic, Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

CH2M HILL. 2008. *Feasibility Study Supplement for the Eagle Zinc Company Site, Hillsboro, Illinois.* April.

CH2M HILL. 2011. *Final Basis of Design for the Onsite Management Cell.* June.

CH2M HILL. 2012. *Final Supplemental Remedial Investigation*, *Eagle Zinc Company Site*. May.

Drever, J. I. 1997. *The Geochemistry of Natural Waters*. Prentice Hall, 2nd ed.

EC, MENVIQ (Environment Canada and Ministere de l'Environnement du Quebec). 1992. *Interim criteria for quality assessment of St. Lawrence River sediment. Environment Canada, Ottawa.*

ENVIRON. 2003. *Technical Memorandum Remedial Investigation Phase 1: Source Characterization*.

ENVIRON. 2005. *Remedial Investigation Report, Eagle Zinc Company Site, Hillsboro, Illinois*. January.

ENVIRON. 2006. *Addendum to the Remedial Investigation Report. Remedial Investigation/Feasibility Study, Eagle Zinc Company Site, Hillsboro, Illinois*. February.

Goodwin and Broms, Inc. 1999. *Interim Report of Residue Sampling and Analysis* and *Monitoring Well Installations and Groundwater Sampling Interim Report.* March.

Illinois Environmental Protection Agency (IEPA). Bureau of Water. 2007. *Analytical report for Lake Hillsboro.*

Illinois State Geological Survey. 1969. *Glacial Geology of the Vandalia, Illinois, Region.* Alan M Jacobs and Jerry A. Lineback. Illinois State Geological Survey. Circular 442.

Illinois State Geological Survey. 2011. http://www.isgs.uiuc.edu/maps-data-pub/coal-maps/pennstratigraphy.shtml.

Long, E. R. and L. G. Morgan. 1991. *The potential for biological effects of sediment-sorbed contaminants tested in the National Status and Trends Program. NOAA Technical Memorandum NOS OMA 52. National Oceanic and Atmospheric Administration. Seattle, Washington.*

MacDonald, D.D. 2000. *Development and Evaluation of Consensus-Based Sediment Quality Guidelines for Freshwater Ecosystem.* January.

Persaud, D. R., R. Jaagumagi, and A. Hayton. 1993. *Guidelines for the protection and management of aquatic sediments in Ontario. Standards Development Branch. Ontario Ministry of Environment and Energy. Toronto, Canada.*

Schacklette, H. T. and Boerngen, J. G. 1984. Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States. U.S. Geological Survey Professional Paper. 1,270 pp. Washington, DC: US Government Printing Office.

Smith, S. L., D. D. MacDonald, K. A. Keenleyside, C. G. Ingersoll, and L. J. Field. 1996. *A preliminary evaluation of sediment quality assessment values for freshwater ecosystems. J. Great Lakes Res.* 22(3):624-638.

Suter, G. W. II, and C. L. Tsao. 1996. *Toxicological Benchmarks for Screening of Potential Contaminants of Concern for Effects on Aquatic Biota on Oak Ridge Reservation: 1996 Revision. Oak Ridge National Laboratory, Oak Ridge, TN*. 104pp. ES/ER/TM-96/R2.

U.S. Environmental Protection Agency (USEPA). 1988. *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, Interim Final*. October.

U.S. Environmental Protection Agency (USEPA). 1990. 40 C*ode of Federal Regulations* Part 300 National Oil and Hazardous Substances Pollution Contingency Plan, Final Rule, March 8.

U.S. Environmental Protection Agency (USEPA). 2000. *A Guide to Developing and Documenting Cost Estimates During the Feasibility Study*. July.

U.S. Environmental Protection Agency (USEPA). 2006. Illinois Administrative Code Section 302.

Tables

TABLE 2-1
Summary of Affected Media, Receptors, Pathways, and Contaminants of Concern
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

Receptors	Medium	Potential Exposure Pathways	Contaminants of Concern
Future Onsite Industrial Worker	Residue	Ingestion Dermal Inhalation	Antimony Lead Zinc
	Surface Soil	Ingestion Dermal Inhalation	Antimony Lead Zinc
Future Onsite Construction Worker	Residue	Ingestion Dermal Inhalation	Antimony Cobalt Lead Nickel Zinc
	Soil	Ingestion Dermal Inhalation	Antimony Cobalt Lead Nickel Zinc
Ecological Receptors	Surface Water		Total and Dissolved Cadmium Total and Dissolved Zinc
	Sediment		Cadmium Zinc

TABLE 3-1
Applicable or Relevant and Appropriate Requirements
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

Regulation	Requirement	ARAR Status	Analysis
Chemical-specific ARARs			
Soil and Residue			
CERCLA Guidance on Land Use in the CERCLA Remedy Selection Process	Establishes appropriate considerations in defining future land use.	TBC	CERCLA provides guidance to USEPA in selecting land use for remedy selection purposes.
IAC Title 35, Part 742, Tiered Approach to Corrective Action Objectives (TACO)	TACO establishes a framework for determining soil and groundwater remediation objectives and standards, and for establishing institutional controls. Tier 1 remediation objectives are set at 10^{-6} ELCR and HI =1 values. Section 742.900(d) Tier 3 remediation objectives allows cleanup levels within the ELCR range of 10^{-4} to 10^{-6}.	TBC	TACO is a voluntary program and is not required (Part 742.105 (a)). It provides guidance for development of site-specific soil and groundwater remediation objectives. It will be used to establish preliminary remediation goals.
USEPA Regional Screening Level Table for Chemical Contaminants at Superfund Sites,	Screening levels developed using risk assessment guidance from the USEPA Superfund program. They are risk-based concentrations derived from standardized equations combining exposure information assumptions with USEPA toxicity data. Screening levels are considered to be protective for humans over a lifetime; however, screening levels do not address non-human health endpoints, such as ecological impacts.	TBC	Levels may be considered for use as initial cleanup goal.
Groundwater			
IAC Title 35, Part 620.220; 620.420; IWQS Class II: General Resource Groundwater	Applicable to groundwater compatible with agricultural, industrial, recreational, or beneficial uses and not in Classes I, III, or IV.	ARAR	Applicable to the shallow groundwater.
IAC Title 35, Part 620.450(a), Alternative Groundwater Quality Standards— Groundwater Quality Restoration Standards	Applies to groundwater within a GMZ. May allow concentrations higher than designated use after remediation.	Potential ARAR	This is applicable if a GMZ is used.
Guidance for Evaluating the Technical Impracticability of Ground-Water Restoration, OSWER Directive No. 9234.2-25, dated September 1993	Applies to groundwater at contaminated sites. Establishes criteria for assessing the technical impracticability of groundwater remediation.	TBC	Groundwater in large areas of residue may make groundwater restoration technically impracticable.

TABLE 3-1
Applicable or Relevant and Appropriate Requirements
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

Regulation	Requirement	ARAR Status	Analysis
Surface Water			
Federal Water Pollution Control Act as amended by the Clean Water Act (CWA) of 1977, Section 208(b), Section 303, Section 304(a)(1)40 CFR Part 131–Water Quality Standards	Establishes water quality criteria for specific pollutants for the protection of human health and aquatic life. These federal water quality criteria are non-enforceable guidelines used by the state to set water quality standards for surface water.	TBC	Water quality criteria are TBCs used in assessing impacts to surface water and in setting NPDES standards for discharges to surface water, such as point source discharges from sediment dewatering. Technically not applicable to ephemeral streams or drainage ways.
40 CFR Parts 121 and 122 et seq. National Pollutant Discharge Elimination System (NPDES)	Requires the development and implementation of a storm water pollution prevention plan or storm water best management plan and may include contaminant limits. Outlines monitoring and inspection requirements. The IEPA implements the NPDES program and the associated storm water management requirements.	ARAR	May be applicable to runoff from construction activities depending on the selected remedial action alternative.
IAC Title 35, Subtitle C, Chapter I, Part 302, Illinois Water Quality Standards General Use—Subpart B Sections 302.201-212 Secondary Contact and Indigenous Aquatic Use – Subpart D	Section 11 of Environmental Protection Act—Regulations that establish numerical standards and procedures for deriving criteria for toxic substances without numerical standards, to restore, maintain, and enhance purity of the water of the state. Regulations address: • Acute standards apply within mixing zone • Chronic apply after mixing zone	ARAR	Subpart B applies to Illinois surface waters that do not have a specific use category, such as the east and west onsite drainageways. Subpart D may be applicable to the southwest surface water pond that is perennial and sufficient to support aquatic life.
Illinois Compiled Statutes 415 (ILCS) 5 Environmental Protection Act, Section 13 NPDES	Authorizes the Illinois Pollution Control Board to issue regulations to adopt water quality standards, effluent standards, standards for the issuance of permits, and requirements for the inspection of pollution sources and for monitoring the aquatic environment, and which directs the Board to adopt requirements, standards, and procedures which will enable the State to implement and participate in the NPDES established by the CWA (33 USC 1251 et seq.). Through Section 401 IEPA regulates activities resulting in a discharge of any pollutant into a wetland.	ARAR	Substantive requirements of regulations promulgated under the IEPA including 401 Water Quality Certification substantive requirements must be met for onsite actions. Offsite actions must comply with administrative and substantive requirements.
IAC Title 35, Part 304 Effluent Standards	Designates specific effluent limits for discharges to surface water.	Possible ARAR	Substantive requirements must be met for discharges to surface water from dewatering.
IAC Title 35, Part 309 NPDES Permits	Designates process used in setting NPDES effluent limits for discharges to surface water.	Possible ARAR	ARAR if remedial alternative includes discharge to surface water. Substantive requirements such as monitoring and achieving discharge limits must be met for onsite discharges; substantive and administrative requirements must be met for offsite discharges.

TABLE 3-1
Applicable or Relevant and Appropriate Requirements
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

Regulation	Requirement	ARAR Status	Analysis
NAWQC (National Ambient Water Quality Criteria, USEPA 2006) for protection of aquatic life	Compilation of national recommended water quality criteria containing recommended water quality criteria for the protection of aquatic life and human health in surface water. These criteria are published pursuant to Section 304(a) of the CWA and provide guidance for states and tribes to use in adopting water quality standards.	TBC	May be used in development of cleanup objectives for the site.
Illinois (IAC section 302.407) standards for secondary contact and indigenous aquatic life	Provides secondary contact and indigenous aquatic life standards. These must be met only by certain waters specifically designated in Part 303.	TBC	May be used in development of cleanup objectives for the site.
Sediment			
Development and Evaluation of Consensus-Based Sediment Quality Guidelines for Freshwater Ecosystems, MacDonald Environmental Sciences, Ltd., January 2000	Presents sediment quality guidelines for freshwater ecosystems.	TBC	Site specific sediment cleanup objectives are being developed for the site as described in this FS Report.
Air			
Clean Air Act –National Primary and Secondary Ambient Air Quality Standards 42 USC Section 7401-7671	The Clean Air Act and implementing regulations define air quality criteria and controls for protecting human health, including standards for particulate matter and inorganic compounds.	Possible ARAR	ARAR if remedial alternative results in air emissions. Substantive requirements for air emission control must be met to achieve air quality criteria.
IAC Title 35, Subtitle B: Air Pollution	Regulations contain specific requirements that pertain to allowable emissions of criteria pollutants from a number of air contaminant source categories and processes. Chapter I Part 243-245 sets ambient air quality standards for a variety of constituents including particulate matter and lead.	Possible ARAR	ARAR if remedial alternative results in air emissions. Air quality criteria and substantive requirements for air emission control must be met.
IAC Title 35, Part 212 Visible and Particulate Matter Emissions	Regulations contain specific requirements that pertain to allowable emissions of fugitive particulate matter.	ARAR	Dust control must be implemented to control visible particulate emissions during construction activities.
35 IAC Sections 212.301, 212.315, 212.316	Emission standards for visible emissions, vehicle covers, and roadway emissions.	ARAR	Applicable to on-site actions
IAC Title 35, Part 245 Odors	Regulations specify how to determine whether a nuisance odor is present.	ARAR	Odor control may be necessary if it is determined that a nuisance odor is present.

TABLE 3-1
Applicable or Relevant and Appropriate Requirements
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

Regulation	Requirement	ARAR Status	Analysis
Location-specific ARARs			
Endangered Species Act of 1973 16 USC §1531 et seq. 50 CFR 200	Requires that federal agencies ensure that any action authorized, funded, or carried out by the agency is not likely to jeopardize the continued existence of any threatened or endangered species or destroy or adversely modify critical habitat.	Not likely ARAR	The ecological risk assessment did not identify threatened or endangered species onsite.
Migratory Bird Treaty Act of 1972 16 USC 703-712	Establishes federal responsibility for the protection of the international migratory bird resources and requires consultation with the U.S. FWS during remedial design and remedial construction to ensure that the cleanup of the Site does not unnecessarily impact migratory birds. Taking, killing, or possessing migratory birds is unlawful.	Not likely an ARAR	The ecological risk assessment did not identify the habitats of any migratory birds.
National Historical Preservation Act 16 USC §661 et seq. 36 CFR Part 65	Establishes procedures to provide for preservation of scientific, historical, and archaeological data that might be destroyed through alteration of terrain as a result of a federal construction project or a federally licensed activity or program. If scientific, historical, or archaeological artifacts are discovered at the site, work in the area of the site affected by such discovery will be halted pending the completion of any data recovery and preservation activities required pursuant to the act and its implementing regulations.	Not likely ARAR	This may be an ARAR during the remedial activities if scientific, historic, or archaeological artifacts are identified during implementation of the remedy.
Fish and Wildlife Coordination Act (16 USC 661 et seq.)	The Act provides protection and consultation with the U.S. Fish and Wildlife Service and state counterpart for actions that would affect streams, wetlands, other water bodies, or protected habitats. Action taken should protect fish or wildlife, and measures should be developed to prevent, mitigate, or compensate for project-related losses to fish and wildlife.	Potential ARAR	The Act is considered a potential ARAR for construction activities performed during the implementation of remedies that may affect the drainageways, streams, ponds, and wetlands.
Fish and Wildlife Conservation Act (16 USC 2901-2912)	Requires federal agencies to utilize their statutory and administrative authority to conserve and promote conservation of non-game fish and wildlife species.	Potential ARAR	The Act is considered a potential ARAR for construction activities performed during the implementation of remedies that may affect the drainageways, streams, ponds, and wetlands.
Protection of Wetlands—Executive Order 11990 40 CFR Part 6, Appendix A	Requires actions to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. Appendix A requires that no remedial alternatives adversely affect a wetland if another practicable alternative is available. If none is available, effects from implementing the chosen alternative must be mitigated.	TBC	The ecological risk assessment noted the presence of wetlands associated with the onsite stream and southwest surface water pond. This applies to Alternatives 3 and 4.

TABLE 3-1
Applicable or Relevant and Appropriate Requirements
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

Regulation	Requirement	ARAR Status	Analysis
Section 404 of the Clean Water Act, 33 USC § 1344 - Permits for Dredged or Fill Material 40 CFR Part 230 and 33 CFR Parts 320-330	Regulations to authorize the discharge of dredged or fill material into waters (including wetlands) of the United States. The USACE and USEPA regard the use of mechanized earth-moving equipment in waters of the United States as resulting in a discharge of dredged material unless project-specific evidence shows that the activity results in only incidental fallback. They also consider relocation of a drainage ditch or ephemeral stream to fall within this Act. No discharge of dredged or fill material may be permitted if: (1) a practicable alternative exists that is less damaging to the aquatic environment or (2) the nation's waters would be significantly degraded. Requires that steps be taken to avoid, to the fullest extent practicable, adverse effects, especially on aquatic ecosystems and to provide compensation for any remaining unavoidable impacts. Consultation regarding threatened and endangered species may occur.	ARAR	Substantive requirements are likely to include measures to minimize re-suspension of sediments and erosion of sediments during excavation of sediments or creek re-alignment. Mitigation measures are likely to be required for wetlands. This would apply to Alternatives 3 and 4.
The Illinois Interagency Wetland Policy Act of 1989, Chapter 20 Executive Branch, Department of Natural Resources	Directs that State agencies preserve, enhance, and create wetlands where possible and avoid adverse impacts to wetlands from various state-managed or funded activities	TBC	The site is not currently state funded or managed. However, the state's goal for overall no net loss of wetlands can be considered.
Action-specific ARARs/TBC			
Illinois Stream Mitigation Guidance - Stream Mitigation Method for Processing Section 404 Clean Water Act Permit Applications in the State of Illinois	USACE guidance addresses typical impacts and mitigation methods in the context of compliance with CWA Section 404 and in support of Section 401 water quality certifications.	TBC	Technical and substantive aspects of the guidance will be considered for alternatives that include stream modification or relocation (Alternatives 3 and 4).
Federal Water Pollution Control Act as amended by the Clean Water Act of 1977, Section 401	Requires compliance with discharge limitations for discharge to waters, including water quality effluent limits, water quality standards, national performance standards, and toxic and pretreatment effluent standards.		NPDES program is administered by the state (see IAC NPDES Regulations). Applicable for actions involving discharges to surface water.

TABLE 3-1
Applicable or Relevant and Appropriate Requirements
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

Regulation	Requirement	ARAR Status	Analysis
Clean Air Act; National Ambient Air Quality Standards (NAAQS) Section 109 40 CFR 50-99	The Clean Air Act is intended to protect the quality of air and promote public health. Title I of the Act directed USEPA to publish national ambient air quality standards for "criteria pollutants." In addition, USEPA has provided national emission standards for hazardous air pollutants under Title III of the Clean Air Act. Hazardous air pollutants are designated hazardous substances under CERCLA. The Clean Air Act amendments of 1990 greatly expanded the role of National Emission Standards for Hazardous Air Pollutants by designating 179 new hazardous air pollutants and directed USEPA to attain maximum achievable control technology standards for emission sources. Such emission standards are potential ARARs if remedial technologies (such as incinerators or air strippers) produce air emissions of regulated hazardous air pollutants. Specifies requirements for air emissions such as particulates, sulfur dioxide, VOCs, hazardous air pollutants, and asbestos.	TBC	The NAAQSs are not applicable to the remedies under consideration. However, they are TBCs because emissions standards promulgated to enforce the Act are potential ARARs for remedies that involve creation of air emissions, such as excavation activities that might create dust.
Resource Conservation and Recovery Act (RCRA), (42 USC 321 et seq.)	RCRA was passed in 1976. It amended the Solid Waste Disposal Act by including provisions for hazardous waste management. Authority for implementation of RCRA in Illinois was given to the State of Illinois. See Illinois ARARs below under IAC Title 35 Parts 720 to 730.	ARAR	There is no documented evidence of disposal of listed hazardous waste at the site. Soil excavated for onsite ex situ treatment or offsite disposal may however be characteristic hazardous waste. See Illinois ARARs below for more details of specific requirements.
40 CFR 268, Land Disposal Restrictions (LDRs)	The land disposal restrictions prohibit land disposal or require treatment before land disposal for a wide range of hazardous wastes.	ARAR	This is an ARAR for on-site disposal of hazardous waste. It is applicable to slag or soils that exhibit a characteristic hazardous waste and are not exempted. Contaminated soils must meet the higher of 10 times the universal treatment standard or a 90 percent reduction of the contaminant concentration.
40 CFR Parts 121 and 122 et seq.	Requires the development and implementation of a water pollution prevention plan or a storm water best management plan. Also outlines monitoring and inspection requirement for a variety of activities. The IEPA implements the NPDES program and the associated storm water management requirements.	ARAR	May be applicable to runoff from construction activities depending on the nature of the remedial action selected.

TABLE 3-1
Applicable or Relevant and Appropriate Requirements
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

Regulation	Requirement	ARAR Status	Analysis
Section 404 of the Clean Water Act, 33 USC § 1344 - Permits for Dredged or Fill Material 40 CFR Part 230 and 33 CFR Parts 320-330	Regulations to authorize the discharge of dredged or fill material into waters (including wetlands) of the United States. The USACE and USEPA regard the use of mechanized earth-moving equipment in waters of the United States as resulting in a discharge of dredged material unless project-specific evidence shows that the activity results in only incidental fallback. They also consider relocation of a drainage ditch or ephemeral stream to fall within this Act. No discharge of dredged or fill material may be permitted if: (1) a practicable alternative exists that is less damaging to the aquatic environment or (2) the nation's waters would be significantly degraded. Requires that steps be taken to avoid, to the fullest extent practicable, adverse effects, especially on aquatic ecosystems and to provide compensation for any remaining unavoidable impacts.	ARAR	Requirements apply to dredging and capping. Substantive requirements are likely to include measures to minimize re-suspension of sediments and erosion of sediments during excavation. Mitigation measures are likely to be required for wetlands. Applicable to Alternatives 3 and 4 that include stream re-alignment.
IAC Title 35, Environmental Protection, Subtitle B: Air Pollution	This part describes permits and emission standards to protect air quality.	ARAR	This part is considered an ARAR for remedies that involve creation of air emissions, such as excavation activities that might create dust. This would apply to Alternatives 2, 3, and 4.
IAC Title 17: Conservation Chapter I, Subchapter h: Water Resources, Part 3700 Construction in Floodways of Rivers, Lakes and Streams	Protect the rights, safety and welfare of private and public landowners by the regulation of floodway development. Construction activities which restrict a stream's capacity to carry flood flows may result in channel instability and increased flood damages to neighboring properties. Applies to construction in the floodway of any stream serving a tributary of 640 acres or more in an urban area, or 6,400 acres or more in a rural area.	Not likely ARAR	Site drainage area may be below jurisdiction thresholds. If above thresholds, will be applicable to Alternatives 3 and 4 that include re-routing of streams or drainage ditches.
IAC Title 35, Part 212, Subpart K, Fugitive Particulate Matter	Site construction and processing activities would be subject to Sections 212.304 to 212.310 and 212.312 which relate to dust control.	ARAR	Remedial action may generate fugitive dust. Rules require dust control for storage piles, conveyors, onsite traffic, and processing equipment. An operating program (plan) is required and is to be designed for significant reduction of fugitive emissions. This would apply to Alternatives 2, 3, and 4.
IAC Title 35, Part 228 Asbestos	Requirements to limit asbestos emissions from a variety of sources including demolition.	Possible ARAR	Excavation of residue or soil is not expected to uncover asbestos containing material.

TABLE 3-1
Applicable or Relevant and Appropriate Requirements
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

Regulation	Requirement	ARAR Status	Analysis
IAC Title 35, Subtitle G: Waste Disposal, Subchapter c: Hazardous Waste Operating Requirements, Parts 720- 729	RCRA controls the management of hazardous waste from inception to ultimate disposal. RCRA is linked closely with CERCLA, and the CERCLA list of hazardous substances includes all RCRA hazardous wastes. Per 35 IAC 721,104(b)(7), certain wastes including zinc processing wastes are exempt from being considered hazardous (Bevill exemption) and are therefore regulated under 35 IAC Subtitle G Solid Waste . RCRA applies to remedies that generate, transport, or dispose of hazardous waste . IEPA has been given authorization to implement RCRA in Illinois. Standards applicable to hazardous waste generators, transporters and operators of hazardous waste treatment storage and disposal facilities.	ARAR	There is no documented evidence of disposal of listed hazardous waste at the site. Residue or soil excavated for onsite ex situ treatment or offsite disposal may however be characteristic hazardous waste, if not excluded under the Bevill exemption.
IAC Title 35, Subchapter c, Hazardous waste Operating Requirements; Part 721Identification and Listing of Hazardous Waste	Soils must be managed as hazardous waste if they contain listed hazardous waste or are characteristic hazardous waste unless they are excluded by regulation. Management of treatment residuals are subject to RCRA if residuals retain characteristic and are not exempt.	ARAR	There is no documented evidence of disposal of listed hazardous waste at the site, however, soil piles exhibit the characteristic of toxicity for lead. Soil excavated for onsite ex situ treatment or offsite disposal may however be characteristic hazardous waste, if not excluded under the Bevill exemption.
IAC Title 35, Subchapter c, Part 722; Standards Applicable for Generators of Hazardous Waste	Establishes regulation covering activities of generators of hazardous wastes. Requirements include identification number, record keeping, and use of uniform national manifest.	Possible ARAR	This is applicable if wastes are RCRA hazardous and are transported offsite. Wastes that are not treated ex situ and are consolidated onsite within an Area of Contamination are not considered to be “placed.”
IAC Title 35, Subchapter c, Part 724.110 to 724.119 Subpart B—General Facility Standards	General requirements and application of Section 264 standards for treatment, storage and disposal of hazardous waste.	ARAR	This is applicable if a RCRA hazardous waste treatment, storage or disposal facility is constructed onsite, which is a current remedial action alternative if the hazardous waste are not Bevill-exempted.
IAC Title 35, Subchapter c, Part 724.190 to 724.201 Subpart F—Releases from Solid Waste Management Units	Requirements for release of hazardous wastes from solid waste management units.	TBC	Investigation and remediation is performed under the USEPA Superfund program with RCRA requirements for SWMUs as TBCs.
IAC Title 35, Subchapter c, Part 724.210 to 724.220 Subpart G—Closure and Post-closure	General closure and post-closure care requirements. Closure and post-closure plans (including operation and maintenance), site monitoring, record keeping, and site use restriction.	TBC	Not an ARAR for closure of the site because the alternatives include treating the soils to render them non-hazardous; therefore, the site will not be a RCRA hazardous waste storage, or disposal facility.

TABLE 3-1
Applicable or Relevant and Appropriate Requirements
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

Regulation	Requirement	ARAR Status	Analysis
IAC Title 35, Subchapter c, Part 724.270 to 724.279 Subpart I–Use and Management of Containers	Standards applicable for owners and operators of hazardous waste facilities that store containers of hazardous waste.	Possible ARAR	This is an ARAR if the remedy uses containers for storage of hazardous waste.
IAC Title 35, Subchapter c, Part 724.290 to 724.300 Subpart J–Tank Systems	Standards applicable for owners and operators that use tank systems for storing or treating hazardous waste.	Possible ARAR	ARAR if remedy uses tanks for storage of hazardous waste such as liquids which exceed TCLP limits.
IAC Title 35, Subchapter c, Part 724.320 to 724.332 Subpart K–Surface Impoundments	Standards applicable for owners and operators that use surface impoundments to treat, store, or dispose of hazardous waste.	Not a likely ARAR	Surface impoundments are not a current remedial action alternative.
IAC Title 35, Subchapter c, Part 724.350 to 724.359 Subpart L—Waste Piles	Requirements for hazardous waste kept in piles. Requirements include liner and leachate collection unless in a container or structure.	Not likely an ARAR	Waste piles are not a current remedial action alternative.
IAC Title 35, Subchapter c, Part 724.370 to 724.383 Subpart M–Land Treatment	Standards applicable for owners and operators of facilities that treat or dispose of hazardous waste in land treatment units.	Possible ARAR	ARAR if treatment of soil piles to render them non-hazardous occurs in a land treatment unit.
IAC Title 35, Subchapter c, Part 724.650 to 724.655 Subpart S–Special Provisions for Cleanup	Standards applicable for corrective action management units, temporary units, and staging piles.	ARAR	Staging piles or temporary units may be needed for residue that may be a characteristic hazardous waste.
IAC Title 35, Subchapter c, Part 724.700 to 724.703 Subpart X–Miscellaneous Units	Standards applicable for owners and operators that treat, store, or dispose of hazardous waste in miscellaneous units.	Possible ARAR	ARAR if alternatives consider treatment or storage of the TCLP hazardous soil piles in miscellaneous units.
IAC Title 35, Subchapter c, Part 728	Identifies land disposal restrictions and treatment requirements for materials subject to restrictions on land disposal. Must meet waste-specific treatment standards prior to disposal in a land disposal unit.	Possible ARAR	This is an ARAR for disposal of hazardous waste including remedies that include onsite consolidation and capping of materials. This is applicable to residue or soils that are hazardous waste if not excluded. Contaminated soils must meet the higher of 10 times the universal treatment standard or a 90 percent reduction of the contaminant concentration.
USEPA Area of Contamination Policy	Allows wastes within and Area of Contamination to be consolidated and treated in-situ without triggering RCRA LDRs or minimum technology requirements	TBC	Applicable to Alternatives 2, 3, and 4 which include onsite consolidation, treatment and covering/capping of soils and sediments.

TABLE 3-1
Applicable or Relevant and Appropriate Requirements
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

Regulation	Requirement	ARAR Status	Analysis
IAC Title 35, Subtitle G: Subchapter f: Part 740 Site Remediation Program	Presents requirements for the site remediation program.	TBC	The Illinois site remediation program requirements under Part 740 are specifically excluded for sites on the NPL (740.105—Applicability).
IAC Title 35, Subtitle G: Subchapter f: Site Remediation Program, Section 740.530 Establishment of Groundwater Management Zones	Presents requirements for establishment of groundwater management zones (GMZs). GMZs are three-dimensional areas where groundwater exceeds the groundwater standards of IAC Title 35 Part 620.	TBC	The Illinois site remediation program requirements under Part 740 are specifically excluded for sites on the NPL (740.105—Applicability).
IAC Title 35, Subtitle G: Subchapter f: Site Remediation Program, Section 740.535 Establishment of Soil Management Zones	Presents requirements for establishment of soil management zones (SMZs). SMZs can be used for onsite placement of contaminated soils for structural fill or land reclamation or consolidation of contaminated soils within a remediation site. Soil with contaminants exceeding criteria cannot be placed in areas of soil meeting criteria.	TBC	The Illinois site remediation program requirements under Part 740 are specifically excluded for sites on the NPL (740.105—Applicability).
IAC Title 35, Subtitle G: Subchapter f: Part 742. Tiered Approach to Remedial Action Objectives	Establishes the procedures for investigative and remedial activities at sites where there is a release, threatened release, or suspected release of hazardous substances, pesticides, or petroleum, and for the review of those activities; establish procedures to obtain IEPA review and approval of remediation costs for the environmental remediation tax credit; and establish and administer a program for the payment of remediation costs as a brownfield site. Presents requirements for the tiered approach to corrective action objectives (TACO). Tier 1 remediation objectives are set at 10^{-6} ELCR and HI =1 values. Section 742.900(d) Tier 3 remediation objectives allows cleanup levels within the ELCR range of 10^{-4} to 10^{-6}.	TBC	TACO is a voluntary program and is not required (Part 742.105 (a)). It provides guidance for development of site-specific soil and groundwater remediation objectives.
IAC Title 35, Subtitle G: Subchapter f: Tiered Approach to Remedial Action Objectives. Subpart J Institutional Controls, Part 742.1000 to 742.1020	Provides requirements for when ICs are needed and presents requirements for implementation of ICs. ICs are needed when land use is assumed to be industrial or commercial, risk exceeds a HI = 1 or ELCR > 1 x 10-6, engineered barriers are used, exposure routes are excluded, or when the point of exposure requires control.	TBC	This provides guidance for development of ICs. TACO is a TBC since it is not required.

TABLE 3-1
Applicable or Relevant and Appropriate Requirements
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

Regulation	Requirement	ARAR Status	Analysis
IAC Title 35, Subtitle G: Subchapter f: Tiered Approach to Remedial Action Objectives. Subpart J Engineered Barriers, Part 742.100 to 742.1105	Provides requirements for engineered barriers. Barriers include the following: • Soil component of groundwater pathway: (1) caps or walls consisting of clay, asphalt, or concrete; or (2) permanent structures such as buildings or highways. • Soil ingestion pathway: (1) caps or walls consisting of clay, asphalt, or concrete; (2) permanent structures such as buildings or highways; or (3) uncontaminated soil, sand, or gravel that is at least 3 feet thick. • Soil inhalation pathway: (1) caps or walls consisting of clay, asphalt, or concrete; (2) permanent structures such as buildings or highways; or (3) uncontaminated soil, sand, or gravel that is at least 10 feet thick.	TBC	This provides guidance for development of ICs. TACO is a TBC since it is not required.
IAC Title 35, Subtitle G: Subchapter h; Illinois "Superfund" Program; Part 750 Illinois Hazardous Substances Pollution Contingency Plan	Establishes requirements for investigation and remediation of sites where there has been a release or a substantial threat of a release of a hazardous substance. Parallels USEPA's Superfund program.	TBC	This is not an ARAR. The Illinois Hazardous Substances Pollution Contingency Plan is applicable to state response taken at sites that are not the subject of a federal response taken pursuant to CERCLA.
IAC Title 35 Subtitle G; Chapter I; subchapter i (Parts 807 through 832)	The Illinois solid waste management regulations apply to the design, permitting, operations, and closure of solid waste disposal facilities used for nonhazardous wastes. These regulations are potential ARARs including those regulations governing special waste classification and waste hauling and manifesting.	Potential ARAR	Potentially applicable to Alternatives 2, 3, and 4 which include onsite consolidation, treatment and covering/capping of contaminated materials, and to alternatives that include offsite transportation and disposal of non-hazardous wastes.
IAC Title 35, Part 807Solid Waste Hauling	This part describes requirements for solid waste hauling.		This is an ARAR for transportation and disposal of solid waste. This would potentially apply to Alternatives 2, 3, and 4.
IAC Title 35, Subtitle G, Chapter I, Part 811 Applies to All New Landfills	Requirements for new solid waste landfills. Standards for new solid waste landfills may be potentially considered relevant and appropriate as related to the design, construction, monitoring, and O&M of an on-Facility Area capping system. Outlines requirements for disposal of inert wastes (Subpart B), putrescible and chemical wastes (Subpart C), and special wastes (Subpart D).	ARAR	This is a potential ARAR for Alternatives 2, 3, and 4 which include onsite consolidation and covering/capping of wastes that have been treated and rendered non-hazardous, or are non-hazardous due to the Bevill exemption.

TABLE 3-1
Applicable or Relevant and Appropriate Requirements
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

Regulation	Requirement	ARAR Status	Analysis
IAC Title 35, Subtitle H: Part 900 Noise	Regulations contain specific requirements that pertain to nuisance noise levels, sound emission standards and limitations that will be applicable or relevant and appropriate during implementation of the remedy.	Possible ARAR	This is an ARAR. Noise levels will need to be controlled if noise reaches nuisance levels.
IAC 1100 Public Act 094-0725	Regulations governing clean fill or demolition debris fill operations.	ARAR	ARAR for alternatives that include placing clean fill. This would apply to Alternatives 2, 3, and 4.
Guidance for NPDES Construction Site Stormwater Discharges in the State of Illinois	Guidance related to implementation of the Federal CWA General Construction Permit program in Illinois.	TBC	Guidance for controlling storm water discharges associated with construction. This would apply to Alternatives 2, 3, and 4.
IAC Title 35 Part 750	Establishes procedures for assessing and remediating Illinois State Superfund sites.	TBC	While this is a CERCLA Superfund Site, these state Superfund regulations may be considered.

ARAR	applicable or relevant and appropriate requirement
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
cm/s	centimeters per second
DOT	Department of Transportation
ELCR	excess lifetime cancer risk
GMZ	groundwater management zone
gpd	gallons per day
HI	hazard index
IAC	Illinois Administrative Code
IC	institutional control
IEPA	Illinois Environmental Protection Agency
IWQS	Illinois Water Quality Standards
MCL	maximum contaminant level
MCLG	maximum contaminant level goal
NAAQS	National Ambient Air Quality Standards
NCP	National Contingency Plan
NPDES	National Pollutant Discharge Elimination System
RCRA	Resource Conservation and Recovery Act
SDWA	Safe Drinking Water Act
SMCL	secondary maximum contaminant level
SMZ	soil management zone
SWMU	solid waste management unit
TACO	Tiered Approach to Corrective Action Objectives
TBC	to be considered
USC	United States Code
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

TABLE 3-2
Preliminary Remediation Goals for Residue and Soil (milligrams per kilogram)
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

Residue and Soil COC	Illinois Background Value[a]	USEPA Industrial Regional Screening Level[b]
Antimony	3.3	410
Cobalt	8.9	300
Lead	20.9	800
Nickel	13.0	20,000
Zinc	60.2	310,000

[a] Outside Metropolitan Statistical Area from Urban Area Polycyclic Aromatic Hydrocarbons Study Tiered Approach to Corrective Action Objectives.

[b] USEPA Regional Screening Level Table, Summary Table, November 2011.

Bold values are used as lowest applicable PRG—see text for further explanation.

TABLE 3-3
Preliminary Remediation Goals—Groundwater COCs for Protection of Aquatic Life in Surface Water (micrograms per liter)
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

Contaminant	Background (SW-WD-11)	NAWQC	IAC General Use Water Quality Standards	IAC Secondary Contact and Aquatic Life
Cadmium	0.19 J	**0.59**	2.61	150
Copper	3.7 J	**26.3**	33.4	1,000
Lead	3.8	**9.6**	60.7	100
Manganese	**250**	120	1,000	1,000
Zinc	72 U	344	**62.8**	1,000

Bold values are used as lowest applicable PRG—see text for further explanation.

See Table 3-4 for notes related to groundwater PRGs protective of aquatic life in surface water.

TABLE 3-4
Preliminary Remediation Goals—Surface Water (micrograms per liter)
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

	Surface Water a			
Surface Water COC	Background (SW-WD-11)	NAWQC	IAC General Use Water Quality Standards	IAC Secondary Contact and Aquatic Life
Cadmium	0.19 J	**0.59** [c]	2.61 [d]	150
Copper	3.7 J	**26.3** [c]	33.4 [d]	1,000
Lead	3.8	**9.6** [c]	60.7 [d]	100
Manganese	**250**	120 [b]	1,000	1,000
Zinc	72 U	344 [c]	**62.8** [d]	1,000

Bold values are used as lowest applicable PRG—see text for further explanation.

[a] The surface water PRGs are the NAWQC (National Ambient Water Quality Criteria, USEPA 2006) for protection of aquatic life, the Illinois General Use Water Quality Standards (IAC Section 302.208) and Illinois (IAC section 302.407) standards for secondary contact and indigenous aquatic life.

[b] Secondary chronic value (Suter and Tsao 1996).

[c] Based on mean hardness of 353 mg/L (TABLE VII-1b; Environ 2004) and the following calculations from USEPA 2006:
Cadmium = EXP(0.7409*(LN(hardness))-4.719)*(1.101672-(LN(hardness)*(0.041838)))
Zinc = EXP(0.8473*(LN(hardness))+0.884))*0.986

[d] Based on mean hardness of 353 mg/L (TABLE VII-1b; Environ, 2004) and the following calculations from IAC 302.208: Cadmium = EXP(-3.49 + 0.7852*(LN(hardness)))*(1.101672-(LN(hardness)*(0.041838)))
Zinc = EXP(-0.8165 + 0.8473*(LN(hardness)))*0.986

TABLE 3-5
Preliminary Remedial Goals—Sediment (milligrams per kilogram)
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

Sediment COC	Background (SD-WD-05)	PRG[a]	Basis	Comment	Source
Cadmium	0.48	**4.98**	PEC	Geometric mean of benchmarks listed below	MacDonald et al. 2000
Zinc	310 J	**459**	PEC	Geometric mean of benchmarks listed below	MacDonald et al. 2000

Bold values are used as lowest applicable PRG—see text for further explanation.
[a] Include probable effects levels (Smith et al. 1996), effects range medians (Long and Morgan 1991), severe effects levels (Persaud et al. 1993), and toxic effects thresholds
(EC, MENVIQ 1992).

TABLE 3-6
Residue Piles Exceeding PRGs
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

Residue Pile	Volume Estimate (cubic yards)
MP1-21	500
NP-14	500
RR1-3	1,100
Total Volume	**2,100**

TABLE 3-7
General Response Actions Retained for the Eagle Zinc Site
OU2 Feasibility Study—Eagle Zinc Superfund Site, Hillsboro, Illinois

Media	GRA	Approach to Achieving the RAO
Residue and Soil		
	No action	A baseline alternative will be evaluated because it is required by CERCLA, but no action will not achieve the RAO.
	Institutional Controls	Institutional controls for residue consist of restricting access to contaminated residue through fencing or land use restrictions (such as deed notices).
	Containment	Containment is used to minimize the risk of contaminant migration as well as prevent direct contact exposures. Asphalt and soil capping are example remedial technologies that could be used to eliminate exposure to contaminated residue, limit the infiltration of precipitation, and help prevent contaminant migration offsite. Surface controls such as grading and re-vegetating can be used to reduce infiltration of precipitation through contaminated residue and prevent erosion and offsite transport of contaminated residue.
	In Situ Treatment	In situ treatment methods can be used to reduce contaminant concentrations in residue and does not require removal of the impacted residue for treatment. In situ methods that may be applicable at the site include physical/chemical technologies. A wide variety of technologies are considered in screening, including stabilization/solidification. In situ stabilization/solidification involves chemical reactions that physically bind or reduce the mobility of inorganic contaminants.
	Removal	Removal involves excavation of residue. Removal options will be combined with other GRAs such as ex situ treatment and either offsite or onsite disposal.
	Ex Situ Treatment	Physical or chemical treatment technologies are used once residue is excavated, as necessary. Based on the concentration of contaminants present in some of the residue piles most likely to be excavated at the site, it is probable that some portion of the residue will require treatment to meet LDR

TABLE 3-7
General Response Actions Retained for the Eagle Zinc Site
OU2 Feasibility Study—Eagle Zinc Superfund Site, Hillsboro, Illinois

Media	GRA	Approach to Achieving the RAO
		prior to disposal. Chemical processes such as stabilization to treat the soil to meet soil disposal criteria will be evaluated.
	Disposal	Includes either offsite or onsite disposal. Disposal options will be combined with other GRAs such as removal and ex situ treatment prior to disposal.
Surface Water		
	No Action	A baseline alternative will be evaluated because it is required by CERCLA, but no action will not achieve the RAO.
	Institutional Controls	Institutional controls for surface water consist of restricting access to contaminated surface water through fencing or land use restrictions (such as deed notices). The risks related to surface water are limited to ecological risks so ICs are not applicable to surface water.
	Monitoring	Establishes a program with appropriately identified locations to monitor chemical concentrations and migration. Monitoring does not achieve the RAO as a standalone GRA. However, monitoring may be used in conjunction with other GRAs to satisfy the RAO.
	Surface Water Runoff Interception/Collection/Treatment	Involves interception of surface water runoff through grading or diversion, collection of surface water, and subsequent treatment or removal of contaminants. As noted, the remedial components listed above for residue and soil may result in a rapid reduction in COC concentrations in surface water that exceed PRGs, given the direct connection with rapid precipitation infiltration through the residue, discharge to the surface along the residue and native soil interface, and subsequent discharge to surface water drainage areas. As a result, surface water runoff interception, collection, and treatment will not be evaluated further.
	Discharge	Includes discharging treated surface water back to surface water feature or publically owned treatment works. Discharge is not needed because collection or runoff interception of surface water was not retained.
Sediment		
	No action	A baseline alternative will be evaluated because it is required by CERCLA, but no action will not achieve the RAO.
	Institutional Controls	Institutional controls for sediment consist of restricting access to contaminated sediment through fencing or land use restrictions (such as deed notices). The risks related to sediment are limited to ecological risks so institutional controls are not applicable to sediment.
	Monitoring	Establishes a program with appropriately identified locations to monitor chemical concentrations and migration. Monitoring does not achieve the RAO as a standalone GRA. However, monitoring may be used in conjunction with other GRAs to satisfy the RAO.
	Removal	Removal involves excavation of sediment. Removal options do not achieve the RAO as a stand-along GRA. However, removal options will be combined with other GRAs such as treatment and either offsite or onsite disposal to satisfy the RAO.
	Treatment	Physical or chemical treatment technologies are used once sediment is excavated, as necessary. Based on the concentration of contaminants present in the sediment most likely to be excavated at the site, it is probable that the sediment will not require treatment to meet LDR prior to disposal. Chemical processes such as stabilization to treat the soil to meet soil disposal criteria will not be evaluated further.
	Disposal	Includes either offsite or onsite disposal. Disposal options will be combined with other GRAs such as removal prior to disposal. Disposal does not achieve the RAO as a standalone GRA. However, disposal may be used in conjunction with other GRAs to satisfy the RAO.

TABLE 3-8
Technology/Process Option Evaluation—Residue
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

General Response Action	Remedial Technologies	Process Options	Description	Technical Implementability Screening Comments	Effectiveness	Technical and Administrative Implementability	Capital/Operation and Maintenance Cost	Screening Comments
No Further Action	None	None	No action					Required for comparison by NCP. Does not meet RAOs.
Institutional Controls	Access Restrictions	Fencing	Restrict access to residue through fencing	Technically implementable	Fair	Good	Low/Low	Does not meet RAOs and is not needed once a soil cover or cap is placed.
		Land Use Restrictions	Restrict access to residue through restrictive covenants on property deeds (Deed Notice)	Technically implementable	Fair	Good	Low/Low	Potentially feasible if used in conjunction with other technologies.
Containment	Surface Controls	Grading	Reshape topography to control infiltration, runoff, and erosion	Technically implementable	Good	Good	Low/Low	Potentially feasible if used in conjunction with other technologies.
		Revegetation	Add topsoil, seed, and fertilize to establish vegetation (to control erosion and reduce infiltration)	Technically implementable	Good	Good	Low/Low	Potentially feasible if used in conjunction with other technologies.
	Soil Cover	Soil	Place soil cover over residue; Includes a topsoil cover layer to protect soil	Technically implementable	Good	Good	Moderate/Moderate	Potentially feasible if used in conjunction with grading and revegetation.
	Capping	Clay	Place clay over residue; Includes a cover layer to protect clay	Technically implementable	High	Good	Moderate/Moderate	Potentially feasible if used in conjunction with grading and revegetation.
		Pavement	Place asphalt or concrete over residue	Technically implementable	Good	Good	High/Moderate	Asphalt and concrete require regular maintenance to repair cracks, resulting in more expensive maintenance compared to soil. Also the cap needs to remain in place for centuries, thus increasing the chance that future maintenance may not be performed and leaching of residue recur, and therefore, this option is not retained.
		Geosynthetic Clay Layer/ Synthetic Membrane	Place geosynthetic clay layer or synthetic material over residue; includes a protective cover layer	Technically implementable	Good	Good	High/Moderate	Potentially feasible if used in conjunction with grading and revegetation.
	Horizontal Subsurface Barriers	Block Displacement	Encapsulate block of residue with grout in conjunction with vertical barriers	Technically implementable	Fair	Fair	High/Low	Typically more feasible for isolated and/or small contaminant areas. Would be very expensive to implement for entire area of residue. Therefore, this option is not retained.
		Grout Injection	Create barrier by pressure injection of grout	Technically implementable	***Fair***	Fair	High/Low	Usually more feasible for isolated and/or small contaminant areas. Would be very expensive to implement for entire area of residue Therefore, this option is not retained.
Excavation and Ex Situ Treatment	Removal	Backhoe/Front -end Loader	Physically remove residue	Technically implementable	Good	Good	Low/NA	Potentially feasible for smaller areas of residue to be consolidated within the cover or cap area. Not cost competitive for entire residue area.
	Physical/ Chemical	Oxidation	Degrade contaminants by chemical, photo, or other oxidation	Is not suited to metals; Not implementable				
		Stabilization	Immobilize contaminants	Technically implementable	Good	Good	Moderate/ NA	Potentially feasible for inorganic contaminated-residue.
		Vitrification	Melt/solidify residue/soil matrix	Technically implementable	Potential	Poor	Very High/NA	Very high cost of treatment. Technical implementability is poor because it is complex to operate, requiring specialized training and skills. This option is not retained.
		Vapor Extraction	Purge volatiles by forcing clean air through soil piles	Is not suited to metals; Not implementable				
		Solvent Extraction	Fractionates soil into three phases (soil, water, and solvent)	Is not suited to metals; Not implementable				

TABLE 3-8
Technology/Process Option Evaluation—Residue
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

General Response Action	Remedial Technologies	Process Options	Description	Technical Implementability Screening Comments	Effectiveness	Technical and Administrative Implementability	Capital/Operation and Maintenance Cost	Screening Comments
	Biological	Aerobic Biological Treatment	Residue and soil treated in piles or windrows and aerated either by tilling or through a network of air lines	Is not suited to metals; Not implementable				
	Thermal	Low-Temp Desorption	Desorb contaminants/ treat offgas	Is not suited to metals; Not implementable				
		Onsite Incineration	Combust residue and soil at high temperature	Is not suited to metals; Not implementable				
		Plasma	Expose residue and soil to super-heated plasma	Is not suited to metals; Not implementable				
		Infrared	Decompose contaminants with infrared radiation	Is not suited to metals; Not implementable				
		Wet Air Oxidation	Use high temperature and pressure to thermally oxidize contaminants	Is not suited to metals; Not implementable				
		Offsite Incineration	Combust residue and soil in offsite commercial incinerator	Is not suited to metals; Not implementable				
	Onsite	Consolidation	Place excavated residue under cover or cap area	Technically implementable	Good	Good	Low/ NA	Potentially feasible if used in conjunction with other technologies. Onsite consolidation of residue is low in cost and effective.
Disposal	Offsite	RCRA Subtitle C or D Landfill	Remove residue for disposal in RCRA Subtitle C or D permitted landfill	Technically implementable	Good	Poor	High/NA	Residue that is hazardous and not excluded under 35 IAC Part 721.104(b)(7), otherwise known as the Bevill Exemption, and are excavated and taken offsite is subject to land disposal restrictions. Disposal in a Subtitle D landfill is very costly and relocates residue and consumes a large portion of available landfill space. Due to large volume of residue, this option is cost prohibitive. This option is not retained for the large volume of residue. However, this option is retained for the smaller volume of residue that exceeds TCLP limits.

Effectiveness is the ability to perform as part of a comprehensive alternative that can meet RAOs under conditions and limitations that exist at the site.
Implementability is the likelihood that the process could be implemented as part of the remedial action plan under the regulatory, technical, and schedule constraints.
Cost is for comparative purposes only, relative to other processes/technologies that perform similar functions.
Process options that have been screened out and not retained are shaded in grey.
NA Not applicable

TABLE 4-1
HELP Model Assumptions and Results
OU2 Feasibility Study, Eagle Zinc Superfund Site, Hillsboro, Illinois

Assumptions	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Average slope	1%	9%	7%	7%
Vegetation	Poor Vegetation	Grass covered	Grass covered	Grass covered
Lowest permeability layer	Residue and Soil	Compacted Clay	Compacted Clay	LLDPE Geomembrane
Results-average annual infiltration	6.820 in./acre	4.077 in./acre	4.069 in./acre	0.000 in./acre
Average Daily Head Built up on Barrier Layer	Not applicable (no barrier layer)	1.236 in.	1.235 in.	0.014 in.

TABLE 4-2
Detailed Analysis of Remedial Alternatives
OU2 Feasibility Study for the Eagle Zinc Superfund Site, Hillsboro, Illinois

Alternative Description: Criterion	Alternative 1—No Action	Alternative 2—Immobilization and IAC 807-Compliant Soil Cover (18 acres)[b]	Alternative 3—Immobilization, IAC 807-Compliant Soil Cover, and Stream Re-alignment (22 acres)[c]	Alternative 4—Immobilization, IAC 811-Compliant Cap, and Stream Re-alignment (22 acres)[d]
1. Overall protection of human health and the environment	Antimony, lead, and zinc in residue and surface soil would pose unacceptable risks for future onsite industrial workers. Antimony, cobalt, lead, nickel, and zinc in residue and soil would pose unacceptable risks for future onsite construction workers. Total and dissolved cadmium and total and dissolved zinc in surface water could potentially pose unacceptable risks to ecological receptors. Cadmium and zinc in sediments could potentially pose unacceptable risks to ecological receptors. Potential adverse impacts to aquatic and terrestrial receptors may occur if residue piles are disturbed in the future.	Institutional controls would identify the area of residue and soil contamination and minimize the potential risks resulting from excavation. Institutional controls would also prohibit any disturbance or change to the cover without prior approval from USEPA and prohibit use of groundwater at the site. Monitoring of groundwater, surface water, sediment, and habitat quality would allow early identification of impacts on environmental receptors. Onsite immobilization of residue piles MP1-21, NP-14, and RR1-3 and onsite disposal of the three treated residue piles beneath the soil cover would prevent direct contact risks and erosion of residue. Included as an option to Alternative 2, offsite disposal of the three treated residue piles would eliminate any future direct contact risks and erosion of residue in these 3 piles. Consolidation of loose residue, residue piles, and soil areas exceeding PRGs and covering with an IAC 807-compliant cover would prevent direct contact risks; covering of these materials would also protect ecological receptors by preventing wind or runoff erosion of residue. Ecological risks related to surface water in the eastern drainage would no longer be present because the residue is removed from this area and leaching of zinc and cadmium would no longer occur. The IAC 807-compliant soil cover will continue to allow some infiltration through the residue. As a result it is likely that risks to ecological receptors from exposure to cadmium and zinc in surface water in the western drainage will continue in the future.”	Institutional controls would identify the area of residue and soil contamination and minimize the potential risks resulting from excavation. Institutional controls would also prohibit any disturbance or change to the cover without prior approval from USEPA and prohibit use of groundwater at the site. Monitoring of groundwater, surface water, sediment, and habitat quality would allow early identification of impacts on environmental receptors. Onsite immobilization of residue piles MP1-21, NP-14, and RR1-3 and onsite disposal of the three treated residue piles beneath the soil cover would prevent direct contact risks and erosion of residue. Included as an option to Alternative 3, offsite disposal of the three treated residue piles would eliminate any future direct contact risks and erosion of residue in these 3 piles. Consolidation of loose residue, residue piles, and soil areas exceeding PRGs and covering with an IAC 807 compliant cover would prevent direct contact risks; covering of these materials would also protect ecological receptors by preventing wind or runoff erosion of residue. Ecological risks related to surface water in the eastern drainage would no longer be present because the residue is removed from this area and leaching of zinc and cadmium would no longer occur. Stream re-alignment would restore the natural flow patterns of the streams. Stream and pond remediation would prevent direct contact risks with ecological receptors. The IAC 807-compliant soil cover will continue to allow some infiltration through the residue. As a result it is likely that risks to ecological receptors from exposure to cadmium and zinc in surface water in the western drainage will continue in the future.	Institutional controls would identify the area of residue and soil contamination and minimize the potential risks resulting from excavation. Institutional controls would also prohibit any disturbance or change to the cover without prior approval from USEPA and prohibit use of groundwater at the site. Monitoring of groundwater, surface water, sediment, and habitat quality would allow early identification of impacts on environmental receptors. Onsite immobilization of residue piles MP1-21, NP-14, and RR1-3 and onsite disposal of the three treated residue piles beneath the soil cover would prevent direct contact risks and erosion of residue. Included as an option to Alternative 4, offsite disposal of the three treated residue piles would eliminate any future direct contact risks and erosion of residue. in these 3 piles Consolidation of loose residue, residue piles, and soil areas exceeding PRGs and covering with an IAC 811-compliant cap would prevent direct contact risks; covering of these materials would also protect ecological receptors by preventing wind or runoff erosion of residue. Ecological risks related to surface water in the eastern drainage would no longer be present because the residue is removed from this area and leaching of zinc and cadmium would no longer occur. Stream re-alignment would restore the natural flow patterns of the streams. Stream and pond remediation would prevent direct contact risks with ecological receptors. The IAC 811-compliant cap will virtually eliminate infiltration through the residue. As a result it is likely that risks to ecological receptors from exposure to cadmium and zinc in surface water in the western drainage will no longer be present.
2. Compliance with ARARs[a]	Leaching of contaminants from the residue and residue piles to groundwater would continue to result in exceedance of federal ARARs or IWQS Class II groundwater standards. Surface water in the drainageways would continue to exceed IWQS for cadmium, copper, lead, manganese, and zinc. Soil TBCs within TACO would not be met.	Immobilization of the select residue piles would help attain compliance with groundwater and surface water ARARs. The immobilization would remove the characteristic of leachability from the residue. In option to dispose of select immobilized residue piles offsite, would comply with RCRA LDRs for D008 characteristic hazardous waste (0.75 mg/L lead in the extract) and would be disposed in accordance with RCRA requirements. Covering of loose residue, residue piles, and immobilized residue with an IAC 807-compliant 18-acre soil cover in the southwestern part of the site would help attain compliance with groundwater and surface water ARARs. Groundwater and surface water standards may be met more quickly as a result of elimination of erosion of residue and reduced infiltration through the residue in the southwestern area of the site. It is likely that groundwater and surface water standards would continue to be exceeded for the foreseeable future, even with immobilization of the select residue piles and the 18-acre soil cover.	Immobilization of the select residue piles would help attain compliance with groundwater and surface water ARARs. The immobilization would remove the characteristic of leachability from the residue. In option to dispose of select immobilized residue piles offsite, would comply with RCRA LDRs for D008 characteristic hazardous waste (0.75 mg/L lead in the extract) and would be disposed in accordance with RCRA requirements. Covering of loose residue, residue piles, and immobilized residue with an IAC 807-compliant 22-acre soil cover in the southwestern part of the site would help attain compliance with groundwater and surface water ARARs. Groundwater and surface water standards may be met more quickly as a result of elimination of erosion of residue and reduced infiltration through the residue in the southwestern area of the site. It is likely that groundwater and surface water standards would continue to be exceeded for the foreseeable future, even with immobilization of the select residue piles and the 18-acre soil cover.	Immobilization of the select residue piles would help attain compliance with groundwater and surface water ARARs. The immobilization would remove the characteristic of leachability from the residue. In option to dispose of select immobilized residue piles offsite, would comply with RCRA LDRs for D008 characteristic hazardous waste (0.75 mg/L lead in the extract) and would be disposed in accordance with RCRA requirements. Covering of loose residue, residue piles, and immobilized residue with an IAC 811-compliant 22-acre cap in the southwestern part of the site would virtually eliminate infiltration and leaching of contaminants in the underlying residue to groundwater. Capping would help attain compliance with groundwater and surface water ARARs. Groundwater and surface water standards will likely be met much more quickly as a result of elimination of erosion of residue and elimination of infiltration through the residue in the southwestern area of the site.

TABLE 4-2
Detailed Analysis of Remedial Alternatives
OU2 Feasibility Study for the Eagle Zinc Superfund Site, Hillsboro, Illinois

Alternative Description: Criterion	Alternative 1—No Action	Alternative 2—Immobilization and IAC 807-Compliant Soil Cover (18 acres)[b]	Alternative 3—Immobilization, IAC 807-Compliant Soil Cover, and Stream Re-alignment (22 acres)[c]	Alternative 4—Immobilization, IAC 811-Compliant Cap, and Stream Re-alignment (22 acres)[d]
3. Long-term effectiveness and permanence				
a. Magnitude of residual risks	Risks would remain because there would be minimal attenuation of the COCs.	COCs are left in place so long-term residual risks would remain if exposure occurs. The likelihood of exposure would be significantly reduced, however, because the residue and soil are covered and institutional controls would prohibit inappropriate uses and provide notification of the risks associated with excavation and use of groundwater. Leaching from the treated residue piles, MP1-21, NP-14, and RR1-3, would be eliminated. The potential for adverse effects to ecological receptors would remain because of the timeframe required for natural attention of sediments exceeding PRGs in surface water drainage systems. The 807 soil cover will continue to allow some infiltration through the residue. As a result it is likely that risks to ecological receptors from exposure to cadmium and zinc in surface water in the western drainage will continue in the future.	COCs are left in place so long-term residual risks would remain if exposure occurs. The likelihood of exposure would be significantly reduced, however, because the residue and soil are covered and institutional controls would prohibit inappropriate uses and provide notification of the risks associated with excavation and use of groundwater. The potential for leaching from the treated residue piles, MP1-21, NP-14, and RR1-3, would be eliminated. The potential for adverse effects to ecological receptors would be eliminated because sediments exceeding PRGs in surface water drainage systems would be removed through excavation and onsite disposal under the soil cover. The 807 soil cover will continue to allow some infiltration through the residue. As a result it is likely that risks to ecological receptors from exposure to cadmium and zinc in surface water in the western drainage will continue in the future.	COCs are left in place so long-term residual risks would remain if exposure occurs. The likelihood of exposure would be significantly reduced, however, because the residue and soil are covered and institutional controls would prohibit inappropriate uses and provide notification of the risks associated with excavation and use of groundwater. The potential for leaching from the treated residue piles, MP1-21, NP-14, and RR1-3, would be eliminated. The potential for adverse effects to ecological receptors would be eliminated because sediments exceeding PRGs in surface water drainage systems would be removed through excavation and onsite diposal under the soil cover. The 811 cap will virtually eliminate infiltration through the residue. As a result it is likely that risks to ecological receptors from exposure to cadmium and zinc in surface water in the western drainage will be eliminated.
b. Adequacy and reliability of controls	Not applicable.	Institutional controls, such as deed restrictions are necessary to prevent intrusive activities into residue and impacted soils. They are considered adequate and reliable. Immobilization has been proven as an adequate and reliable control for preventing leaching of metals such as lead. The IAC 807-compliant soil cover would be adequate and reliable to prevent direct contact under industrial land use. It would also be adequate and reliable to prevent erosion of residue and reduce infiltration through the residue.	Institutional controls, such as deed restrictions are necessary to prevent intrusive activities into residue and impacted soils. They are considered adequate and reliable. Immobilization has been proven as an adequate and reliable control for preventing leaching of metals such as lead. The IAC 807-compliant soil cover would be adequate and reliable to prevent direct contact under industrial land use. It would also be adequate and reliable to prevent erosion of residue and reduce infiltration through the residue.	Institutional controls, such as deed restrictions are necessary to prevent intrusive activities into residue and impacted soils. They are considered adequate and reliable. Immobilization has been proven as an adequate and reliable control for preventing leaching of metals such as lead. The low permeability IAC 811-compliant cap would be adequate and reliable in preventing direct contact, infiltration, and erosion of residue and soil with concentrations exceeding PRGs.
4. Reduction of toxicity, mobility, or volume through treatment				
a. Treatment process used	Not applicable.	Immobilization reduces the mobility of lead in residue to prevent leaching.	Immobilization reduces the mobility of lead in residue to prevent leaching.	Immobilization reduces the mobility of lead in residue to prevent leaching.
b. Degree and quantity of reduction of toxicity, mobility, or volume	Not applicable.	About 2,100 cubic yards of residue would be treated to prevent leaching.	About 2,100 cubic yards of residue would be treated to prevent leaching.	About 2,100 cubic yards of residue would be treated to prevent leaching.
c. Irreversibility of reduction of toxicity, mobility, or volume	Not applicable.	Immobilization of lead in residue would be reversible because lead is not destroyed. This would be unlikely, however, because residue would be covered and not exposed to processes that could increase leachability.	Immobilization of lead in residue would be reversible because lead is not destroyed. This would be unlikely, however, because residue would be covered and not exposed to processes that could increase leachability.	Immobilization of lead in residue would be reversible because lead is not destroyed. This would be unlikely, however, because residue would be covered and not exposed to processes that could increase leachability.
d. Type and quantity of treatment residuals	None, because no treatment included.	Additional volume of residue of 10 to 30 percent would be generated through immobilization technologies.	Additional volume of residue of 10 to 30 percent would be generated through immobilization technologies.	Additional volume of residue of 10 to 30 percent would be generated through immobilization technologies.
e. Statutory preference for treatment as a principal element	Preference would not be met because treatment would not be included.	Preference would be met for only the three residue piles.	Preference would be met for only the three residue piles.	Preference would be met only for the three residue piles.

TABLE 4-2
Detailed Analysis of Remedial Alternatives
OU2 Feasibility Study for the Eagle Zinc Superfund Site, Hillsboro, Illinois

Alternative Description: Criterion	Alternative 1—No Action	Alternative 2—Immobilization and IAC 807-Compliant Soil Cover (18 acres)[b]	Alternative 3—Immobilization, IAC 807-Compliant Soil Cover, and Stream Re-alignment (22 acres)[c]	Alternative 4—Immobilization, IAC 811-Compliant Cap, and Stream Re-alignment (22 acres)[d]
5. Short-term effectiveness				
a. Protection of workers during remedial action	No remedial construction, so no risks to workers.	Risks from exposure to contaminants in dust and through direct contact during construction activities can be controlled through proper health and safety procedures included in the Health and Safety Plan.	Risks from exposure to contaminants in dust and through direct contact during construction activities can be controlled through proper health and safety procedures included in the Health and Safety Plan.	Risks from exposure to contaminants in dust and through direct contact during construction activities can be controlled through proper health and safety procedures included in the Health and Safety Plan.
b. Protection of community during remedial action	No remedial construction, so no short-term risks to community.	Minimal risks to community though about 5,000 truckloads of soil will be imported to the site for the IAC 807-compliant soil cover construction. Also there will be considerable construction activity onsite for months to excavate 190,000 yd^3 of residue and construct the soil cover. Control of dust emissions would be part of construction plan.	Minimal risks to community though more than 6,000 truckloads of soil will be imported and relocated to the site for the IAC 807-compliant soil cover construction and offsite stream excavation activities will occur over a month. Also there will be considerable construction activity onsite for months to excavate 190,000 yd^3 of residue and construct the soil cover. Control of dust emissions would be part of construction plan.	Minimal risks to community though more than 6,000 truckloads of soil will be imported and relocated to the site for the IAC 811-compliant cap construction and offsite stream excavation activities will occur over a month. Also there will be considerable construction activity onsite for months to excavate 190,000 yd^3 of residue and construct the soil cover. Control of dust emissions would be part of construction plan.
c. Environmental impacts of remedial action	No remedial construction, so no environmental impacts from remedial action.	Dust emissions during excavation and placement of residue and soil could cause risks to the environment but would be controlled to reduce threat. Silt fencing would be used to eliminate soil erosion runoff during excavation and placement of the piles of residue.	Dust emissions during excavation, placement of residue and soil, and restoration of streams could cause risks to the environment but would be controlled to reduce threat. Silt fencing would be used to eliminate soil erosion runoff during excavation and placement of the piles of residue. Covering the southwest pond and sediment excavation and stream realignment will result in the destruction of the existing ecological habitat in the pond and about 3,200 linear feet of stream bed in the eastern and western drainage areas and wetland adjacent to the eastern drainage area. However, new stream bed will be created that does not have contaminated sediment present and new wetland pocket will be constructed.	Dust emissions during excavation, placement of residue and soil, and restoration of streams could cause risks to the environment but would be controlled to reduce threat. Silt fencing would be used to eliminate soil erosion runoff during excavation and placement of the piles of residue. Covering the southwest pond and sediment excavation and stream realignment will result in the destruction of the existing ecological habitat in the pond and about 3,200 linear feet of stream bed in the eastern and western drainage areas and wetland adjacent to the eastern drainage area. However, new stream bed will be created that does not have contaminated sediment present and new wetland pocket will be constructed.
d. Time until RAOs are achieved	The RAOs would not be met in the foreseeable future.	The total estimated time of construction is 3 months (immobilization: 1 month; consolidation, re-grade, and soil cover: 2 months). There are uncertainties and difficulty in reliably estimating the time required for sediments to naturally attenuate such that there will be no potentially unacceptable risks to ecological receptors. It is expected though that several decades would likely be required before remedial goals are met as a result of natural deposition of uncontaminated sediment. Also surface water will likely continue to exceed surface water PRGs in the western drainage area for decades because e of continuing infiltration through the IAC 807-compliant cover.	The total estimated time of construction is 5 months (immobilization 1 month; consolidation, re-grade, and soil cover or cap 3 months; and stream remediation and re-alignment an additional 1 month). Surface water will likely continue to exceed surface water PRG in the western drainage area for decades because e of continuing infiltration through the IAC 807-compliant cover.	The total estimated time of construction is 5 months (immobilization 1 month; consolidation, re-grade, and soil cover or cap 3 months; and stream remediation and re-alignment an additional 1 month).
6.Implementability				
a. Technical feasibility	No impediments.	The main technical challenge would be to ensure proper mixing and delivery of immobilization agent. Bench-scale treatability testing would be done to determine reagents and mix ratios.	The main technical challenge is the steep topography that would be encountered during the stream re-alignment. In addition, a technical challenge would be to ensure proper mixing and delivery of immobilization agent. Bench-scale treatability testing would be done to determine reagents and mix ratios.	The main technical challenge is the topographic challenges that would be encountered during the stream re-alignment. In addition, a technical challenge would be to ensure proper mixing and delivery of immobilization agent. Bench-scale treatability testing would be done to determine reagents and mix ratios.
b. Administrative feasibility	No impediments.	No impediments.	No impediments.	No impediments.
c. Availability of services and materials	None needed.	Services and materials are available.	Services and materials are available.	Services and materials are available.

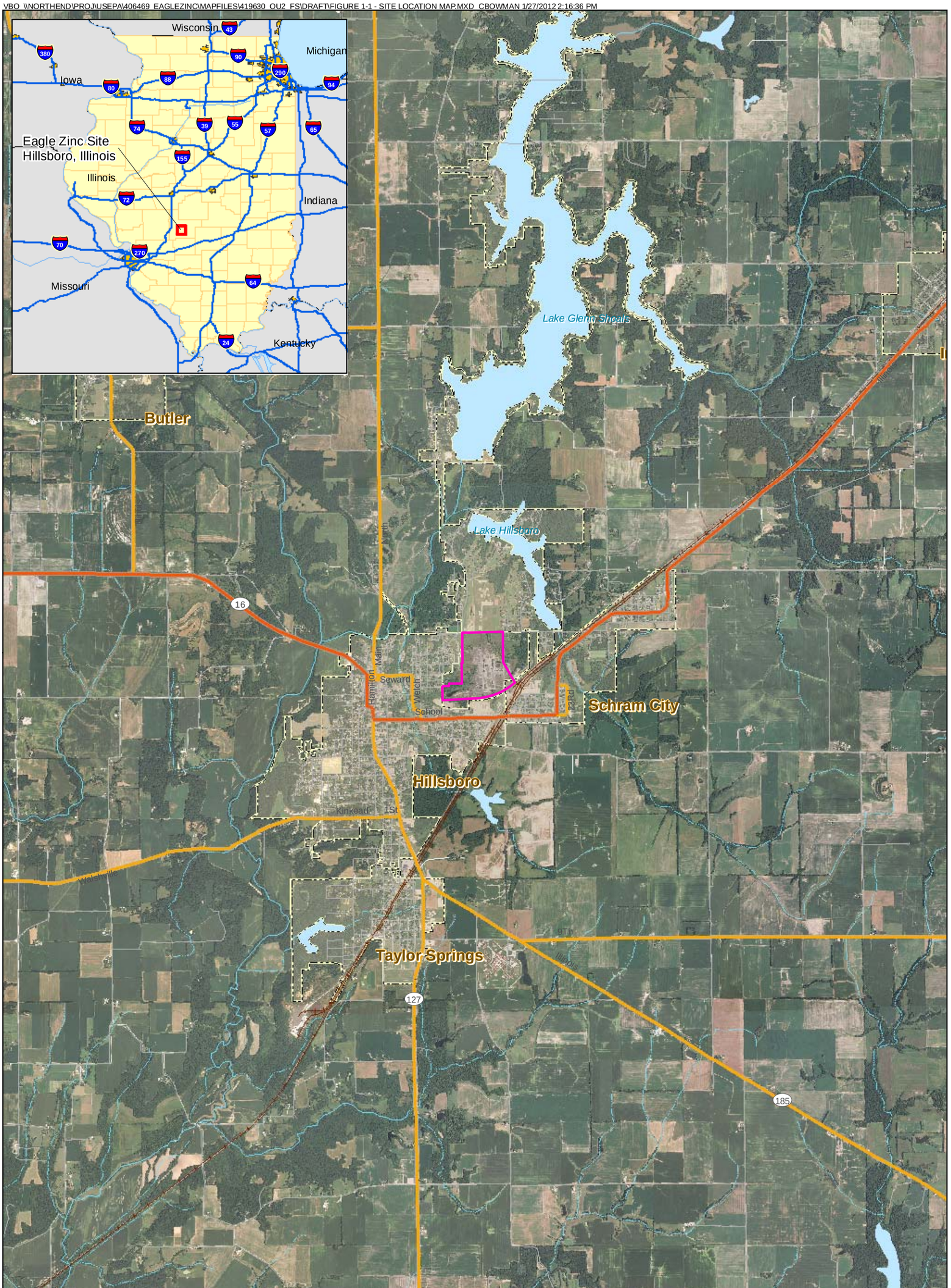
TABLE 4-2
Detailed Analysis of Remedial Alternatives
OU2 Feasibility Study for the Eagle Zinc Superfund Site, Hillsboro, Illinois

Alternative Description: Criterion	Alternative 1—No Action	Alternative 2—Immobilization and IAC 807-Compliant Soil Cover (18 acres)[b]	Alternative 3—Immobilization, IAC 807-Compliant Soil Cover, and Stream Re-alignment (22 acres)[c]	Alternative 4—Immobilization, IAC 811-Compliant Cap, and Stream Re-alignment (22 acres)[d]
7. Total Cost				
Direct Capital Cost	$0	$12,600,000	$15,600,000	$20,100,000
Annual O&M Cost	$0	$300,069	$317,029	$409,896
Total Period Cost[1]	$90,000	$90,000	$90,000	$90,000
Total Present Worth	$100,000	$16,300,000	$19,500,000	$2

Notes:
[a]Represents the cost of five-year review for a period of 30 years.
[b]Alternative 2 option of offsite disposal of select immobilized residue piles: Direct Capital Cost = $12,900,000 and Total Present Worth = $16,600,000. See Appendix B.
[c]Alternative 3 option of offsite disposal of select immobilized residue piles: Direct Capital Cost = $15,900,000 and Total Present Worth = $19,800,000. See Appendix B.
[d]Alternative 4 option of offsite disposal of select immobilized residue piles: Direct Capital Cost = $20,500,000 and Total Present Worth = $25,900,000. See Appendix B.

Figures

VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 1-1 - SITE LOCATION MAP.MXD CBOWMAN 1/27/2012 2:16:36 PM



Legend
Site Boundary

N
W E
S

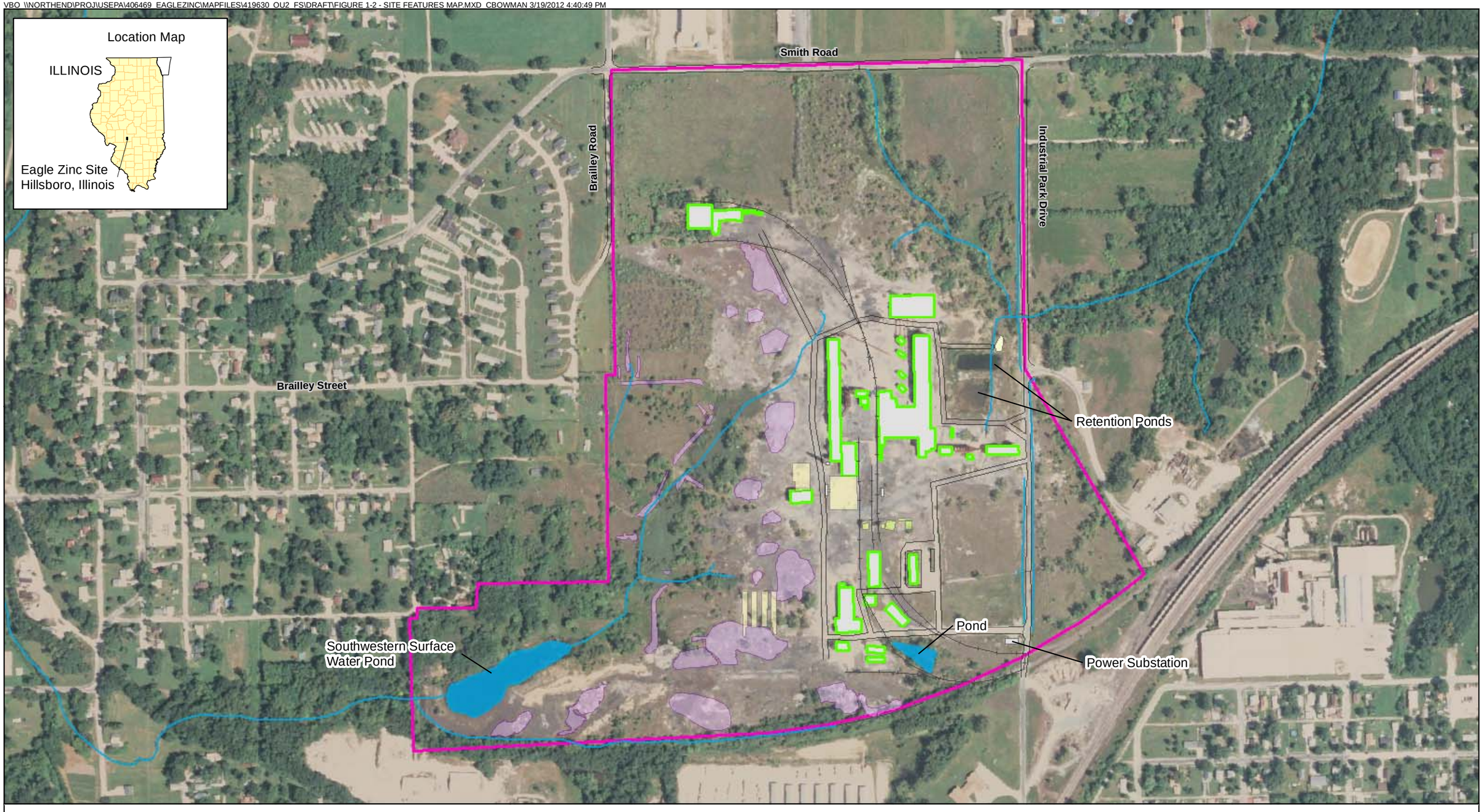
0 2,000 4,000 8,000
Feet

1 inch = 4,000 feet

Figure 1-1
Site Location Map
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

CH2MHILL

VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 1-2 - SITE FEATURES MAP.MXD CBOWMAN 3/19/2012 4:40:49 PM



Legend

- Drainage Ditch/Ephemeral Stream/Pond
- Railroad Spars
- Site and OU2 Boundary
- Tank
- Foundation
- OU1 Structures
- Building
- Residue Pile
- Rip Rap
- Culvert

N
W E
S

0 200 400 800
Feet

Figure 1-2
Site Features Map
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

CH2MHILL

1912
Site initially developed for zinc processing under the name Lanyon Zinc Company. Products: zinc, sulfuric acid.

1919
Site purchased by Eagle-Picher Industries. Products: zinc, sulfuric acid.

1935
Began manufacture of zinc oxide and leaded zinc oxide. Ceased zinc smelting and sulfuric acid production.

1958
Ceased production of leaded zinc oxide.

1980
November, Site Purchased by The Sherwin-Williams Company.

1980-1982
The IEPA collects several sets of surface water samples. Metal concentrations are detected above applicable state surface water quality standards. Sherwin-Williams removes 18,000 tons of residue material from 10 acres of the site.

1981
June, Site initially listed on CERCLIS as a Discover Action.

1982
Environmental Risk Assessment report is prepared by Risk Science International (RSI).

1984
CERCLA Preliminary Assessment conducted by IEPA.

Site purchased by Eagle Zinc Company, a Division of T.L. Diamond & Company.

1993
October, CERCLA expanded Site Inspection conducted by IEPA.

1998
April, Removal of 500-gallons underground UST results in reporting of a Leaking UST (LUST) incident to the IEPA.

May, Site entered into Interim Consent Order with IEPA.

1998
March, GBI Reports entitled *Monitoring Well Installation* and *Ground Water Sampling Interim Report* and *Interim Report of Residue Sampling and Analysis* submitted to IEPA.

2000
June, NPDES Storm Water Permit No. IL 0074519 issued to Eagle Zinc Company.

December, SWPPP is prepared for Eagle Zinc.

2001
Summer, Engineered storm water retention pond constructed at Outfall 002.

December 31, Eagle Zinc Parties enter into AOC with USEPA for completion of RI/FS.

2003
Cessation of industrial operations at the site.

Environ submits Phase 1 Source Characterization Technical Memorandum and Phase 2 Remedial Investigation Pathway Assessment Technical Memorandum.

2004
Environ submits Ecological Risk Screening Evaluation.

August, IEPA issues a No Further Remediation (NFR) letter for the former UST.

2005
Environ submits Remedial Investigation Report and Remedial Investigation Report Addendum.

2006
Environ submits Draft Feasibility Study Report.

2008
CH2M HILL submits a Supplemental FS Report.

April, IEPA XRF Sampling of Buildings and Confirmation Sampling.

2009
January, USEPA decision to complete interim action to address immediate threat posed by buildings.

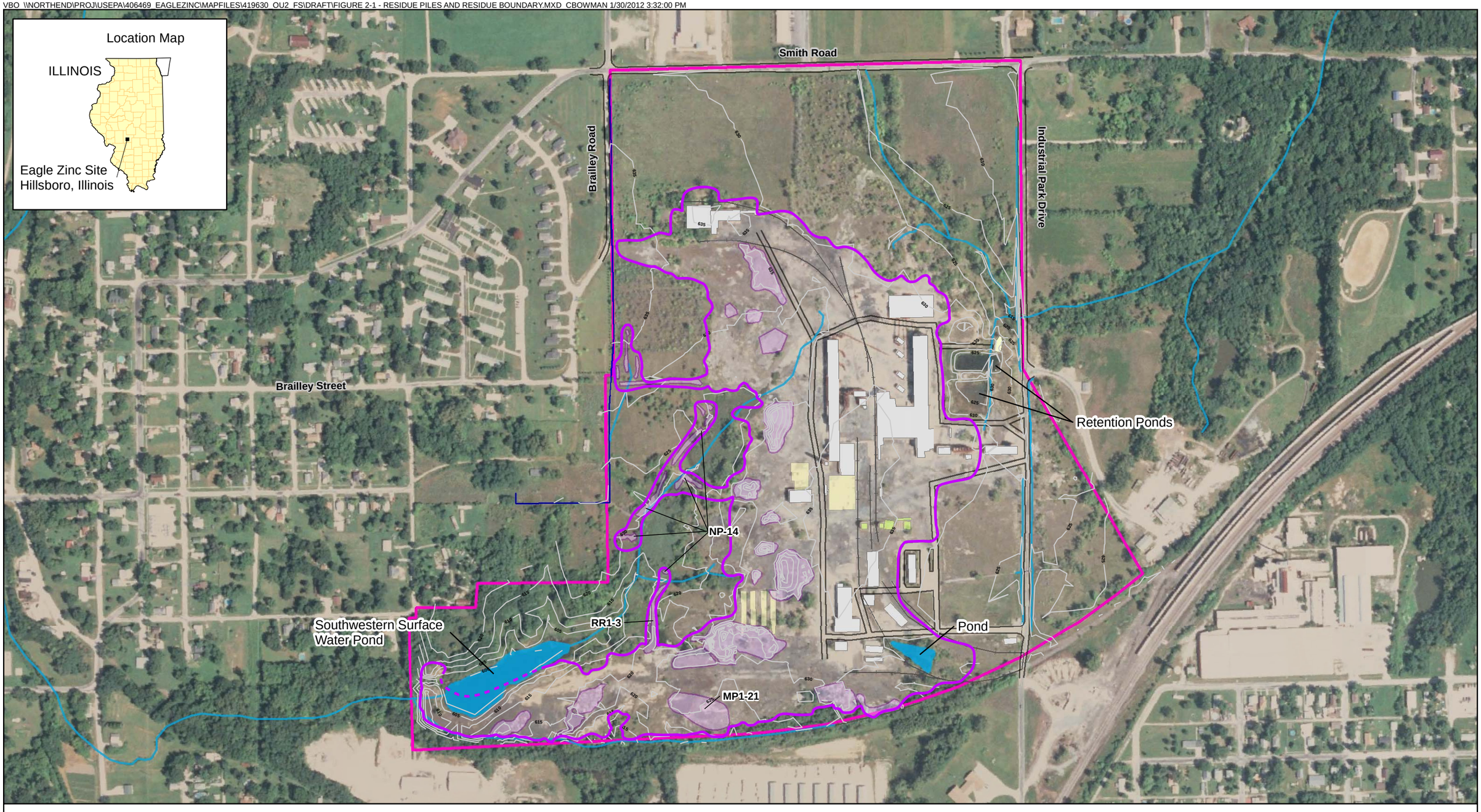
2010
November, CH2M HILL performs supplemental RI.

2012
January, CH2M HILL submits Final Supplemental Remedial Investigation Report

1910 | 1930 | 1950 | 1980 | 1990 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012

Figure 1-3
Site History Timeline
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 2-1 - RESIDUE PILES AND RESIDUE BOUNDARY.MXD CBOWMAN 1/30/2012 3:32:00 PM



Legend

- Drainage Ditch/Ephemeral Stream/Pond
- Railroad Spars
- Surface Elevation (5-foot interval)
- Site Boundary
- Tank
- Residue Visible at Surface (56 Acres)
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

N
W E
S

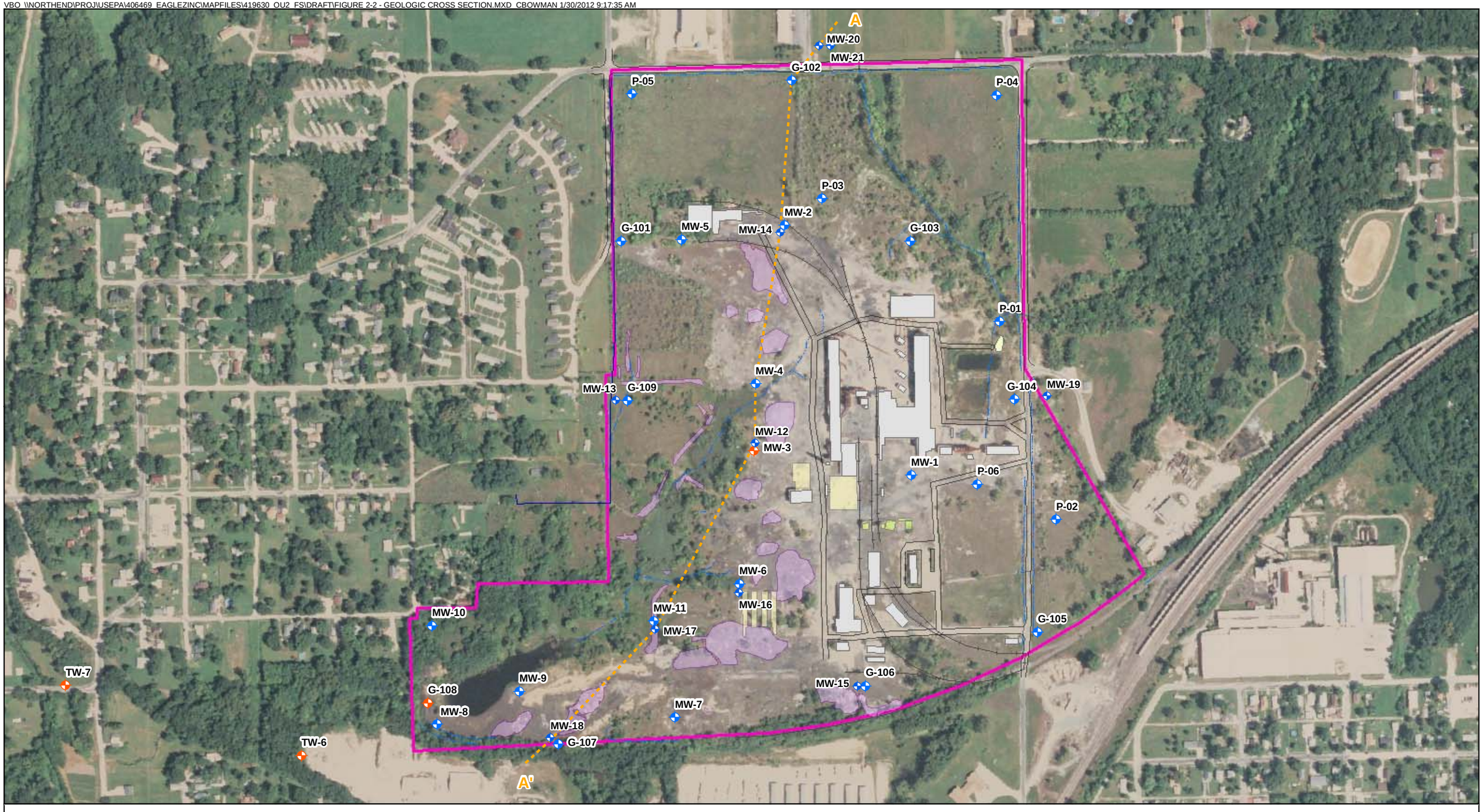
0 200 400 800
Feet

Note:
1. Extent of residue within is estimated.

Figure 2-1
Residue Piles and Residue Boundary
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

CH2MHILL

VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 2-2 - GEOLOGIC CROSS SECTION.MXD CBOWMAN 1/30/2012 9:17:35 AM



Legend

- Monitoring Well
- Abandoned Monitoring Well
- Fence
- Ditch
- Geologic Cross Section
- Railroad
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

N
W E
S

0 200 400 800
Feet

Figure 2-2
Geologic Cross-Section Location Map
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

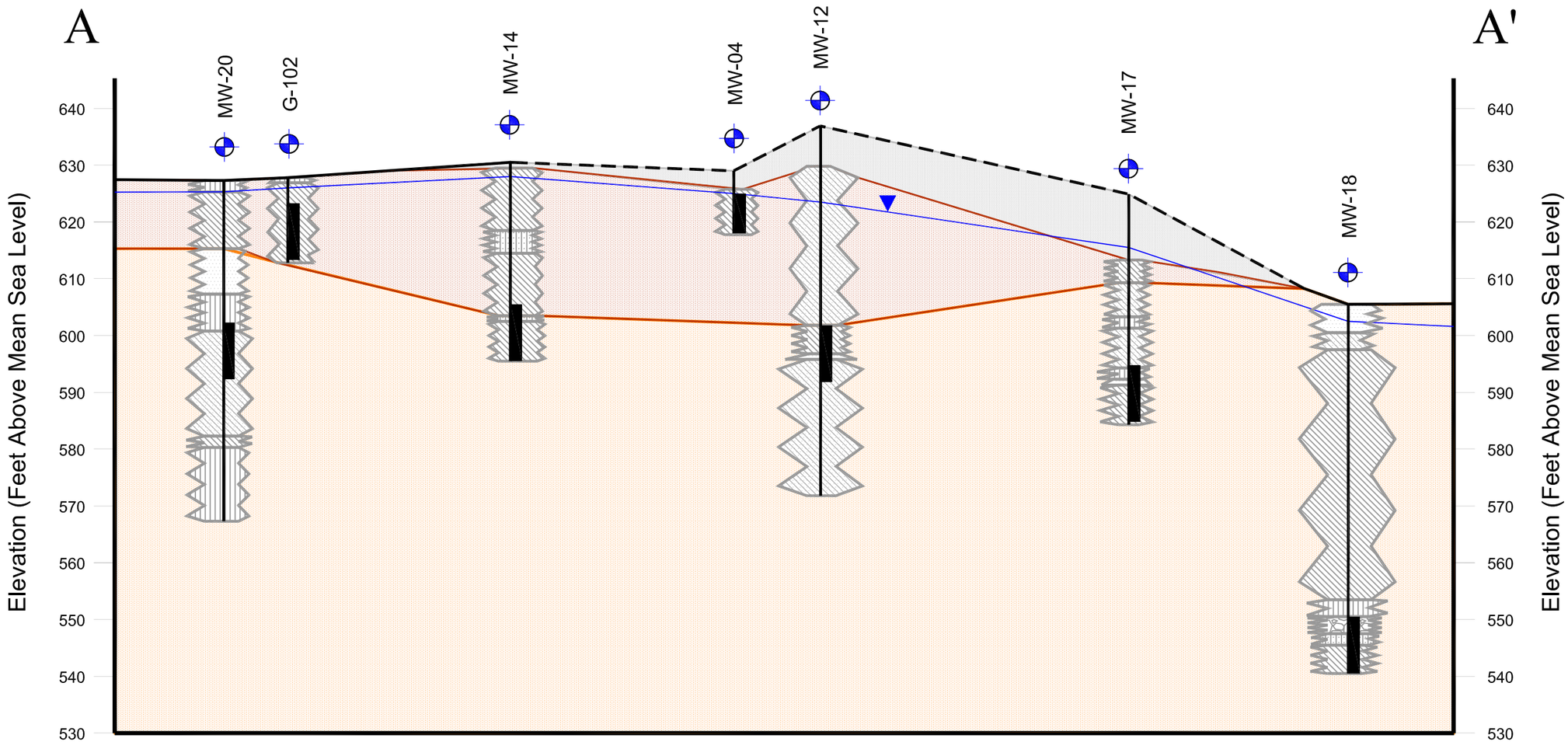
CH2MHILL

NORTH

A

SOUTH

A'



Legend

- Monitoring Well
- Water Table (January 2011)
- Well Screen
- Residue Surface (Inferred Between Monitoring Wells)
- Clay
- Silt
- Silty Sand
- Sand
- Clayey Sand
- Limestone Boulder
- Residue
- Clay/Silt
- Clay/Silt/Isolated Sand Lenses

Note: The geological and hydrogeological data on this cross-section was generalized and interpolated between monitoring wells and soil borings. Information on actual conditions exist only at the specified locations.

V: 20
H: 33
0 Feet

FIGURE 2-3

GEOLOGIC CROSS-SECTION A-A'

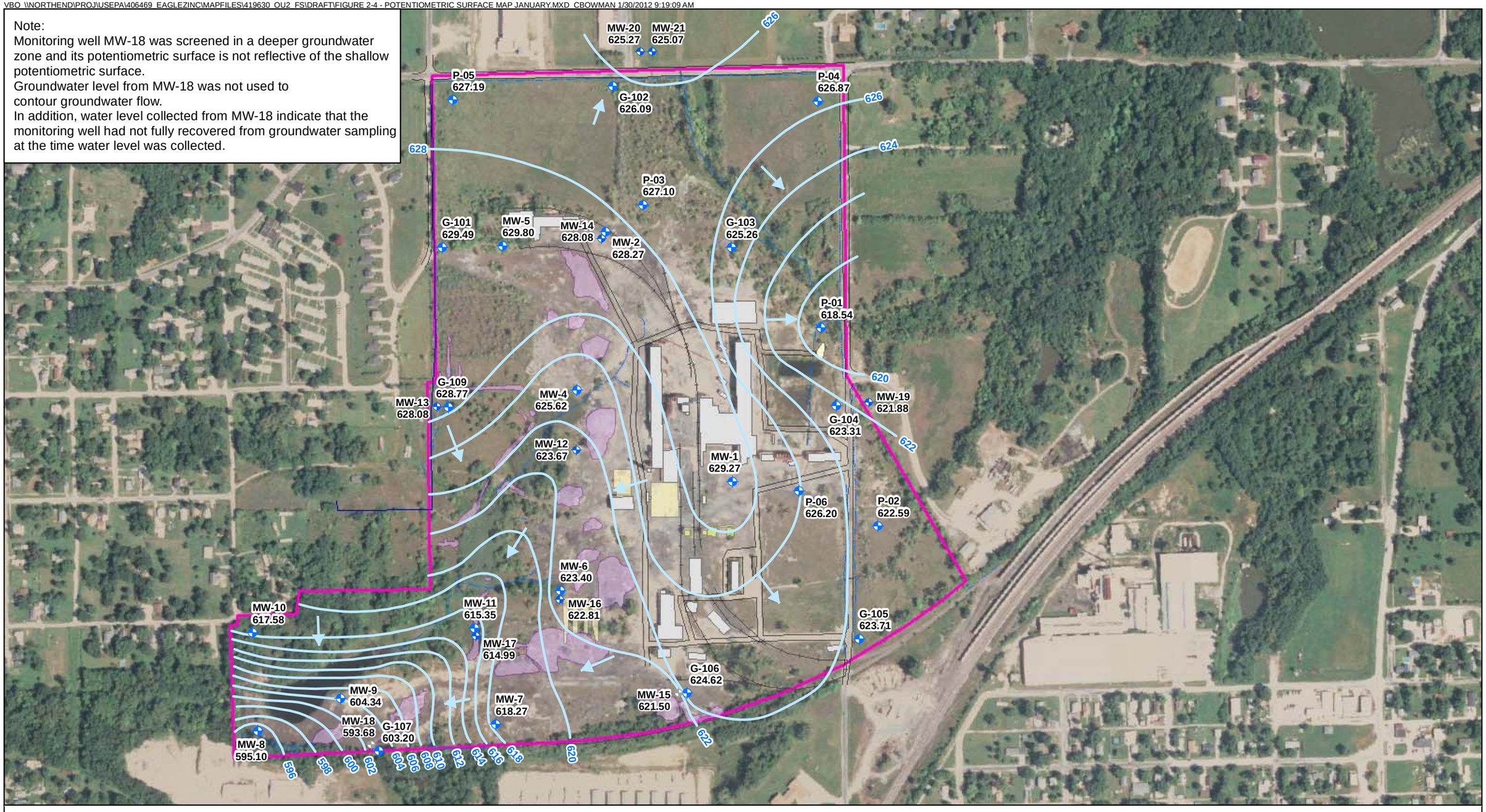
OU2 Feasibility Study

Eagle Zinc Superfund Site - Hillsboro, Illinois

CH2MHILL

VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 2-4 - POTENTIOMETRIC SURFACE MAP JANUARY.MXD CBOWMAN 1/30/2012 9:19:09 AM

Note:
Monitoring well MW-18 was screened in a deeper groundwater zone and its potentiometric surface is not reflective of the shallow potentiometric surface.
Groundwater level from MW-18 was not used to contour groundwater flow.
In addition, water level collected from MW-18 indicate that the monitoring well had not fully recovered from groundwater sampling at the time water level was collected.



Legend

- Monitoring Well
- Inferred Groundwater Flow Direction
- Groundwater Contour (2-foot interval)
- Fence
- Ditch
- Railroad
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

N
W E
S

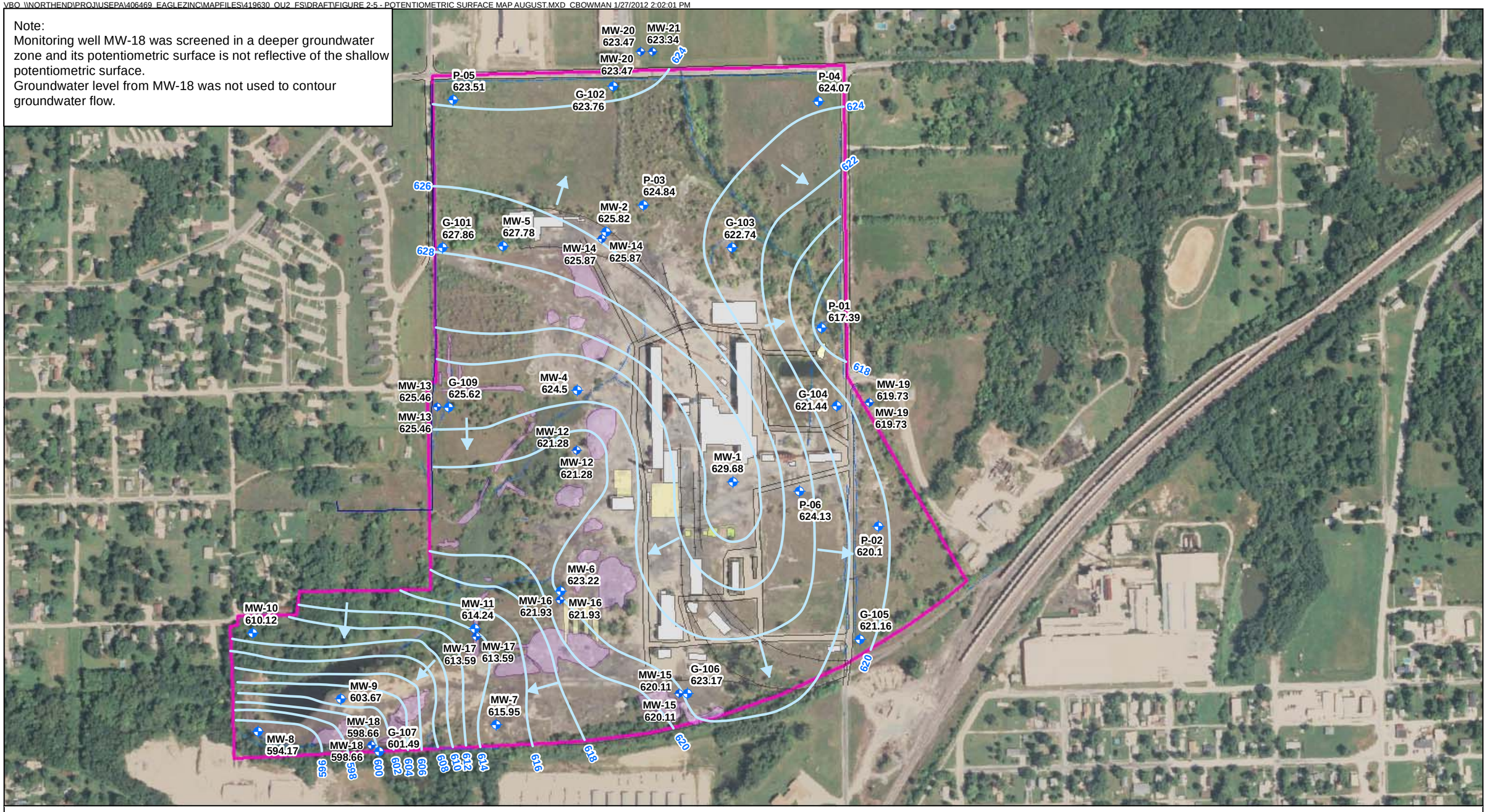
0 200 400 800
Feet

Figure 2-4
Potentiometric Surface Map - January 2011
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

CH2MHILL

VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 2-5 - POTENTIOMETRIC SURFACE MAP AUGUST.MXD CBOWMAN 1/27/2012 2:02:01 PM

Note:
Monitoring well MW-18 was screened in a deeper groundwater zone and its potentiometric surface is not reflective of the shallow potentiometric surface.
Groundwater level from MW-18 was not used to contour groundwater flow.



Legend

- Monitoring Well
- Inferred Groundwater Flow Direction
- Groundwater Contour (2-foot interval)
- Fence
- Ditch
- Railroad
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

N
W E
S

0 200 400 800
Feet

Figure 2-5
Potentiometric Surface Map - August 2011
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

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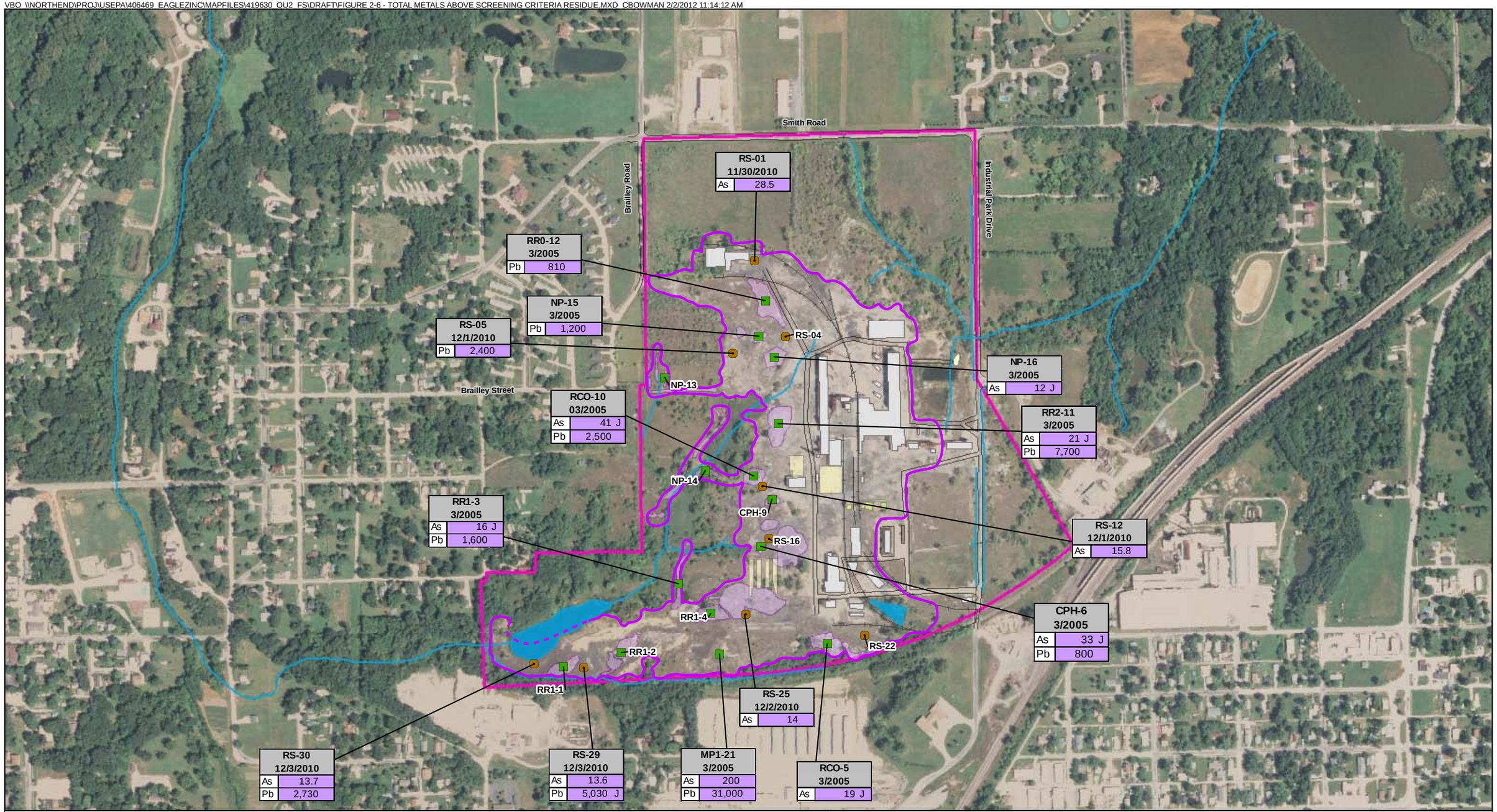
VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 2-6 - TOTAL METALS ABOVE SCREENING CRITERIA RESIDUE.MXD CBOWMAN 2/2/2012 11:14:12 AM



Legend

- Residue/Soil Boring
- Residue Pile Sample
- Drainage Ditch/Ephemeral Stream/Pond
- Railroad
- Residue Visible at Surface (56 Acres)
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

NA = Not analyzed
As = Arsenic
Pb = Lead

Notes:
Soil concentrations and screening criteria are presented in units of milligrams per kilogram (mg/kg)
Concentrations exceeds industrial soil risk screening level and Illinois background value
- = Value not available
J = Estimated detection
U = Result not detected

Metal	*Total Metals Screening Criteria*	
	Industrial Soil Risk Screening Levels	Illinois Background Values
As	1.6	11.3
Pb	800	20.9

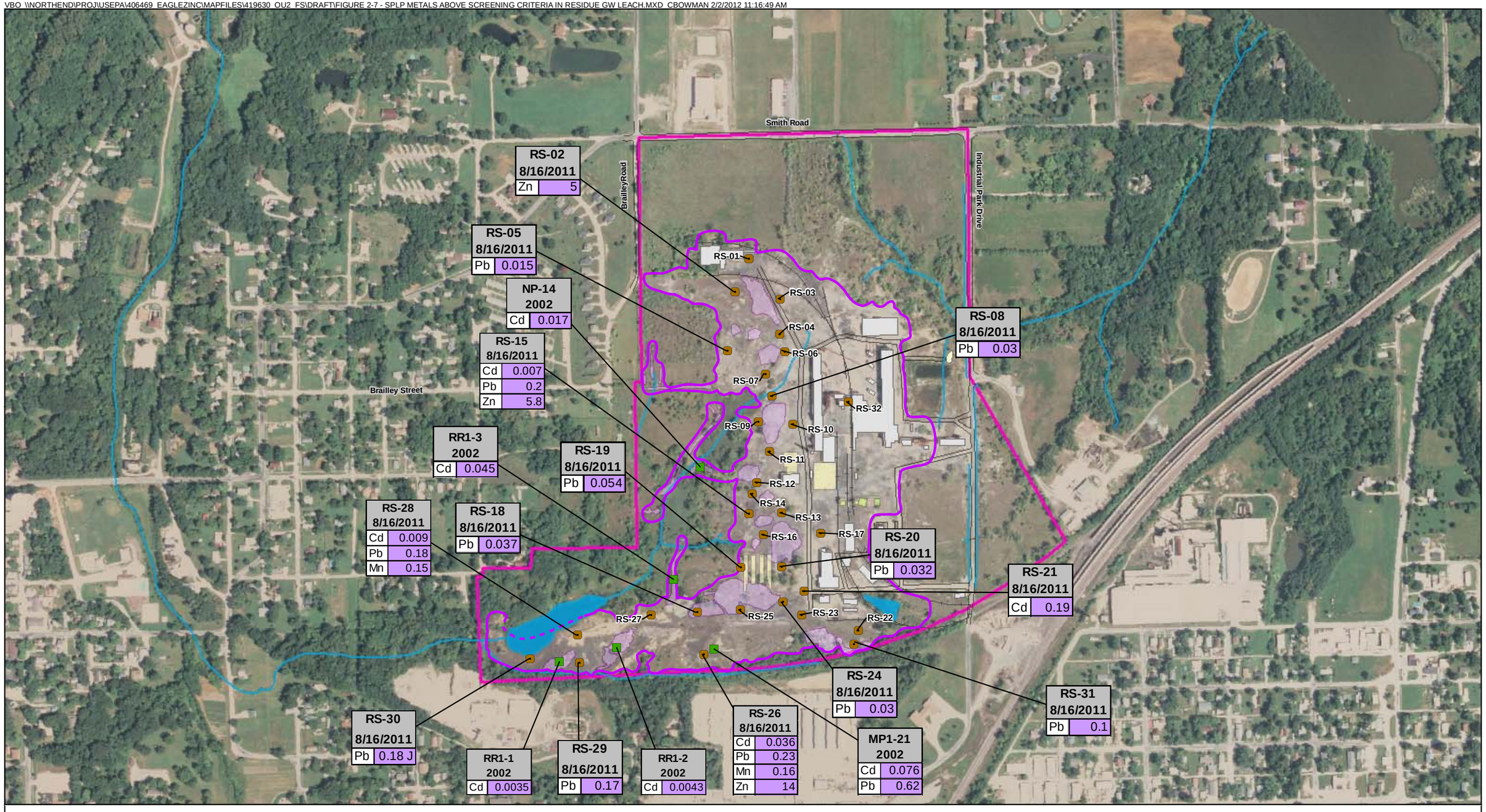
N W E S

0 250 500 Feet

Figure 2-6
Total Metal Concentrations Above Screening Criteria and Illinois Background Value in Residue
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

CH2MHILL

VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 2-7 - SPLP METALS ABOVE SCREENING CRITERIA IN RESIDUE GW LEACH.MXD CBOWMAN 2/2/2012 11:16:49 AM



Legend

- Residue Pile Sample
- Residue/Soil Boring
- Drainage Ditch/Ephemeral Stream/Pond
- Railroad
- Residue Visible at Surface (56 Acres)
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

Cd = Cadmium
Pb = Lead
Mn = Manganese
Zn = Zinc

Notes:
SPLP metals concentrations and screening criteria are presented in units of milligrams per liter (mg/L)
SPLP metal concentration exceeds SPLP metal screening criteria for potential to leach to groundwater
J = Estimated detection
MCL = Maximum Contaminant Level
SPLP = Synthetic Precipitation Leaching Procedure
[1]In the absence of an available MCL value, Illinois Class 1 standard was used as screening criteria.

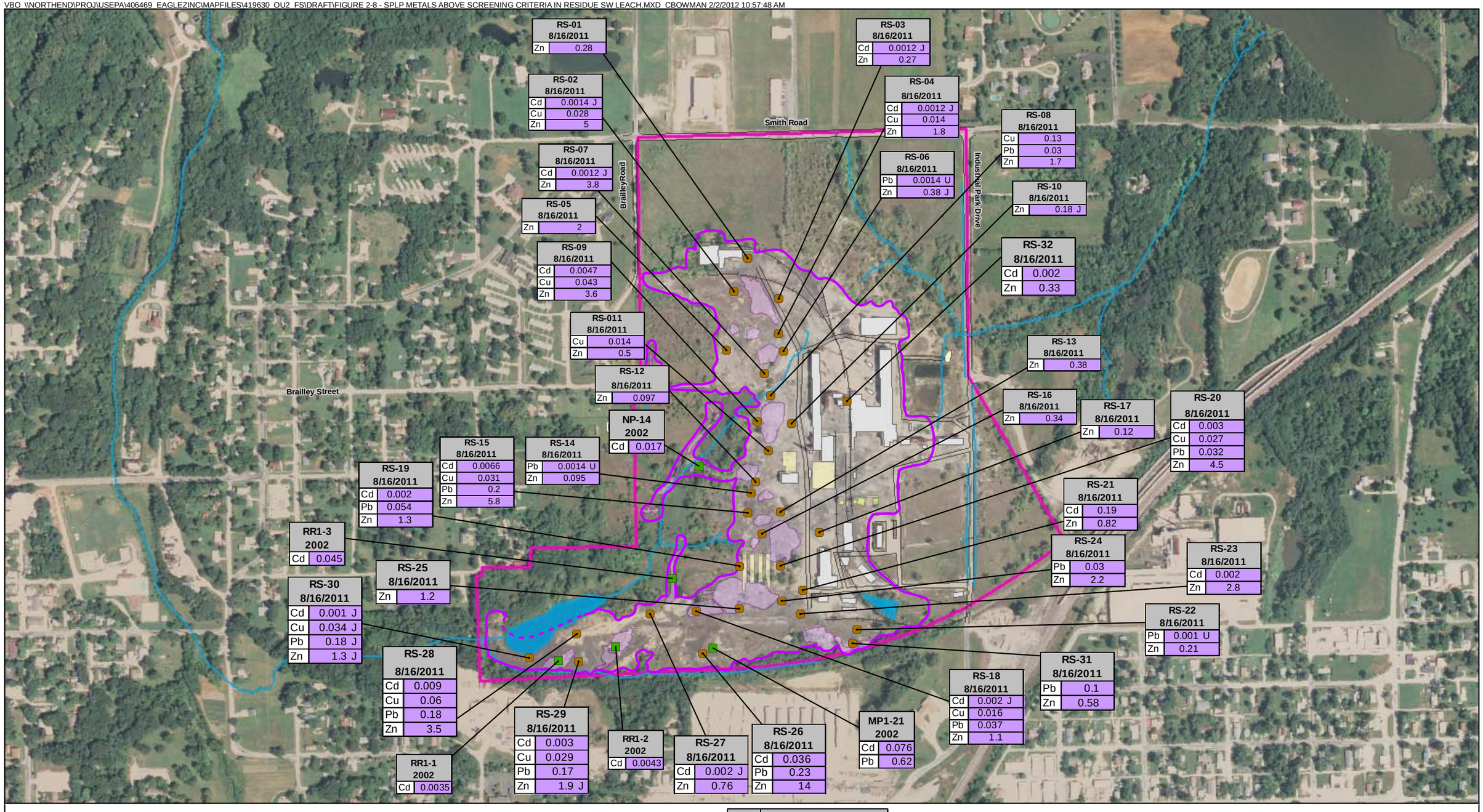
	SPLP Metal Screening Criteria
Metal	**Federal MCL**
Cd	0.005
Pb	0.015
Mn	0.15[1]
Zn	5[1]

N
W E
S
0 250 500
Feet

Figure 2-7
SPLP Metal Concentrations in Residue with Potential to Leach to Groundwater
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

CH2MHILL

VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 2-8 - SPLP METALS ABOVE SCREENING CRITERIA IN RESIDUE SW LEACH.MXD CBOWMAN 2/2/2012 10:57:48 AM



Legend

- Residue Pile Sample
- Residue/Soil Boring
- Drainage Ditch/Ephemeral Stream/Pond
- Railroad
- Residue Visible at Surface (56 Acres)
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

Cd = Cadmium
Pb = Lead
Mn = Manganese
Zn = Zinc

Notes:
SPLP metals concentrations and screening criteria are presented in units of milligrams per liter (mg/L)
SPLP metal concentration exceeds SPLP metal screening criteria for potential to leach to surface water
- = No value available
J = Estimated detection
SPLP = Synthetic Precipitation Leaching Procedure
U = Result not detected

Metal	*SPLP Metal Screening Criteria*[1]	
	Illinois Regs. Subpart B General Use Water Quality Standard*	Illinois Regs. Subpart D Secondary Contact and Indigenous Aquatic Life
Cd	0.0012	0.2
Cu	0.0134	1.0
Pb	0.0195	0.1
Zn	0.0254	1.0

[1]Most stringent criteria shaded

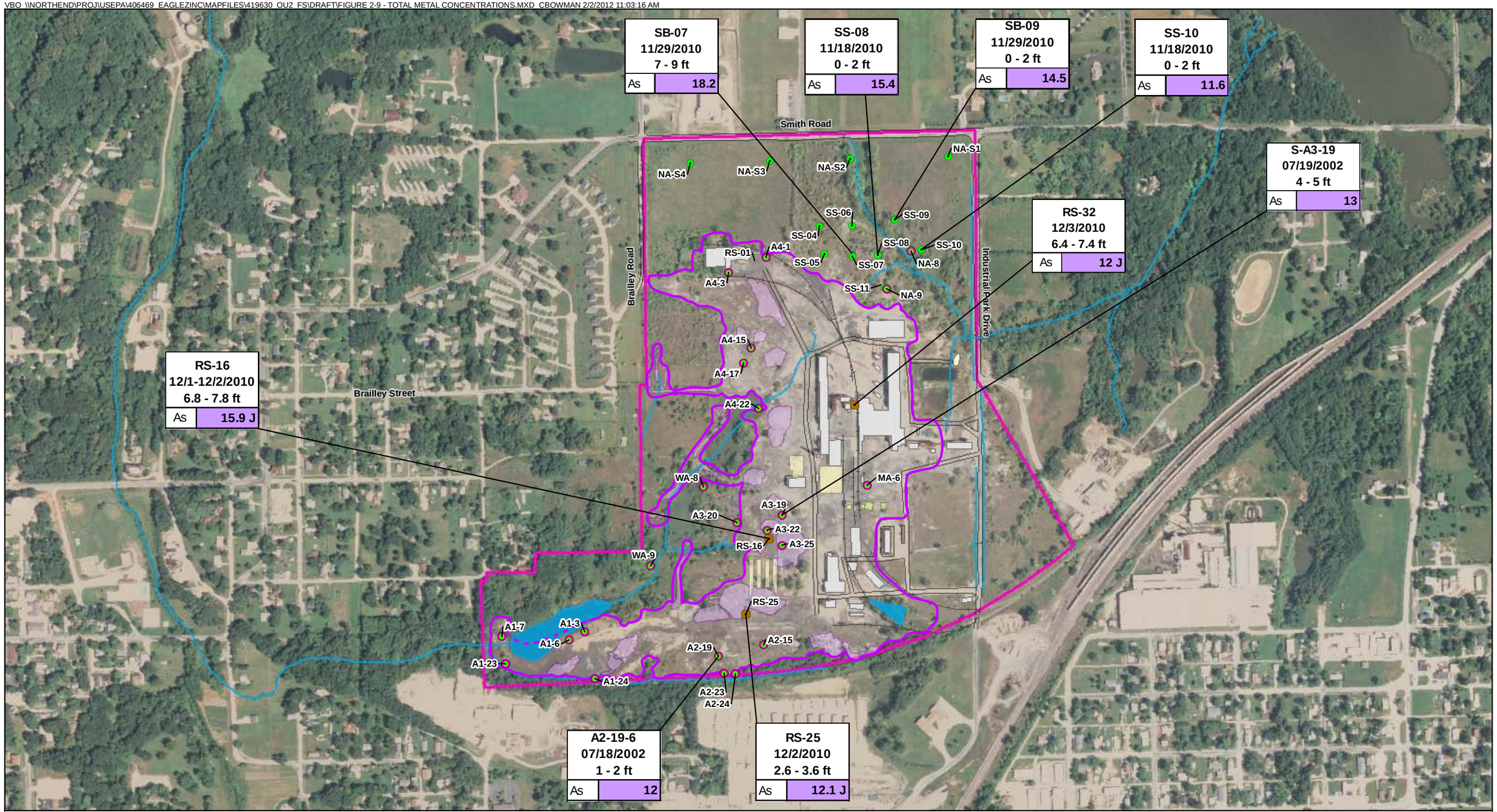
N W E S

0 250 500 Feet

Figure 2-8
SPLP Metal Concentrations in Residue with Potential to Leach to Surface Water
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

CH2MHILL

VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 2-9 - TOTAL METAL CONCENTRATIONS.MXD CBOWMAN 2/2/2012 11:03:16 AM



Legend

- Residue/Soil Boring
- Soil Boring
- Surface Soil
- Drainage Ditch/Ephemeral Stream/Pond
- Railroad
- Residue Visible at Surface (56 Acres)
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

Notes:
Soil concentrations and screening criteria are presented in units of milligrams per kilogram (mg/kg)
Concentration exceeds screening criteria and Illinois Background Value for Soil
As = Arsenic
J = Estimated detection

Metal	Soil Screening Criteria: Industrial Soil Risk Screening Level	Soil Screening Criteria: Illinois Background Value
As	1.6	11.3

Sample ID Sampel Date Depth of Sample	
Metal	Concentration mg/kg

Figure 2-9
Total Metal Concentrations Above Screening Criteria and Background Values in Onsite Soil
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

N
W E
S

0 250 500 1,000
Feet

CH2MHILL

VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 2-10 - OFFSITE SOIL METAL EXCEEDANCES.MXD CBOWMAN 2/2/2012 11:19:01 AM

Metal	SS-01 11/22/2010 0 - 2 ft bgs
As	3.5
Cd	1.2
Cu	7.5
Pb	1.1 R
Mn	322
Zn	495 J

Metal	SS-02 11/22/2010 0 - 2 ft bgs
As	12.7
Cd	1.6
Cu	12
Pb	1.2 R
Mn	1,610
Zn	489 J

Metal	SS-03 11/22/2010 0 - 2 ft bgs
As	17.8
Cd	0.94
Cu	14.1
Pb	1.1 R
Mn	989
Zn	738 J

Metal	SB-01 11/29/2010 0 - 2 ft bgs	3 - 5 ft bgs	7 - 9 ft bgs
As	14.2 J	6 J	3.9 J
Cd	1.1	0.51 U	0.48 U
Cu	23.1 J	12.4 J	7.9 J
Pb	40.7 J	11.5	8.8
Mn	912 J	364 J	266 J
Zn	315 J	46.4 J	22.2 J

Metal	SB-02 11/30/2010 0 - 2 ft bgs	3 - 5 ft bgs	7 - 9 ft bgs
As	10.8 J	8 J	5.5 J
Cd	0.66	0.51 U	0.47 U
Cu	12.7 J	15.4 J	8.3 J
Pb	29.3	17.1	16.9
Mn	2,490 J	584 J	971 J
Zn	164 J	42.4 J	22.4 J

Metal	SB-03 11/30/2010 0 - 2 ft bgs	3 - 5 ft bgs	7 - 9 ft bgs
As	9.1 J	5.9 J	4.5
Cd	1.9	0.51 U	0.34 J
Cu	14.5 J	18 J	6.4 J
Pb	43.8	14.4	9.5 J
Mn	1,780 J	138 J	390 J
Zn	565 J	101 J	99.4

Metal	SB-04 11/30/2010 0 - 2 ft bgs	3 - 5 ft bgs	7 - 9 ft bgs
As	10.5	5.9	5.7
Cd	0.67 J	0.19 J	0.088 J
Cu	14.8 J	12.5 J	8.2 J
Pb	16.9 J	11.3 J	9.8 J
Mn	1,260 J	549 J	375 J
Zn	283	39.2	24.3

Metal	SB-05 11/30/2010 0 - 2 ft bgs	3 - 5 ft bgs	7 - 9 ft bgs
As	7.1	9.7	4.1
Cd	0.53 J	0.17 J	0.21 J
Cu	9.6 J	16.7 J	8.7 J
Pb	16.8 J	16.6 J	15.2 J
Mn	672 J	635 J	1,340 J
Zn	274	50.7	26.1

Metal	SB-06 11/30/2010 0 - 2 ft bgs	3 - 5 ft bgs	7 - 9 ft bgs
As	16.3	5.6	6.8
Cd	1.7 J	0.23 J	0.2 J
Cu	14.2 J	13.3 J	11.6 J
Pb	46 J	11.2 J	23.8 J
Mn	1,740 J	543 J	1,300 J
Zn	246	37	31.1

Metal	SB-07 11/29/2010 0 - 2 ft bgs	3 - 5 ft bgs	7 - 9 ft bgs
As	9.4	3.3	18.2
Cd	0.89 J	0.077 J	0.2 J
Cu	12.8 J	7.2 J	9 J
Pb	12.5 J	9.6 J	14.7 J
Mn	814 J	93 J	281 J
Zn	793	33.8	39.8

Metal	SB-08 11/29/2010 0 - 2 ft bgs	3 - 5 ft bgs	7 - 9 ft bgs
As	6.4	4.2	6.1
Cd	1 J	0.11 J	0.11 J
Cu	9.9 J	7.8 J	9.6 J
Pb	28.1 J	9.3 J	12.6 J
Mn	1,340 J	92.3 J	64.2 J
Zn	692	25.4	25.7

Metal	SB-09 11/29/2010 0 - 2 ft bgs	3 - 5 ft bgs	7 - 9 ft bgs
As	14.5	1.9 J	6.9 J
Cd	1.1 J	0.54 U	0.55 U
Cu	24.3 J	7.7 J	13.3 J
Pb	15.8 J	9.1 J	9.7 J
Mn	625 J	17.1 J	42.1 J
Zn	665	15.7 J	39.4 J

Smith Road
Brailley Road
Brailley Street
Industrial Park Drive

Legend
- Soil Boring
- Surface Soil
- Drainage Ditch/Ephemeral Stream/Pond
- Railroad
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

As = Arsenic
Cd = Cadmium
Cu = Copper
Pb = Lead
Mn = Manganese
Zn = Zinc

Notes:
1. Soil concentrations and screening criteria are presented in units of milligrams per kilogram (mg/kg)
2. Detected concentrations are **bolded.**
3. Concentration exceedes the screening criteria and Illinois background value for soil
4. Concentration exceedes Illinois background value for soil
5. - = Screening criteria not available
6. J = Estimated detection
7. U = Result not detected
8. R = Rejected
9. HHRA = human health risk assessment

Metal	Offsite Soil Screening Criteria: Residential Soil Risk Screening Levels (non-HHRA adjusted)	Illinois Background values
As	0.39	11.3
Cd	70	0.5
Cu	3,100	12
Pb	400	20.9
Mn	1,800	630
Zn	23,000	-

N W E S

0 250 500 1,000 Feet

Figure 2-10
Total Metal Concentrations in Offsite Soil
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

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VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 2-11 - ONSITE METALS CONCENTRATIONS IN SURFACE WATER AND SEDIMENT.MXD CBOWMAN 2/2/2012 11:20:17 AM

SD-WD-20 12/7/2010

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	11.7 J
Cd	0.018	0.01	7.9
Cu	0.006 J	0.025 U	186 J+
Pb	0.009 J	0.01 U	703
Mn	0.307	0.292	453
Zn	3.77	3.58	5100

SD-WD-21 12/7/2010

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	9.4 J
Cd	0.018	0.01	3.4
Cu	0.004 J	0.025 U	70.8
Pb	0.005 J	0.01 U	229
Mn	0.309	0.288	326
Zn	3.79	3.65	3570

SW-WD-PN 3/10/2003

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.0081 U	NA	NA
Cd	0.087	NA	NA
Cu	0.0023	NA	NA
Pb	0.0032	NA	NA
Mn	0.3	NA	NA
Zn	16	NA	NA

SD-WD-22 12/3/2010

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	NA
Cd	0.117	0.112	NA
Cu	0.012 J	0.009 J	NA
Pb	0.006 J	0.005 J	NA
Mn	0.533	0.519	NA
Zn	5.52	5.37	NA

SD-ED-12 07/09/2002

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	NA	NA	2.4 J
Cd	NA	NA	2.4
Cu	NA	NA	8.9
Pb	NA	NA	25
Mn	NA	NA	70
Zn	NA	NA	830 J

SD-ED-28 12/5/2010

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	4.9 J
Cd	0.002 J	0.001 J	9
Cu	0.025 U	0.025 U	90.8 J
Pb	0.01 U	0.01 U	138 J
Mn	0.008 J	0.007 J	239 J+
Zn	1.48	1.38	18800 J

SD-ED-13 12/1/2010

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	11 J
Cd	0.003 J	0.0025 J	8.7 J
Cu	0.004 J	0.0036 J	184 J
Pb	0.01 U	0.01 U	319
Mn	1.1	1.09	336 J
Zn	4.13	4.01	4170 J

SD-ED-30 12/6/2010

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	10.2 J
Cd	0.005 U	0.005 U	4
Cu	0.004 J	0.025 U	29.2
Pb	0.01 U	0.01 U	50.8
Mn	0.017	0.016	672
Zn	0.404	0.284	4150 J

SD-WD-19 12/7/2010

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	NA
Cd	0.017	0.0097	NA
Cu	0.004 J	0.003 J	NA
Pb	0.01 U	0.01 U	NA
Mn	0.3	0.285	NA
Zn	3.72	3.7 J	NA

SD-ED-29 12/5/2010

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	3.4 J
Cd	0.005 U	0.005 U	0.55 U
Cu	0.025 U	0.025 U	12.5 J
Pb	0.01 U	0.01 U	13.4 J
Mn	0.01 J	0.009 J	134 J
Zn	0.35	0.301	241 J

SD-WD-17 12/4/2010

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	13.4 J
Cd	0.018	0.011	34.7
Cu	0.004 J	0.003 J	165 J+
Pb	0.004 J	0.01 U	1070 J
Mn	0.271	0.26	715 J
Zn	3.71	3.7	9970 J

SD-ED-27 12/5/2010

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	7.6 J
Cd	0.001 J	0.001 J	2.3
Cu	0.025 U	0.025 U	55.1 J
Pb	0.01 U	0.01 U	45.7 J
Mn	0.008 J	0.006 J	441 J
Zn	1.45	1.3	12100 J

SW-WD-PS 3/10/2003

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.0081 U	NA	NA
Cd	0.069	NA	NA
Cu	0.0017	NA	NA
Pb	0.0022	NA	NA
Mn	0.27	NA	NA
Zn	14	NA	NA

SD-ED-26 12/4/2010

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	14.3 J
Cd	0.008	0.007	46.3
Cu	0.025 U	0.025 U	812 J+
Pb	0.026	0.01 U	917 J
Mn	0.015 U	0.015 U	650 J
Zn	4.85	4.41	245000 J

SD-ED-25 12/3/2010

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	2.2 J
Cd	0.005 U	0.005 U	57.8
Cu	0.025 U	0.025 U	18.1 J
Pb	0.01 U	0.01 U	66.8 J
Mn	0.015 U	0.015 U	36.1 J
Zn	0.179	0.155	2380 J

SD-WD-18 12/7/2010

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	NA
Cd	0.017	0.01	NA
Cu	0.004 J	0.025 U	NA
Pb	0.004 J	0.01 U	NA
Mn	0.3	0.293	NA
Zn	3.65	3.61	NA

SD-WD-10 12/2/2010

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	4.4 J
Cd	0.053	0.052	5.6
Cu	0.008 J	0.025 U	23.6 J
Pb	0.04	0.004 J	243 J
Mn	0.156	0.114	104 J
Zn	8.66	8.14	819 J

SD-WD-09 12/2/2010

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	7.5 J
Cd	0.035	0.0258	2.7
Cu	0.025 U	0.025 U	54.4 J
Pb	0.01 U	0.01 U	222 J
Mn	0.1	0.0923	384 J
Zn	7.5	7.8	1930 J

SD-WD-23 12/3/2010

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	NA
Cd	0.106	0.0537	NA
Cu	0.033	0.0041 J	NA
Pb	0.027	0.01 U	NA
Mn	0.447	0.0549	NA
Zn	7.64	3.29	NA

SD-ED-24 12/3/2010

Metal	Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	5.2 J
Cd	0.005 U	0.005 U	15.9
Cu	0.025 U	0.025 U	204 J+
Pb	0.01 U	0.01 U	297 J
Mn	0.015 U	0.015 U	73.6 J
Zn	0.206	0.159	24000 J

Smith Road
Brailley Road
Brailley Street
Industrial Park Drive
Retention Ponds
Pond
Pond
SD-ED-12
SD-ED-13
SD-ED-30
SD-ED-28
SD-ED-29
SD-ED-27
SD-ED-26
SD-ED-24
SD-ED-25
SD-WD-22
SD-WD-23
SD-WD-09
SD-WD-17
SW-WD-PN
SD-WD-21
SD-WD-20
SW-WD-PS
SD-WD-19
SD-WD-18
SD-WD-10

Legend

- Surface Water and Sediment Location
- Drainage Ditch/Ephemeral Stream/Pond
- Flow Direction
- Railroad Spars
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

As = Arsenic
Cd = Cadmium
Cu = Copper
Pb = Lead
Mn = Manganese
Zn = Zinc

Notes:
Surface water concentrations and screening criteria are presented in units of milligrams per liter (mg/L)
Sediment concentrations and screening criteria are presented in units of milligrams per kilogram (mg/kg)
Concentration exceedes the most stringent screening criteria
Detected concentrations are **bolded.**
- = Screening criteria not available
NA = Not reported or analyzed
J = Estimated detection
U = Result not detected
UJ = Estimated result not detected
J+ = Estimated detection, biased high

Metal	Suface Water Screening Criteria[1]: Illinois Regs. Subpart B General Use Water Quality Standard*	Illinois Regs. Subpart D Secondary Contact and Indigenous Aquatic Life	National Recommended Water Quality Criteria (Freshwater)	Sediment Screening Criteria: Ecological Screening Level
As	0.19	1.0	0.15	9.79
Cd	0.0012	0.2	0.00025	0.99
Cu	0.0134	1.0	-	31.6
Pb	0.0195	0.1	0.0025	35.8
Mn	-	1.0	-	460
Zn	0.0254	1.0	0.12	121

[1]Most stringent criteria shaded

Figure 2-11
Onsite Metal Concentrations in Surface Water and Sediment
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

N W E S

0 375 750 1,500 Feet

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Metal	SD-WD-01 07/08/2002 Surface Water Total	Surface Water Dissolved	Sediment Total
As	NA	NA	3.4 J
Cd	NA	NA	1.2
Cu	NA	NA	9.9
Pb	NA	NA	26
Mn	NA	NA	230
Zn	NA	NA	500 J

Metal	SD-WD-02 07/08/2002 Surface Water Total	Surface Water Dissolved	Sediment Total
As	NA	NA	3.9 J
Cd	NA	NA	1.6
Cu	NA	NA	15
Pb	NA	NA	49
Mn	NA	NA	420
Zn	NA	NA	1400 J

Metal	SW-WD-12 06/13/2003 Surface Water Total	Surface Water Dissolved	SD-WD-03 07/08/2002 Sediment Total
As	0.0022 J	NA	2.5 J
Cd	0.0012	NA	0.96
Cu	0.0041 J	NA	27
Pb	0.0052	NA	32
Mn	0.27	NA	190
Zn	0.71	NA	400 J

Metal	SD-WD-04 07/08/2002 Surface Water Total	Surface Water Dissolved	Sediment Total
As	NA	NA	3.2 J
Cd	NA	NA	0.83
Cu	NA	NA	5.7
Pb	NA	NA	29
Mn	NA	NA	330
Zn	NA	NA	520 J

Metal	SW-WD-11 06/13/2003 Surface Water Total	Surface Water Dissolved	SD-WD-05 07/08/2002 Sediment Total
As	0.0023 J	NA	5.4 J
Cd	0.00019 J	NA	0.48
Cu	0.0037 J	NA	9.6
Pb	0.0038	NA	28
Mn	0.25	NA	480
Zn	0.072 U	NA	310 J

Metal	SD-WD-06 12/2/2010 Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	9.5 J
Cd	0.014	0.01	28.8
Cu	0.005 J	0.025 U	67.9 J
Pb	0.019 J+	0.01 U	326 J
Mn	0.506	0.494	287
Zn	5.65	5.14	8100 J

Metal	SD-WD-07 12/2/2010 Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	6.9 J
Cd	0.019	0.015	5.5
Cu	0.003 J	0.025 U	18.1 J
Pb	0.01 U	0.01 U	65.1 J
Mn	0.3	0.278	91.2 J
Zn	7.08	6.66	4480 J

Metal	SD-WD-08 12/1/2010 Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	17 J
Cd	0.041	0.041	11.6
Cu	0.025 U	0.025 U	78.3 J
Pb	0.01 U	0.01 U	519 J
Mn	0.115	0.112	1530 J
Zn	7.3	7.25	3690 J

Metal	SD-WD-10 12/2/2010 Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	4.4 J
Cd	0.05	0.0519	5.6
Cu	0.01 J	0.025 U	23.6 J
Pb	0.04	0.0037 J	243 J
Mn	0.16	0.114	104 J
Zn	8.66	8.14	819 J

Metal	SW-ED-11 03/10/2003 Surface Water Total	Surface Water Dissolved	SD-ED-11 07/09/2002 Sediment Total
As	0.0081 U	NA	2.1 J
Cd	0.00053 U	NA	0.91
Cu	0.0044	NA	7.5
Pb	0.0013 U	NA	14
Mn	0.11	NA	130
Zn	1.4	NA	460 J

Metal	SD-ED-16 12/4/2010 Surface Water Total	Surface Water Dissolved	Sediment Total
As	0.01 U	0.01 U	4 J
Cd	0 J	0.002 J	0.65
Cu	0.03 U	0.025 U	8.9 J
Pb	0.01 U	0.01 U	20.2 J
Mn	1.13	1.09	493 J
Zn	3.21	3.05	428 J

Metal	SD-ED-15 07/08/2002 Surface Water Total	Surface Water Dissolved	Sediment Total
As	NA	NA	5.8 J
Cd	NA	NA	2.3
Cu	NA	NA	4.8
Pb	NA	NA	20
Mn	NA	NA	740
Zn	NA	NA	530 J

Metal	SD-ED-14 07/08/2002 Surface Water Total	Surface Water Dissolved	Sediment Total
As	NA	NA	7.2 J
Cd	NA	NA	3.7
Cu	NA	NA	18
Pb	NA	NA	75
Mn	NA	NA	750
Zn	NA	NA	5100 J

SD-WD-01
SD-WD-02
SD-WD-03
SD-WD-04
SD-WD-05
SD-WD-06
SD-WD-07
SD-WD-08
SD-WD-10
SD-ED-11/SW-ED-11
SD-ED-16
SD-ED-15
SD-ED-14
Smith Road
Brailley Road
Brailley Street
Industrial Park Drive
Retention Ponds
Pond
Pond

Legend

- Surface Water and Sediment Location
- Drainage Ditch/Ephemeral Stream/Pond
- Flow Direction
- Railroad Spars
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

As = Arsenic
Cd = Cadmium
Cu = Copper
Pb = Lead
Mn = Manganese
Zn = Zinc

Notes:
Surface water concentrations and screening criteria are presented in units of milligrams per liter (mg/L)
Sediment concentrations and screening criteria are presented in units of milligrams per kilogram (mg/kg)
Concentration exceedes the most stringent screening criteria
Detected concentrations are **bolded.**
- = Screening criteria not available
NA = Not reported or analyzed
J = Estimated detection
U = Result not detected
UJ = Estimated result not detected
J+ = Estimated detection, biased high

Metal	*Suface Water Screening Criteria*[1] Illinois Regs. Subpart B General Use Water Quality Standard*	Illinois Regs. Subpart D Secondary Contact and Indigenous Aquatic Life	National Recommended Water Quality Criteria (Freshwater)	*Sediment Screening Criteria* Ecological Screening Level
As	0.19	1.0	0.15	9.79
Cd	0.0012	0.2	0.00025	0.99
Cu	0.0134	1.0	-	31.6
Pb	0.0195	0.1	0.0025	35.8
Mn	-	1.0	-	460
Zn	0.0254	1.0	0.12	121

[1]Most stringent surface water criteria shaded

Figure 2-12
Offsite Metal Concentrations in Surface Water and Sediment
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

N W E S

0 375 750 1,500 Feet

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VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 2-13 - 2010 CADMIUM CONCENTRATIONS ABOVE CLASS II STANDARDS.MXD CBOWMAN 5/9/2012 10:26:22 AM

Sample Location

MW-7
T - 0.23
D - 0.241

Cadmium Result Above Illinois Class II Standard of 0.05 mg/L

MW-20 MW-21 G-102 P-05 P-04 P-03 MW-2 G-101 MW-5 MW-14 G-103 P-01 MW-4 G-109 MW-13 G-104 MW-19 MW-12 MW-1 P-06 P-02 MW-6 T - 0.106 D - 0.0962 MW-16 MW-11 MW-17 G-105 MW-10 MW-9 MW-7 T - 0.23 D - 0.241 G-106 MW-15 MW-8 MW-18 G-107 T - 0.0801

Legend

- Monitoring Well
- Drainage Ditch/Ephemeral Stream/Pond
- Ditch
- Railroad
- Residue Visible at Surface (56 Acres)
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

Notes:
T = Total cadmium
D = Dissolved cadmium

N W E S

0 200 400 800 Feet

Figure 2-13
2010 Cadmium Concentrations Above Class II Standards
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

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VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 2-14 - 2010 ZINC CONCENTRATIONS ABOVE CLASS II STANDARDS.MXD CBOWMAN 5/8/2012 3:29:35 PM

Sample Location

MW-7
T – 67.80
D – 68.40

Zinc Result Above Illinois Class II Standard of 10 mg/L

MW-20
MW-21
G-102
P-05
P-04
P-03
MW-5
MW-2
G-103
MW-14
G-101
P-01
MW-4
T - 15.50 J
G-109
G-104
MW-19
MW-13
MW-12
MW-1
P-06
P-02
MW-6
MW-10
MW-11
MW-16
G-105
MW-17
G-106
MW-9
MW-7
T - 67.80
D - 68.40
MW-15
MW-8
MW-18
G-107

Legend

- Monitoring Well
- Drainage Ditch/Ephemeral Stream/Pond
- Ditch
- Railroad
- Residue Visible at Surface (56 Acres)
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

Notes:
T = Total Zinc
D = Dissolved Zinc

N
W E
S

0 200 400 800
Feet

Figure 2-14
2010 Zinc Concentrations Above Class II Standards
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

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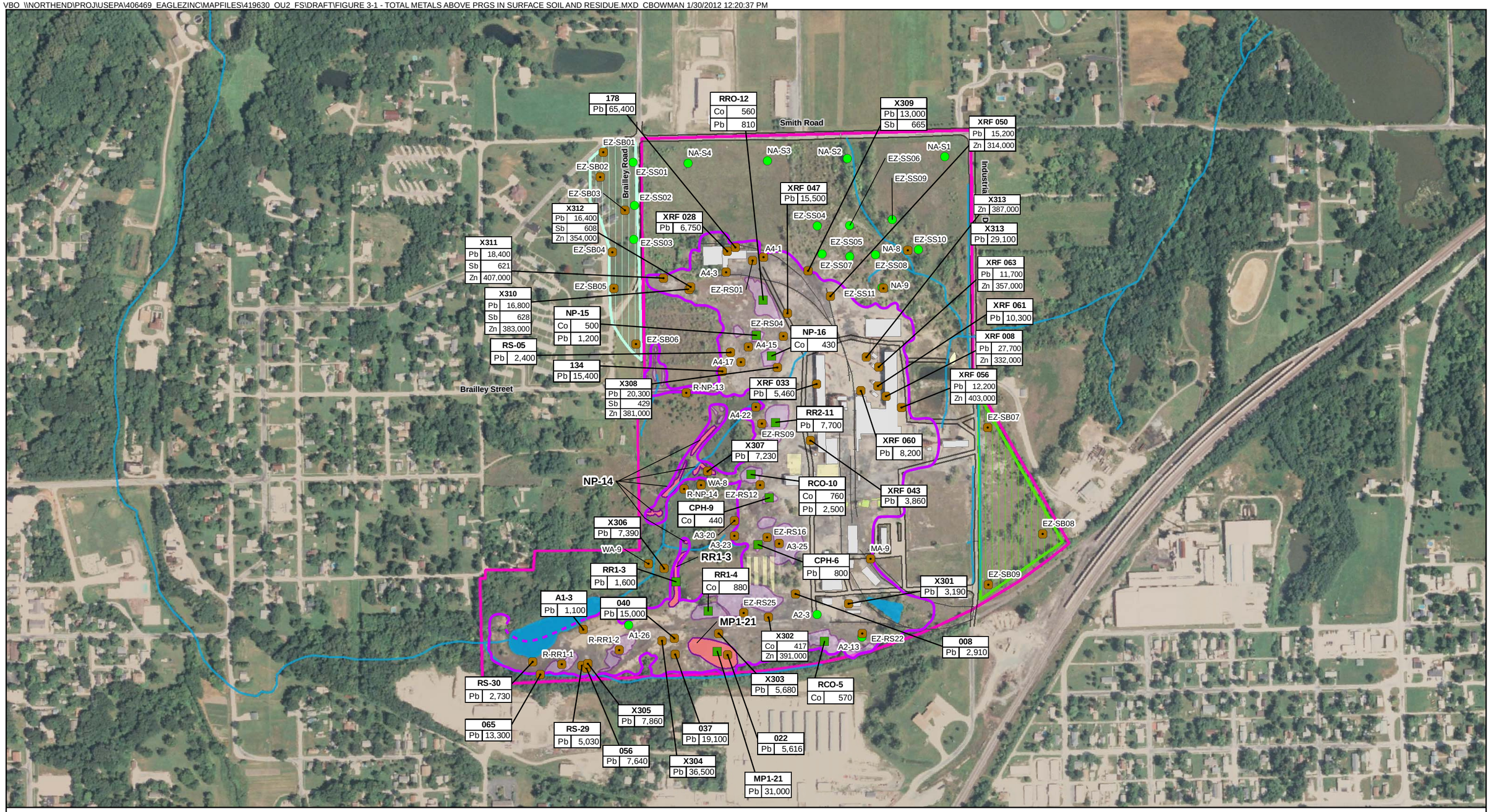
VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 3-1 - TOTAL METALS ABOVE PRGS IN SURFACE SOIL AND RESIDUE.MXD CBOWMAN 1/30/2012 12:20:37 PM



Legend

- Residue/Soil Boring
- Surface Soil Sample
- Drainage Ditch/Ephemeral Stream/Pond
- Residue Pile Sample
- Railroad
- Residue Visible at Surface (56 Acres)
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile Not Exceeding TCLP
- Rip Rap
- Culvert
- Offsite Residential Sample Area
- Triangular Sample Area
- Residue Pile Exceeding TCLP

Notes:
Soil concentrations and preliminary remediation goals are presented in units of milligrams per kilogram (mg/kg).
Lead results for sample locations SS-01, SS-02, and SS-03 were rejected during validation.
J = Estimated detection
Total nickel did not exceed PRG of 20,000 mg/kg in residue and surface soil samples.
PRG - preliminary remediation goal
mg/kg - milligram per kilogram
TCLP - Toxicity Characteristic Leaching Procedure
Extent of residue is estimated.

Co = Cobalt
Pb = Lead
Sb = Antimony
Zn = Zinc

040 / Pb 15,000 — Sample Location, Concentration (mg/kg), Metal

Metal	Preliminary Remediation Goal (mg/kg)
Co	300
Pb	800
Sb	410
Zn	310,000

N W E S

0 250 500 Feet

Figure 3-1
Total Metals Above PRGs
in Residue and Surface Soil
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

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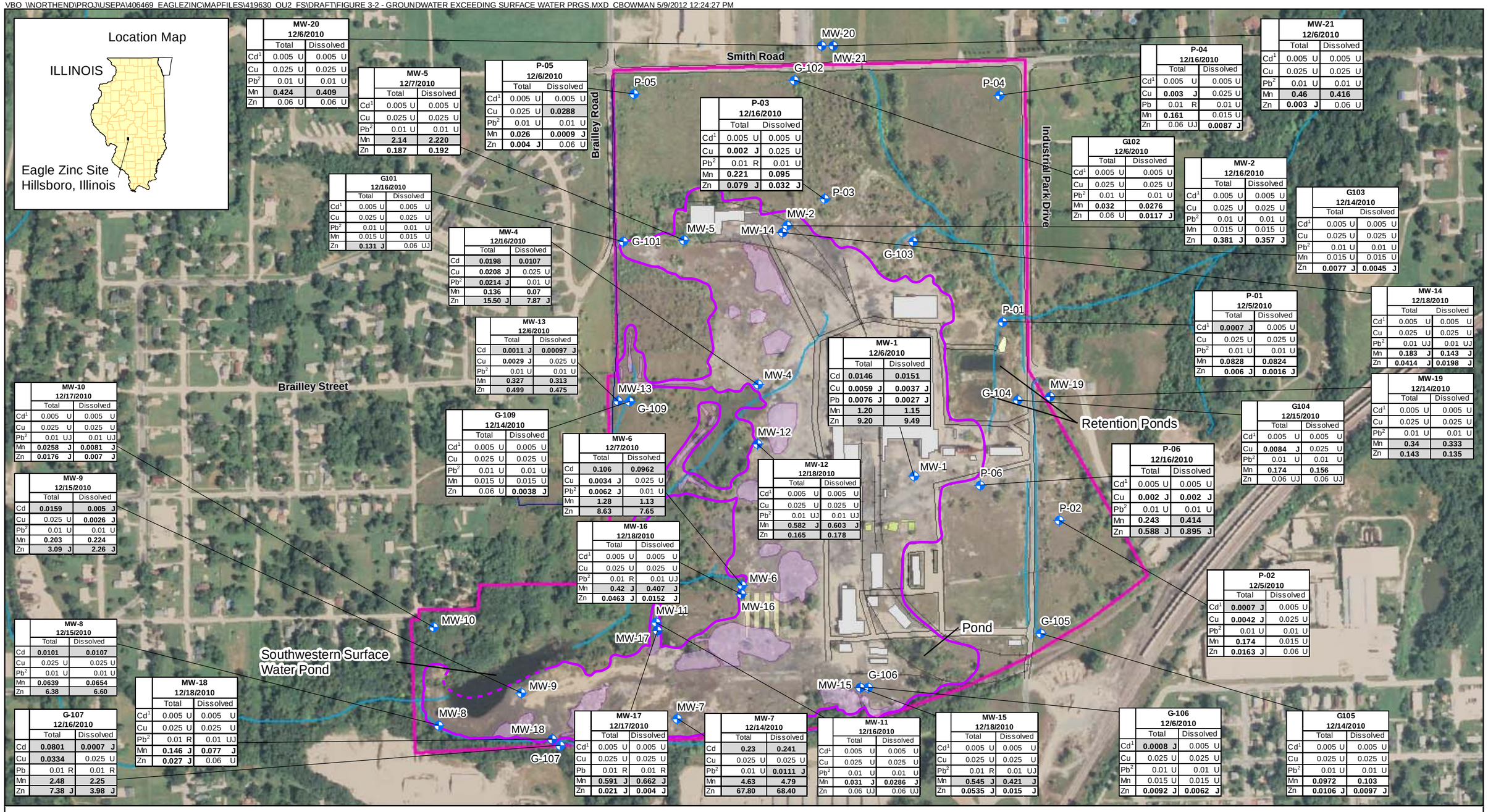
VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 3-2 - GROUNDWATER EXCEEDING SURFACE WATER PRGS.MXD CBOWMAN 5/9/2012 12:24:27 PM



MW-20 12/6/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 U	0.01 U
Mn	**0.424**	**0.409**
Zn	0.06 U	0.06 U

MW-21 12/6/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 U	0.01 U
Mn	**0.46**	**0.416**
Zn	**0.003 J**	0.06 U

MW-5 12/7/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 U	0.01 U
Mn	**2.14**	**2.220**
Zn	**0.187**	**0.192**

P-05 12/6/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	**0.0288**
Pb[2]	0.01 U	0.01 U
Mn	**0.026**	**0.0009 J**
Zn	**0.004 J**	0.06 U

P-03 12/16/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	**0.002 J**	0.025 U
Pb[2]	0.01 R	0.01 U
Mn	**0.221**	**0.095**
Zn	**0.079 J**	**0.032 J**

P-04 12/16/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	**0.003 J**	0.025 U
Pb	0.01 R	0.01 U
Mn	**0.161**	0.015 U
Zn	0.06 UJ	**0.0087 J**

G102 12/6/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 U	0.01 U
Mn	**0.032**	**0.0276**
Zn	0.06 U	**0.0117 J**

G101 12/16/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 U	0.01 U
Mn	0.015 U	0.015 U
Zn	**0.131 J**	0.06 UJ

MW-2 12/16/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 U	0.01 U
Mn	0.015 U	0.015 U
Zn	**0.381 J**	**0.357 J**

G103 12/14/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 U	0.01 U
Mn	0.015 U	0.015 U
Zn	**0.0077 J**	**0.0045 J**

MW-4 12/16/2010	Total	Dissolved
Cd	**0.0198**	**0.0107**
Cu	**0.0208 J**	0.025 U
Pb[2]	**0.0214 J**	0.01 U
Mn	**0.136**	**0.07**
Zn	**15.50 J**	**7.87 J**

MW-13 12/6/2010	Total	Dissolved
Cd	**0.0011 J**	**0.00097 J**
Cu	**0.0029 J**	0.025 U
Pb[2]	0.01 U	0.01 U
Mn	**0.327**	**0.313**
Zn	**0.499**	**0.475**

MW-1 12/6/2010	Total	Dissolved
Cd	**0.0146**	**0.0151**
Cu	**0.0059 J**	**0.0037 J**
Pb	**0.0076 J**	**0.0027 J**
Mn	**1.20**	**1.15**
Zn	**9.20**	**9.49**

P-01 12/5/2010	Total	Dissolved
Cd[1]	**0.0007 J**	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 U	0.01 U
Mn	**0.0828**	**0.0824**
Zn	**0.006 J**	**0.0016 J**

MW-14 12/18/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 UJ	0.01 UJ
Mn	**0.183 J**	**0.143 J**
Zn	**0.0414 J**	**0.0198 J**

MW-19 12/14/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 U	0.01 U
Mn	**0.34**	**0.333**
Zn	**0.143**	**0.135**

MW-10 12/17/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 UJ	0.01 UJ
Mn	**0.0258 J**	**0.0081 J**
Zn	**0.0176 J**	**0.007 J**

G-109 12/14/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 U	0.01 U
Mn	0.015 U	0.015 U
Zn	0.06 U	**0.0038 J**

MW-6 12/7/2010	Total	Dissolved
Cd	**0.106**	**0.0962**
Cu	**0.0034 J**	0.025 U
Pb[2]	**0.0062 J**	0.01 U
Mn	**1.28**	**1.13**
Zn	**8.63**	**7.65**

MW-12 12/18/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 UJ	0.01 UJ
Mn	**0.582 J**	**0.603 J**
Zn	**0.165**	**0.178**

P-06 12/16/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	**0.002 J**	**0.002 J**
Pb[2]	0.01 U	0.01 U
Mn	**0.243**	**0.414**
Zn	**0.588 J**	**0.895 J**

G104 12/15/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	**0.0084 J**	0.025 U
Pb[2]	0.01 U	0.01 U
Mn	**0.174**	**0.156**
Zn	0.06 UJ	0.06 UJ

MW-16 12/18/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 R	0.01 UJ
Mn	**0.42 J**	**0.407 J**
Zn	**0.0463 J**	**0.0152 J**

P-02 12/5/2010	Total	Dissolved
Cd[1]	**0.0007 J**	0.005 U
Cu	**0.0042 J**	0.025 U
Pb[2]	0.01 U	0.01 U
Mn	**0.174**	0.015 U
Zn	**0.0163 J**	0.06 U

MW-9 12/15/2010	Total	Dissolved
Cd	**0.0159**	**0.005 J**
Cu	0.025 U	**0.0026 J**
Pb[2]	0.01 U	0.01 U
Mn	**0.203**	**0.224**
Zn	**3.09 J**	**2.26 J**

MW-8 12/15/2010	Total	Dissolved
Cd	**0.0101**	**0.0107**
Cu	0.025 U	0.025 U
Pb[2]	0.01 U	0.01 U
Mn	**0.0639**	**0.0654**
Zn	**6.38**	**6.60**

MW-18 12/18/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 R	0.01 UJ
Mn	**0.146 J**	**0.077 J**
Zn	**0.027 J**	0.06 U

MW-17 12/17/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb	0.01 R	0.01 R
Mn	**0.591 J**	**0.662 J**
Zn	**0.021 J**	**0.004 J**

MW-7 12/14/2010	Total	Dissolved
Cd	**0.23**	**0.241**
Cu	0.025 U	0.025 U
Pb[2]	0.01 U	**0.0111 J**
Mn	**4.63**	**4.79**
Zn	**67.80**	**68.40**

MW-11 12/16/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 U	0.01 U
Mn	**0.031 J**	**0.0286 J**
Zn	0.06 UJ	0.06 UJ

MW-15 12/18/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 R	0.01 UJ
Mn	**0.545 J**	**0.421 J**
Zn	**0.0535 J**	**0.015 J**

G-106 12/6/2010	Total	Dissolved
Cd[1]	**0.0008 J**	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 U	0.01 U
Mn	0.015 U	0.015 U
Zn	**0.0092 J**	**0.0062 J**

G105 12/14/2010	Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[2]	0.01 U	0.01 U
Mn	**0.0972**	**0.103**
Zn	**0.0106 J**	**0.0097 J**

G-107 12/16/2010	Total	Dissolved
Cd	**0.0801**	**0.0007 J**
Cu	**0.0334**	0.025 U
Pb	0.01 R	0.01 R
Mn	**2.48**	**2.25**
Zn	**7.38 J**	**3.98 J**

Legend

- Existing Monitoring Well
- Fence
- Drainage Ditch/Ephemeral Stream
- Railroad Spars
- Site Boundary
- Tank
- Residue Visible at Surface (56 Acres)
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

N W E S

0 200 400 800 Feet

Notes:
PRG – Preliminary Remediation Goal
Concentrations are presented in units of milligrams per liter (mg/L)
Grey shading indicates a detected concentration is greater than a PRG.
J - estimated detection
U - result not detected
UJ - estimated result not detected
R - rejected
Bold indicates a detected concentration

Metal	PRG (mg/L)
Cadmium (Cd)	0.00059
Copper (Cu)	0.0263
Lead (Pb)	0.0096
Manganese (Mn)	0.250
Zinc (Zn)	0.0628

[1]Cadmium concentration is reported as not detected (0.005U mg/L) and the detection limit is greater than the PRG for cadmium.
[2]Lead concentration is reported as not detected (0.01U mg/L) and the detection limit is greater than the PRG for lead.

Figure 3-2
Groundwater Exceeding Surface Water PRGs
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

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Surface Water PRGs (mg/L)

Chemical of Concern	Background (SW-WD-11)	NAWQC	IAC General Use Water Quality Standards	IAC Secondary Contact and Aquatic Life
Cadmium	0.00019 J	**0.00059** [c]	0.00261 [d]	0.15
Copper	0.0037 J	**0.0263** [c]	0.0334 [d]	1.0
Lead	0.0038	**0.0096** [c]	0.0607 [d]	0.1
Manganese	**0.25**	0.120 [b]	1.0	1.0
Zinc	0.072 U	0.344 [c]	**0.0628** [d]	1.0

Selected PRG is **bolded**. See Remedial Alternative Screening Technical Memorandum for details on selection.

Metal	SW-ED-11 03/10/2003 Total	Dissolved
Cd	0.00053 U	NA
Cu	**0.0044**	NA
Pb	0.0013 U	NA
Mn	**0.11**	NA
Zn	**1.4**	NA

Metal	SD-ED-16 12/4/2010 Total	Dissolved
Cd	**0.0021 J**	**0.0016 J**
Cu	0.025 U	0.025 U
Pb[1]	0.01 U	0.01 U
Mn	**1.13**	**1.09**
Zn	**3.21**	**3.05**

Metal	SD-ED-28 12/5/2010 Total	Dissolved
Cd	**0.002 J**	**0.001 J**
Cu	0.025 U	0.025 U
Pb[1]	0.01 U	0.01 U
Mn	**0.008 J**	**0.007 J**
Zn	**1.48**	**1.38**

Metal	SD-ED-13 12/1/2010 Total	Dissolved
Cd	**0.003 J**	**0.0025 J**
Cu	**0.004 J**	**0.0036 J**
Pb[1]	0.01 U	0.01 U
Mn	**1.1**	**1.09**
Zn	**4.13**	**4.01**

Metal	SD-ED-30 12/6/2010 Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	**0.004 J**	0.025 U
Pb[1]	0.01 U	0.01 U
Mn	**0.017**	**0.016**
Zn	**0.404**	**0.284**

Metal	SD-WD-21 12/7/2010 Total	Dissolved
Cd	**0.018**	**0.01**
Cu	**0.004 J**	0.025 U
Pb[1]	**0.005 J**	0.01 U
Mn	**0.309**	**0.288**
Zn	**3.79**	**3.65**

Metal	SW-WD-PN 3/10/2003 Total	Dissolved
Cd	**0.087**	NA
Cu	**0.0023**	NA
Pb	**0.0032**	NA
Mn	**0.3**	NA
Zn	**16**	NA

Metal	SD-WD-09 12/2/2010 Total	Dissolved
Cd	**0.035**	**0.0258**
Cu	0.025 U	0.025 U
Pb[1]	0.01 U	0.01 U
Mn	**0.1**	**0.0923**
Zn	**7.5**	**7.8**

Metal	SD-ED-29 12/5/2010 Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[1]	0.01 U	0.01 U
Mn	**0.01 J**	**0.009 J**
Zn	**0.35**	**0.301**

Metal	SD-ED-27 12/5/2010 Total	Dissolved
Cd	**0.001 J**	**0.001 J**
Cu	0.025 U	0.025 U
Pb[1]	0.01 U	0.01 U
Mn	**0.008 J**	**0.006 J**
Zn	**1.45**	**1.3**

Metal	SW-WD-12 06/13/2003 Total	Dissolved
Cd	**0.0012**	NA
Cu	**0.0041 J**	NA
Pb	**0.0052**	NA
Mn	**0.27**	NA
Zn	**0.71**	NA

Metal	SD-WD-20 12/7/2010 Total	Dissolved
Cd	**0.018**	**0.01**
Cu	**0.006 J**	0.025 U
Pb[1]	**0.009 J**	0.01 U
Mn	**0.307**	**0.292**
Zn	**3.77**	**3.58**

Metal	SD-WD-22 12/3/2010 Total	Dissolved
Cd	**0.117**	**0.112**
Cu	**0.012 J**	**0.009 J**
Pb	**0.006 J**	**0.005 J**
Mn	**0.533**	**0.519**
Zn	**5.52**	**5.37**

Metal	SD-ED-26 12/4/2010 Total	Dissolved
Cd	**0.008**	**0.007**
Cu	0.025 U	0.025 U
Pb[1]	**0.026**	0.01 U
Mn	0.015 U	0.015 U
Zn	**4.85**	**4.41**

Metal	SD-ED-24 12/3/2010 Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[1]	0.01 U	0.01 U
Mn	0.015 U	0.015 U
Zn	**0.206**	**0.159**

Metal	SD-WD-17 12/4/2010 Total	Dissolved
Cd	**0.018**	**0.011**
Cu	**0.004 J**	**0.003 J**
Pb[1]	**0.004 J**	0.01 U
Mn	**0.271**	**0.26**
Zn	**3.71**	**3.7**

Metal	SD-WD-19 12/7/2010 Total	Dissolved
Cd	**0.017**	**0.0097**
Cu	**0.004 J**	**0.003 J**
Pb[1]	0.01 U	0.01 U
Mn	**0.3**	**0.285**
Zn	**3.72**	**3.7 J**

Metal	SD-WD-23 12/3/2010 Total	Dissolved
Cd	**0.106**	**0.0537**
Cu	**0.033**	**0.0041 J**
Pb[1]	**0.027**	0.01 U
Mn	**0.447**	**0.0549**
Zn	**7.64**	**3.29**

Metal	SD-ED-25 12/3/2010 Total	Dissolved
Cd[1]	0.005 U	0.005 U
Cu	0.025 U	0.025 U
Pb[1]	0.01 U	0.01 U
Mn	0.015 U	0.015 U
Zn	**0.179**	**0.155**

Metal	SW-WD-PS 3/10/2003 Total	Dissolved
Cd	**0.069**	NA
Cu	**0.0017**	NA
Pb	**0.0022**	NA
Mn	**0.27**	NA
Zn	**14**	NA

Metal	SD-WD-07 12/2/2010 Total	Dissolved
Cd	**0.0187**	**0.0146**
Cu	**0.0034 J**	0.025 U
Pb[1]	0.01 U	0.01 U
Mn	**0.3**	**0.278**
Zn	**7.08**	**6.66**

Metal	SD-WD-10 12/2/2010 Total	Dissolv
Cd	**0.0529**	**0.0519**
Cu	**0.0077 J**	0.025 U
Pb	**0.0401**	**0.0037 J**
Mn	**0.156**	**0.114**
Zn	**8.66**	**8.14**

Metal	SD-WD-06 12/2/2010 Total	Dissolved
Cd	**0.0136**	**0.0097**
Cu	**0.0052 J**	0.025 U
Pb[1]	**0.0189 J+**	0.01 U
Mn	**0.506**	**0.494**
Zn	**5.65**	**5.14**

Metal	SD-WD-18 12/7/2010 Total	Dissolved
Cd	**0.017**	**0.01**
Cu	**0.004 J**	0.025 U
Pb[1]	**0.004 J**	0.01 U
Mn	**0.3**	**0.293**
Zn	**3.65**	**3.61**

Metal	SD-WD-08 12/1/2010 Total	Dissolved
Cd	**0.0412**	**0.0406**
Cu	0.025 U	0.025 U
Pb[1]	0.01 U	0.01 U
Mn	**0.115**	**0.112**
Zn	**7.3**	**7.25**

Smith Road
Brailley Road
Industrial Park Drive
Brailley Street
Retention Ponds
Pond
SW-WD-11
Southwestern Surface Water Pond
Intermittent drainage ditch

Legend

- Surface Water Sample Location Exceeding PRG
- Surface Water Exceeding PRG
- Drainage Ditch/Ephemeral Stream/Pond
- Flow Direction
- Railroad Spars
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

Note:
Surface water concentrations and screening criteria are presented in units of milligrams per liter (mg/L)
[1]Detection limit of reported non-detect result (0.01U mg/L) is greater than PRG for chemical of concern.
Total lead concentrations for samples SD-ED-13, SD-ED-16 and SD-WD-07 through SD-WD-09 from 2010 were reported as below detection (0.01U mg/L) however the detection limit was greater than the PRG for lead. However, the 2003 results were reported at a concentration below the PRG for lead.
Concentration exceedes the respective PRG
Detected concentrations are **bolded**.
NA = Not reported or analyzed
J = Estimated detection
U = Result not detected
UJ = Estimated result not detected
J+ = Estimated detection, biased high

Cd = Cadmium
Cu = Copper
Pb = Lead
Mn = Manganese
Zn = Zinc

PRG - preliminary remediation goal

	SD-WD-23 12/3/2010 Total	Dissolved
Cd	0.106	0.054
Zn	7.64	3.29

Sample Identification and Sample Date
Results (mg/L)
Constituent of Concern

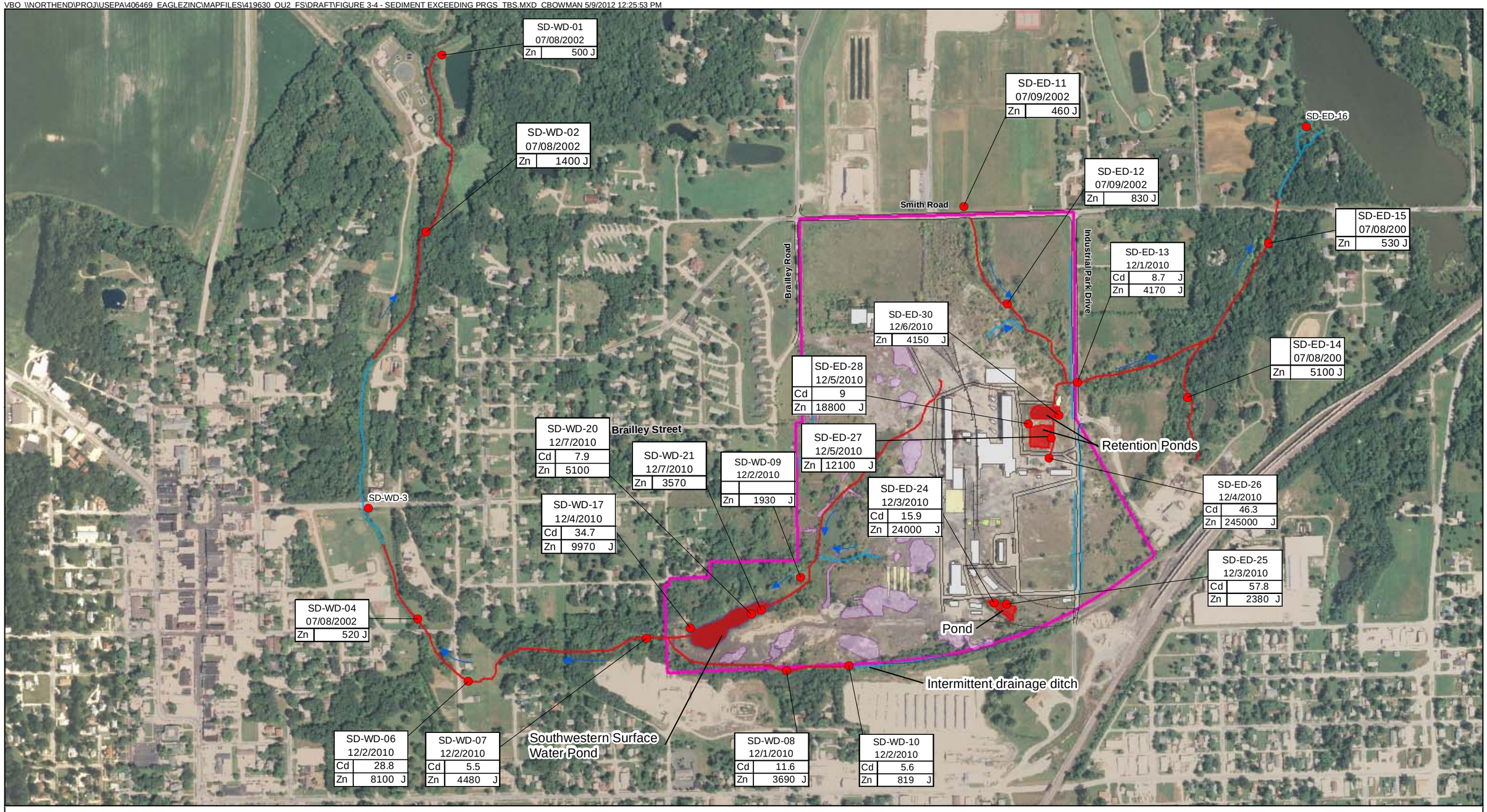
N W E S

0 250 500 1,000 Feet

Figure 3-3
Surface Water Exceeding PRGs
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

CH2MHILL

VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 3-4 - SEDIMENT EXCEEDING PRGS_TBS.MXD CBOWMAN 5/9/2012 12:25:53 PM



Legend

- Sediment Sample Location Exceeding PRG
- Surface Water Exceeding PRG
- Drainage Ditch/Ephemeral Stream
- Flow Direction
- Railroad Spars
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

Metal	Preliminary Remediation Goal (mg/kg)
Cd	4.98
Zn	459

	SD-ED-26 12/4/2010
Cd	46.3
Zn	245000 J

Sample Identification and Sample Date

Results (mg/kg)

Constituent of Concern

Note:
mg/kg - milligram per kiligram
PRG – preliminary remediation goal

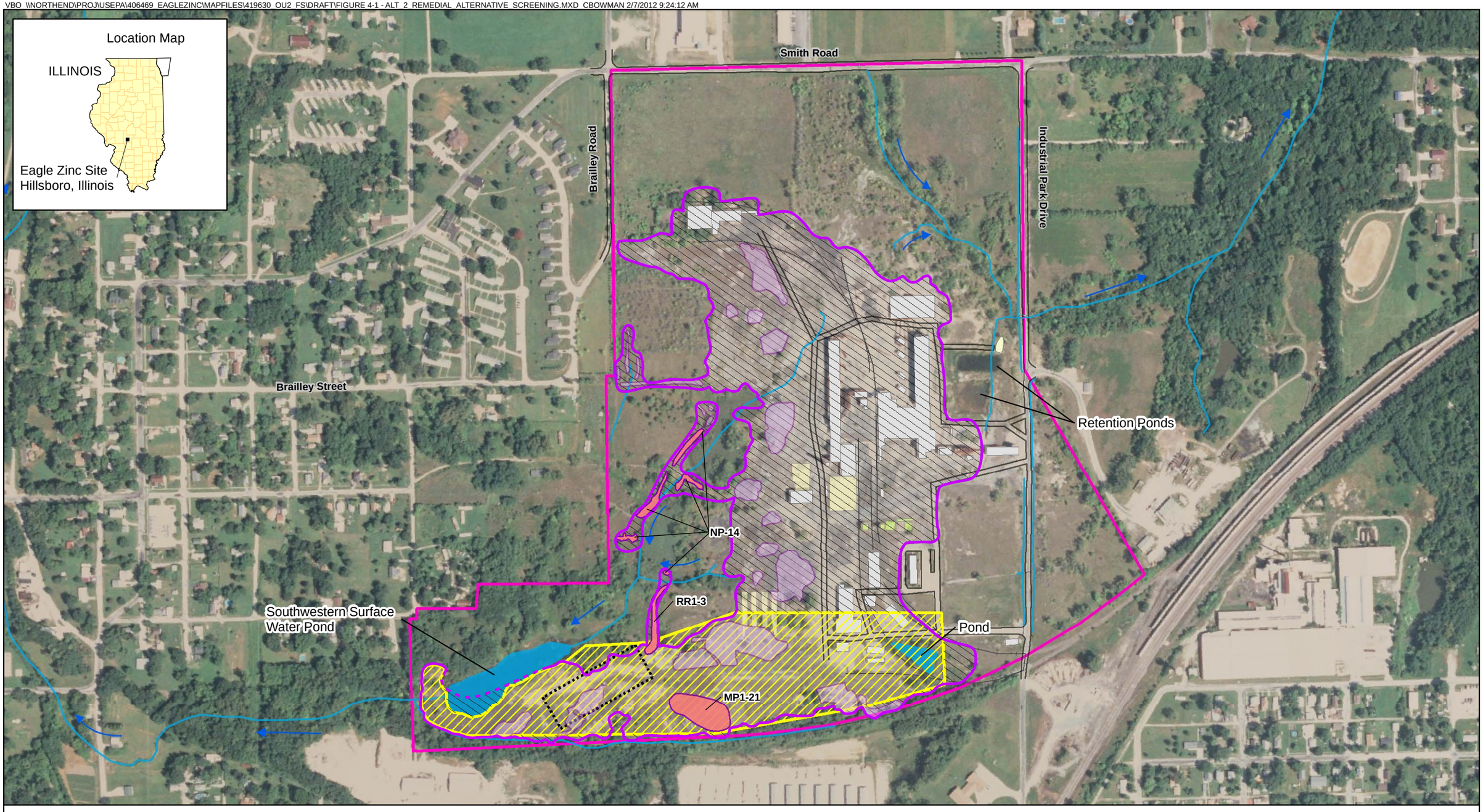
N W E S

0 300 600 1,200 Feet

Figure 3-4
Sediment Exceeding PRGs
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

CH2MHILL

VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 4-1 - ALT_2_REMEDIAL_ALTERNATIVE_SCREENING.MXD CBOWMAN 2/7/2012 9:24:12 AM



Legend

- Drainage Ditch/Ephemeral Stream/Pond
- Railroad Spars
- Flow Direction
- Site Boundary
- Tank
- Residue Visible at Surface (56 Acres)
- Soil Cover Extent (18 Acres)
- Foundation
- Building
- Residue Pile Exceeding TCLP
- Residue Pile
- Rip Rap
- Culvert
- Temporary OU1 Demolition Management Cell
- Residue and Soil Excavated and Consolidated Under Soil Cover/Cap

Note:
1. TCLP - Toxicity Characteristic Leaching Procedure
2. IAC - Illinois Administrative Code
3. Existing buildings and structures shown in figure are part of Operable Unit 1 (OU1) and are planned for demolition.

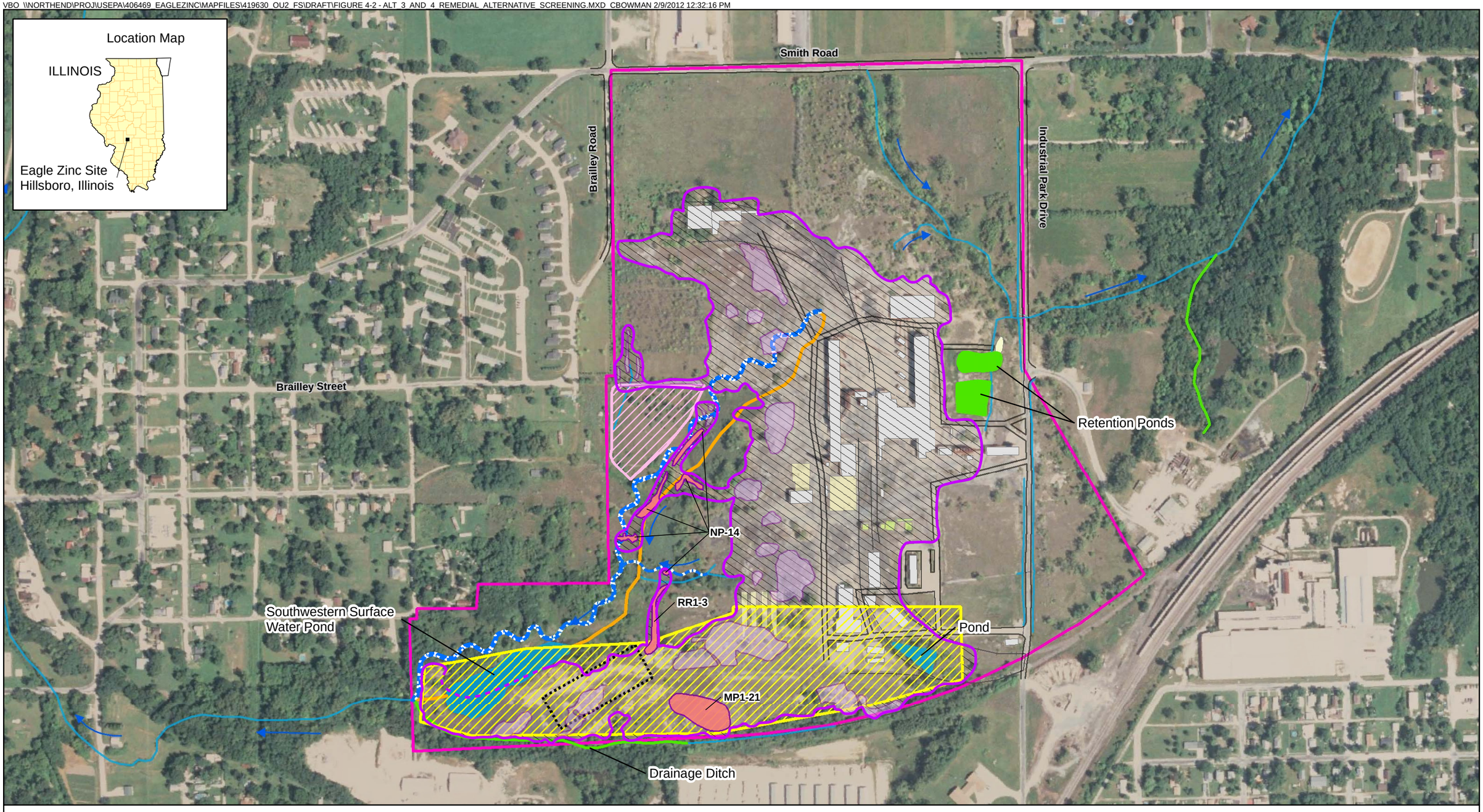
N
W E
S

0 200 400 800
Feet

Figure 4-1
Alternative 2 - Immobilization and IAC 807 Soil Cover
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

CH2MHILL

VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE 4-2 - ALT_3_AND_4_REMEDIAL_ALTERNATIVE_SCREENING.MXD CBOWMAN 2/9/2012 12:32:16 PM



Legend

- Drainage Ditch/Ephemeral Stream/Pond
- Railroad Spars
- Flow Direction
- Proposed Stream Realignment Location
- Stream for Realignment and Stream Bed Sediments Excavated and Consolidated Under Soil Cover or Cap
- Stream Bed and Pond Sediments Excavated and Consolidated Under Soil Cover or Cap
- Site Boundary
- Temporary OU1 Demolition Management Cell
- Tank
- Residue Visible at Surface (56 Acres)
- IAC 807 Soil Cover or IAC 811 Cap Extent (22 Acres)
- Foundation
- Building
- Residue Pile Exceeding TCLP
- Residue Pile
- Rip Rap
- Culvert
- Proposed Wetland
- Residue and Soil Excavated and Consolidated Under Soil Cover/Cap

Note:
1. TCLP - Toxicity Characteristic Leaching Procedure
2. IAC - Illinois Administrative Code
3. Existing buildings and structures shown in figure are part of Operable Unit 1 (OU1) and are planned for demolition.
4. The eastern portion of the southern drainage ditch was excavated in 2010 as part of offsite railroad construction activities.

N
W E
S

0 200 400 800
Feet

Figure 4-2
Alternative 3 – Immobilization, IAC 807 Soil Cover, and Stream Realignment or
Alternative 4 - Immobilization, IAC 811 Cap, and Stream Realignment
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

CH2MHILL

Appendix A
Environmental Covenant

Michael R. Glenn

ATTORNEY AT LAW

REPLY TO:
320 WEST CENTRAL STREET
P.O. BOX 36
NOKOMIS, ILLINOIS 62075

TELEPHONE: (217) 563-7777
FAX: (217) 563-7781

SATELLITE OFFICE:
118 W. RYDER
LITCHFIELD, IL 62056

TELEPHONE: (217)324-7777
FAX: (217)324-7785

US EPA RECORDS CENTER REGION 5
422471

December 13, 2011

John M. Ix
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P.O. Box 19276
Springfield, IL 62794-9276

City of Hillsboro
P.O. Box 556
447 S. Main St.
Hillsboro, IL 62049

Ameren Illinois
Legal Department
300 Liberty St.
Peoria, IL 61602

RE: Environmental Covenant of T.L. Diamond & Company, Inc.

Dear Folks:

Enclosed please find the recorded Environmental Covenant.

Very Truly Yours,

MICHAEL R. GLENN
Attorney at Law

MRG/ana
Enclosure

Environmental Covenant Under Illinois Uniform Environmental Covenant Act

201100066884
Filed for Record in
MONTGOMERY COUNTY, IL
SANDY LEITHEISER, COUNTY RECORDER
12-13-2011 At 02:13 pm.
COVENANTS 48.00
OR Book 1470 Page 223 - 235
RHSP Surcharge 10.00

Instrument Book Page
201100066884 OR 1470 223

This instrument was prepared by:

Name: Thomas Krueger
Address: U.S. EPA (C-14J), 77 W. Jackson Blvd., Chicago, IL 60604-3590

Please return this instrument to:

Name: Thomas Krueger
Address: U.S. EPA (C-14J), 77 W. Jackson Blvd., Chicago, IL 60604-3590

ENVIRONMENTAL COVENANT

1. This Environmental Covenant is made this 1st day of Dec., 2011 by and among T.L. Diamond & Company, Inc. ("Grantor" or "TLD"), a New York Corporation, and the Holders/Grantees further identified in Paragraph 3 below pursuant to the Uniform Environmental Covenants Act, 765 ILCS Ch. 122 ("UECA") for the purpose of imposing activity and use limitations described herein on the real property (the "Property") that TLD owns in the County of Montgomery, State of Illinois, more particularly described and known as:

Tract 1: Part of the southeast quarter (SE1/4) of Section 1, Township 8 North, Range 4 West, Third Principal Meridian, Montgomery County, Illinois, described as follows:

Beginning at an iron pin found at the northeast corner of said S.E.1/4, Sec. 1, being at the intersection of two public roads, thence S 0 01' 03" W along the east line of the Section, also being along the center of Township Road 212 (T.R. 212), a distance of 495.06 feet to an iron pin; thence S 89 09' 03" W, 1757.88 feet to an iron pin; thence N 0 13' 38" W, 495.03 feet to an iron

pin on the north line of said S.E.1/4, Section 1, also being on the centerline of Smith Road; thence N 89 09' 03" E along said north line and said road, a distance of 1759.99 feet to the point of beginning (P.O.B.) containing 20.00 acres, more or less. 218 INDUSTRIAL DRIVE
16-01-476-002

Tract 2: Part of the southeast quarter (S.E.1/4) of Section 1 and the northeast quarter (NE 1/4) of Section 12, Township 8 North, Range 4 West and part of the southwest quarter of Section 6, Township 8 North, Range 3 West, Third principal meridian, Montgomery County, Illinois, described as follows:

Commencing at an iron pin found at the northeast corner of said S.E. 1/4, Sec. 1, thence S 0 01' 03" W along the east line of the section, being the centerline of Township Rd. 212 (T.R. 212), a distance of 495.06 feet for a point of beginning (P.O.B.) thence continuing along said line, S 0 01' 03" W, 825.75 feet to an iron pin; thence S 29 42' 23" E, 1067.63 feet to the centerline of the abandoned C.C.C. & St. L.R.R. (Conrail); thence S 52 17' 20" W along said centerline 129.14 feet to an iron pin set at the point of curvature of a 2 curve to the right of said railroad; thence continuing along the railroad centerline on a series of chords, with iron pins at each line change, the first chord being S 54 22' 13" W, 207.97 feet; thence S 59 26' 55" W 299.88 feet; thence S 65 27' 09" W, 299.78 feet; thence S 71 27 '00" W, 299.84 feet; thence S 77 26' 51" W, 299.81 feet; thence S 83 06' 41" W, 266.85 feet; thence S 86 46' 43" W, 100.00 feet to the point of tangency of the railroad curve; thence continuing along the centerline of the railroad S 87 46' 53" W, tangent to said curve, a distance of 1416.74 feet to the intersection of the railroad centerline and the west line of said N.E.1/4, Sec. 12; thence N 1 06' 42" W along said west line, 49.51 feet to a chiseled X on the north right of way line of the railroad; thence continuing along said west line N 1 06' 42" W, 262.29 feet to an iron pin found at the corner between the N.E. 1/4, Sec. 12 and the S.E. 1/4, Sec. 1; thence continuing N 1 06' 42" W along the west line of the S.E. 1/4, Sec. 1, 303.32 feet to an iron pin on the south right of way line of East Water Street; thence N 89 23' 13" E along said right of way, 30.00 feet to an iron pin at the southeast corner of East Water Street and Larkin Street; thence N 1 06' 42" W along the east line of Larkin Street, 42.74 feet to an iron pin; thence N 89 52' 04" E, 256.15 feet to an iron pin; thence N 5 09' 55" E, 102.05 feet to an iron pin; thence N 89 50' 42" E, 559.97 feet to an iron pin; thence N 0 13' 38" W, 884.80 feet to an iron pin on the north right of way line of Brailey Street; thence N 89 57' 04" E along said line, 39.30 feet to an iron pin; then N 0 13' 38" W, 810.80 feet to an iron pin which marks the southwest corner of Tract 1, as described above, thence N 89 09' 03" E, 1757.88 feet to the point of beginning, containing 117.15 acres, more or less, excepting therefrom a strip of right of way 49.5 feet wide north of centerline of the abandoned centerline as described herein, said exception being 3.76 acres, more or less, thus leaving 113.39 acres, more or less, as the total for Tract 2.

218 INDUSTRIAL DRIVE 16-12-201-001
17-06-351-020

2. **Grantor:** TLD is the current fee owner of the Property and is the "Grantor" of this Environmental Covenant. The mailing address of the Grantor is

T.L. Diamond & Company, Inc.
30 Rockefeller Plaza
New York, New York 10112-2200

3. **Holders (and Grantees for purposes of indexing):**

A. The Illinois Environmental Protection Agency (Illinois EPA) is a Holder (and Grantee for purposes of indexing) of this Environmental Covenant pursuant to its authority under Section 3(b) of UECA. The mailing address of the Illinois EPA is 1021 N. Grand Avenue East, P.O. Box 19276, Springfield, IL 62794-9276.

B. TLD is a Holder (and Grantee for purposes of indexing) of this Environmental Covenant pursuant to UECA. Regardless of any future transfer of the Property, TLD shall remain a Holder of this Environmental Covenant. TLD is to be identified as both Grantee and Grantor for purposes of indexing.

4. **Agencies:** The Illinois EPA and the United States Environmental Protection Agency (U.S. EPA) are "Agencies" within the meaning of Section 2(2) of UECA. The Agencies have approved the environmental response project described in Paragraph 5 below and may enforce this Environmental Covenant pursuant to Section 11 of UECA.

5. **Environmental Response Project and Administrative Record:**

A. This Environmental Covenant arises under an environmental response project as defined in Section 2(5) of UECA.

B. On the Property, there is the Eagle Zinc Site (the "Site"), which the U.S. EPA, pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9605, placed on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication in Volume 72 of the Federal Register on September 19, 2007, pages 53463 -69. U.S. EPA anticipates that it will select a remedial action for the Site (the "Remedial Action") by issuing a Record of Decision. The Remedial Action may include land and groundwater use restrictions consistent with those in this declaration of environmental restrictive covenants. TLD has agreed to implement the land and groundwater use restrictions on the Property, in a Consent Decree entered on September 17, 2008 in the case of *United States v. T.L. Diamond & Company, Inc. et al.*, Civil Action No. 3:08-cv-03079-JES-BGC (C.D. Ill.) (the "Consent Decree"), which requires TLD: (a) to provide a permanent right of access over the Property to the State of Illinois and the United States for purposes specified in the Decree; (b) to limit permanently the use of the Property, for the purpose of protecting human health, the environment and the remedial action; and (c) to reserve an environmental easement and restrictive covenants running with the land that imposes the land and groundwater use restrictions listed in Paragraph 7 below and is enforceable by the United States and the State of Illinois.

C. The Administrative Record for the environmental response project at the Site (including the Property) is maintained at the U.S. EPA Superfund Record Center, 7th Floor, 77 West Jackson Blvd, Chicago, Illinois 60604. Persons may also contact the IEPA FOIA Officer, Division of Records, #16, 1021 N. Grand Avenue East, P.O. Box 19276, Springfield, IL 62794-9276 for the Administrative Record or other information concerning the Site.

6. **Grant of Covenant. Covenant Runs With The Land:** Grantor creates this Environmental Covenant pursuant to UECA so that the Activity and Use Limitations and associated terms and conditions set forth herein shall "run with the land" in accordance with Section 5(a) of UECA and shall be binding on Grantor, its heirs, successors and assigns, and on all present and subsequent owners, occupants, lessees or other person acquiring an interest in the Property.

7. **Activity and Use Limitations:** The following Activity and Use Limitations apply to the use of the Property unless and until they are modified in accordance with Paragraph 8:

A. No disturbance of cover: Except as provided in a plan approved by U.S. EPA with Illinois EPA concurrence, no action shall be taken to excavate or drill or intrude into, or penetrate or otherwise disturb any facility cover that may be demarcated as part of the Remedial Action to be selected by U.S. EPA for the Site.

B. No interference with remedy: There shall be no knowing interference of any sort, by the Grantor with the construction, operation, maintenance, monitoring, efficacy, or physical integrity of any component, structure, or improvement resulting from or relating to the Remedial Action on the Property. There shall be no interference of any sort by any other occupants, lessees, or persons acquiring an interest in the Property, including, but not limited to, any subsequent owners, with the construction, operation, maintenance, monitoring, efficacy, or physical integrity of any component, structure, or improvement resulting from or relating to the Remedial Action on the Property. No action shall be taken that would cause waste materials covered as part of the remedy to become exposed.

C. Land uses: The Property shall not be used for any of the following purposes:

1. Residential, including any dwelling units and rooming units, mobile homes or factory built housing, camping facilities, hotels, or other unit constructed or installed for occupancy on a 24-hour basis;
2. A hospital for humans;
3. Educational institutions such as a public or private school;
4. A day care center for children; and
5. Any use that would disturb or penetrate the facility cover as described in subparagraph 7.A. or interfere with the remedy as described in subparagraph 7.B. (e.g. construction of buildings).

D. Ground water uses: No activities shall be conducted on the Property that extract, consume, or otherwise use any groundwater from the Property, nor shall any wells be constructed on the Property for purposes other than ground water monitoring, unless approved by U.S. EPA.

8. **Amendment or Termination:** The activity and use restrictions shall continue until and unless U.S. EPA and Illinois EPA, after consultation with TLD (if TLD is an extant corporation at that time), approve the modification or rescission of the restrictions. U.S. EPA with the concurrence of Illinois EPA may modify or terminate, in whole or in part, the restrictions set

forth in Paragraph 7 in writing, as authorized by law. The owner of the Property may seek to modify or terminate, in whole or in part, the restrictions set forth in Paragraph 7 by submitting to U.S. EPA, Illinois EPA and TLD a written application that identifies each such restriction to be terminated or modified, describes the terms of each proposed modification, any proposed revisions to this notice and any proposed changes to the environmental easement and restrictive covenants applicable to the Property. Each application for termination or modification of any restriction set forth in Paragraph 7 shall include a demonstration by the owner of the Property that the requested termination or modification will not interfere with, impair or reduce:

a) the effectiveness of any remedial measures at the Site;
b) the long term protectiveness of the Remedial Action; or
c) protection of human health and the environment.

If U.S. EPA, with the concurrence of Illinois EPA, makes a determination that an application satisfies the requirements of this Paragraph 8, U.S. EPA will notify the owner of the Property in writing. If U.S. EPA does not respond in writing within 90 days to an application to modify or terminate any restrictions, U.S. EPA shall be deemed to have denied the owner's application. Any approved modification of the use restrictions shall be recorded with the Recorder of Deeds, Montgomery County, Illinois.

This Environmental Covenant may be amended or terminated by consent only if the amendment or termination is signed by the Illinois EPA, U.S. EPA, and the current owner of the fee simple of the Property, unless waived by the Agencies. If Grantor no longer owns the Property at the time of proposed amendment or termination, Grantor waives the right to consent to an amendment or termination of the Environmental Covenant.

9. **Access:** The Property is subject to an irrevocable, permanent and continuing right of access by the United States (including U.S. EPA and its contractors), Illinois EPA (including its contractors) and TLD (including its contractors) at all reasonable times, upon reasonable notice, for the purpose of conducting any response activity related to the Site, including, but not limited to, the following activities:

A. Monitoring, investigation, removal, remedial or other activities at the Site;

B. Verifying any data or information submitted to the State of Illinois or the United States;

C. Conducting investigations relating to contamination at or near the Site, including conducting periodic reviews of the environmental response project described in Paragraph 5 above;

D. Obtaining samples;

E. Assessing the need for, planning, selecting, preparing for, and/or implementing response actions at or related to the Site;

F. Inspecting and copying records, operating logs, contracts, or other documents maintained or generated by TLD or its agents related to response activity at the Site, consistent with the Consent Decree;

G. Assessing TLD's compliance with the Consent Decree;

H. Determining whether the Property is being used in a manner that is prohibited or restricted, or that may need to be prohibited or restricted, by or pursuant to the Consent Decree; and

I. Verifying that no action is being taken on the Property in violation of the terms of this instrument, the environmental response project described in Paragraph 5 above or of any federal or state environmental laws or regulations.

10. No Limitation of Rights or Authorities: Nothing in this document shall limit or otherwise affect U.S. EPA's or the State of Illinois' rights of entry and access or authority to take response actions under CERCLA, the NCP, or other federal or state law.

11. No Public Access and Use: No right of access or use by the general public to any portion of the Property is conveyed by this instrument.

12. Inspection: In addition to the access rights set forth in Paragraphs 9 and 10 above, the United States and the State of Illinois may enter the Property from time to time for the purposes of performing inspections, overseeing remedy implementation or enforcing the restrictions set forth in Paragraph 7 above after reasonable notice to the owners or the owners' representative.

13. Enforcement and Compliance.

A. Civil Action for Injunction or Equitable Relief. This Environmental Covenant may be enforced through a civil action for injunctive or other equitable relief for any violation of any term or condition of this Environmental Covenant, including violation of the Activity and Use Limitations under Paragraph 7 and denial of Right of Access under Paragraph 9. Such an action may be brought individually or jointly by:

i. the Illinois EPA;
ii. the Holders of the Environmental Covenant; and
iii. U.S. EPA.

B. Other Authorities Not Affected. No Waiver of Enforcement. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including CERCLA. Nothing in this Environmental Covenant affects U.S. EPA's or Illinois EPA's authority to take or require performance of response actions to address releases or threatened releases of hazardous substances or pollutants or contaminants at or from the Property, or to enforce a consent order, consent decree or other settlement agreement entered into by U.S. EPA or Illinois EPA. Enforcement of the terms of this instrument shall be at the discretion of the Holders, the U.S. EPA and Illinois EPA and any forbearance, delay or omission

to exercise its rights under this instrument in the event of a breach of any term of this instrument shall not be deemed to be a waiver by the Holders, U.S. EPA or Illinois EPA of such term or of any subsequent breach of the same or any other term, or of any of the rights of the Holders, U.S. EPA or Illinois EPA of such term or of any subsequent breach of the same or any other term, or of any of the rights of the Holders, U.S. EPA or Illinois EPA.

C. **Former Owners And Interest Holders Subject to Enforcement.** An Owner, or other person that holds any right, title or interest in or to the Property remains subject to enforcement with respect to any violation of this Environmental Covenant by the Owner or other person which occurred during the time when the Owner or other person was bound by this Environmental Covenant regardless of whether the Owner or other person has subsequently conveyed the fee title, or other right, title or interest, to another person. As provided by Paragraph 34(d) of the above-referenced Consent Decree, where Grantor sells its fee interest in the Property and where the purchaser of that fee interest acknowledges in writing its responsibility to comply with this Environmental Covenant, and Grantor provides U.S. EPA and Illinois EPA with a copy of such written acknowledgement, Grantor shall not be liable for such purchaser's compliance with this Environmental Covenant.

14. **Prior Environmental Deed Restrictions:** This Environmental Covenant terminates the Environmental Deed Restrictions for the Property recorded by TLD on November 5, 2004 in Book 1034, Page 151.

15. **Waiver of certain defenses**: This Environmental Covenant may not be extinguished, limited, or impaired through issuance of a tax deed, foreclosure of a tax lien, or application of the doctrine of adverse possession, prescription, abandonment, waiver, lack of enforcement, or acquiescence, or similar doctrine as set forth in Section 9 of UECA.

16. **Future Conveyances, Notice and Reservation**:

A. Grantor agrees to include in any future instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases and mortgages, a notice and reservation which is in substantially the following form:

THE INTEREST CONVEYED HEREBY IS SUBJECT TO AND GRANTOR SPECIFICALLY RESERVES THE ENVIRONMENTAL COVENANT EXECUTED UNDER THE UNIFORM ENVIRONMENTAL COVENANTS ACT (UECA) AT 765 ILCS CH. 122 RECORDED IN THE OFFICIAL PROPERTY RECORDS OF MONTGOMERY COUNTY, ILLINOIS ON December 13, 2011 AS DOCUMENT NO. _____, IN FAVOR OF AND ENFORCEABLE BY GRANTOR AS A UECA HOLDER, THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AS A UECA HOLDER AND THE U.S. ENVIRONMENTAL PROTECTION AGENCY AS A UECA AGENCY.

B. As required by Paragraph 34(d) of the above-referenced Consent Decree, the Grantor shall provide written notice to U.S. EPA at least 30 days prior to any conveyance of fee title to the Property or any portion of the Property. Among other things, the notice shall identify

the name and contact information of the transferee, and the portion of the Property to be conveyed to that owner.

17. **Notices:** Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

T.L. Diamond & Company, Inc.
30 Rockefeller Plaza
New York, New York 10112-2200

William K. Dodds, Esq.
Dechert LLP
1095 Avenue of the Americas
New York, NY 10036

John M. Ix, Esq.
Dechert, LLP
Cira Centre
2929 Arch Street
Philadelphia, PA 19104-2808

United States Environmental Protection Agency
Superfund Division
77 W. Jackson Blvd.
Mail Code: SR-6J
Chicago IL 60604-3590

Illinois Environmental Protection Agency
Federal Site Remediation Section
Division of Remediation Management
1021 N. Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

18. **Recording and Notice of Environmental Covenant, Amendments and Termination.**

A. **The Original Environmental Covenant.** An Environmental Covenant must be recorded in the Office of the Recorder or Registrar of Titles of the county in which the property that is the subject of the Environmental Covenant is located. Within 30 days after the Illinois EPA and U.S. EPA (whichever is later) sign and deliver to Grantor this Environmental Covenant, the Grantor shall record this Environmental Covenant in the office of the County Recorder or Registrar of Titles for the County in which the Property is located.

B. **Termination, Amendment or Modification.** Within 30 days after Illinois EPA and U.S. EPA (whichever is later) sign and deliver to Owner any termination, amendment or

modification of this Environmental Covenant, the Owner shall record the amendment, modification, or notice of termination of this Environmental Covenant in the office of the County Recorder or Registrar of Titles in which the Property is located.

C. **Providing Notice of Covenant, Termination, Amendment or Modification.** Within 30 days after recording this Environmental Covenant, the Grantor shall transmit a copy of the Environmental Covenant in recorded form to:

i. the Illinois EPA;
ii. the U.S. EPA;
iii. each person holding a recorded interest in the Property, including those interests in Appendix A;
iv. each person in possession of the Property; and
v. each political subdivision in which the Property is located.

Within 30 days after recording a termination, amendment or modification of this Environmental Covenant, the Owner shall transmit a copy of the document in recorded form to the persons listed in items i to v above.

19. General Provisions:

A. **Controlling law:** This Environmental Covenant shall be construed according to and governed by the laws of the State of Illinois and the United States of America.

B. **Liberal construction**: Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the Grantor to effect the purpose of this instrument and the policy and purpose of the environmental response project and its authorizing legislation. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

C. **No Forfeiture**: Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

D. **Joint Obligation**: If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

E. **Captions**: The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

20. Effective Date. This Environmental Covenant is effective on the date of acknowledgement of the signature of the Illinois EPA and U.S. EPA, whichever is later.

FOR T.L. DIAMOND & COMPANY, INC.

IN WITNESS WHEREOF, T.L. Diamond & Company, Inc. has caused this Notice to be signed in its name.

Executed this 1st day of DEC, 2011.

T.L. Diamond & Company, Inc.

Theodore Diamond

By: _____
Theodore Diamond, President

STATE OF NEW YORK)
) ss
COUNTY OF NEW YORK)

I, the undersigned, a Notary Public, in and for said County and State aforesaid, DO HEREBY CERTIFY, that THEODORE DIAMOND personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act, for the uses and purposes therein set forth, including the release and waiver of the right of homestead.

Given under my hand and Notary seal, this 1 day of Dec. A.D. 2011.

Tiffany N. Adams
Notary Public

My Commission Expires: 7/3/14

TIFFANY N. ADAMS
Notary Public, State of New York
No. 01AD6146922
Qualified in New York County
Commission Expires 7/3/14

FOR THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

By _____ (signature)
John J. Kim, Interim Director

Illinois Environmental Protection Agency

State of Illinois)
)SS.
County of Sangamon)

This instrument was acknowledged before me on 12-6, 2011, by John J. Kim, Interim Director of the Illinois Environmental Protection Agency, a state agency, on behalf of the State of Illinois.

Brenda Boehner (signature)
Notary Public
My Commission Expires 11-14-13

"OFFICIAL SEAL"
BRENDA BOEHNER
NOTARY PUBLIC
STATE OF ILLINOIS
MY COMMISSION EXPIRES 11-14-2013

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

On behalf of the Administrator of the
United States Environmental Protection Agency

By: Richard C Karl
Richard C. Karl, Director
Superfund Division
U.S. Environmental Protection Agency, Region 5

STATE OF ILLINOIS)
) SS.
COUNTY OF COOK)

The foregoing instrument was acknowledged before me this 4TH day of OCTOBER, 2011, by Richard C. Karl, Director, Superfund Division, Region 5 of the United States Environmental Protection Agency.

John V Fagiolo (signature)
Notary Public
My Commission Expires 3/13/2014

OFFICIAL SEAL
JOHN V FAGIOLO
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:03/13/14

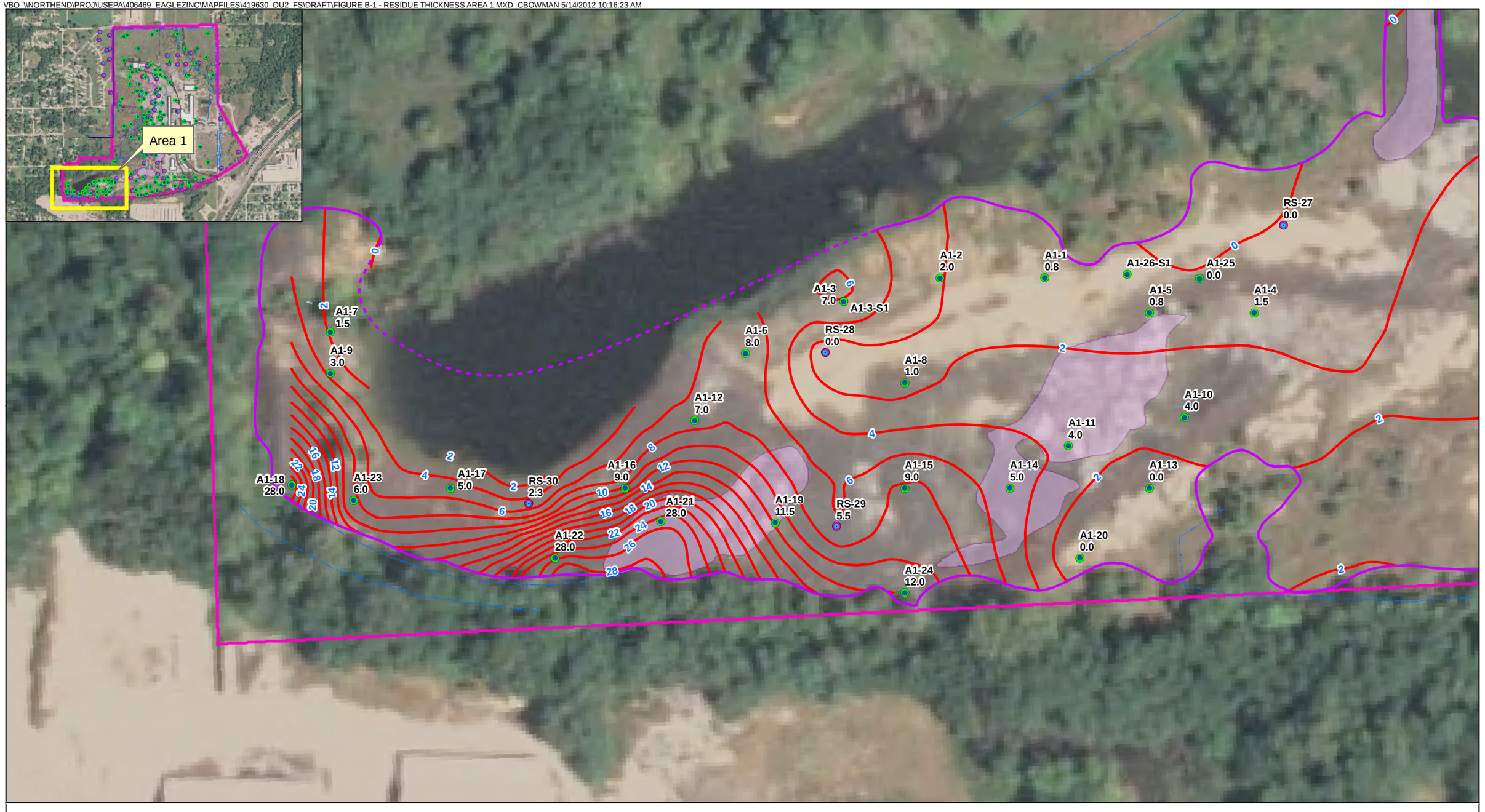
APPENDIX A

Illinois Power Company

City of Hillsboro, Illinois

Appendix B
Residue Thickness

VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE B-1 - RESIDUE THICKNESS AREA 1.MXD CBOWMAN 5/14/2012 10:16:23 AM



Legend

- Soil Boring (2010)
- Soil Boring (2005)
- Fence
- Ditch
- Railroad
- Surface Residue Contour (2-foot interval)
- Residue Visible at Surface (56 Acres)
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

Residue thickness is shown in feet

N
W E
S

0 40 80 160
Feet

Figure B-1
Residue Thickness Area 1
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

CH2MHILL

VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE B-2 - RESIDUE THICKNESS AREA 2.MXD CBOWMAN 1/27/2012 2:03:43 PM

Legend

- Soil Boring (2010)
- Soil Boring (2005)
- Fence
- Ditch
- Surface Residue Contour (2-foot interval)
- Railroad
- Residue Visible at Surface (56 Acres)
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

Residue thickness is shown in feet

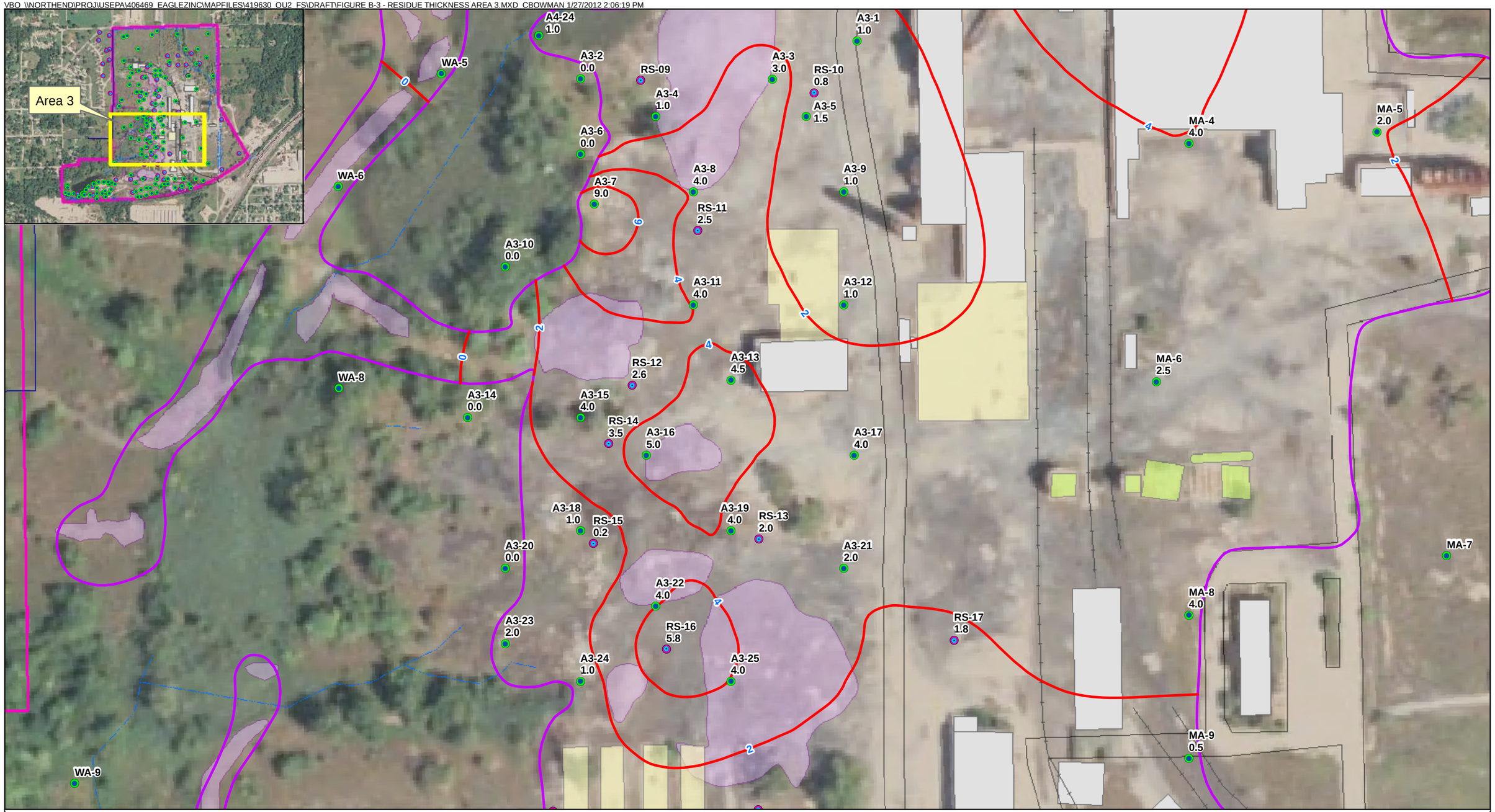
N W E S

0 40 80 160 Feet

Figure B-2
Residue Thickness Area 2
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

CH2MHILL

VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE B-3 - RESIDUE THICKNESS AREA 3.MXD CBOWMAN 1/27/2012 2:06:19 PM



Legend

- Soil Boring (2010)
- Soil Boring (2005)
- Fence
- Ditch
- Surface Residue Contour (2-foot interval)
- Railroad
- Residue Visible at Surface (56 Acres)
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

Residue thickness is shown in feet

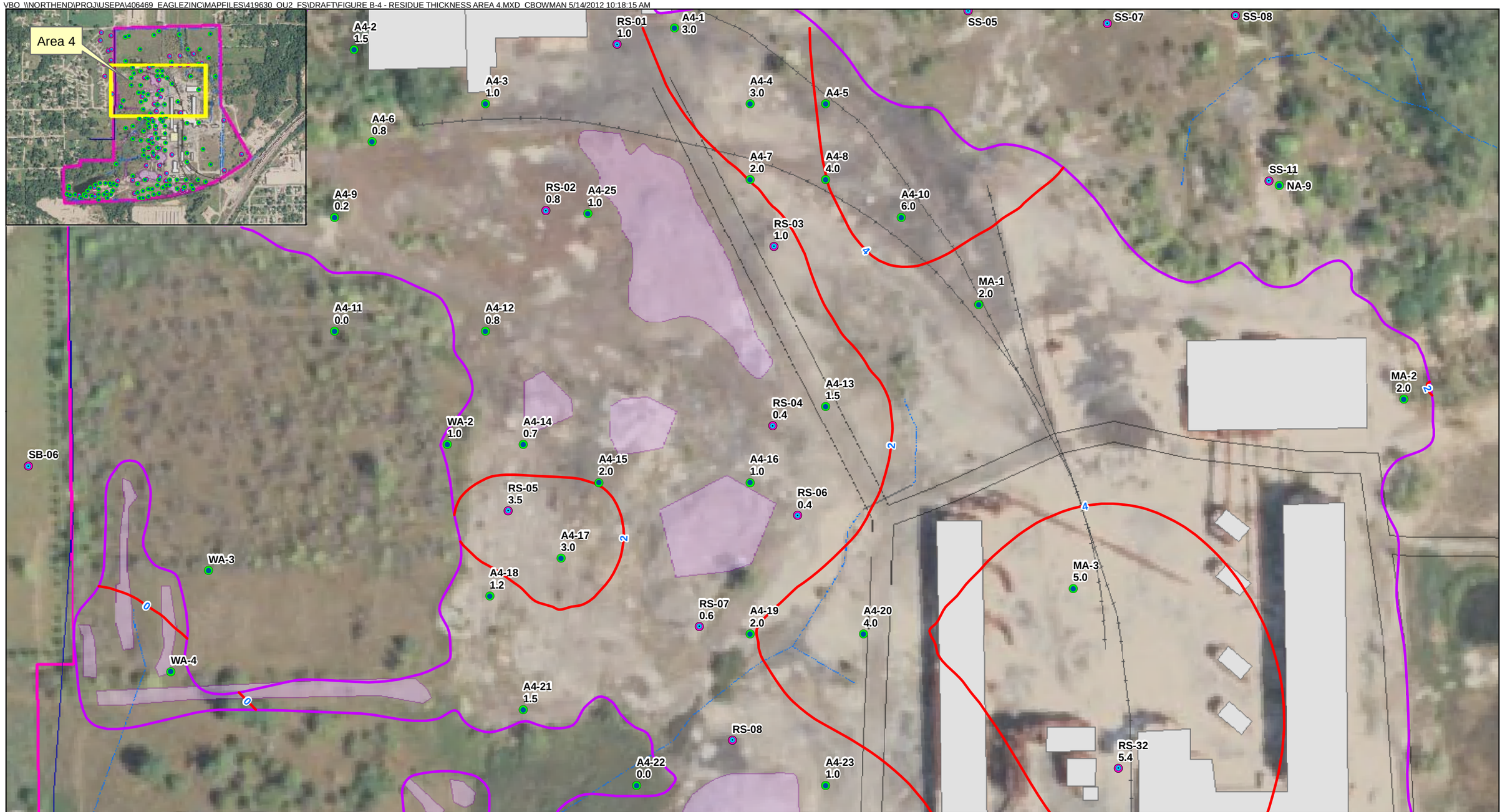
N
W E
S

0 50 100 200
Feet

Figure B-3
Residue Thickness Area 3
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

CH2MHILL

VBO \\NORTHEND\PROJ\USEPA\406469_EAGLEZINC\MAPFILES\419630_OU2_FS\DRAFT\FIGURE B-4 - RESIDUE THICKNESS AREA 4.MXD CBOWMAN 5/14/2012 10:18:15 AM



Legend

- Soil Boring (2010)
- Soil Boring (2005)
- Fence
- Ditch
- Surface Residue Contour (2-foot interval)
- Railroad
- Residue Visible at Surface (56 Acres)
- Site Boundary
- Tank
- Foundation
- Building
- Residue Pile
- Rip Rap
- Culvert

Residue thickness is shown in feet

N
W E
S

0 50 100 200
Feet

Figure B-4
Residue Thickness Area 4
OU2 Feasibility Study
Eagle Zinc Superfund Site - Hillsboro, Illinois

CH2MHILL

Appendix C
Landfill Performance Model Results

CH2MHILL

Calculation

Calculation No.: CALC-419630-HELP Model **Revision No.:** 1

Project: Eagle Zinc

Engineering Discipline: Geotechnical Engineering **Date:** 2/7/2012

Calculation Title & Description:

Title: HELP Model - Eagle Zinc Supplemental Feasibility Study

Description: Use the USEPA Hydrologic Evaluation of Landfill Performance (HELP) model version 3.07 to estimate the anticipated average annual vertical percolation/leakage rates through the various residual waste consolidation Cover configurations outlined in the Supplemental Feasibility Study. The rates estimated by the model are on a per acre basis.

Revision History:

Revision No.	Description	Date:	Affected Pages
1	Added comparison model of Alternative 1 (No Action)	3/21/2012	All

Document Review & Approval:

Originator: Anthony R. Moran

Name/Position

2/7/2012

Signature Date

Checked: Anne Nea/FS Task Lead

Name/Position

2/7/2012

Signature Date

QC Reviewer:

Name/Position

2/8/2012

Signature Date

CH2MHILL

Calculation

Calculation No.: CALC-419630-HELP Model | **Revision No.:** 1
Project: Eagle Zinc
Engineering Discipline: Geotechnical Engineering | **Date:** 2/7/2012

OBJECTIVE:

To estimate the vertical percolation/leakage of precipitation through the cover cross sections of Alternatives 1, 2, 3 and 4.

METHOD:

Use the USEPA Hydrologic Evaluation of Landfill Performance (HELP) model version 3.07 to estimate the average annual vertical percolation/leakage rates through the Cover cross-sections of Alternatives 2, 3 and 4 and The No Action Alternative 1. The rates estimated by the model are on a per acre basis.

ASSUMPTIONS:

1) Table 1 describes the layer profiles for the various cross-sections that were modeled.

2) A 40-mil linear low density polyethylene (LLDPE) Geomembrane 40 mils thick (0.04 in) was utilized for the barrier layer (Alternative 4).

3) The following data was entered into the model to quantify the geomembrane and installation quality (Alternative 4):
   (a) Typical geomembranes have 0.5 to 2.0 pinholes/acre - a conservative value of 2.0 was used.
   (b) Installation quality "Good" was used - 2 defects/acre.
   (c) Placement quality was "Good" (good field installation with well prepared, smooth soil surface and geomembrane wrinkle control - a value of 3.

4) A 6 oz/sy double-side geocomposite is utilized as the drainage layer (200 mils thick (0.20 in), transmissivity of 1 cm^2/sec) (Alternative 4).

5) SCS curve Numbers were calculated by the model to represent the top soil layer, slope and vegetation.

6) The models were run with a 5 year simulation period.

7) The initial water contents were estimated by the model.

8) Top Soil layer is not compacted.

9) The HELP default material texture numbers were used where possible and are included in Table 1.

10) Default Climatological data for East St. Louis, Illinois were used for the HELP Models for the various cover alternatives.

11) As indicated under Assumptions, Table 1 describes the soil layers for the cover alternatives. Table 2 summarizes the "evaporative zone" of each cover alternative.

12) A Geosynthetic Clay Liner (GCL) was utilized beneath the geomembrane for Alternative 4 which is proven equivalent in permeability to 24-inches of compacted clay soil with a permeability of 1.0 $x10^{-7}$ cm/sec. The GCL is 240 mils (0.24 in) thick (Alternative 4).

13) Thickness and slope of consolidated residuals and surface soils was estimated based on anticipated cover design layout and consolidated volumes.

TABLE 1 - Final Cover Cross Sections

	Alternative 1 (No Action)				Alternative 2 (18 acres 18.75 feet max fill height)				Alternative 3 (22 acres, 13 feet max fill height)				Alternative 4 (22 acres, 13 feet max fill height)			
Layer No.	Material	Thickness	HELP MTN*	Ksat (cm/s)	Material	Thickness	HELP MTN*	Ksat (cm/s)	Material	Thickness	HELP MTN*	Ksat (cm/s)	Material	Thickness	HELP MTN*	Ksat (cm/s)
1	Residuals and Surface soil	100	8	3.7E-04	Top Soil	6 inches	9	1.9E-04	Top Soil	6 inches	9	1.9E-04	Top Soil	6 inches	9	1.9E-04
2					Low Permeability Clay	24 inches	29	6.8E-07	Low Permeability Clay	24 inches	29	6.8E-07	Protective Layer	36 inches	6	7.2E-04
3					Consolidated Residuals and Surface Soil	225 inches	8	3.7E-04	Consolidated Residuals and Surface Soil	156 inches	8	3.7E-04	6 oz/sy double-sided Geocomposite	200 mils	20	1.5E+00
4													LLDPE Geomembrane	40 mils	36	3.9E-13
5													Geosynthetic Clay Liner	240 mils	17	3.0E-09
6													Consolidated Residuals and Surface Soil	156 inches	8	3.7E-04

TABLE 2 - Evaporative Zone Input

Cover Alternative	SCS Curve No.	Evaporation Zone Depth, in	Max. Leaf Area Index	Vegetation Quality	% of Area Allowing Runoff	Slope (%)
1	84.50	18	3.5	Poor	100	1%
2	82.00	6	3.5	Fair	100	9%
3	82.10	6	3.5	Fair	100	7%
4	82.10	6	3.5	Fair	100	7%

MODEL RESULTS:

The following vertical percolation rates were estimated with the HELP model.

TABLE 3 -Vertical Percolation Rates and Peak Daily Head from the HELP Model Through the Barrier Layer (24-inch Low Permeability soil or Geomembrane/GCL)

Condition	Years Modeled	Peak Daily Vertical Percolation (inches per acre)	Average Annual Vertical Percolation (inches per acre)	Average Annual Vertical Percolation (Inches per acre multiplied by cover acreage)	Average Annual Head (inches)	Peak Daily Head (Inches
Alternative 1 (No Action) (30 Acres)	5	0.765	6.820	204.600	Not applicable (No barrier Layer)	
Alternative 2 (18 acres)	5	0.029	4.077	73.386	1.236	6.000
Alternative 3 (22 Acres)	5	0.028	4.069	89.518	1.235	6.000
Alternative 4 (22 Acres)	5	0.000	0.000	0.000	0.014	3.798

CONCLUSION: The HELP model results exhibit suitable vertical percolation rates for limited infiltration through the barrier layers and a suitable head thickness for satisfactory performance of the various cover alternatives 2, 3 and 4. Alternative 1 (No Action) was modeled for comparison purposes.

REFERENCES:

1) Hydrologic Evaluation of Landfill Performance (HELP) Model Version 3.07

2) Hydrologic Evaluation of Landfill Performance (HELP) Model Version 3.09 User's Guide

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**
**
** HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE **
** HELP MODEL VERSION 3.07 (1 NOVEMBER 1997) **
** DEVELOPED BY ENVIRONMENTAL LABORATORY **
** USAE WATERWAYS EXPERIMENT STATION **
** FOR USEPA RISK REDUCTION ENGINEERING LABORATORY **
**
**
****
****

PRECIPITATION DATA FILE: C:\HELP3\EZFSP.D4
TEMPERATURE DATA FILE: C:\HELP3\EZFST.D7
SOLAR RADIATION DATA FILE: C:\HELP3\EZFSS.D13
EVAPOTRANSPIRATION DATA: C:\HELP3\EZFSE.D11
SOIL AND DESIGN DATA FILE: C:\HELP3\EZALT1A.D10
OUTPUT DATA FILE: C:\HELP3\EZALT1A.OUT

TIME: 15:36 DATE: 3/21/2012

****

TITLE: Eagle Zinc Alternative 1 No Action

****

NOTE: INITIAL MOISTURE CONTENT OF THE LAYERS AND SNOW WATER WERE
COMPUTED AS NEARLY STEADY-STATE VALUES BY THE PROGRAM.

LAYER 1

TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 8

THICKNESS	=	24.00	INCHES
POROSITY	=	0.4630	VOL/VOL
FIELD CAPACITY	=	0.2320	VOL/VOL
WILTING POINT	=	0.1160	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.2751	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.369999994000E-03	CM/SEC

NOTE: SATURATED HYDRAULIC CONDUCTIVITY IS MULTIPLIED BY 4.63
FOR ROOT CHANNELS IN TOP HALF OF EVAPORATIVE ZONE.

NOTE: SCS RUNOFF CURVE NUMBER WAS COMPUTED FROM DEFAULT SOIL DATA BASE USING SOIL TEXTURE # 8 WITH A POOR STAND OF GRASS, A SURFACE SLOPE OF 1.% AND A SLOPE LENGTH OF 900. FEET.

SCS RUNOFF CURVE NUMBER	=	84.50	
FRACTION OF AREA ALLOWING RUNOFF	=	100.0	PERCENT
AREA PROJECTED ON HORIZONTAL PLANE	=	1.000	ACRES
EVAPORATIVE ZONE DEPTH	=	18.0	INCHES
INITIAL WATER IN EVAPORATIVE ZONE	=	4.927	INCHES
UPPER LIMIT OF EVAPORATIVE STORAGE	=	8.334	INCHES
LOWER LIMIT OF EVAPORATIVE STORAGE	=	2.088	INCHES
INITIAL SNOW WATER	=	0.000	INCHES
INITIAL WATER IN LAYER MATERIALS	=	6.602	INCHES
TOTAL INITIAL WATER	=	6.602	INCHES
TOTAL SUBSURFACE INFLOW	=	0.00	INCHES/YEAR

EVAPOTRANSPIRATION AND WEATHER DATA

NOTE: EVAPOTRANSPIRATION DATA WAS OBTAINED FROM East St. Louis Illinois

STATION LATITUDE	=	38.80	DEGREES
MAXIMUM LEAF AREA INDEX	=	3.50	
START OF GROWING SEASON (JULIAN DATE)	=	97	
END OF GROWING SEASON (JULIAN DATE)	=	300	
EVAPORATIVE ZONE DEPTH	=	18.0	INCHES
AVERAGE ANNUAL WIND SPEED	=	10.40	MPH
AVERAGE 1ST QUARTER RELATIVE HUMIDITY	=	73.00	%
AVERAGE 2ND QUARTER RELATIVE HUMIDITY	=	67.00	%
AVERAGE 3RD QUARTER RELATIVE HUMIDITY	=	71.00	%
AVERAGE 4TH QUARTER RELATIVE HUMIDITY	=	74.00	%

NOTE: PRECIPITATION DATA FOR E. ST. LOUIS ILLINOIS WAS ENTERED FROM THE DEFAULT DATA FILE.

NOTE: TEMPERATURE DATA WAS SYNTHETICALLY GENERATED USING COEFFICIENTS FOR EAST ST. LOUIS ILLINOIS

NORMAL MEAN MONTHLY TEMPERATURE (DEGREES FAHRENHEIT)

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
29.80	34.60	43.80	56.20	65.20	74.10
77.70	75.70	69.00	57.60	44.90	35.00

NOTE: SOLAR RADIATION DATA WAS SYNTHETICALLY GENERATED USING COEFFICIENTS FOR EAST ST. LOUIS ILLINOIS AND STATION LATITUDE = 38.80 DEGREES

LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 1

****

DAILY OUTPUT FOR YEAR 2007

DAY	AIR	SOIL	RAIN IN.	RUNOFF IN.	ET IN.	E. ZONE WATER IN./IN.	HEAD #1 IN.	DRAIN #1 IN.	LEAK #1 IN.
1	*		0.00	0.000	0.017	0.2716	0.0000	.0000E+00	.2414E-01
2	*		0.16	0.000	0.031	0.2683	0.0000	.0000E+00	.4280E-03
3	*		0.00	0.000	0.032	0.2652	0.0000	.0000E+00	.2828E-01
4	*		0.00	0.000	0.025	0.2626	0.0000	.0000E+00	.5844E-01
5	*		0.00	0.000	0.029	0.2588	0.0000	.0000E+00	.6727E-01
6			0.02	0.000	0.035	0.2556	0.0000	.0000E+00	.6153E-01
7	*		0.01	0.000	0.027	0.2523	0.0000	.0000E+00	.5030E-01
8	*		0.08	0.000	0.035	0.2515	0.0000	.0000E+00	.5089E-01
9			0.34	0.000	0.000	0.2698	0.0000	.0000E+00	.4614E-01
10	*		2.09	0.000	0.000	0.2696	0.0000	.0000E+00	.4249E-01
11	*		0.00	0.000	0.029	0.2688	0.0000	.0000E+00	.2764E-01
12	*		0.00	0.000	0.023	0.2685	0.0000	.0000E+00	.3777E-01
13	*		0.00	0.000	0.023	0.2696	0.0000	.0000E+00	.4777E-01
14	*		0.06	0.000	0.021	0.2693	0.0000	.0000E+00	.1410E-01
15	*		0.00	0.000	0.016	0.2675	0.0000	.0000E+00	.2827E-02
16	*		0.00	0.000	0.020	0.2658	0.0000	.0000E+00	.2223E-01
17	*		0.00	0.000	0.026	0.2645	0.0000	.0000E+00	.3745E-01
18	*		0.00	0.000	0.029	0.2634	0.0000	.0000E+00	.4296E-01
19			0.43	0.453	0.000	0.3173	0.0000	.0000E+00	.5776
20			0.00	0.000	0.043	0.2863	0.0000	.0000E+00	.5779
21			0.00	0.000	0.049	0.2784	0.0000	.0000E+00	.1046
22			0.00	0.000	0.036	0.2696	0.0000	.0000E+00	.1289
23			0.00	0.000	0.047	0.2618	0.0000	.0000E+00	.1218
24			0.21	0.000	0.062	0.2660	0.0000	.0000E+00	.9912E-01
25			0.09	0.000	0.055	0.2643	0.0000	.0000E+00	.7980E-01
26			0.00	0.000	0.037	0.2592	0.0000	.0000E+00	.7405E-01
27			0.00	0.000	0.041	0.2547	0.0000	.0000E+00	.6948E-01
28			0.08	0.000	0.052	0.2542	0.0000	.0000E+00	.5352E-01
29			0.03	0.000	0.045	0.2513	0.0000	.0000E+00	.4553E-01
30			1.41	0.106	0.055	0.2979	0.0000	.0000E+00	.4255E-01
31			0.37	0.000	0.052	0.3016	0.0000	.0000E+00	.4080
32			0.08	0.000	0.045	0.2952	0.0000	.0000E+00	.1719
33	*		0.00	0.000	0.032	0.2831	0.0000	.0000E+00	.1739
34			0.00	0.000	0.038	0.2728	0.0000	.0000E+00	.1802
35	*		0.04	0.000	0.035	0.2682	0.0000	.0000E+00	.1424
36	*		0.11	0.000	0.033	0.2654	0.0000	.0000E+00	.9666E-01
37	*		0.00	0.000	0.051	0.2621	0.0000	.0000E+00	.8188E-01
38			0.00	0.000	0.056	0.2558	0.0000	.0000E+00	.7293E-01
39			0.01	0.000	0.048	0.2514	0.0000	.0000E+00	.6502E-01
40			0.01	0.000	0.044	0.2472	0.0000	.0000E+00	.5452E-01
41			0.00	0.000	0.061	0.2417	0.0000	.0000E+00	.4990E-01
42			0.23	0.000	0.070	0.2491	0.0000	.0000E+00	.5040E-01
43			0.00	0.000	0.063	0.2443	0.0000	.0000E+00	.4153E-01
44			0.00	0.000	0.066	0.2394	0.0000	.0000E+00	.3633E-01
45			0.03	0.000	0.064	0.2363	0.0000	.0000E+00	.3102E-01
46			0.03	0.000	0.062	0.2335	0.0000	.0000E+00	.3055E-01

47		0.43	0.000	0.058	0.2532	0.0000	.0000E+00 .2699E-01
48		0.00	0.000	0.056	0.2491	0.0000	.0000E+00 .2445E-01
49		0.02	0.000	0.056	0.2462	0.0000	.0000E+00 .2290E-01
50		0.00	0.000	0.054	0.2424	0.0000	.0000E+00 .2259E-01
51		0.00	0.000	0.052	0.2386	0.0000	.0000E+00 .1995E-01
52		0.00	0.000	0.065	0.2340	0.0000	.0000E+00 .1854E-01
53		1.62	0.136	0.050	0.3129	0.0000	.0000E+00 .2016E-01
54	*	0.48	0.000	0.032	0.2879	0.0000	.0000E+00 .1527
55		0.50	0.022	0.000	0.2983	0.0000	.0000E+00 .3957
56	*	0.00	0.000	0.039	0.2851	0.0000	.0000E+00 .5076
57		0.00	0.000	0.048	0.2742	0.0000	.0000E+00 .1944
58		0.00	0.000	0.063	0.2650	0.0000	.0000E+00 .1442
59		0.00	0.000	0.059	0.2575	0.0000	.0000E+00 .1093
60		0.02	0.000	0.055	0.2517	0.0000	.0000E+00 .8717E-01
61	*	0.00	0.000	0.044	0.2456	0.0000	.0000E+00 .7651E-01
62	*	0.00	0.000	0.000	0.2430	0.0000	.0000E+00 .7602E-01
63		0.00	0.000	0.054	0.2381	0.0000	.0000E+00 .6389E-01
64		0.00	0.000	0.075	0.2324	0.0000	.0000E+00 .5147E-01
65		0.03	0.000	0.048	0.2300	0.0000	.0000E+00 .4324E-01
66	*	0.36	0.000	0.032	0.2299	0.0000	.0000E+00 .3682E-01
67		0.00	0.000	0.071	0.2419	0.0000	.0000E+00 .3233E-01
68	*	0.37	0.000	0.034	0.2419	0.0000	.0000E+00 .3003E-01
69		0.13	0.000	0.000	0.2613	0.0000	.0000E+00 .2806E-01
70	*	0.95	0.000	0.033	0.2616	0.0000	.0000E+00 .2717E-01
71	*	0.00	0.000	0.031	0.2618	0.0000	.0000E+00 .2247E-01
72	*	0.00	0.000	0.028	0.2619	0.0000	.0000E+00 .1820E-01
73	*	0.00	0.000	0.036	0.2622	0.0000	.0000E+00 .2252E-01
74		0.00	0.000	0.000	0.2929	0.0000	.0000E+00 .2986E-01
75		0.00	0.000	0.070	0.2905	0.0000	.0000E+00 .1652E-01
76		0.00	0.000	0.048	0.2831	0.0000	.0000E+00 .6022E-01
77		0.34	0.000	0.055	0.2947	0.0000	.0000E+00 .7634E-01
78		0.00	0.000	0.103	0.2816	0.0000	.0000E+00 .8578E-01
79		0.00	0.000	0.104	0.2722	0.0000	.0000E+00 .1290
80		0.01	0.000	0.064	0.2637	0.0000	.0000E+00 .8036E-01
81		0.00	0.000	0.100	0.2531	0.0000	.0000E+00 .9875E-01
82		0.02	0.000	0.106	0.2446	0.0000	.0000E+00 .9329E-01
83		0.00	0.000	0.101	0.2357	0.0000	.0000E+00 .7840E-01
84		0.00	0.000	0.108	0.2271	0.0000	.0000E+00 .7062E-01
85		0.03	0.000	0.105	0.2209	0.0000	.0000E+00 .6066E-01
86		1.44	0.065	0.086	0.2908	0.0000	.0000E+00 .4877E-01
87		0.38	0.000	0.093	0.2864	0.0000	.0000E+00 .2331
88		0.00	0.000	0.128	0.2771	0.0000	.0000E+00 .1063
89		0.00	0.000	0.131	0.2694	0.0000	.0000E+00 .8873E-01
90		0.00	0.000	0.124	0.2578	0.0000	.0000E+00 .8317E-02
91		0.00	0.000	0.096	0.2475	0.0000	.0000E+00 .5563E-01
92		0.04	0.000	0.113	0.2394	0.0000	.0000E+00 .8275E-01
93		0.00	0.000	0.144	0.2281	0.0000	.0000E+00 .7503E-01
94		0.00	0.000	0.116	0.2194	0.0000	.0000E+00 .7522E-01
95		0.00	0.000	0.115	0.2114	0.0000	.0000E+00 .6189E-01
96		0.00	0.000	0.070	0.2064	0.0000	.0000E+00 .5006E-01
97		0.00	0.000	0.082	0.2010	0.0000	.0000E+00 .4060E-01
98		0.03	0.000	0.073	0.1975	0.0000	.0000E+00 .2934E-01
99	*	0.00	0.000	0.072	0.1925	0.0000	.0000E+00 .2713E-01
100		0.00	0.000	0.136	0.1840	0.0000	.0000E+00 .2639E-01
101		0.00	0.000	0.078	0.1788	0.0000	.0000E+00 .2311E-01
102		0.00	0.000	0.060	0.1744	0.0000	.0000E+00 .2046E-01
103		0.00	0.000	0.050	0.1710	0.0000	.0000E+00 .2606E-01
104		0.31	0.000	0.057	0.1845	0.0000	.0000E+00 .2127E-01
105		0.00	0.000	0.040	0.1817	0.0000	.0000E+00 .1996E-01
106		0.19	0.000	0.048	0.1891	0.0000	.0000E+00 .1917E-01
107		0.00	0.000	0.035	0.1867	0.0000	.0000E+00 .1802E-01
108		0.48	0.000	0.045	0.2105	0.0000	.0000E+00 .1681E-01
109		0.00	0.000	0.205	0.1987	0.0000	.0000E+00 .1444E-01

110	0.00	0.000	0.222	0.1864	0.0000	.0000E+00	.1928E-01
111	0.00	0.000	0.191	0.1758	0.0000	.0000E+00	.1656E-01
112	0.00	0.000	0.080	0.1713	0.0000	.0000E+00	.1449E-01
113	1.76	0.122	0.073	0.2583	0.0000	.0000E+00	.1286E-01
114	1.44	0.163	0.158	0.2946	0.0000	.0000E+00	.8774E-02
115	0.00	0.000	0.146	0.2720	0.0000	.0000E+00	.3099
116	0.00	0.000	0.174	0.2558	0.0000	.0000E+00	.1462
117	0.00	0.000	0.186	0.2426	0.0000	.0000E+00	.1339
118	0.00	0.000	0.162	0.2315	0.0000	.0000E+00	.7268E-01
119	0.31	0.000	0.172	0.2368	0.0000	.0000E+00	.5407E-01
120	0.00	0.000	0.150	0.2267	0.0000	.0000E+00	.5395E-01
121	0.00	0.000	0.120	0.2182	0.0000	.0000E+00	.4267E-01
122	0.00	0.000	0.152	0.2081	0.0000	.0000E+00	.4059E-01
123	0.10	0.000	0.125	0.2053	0.0000	.0000E+00	.3871E-01
124	0.00	0.000	0.205	0.1927	0.0000	.0000E+00	.3373E-01
125	0.00	0.000	0.171	0.1819	0.0000	.0000E+00	.3024E-01
126	0.46	0.000	0.192	0.1958	0.0000	.0000E+00	.3203E-01
127	0.11	0.000	0.218	0.1890	0.0000	.0000E+00	.2939E-01
128	0.57	0.000	0.166	0.2108	0.0000	.0000E+00	.2792E-01
129	0.00	0.000	0.255	0.1963	0.0000	.0000E+00	.2739E-01
130	0.00	0.000	0.215	0.1844	0.0000	.0000E+00	.2694E-01
131	0.49	0.000	0.155	0.2030	0.0000	.0000E+00	.2200E-01
132	0.00	0.000	0.252	0.1888	0.0000	.0000E+00	.1633E-01
133	0.00	0.000	0.270	0.1738	0.0000	.0000E+00	.1662E-01
134	0.00	0.000	0.177	0.1640	0.0000	.0000E+00	.1454E-01
135	0.00	0.000	0.135	0.1564	0.0000	.0000E+00	.1290E-01
136	0.00	0.000	0.116	0.1500	0.0000	.0000E+00	.1159E-01
137	0.00	0.000	0.108	0.1440	0.0000	.0000E+00	.1051E-01
138	0.00	0.000	0.108	0.1380	0.0000	.0000E+00	.9603E-02
139	0.47	0.000	0.139	0.1564	0.0000	.0000E+00	.8837E-02
140	0.03	0.000	0.113	0.1518	0.0000	.0000E+00	.8181E-02
141	0.00	0.000	0.120	0.1451	0.0000	.0000E+00	.7612E-02
142	0.00	0.000	0.155	0.1365	0.0000	.0000E+00	.7114E-02
143	0.00	0.000	0.176	0.1267	0.0000	.0000E+00	.6675E-02
144	0.08	0.000	0.126	0.1242	0.0000	.0000E+00	.6285E-02
145	0.12	0.000	0.114	0.1245	0.0000	.0000E+00	.5937E-02
146	0.00	0.000	0.066	0.1208	0.0000	.0000E+00	.5623E-02
147	0.00	0.000	0.070	0.1170	0.0000	.0000E+00	.5340E-02
148	0.48	0.000	0.087	0.1388	0.0000	.0000E+00	.5083E-02
149	0.15	0.000	0.094	0.1419	0.0000	.0000E+00	.4848E-02
150	0.17	0.000	0.186	0.1410	0.0000	.0000E+00	.4634E-02
151	0.00	0.000	0.181	0.1310	0.0000	.0000E+00	.4437E-02
152	0.19	0.000	0.177	0.1317	0.0000	.0000E+00	.4255E-02
153	0.00	0.000	0.206	0.1202	0.0000	.0000E+00	.4087E-02
154	0.00	0.000	0.059	0.1169	0.0000	.0000E+00	.3931E-02
155	0.00	0.000	0.012	0.1163	0.0000	.0000E+00	.0000E+00
156	0.00	0.000	0.004	0.1160	0.0000	.0000E+00	.9597E-03
157	0.00	0.000	0.001	0.1160	0.0000	.0000E+00	.0000E+00
158	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
159	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
160	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
161	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
162	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
163	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
164	0.02	0.000	0.020	0.1160	0.0000	.0000E+00	.0000E+00
165	0.35	0.000	0.099	0.1299	0.0000	.0000E+00	.0000E+00
166	0.25	0.000	0.114	0.1375	0.0000	.0000E+00	.0000E+00
167	1.08	0.010	0.140	0.1891	0.0000	.0000E+00	.0000E+00
168	0.41	0.000	0.199	0.2009	0.0000	.0000E+00	.0000E+00
169	0.00	0.000	0.256	0.1867	0.0000	.0000E+00	.0000E+00
170	0.00	0.000	0.234	0.1737	0.0000	.0000E+00	.0000E+00
171	0.00	0.000	0.226	0.1611	0.0000	.0000E+00	.0000E+00
172	0.00	0.000	0.298	0.1445	0.0000	.0000E+00	.0000E+00

173	0.47	0.000	0.327	0.1525	0.0000	.0000E+00	.0000E+00
174	0.22	0.000	0.233	0.1517	0.0000	.0000E+00	.0000E+00
175	0.00	0.000	0.328	0.1335	0.0000	.0000E+00	.0000E+00
176	0.79	0.000	0.234	0.1643	0.0000	.0000E+00	.7929E-03
177	0.00	0.000	0.253	0.1503	0.0000	.0000E+00	.0000E+00
178	0.00	0.000	0.257	0.1360	0.0000	.0000E+00	.0000E+00
179	0.00	0.000	0.269	0.1211	0.0000	.0000E+00	.0000E+00
180	0.00	0.000	0.081	0.1166	0.0000	.0000E+00	.1884E-02
181	0.00	0.000	0.008	0.1161	0.0000	.0000E+00	.0000E+00
182	0.00	0.000	0.003	0.1160	0.0000	.0000E+00	.0000E+00
183	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
184	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
185	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
186	0.85	0.000	0.087	0.1584	0.0000	.0000E+00	.0000E+00
187	0.54	0.000	0.199	0.1773	0.0000	.0000E+00	.0000E+00
188	0.00	0.000	0.232	0.1644	0.0000	.0000E+00	.9368E-03
189	0.00	0.000	0.222	0.1521	0.0000	.0000E+00	.0000E+00
190	0.00	0.000	0.239	0.1389	0.0000	.0000E+00	.0000E+00
191	0.00	0.000	0.269	0.1239	0.0000	.0000E+00	.0000E+00
192	0.00	0.000	0.114	0.1176	0.0000	.0000E+00	.0000E+00
193	0.20	0.000	0.076	0.1245	0.0000	.0000E+00	.0000E+00
194	0.10	0.000	0.124	0.1232	0.0000	.0000E+00	.0000E+00
195	0.00	0.000	0.073	0.1191	0.0000	.0000E+00	.2760E-02
196	0.00	0.000	0.036	0.1171	0.0000	.0000E+00	.0000E+00
197	0.00	0.000	0.014	0.1163	0.0000	.0000E+00	.0000E+00
198	0.06	0.000	0.049	0.1169	0.0000	.0000E+00	.0000E+00
199	0.30	0.000	0.082	0.1290	0.0000	.0000E+00	.9037E-03
200	0.09	0.000	0.101	0.1284	0.0000	.0000E+00	.0000E+00
201	0.00	0.000	0.121	0.1217	0.0000	.0000E+00	.0000E+00
202	0.00	0.000	0.082	0.1171	0.0000	.0000E+00	.0000E+00
203	0.00	0.000	0.015	0.1163	0.0000	.0000E+00	.0000E+00
204	0.20	0.000	0.053	0.1244	0.0000	.0000E+00	.0000E+00
205	0.00	0.000	0.092	0.1193	0.0000	.0000E+00	.0000E+00
206	0.00	0.000	0.044	0.1169	0.0000	.0000E+00	.0000E+00
207	0.00	0.000	0.012	0.1162	0.0000	.0000E+00	.0000E+00
208	0.00	0.000	0.003	0.1161	0.0000	.0000E+00	.0000E+00
209	0.00	0.000	0.001	0.1160	0.0000	.0000E+00	.0000E+00
210	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
211	0.16	0.000	0.048	0.1222	0.0000	.0000E+00	.0000E+00
212	0.06	0.000	0.098	0.1201	0.0000	.0000E+00	.0000E+00
213	0.12	0.000	0.068	0.1230	0.0000	.0000E+00	.0000E+00
214	0.10	0.000	0.113	0.1223	0.0000	.0000E+00	.0000E+00
215	0.00	0.000	0.054	0.1193	0.0000	.0000E+00	.0000E+00
216	0.00	0.000	0.048	0.1167	0.0000	.0000E+00	.0000E+00
217	0.36	0.000	0.101	0.1311	0.0000	.0000E+00	.8150E-03
218	0.00	0.000	0.089	0.1261	0.0000	.0000E+00	.8894E-03
219	0.00	0.000	0.128	0.1190	0.0000	.0000E+00	.8817E-03
220	0.00	0.000	0.043	0.1166	0.0000	.0000E+00	.0000E+00
221	0.00	0.000	0.010	0.1161	0.0000	.0000E+00	.1732E-02
222	0.00	0.000	0.001	0.1160	0.0000	.0000E+00	.0000E+00
223	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
224	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
225	0.17	0.000	0.046	0.1229	0.0000	.0000E+00	.0000E+00
226	0.37	0.000	0.078	0.1391	0.0000	.0000E+00	.8596E-03
227	0.56	0.000	0.106	0.1644	0.0000	.0000E+00	.0000E+00
228	0.00	0.000	0.139	0.1566	0.0000	.0000E+00	.1698E-02
229	0.48	0.000	0.191	0.1727	0.0000	.0000E+00	.0000E+00
230	0.00	0.000	0.236	0.1596	0.0000	.0000E+00	.0000E+00
231	0.00	0.000	0.195	0.1488	0.0000	.0000E+00	.0000E+00
232	0.00	0.000	0.154	0.1403	0.0000	.0000E+00	.0000E+00
233	0.00	0.000	0.222	0.1279	0.0000	.0000E+00	.0000E+00
234	0.00	0.000	0.174	0.1183	0.0000	.0000E+00	.0000E+00
235	0.00	0.000	0.034	0.1164	0.0000	.0000E+00	.0000E+00

236	0.00	0.000	0.007	0.1160	0.0000	.0000E+00	.0000E+00
237	1.15	0.008	0.060	0.1761	0.0000	.0000E+00	.0000E+00
238	0.58	0.000	0.156	0.1996	0.0000	.0000E+00	.0000E+00
239	0.00	0.000	0.208	0.1881	0.0000	.0000E+00	.0000E+00
240	0.02	0.000	0.134	0.1817	0.0000	.0000E+00	.0000E+00
241	1.53	0.099	0.172	0.2516	0.0000	.0000E+00	.5185E-03
242	0.00	0.000	0.212	0.2399	0.0000	.0000E+00	.0000E+00
243	0.00	0.000	0.195	0.2290	0.0000	.0000E+00	.5905E-03
244	0.00	0.000	0.180	0.2190	0.0000	.0000E+00	.0000E+00
245	0.00	0.000	0.200	0.2079	0.0000	.0000E+00	.0000E+00
246	0.00	0.000	0.197	0.1970	0.0000	.0000E+00	.0000E+00
247	0.00	0.000	0.225	0.1845	0.0000	.0000E+00	.0000E+00
248	0.00	0.000	0.187	0.1741	0.0000	.0000E+00	.0000E+00
249	0.00	0.000	0.178	0.1643	0.0000	.0000E+00	.0000E+00
250	0.00	0.000	0.170	0.1548	0.0000	.0000E+00	.0000E+00
251	0.00	0.000	0.146	0.1467	0.0000	.0000E+00	.0000E+00
252	0.00	0.000	0.155	0.1381	0.0000	.0000E+00	.0000E+00
253	0.26	0.000	0.135	0.1451	0.0000	.0000E+00	.0000E+00
254	0.85	0.000	0.128	0.1852	0.0000	.0000E+00	.0000E+00
255	0.00	0.000	0.160	0.1763	0.0000	.0000E+00	.0000E+00
256	0.00	0.000	0.141	0.1684	0.0000	.0000E+00	.0000E+00
257	0.00	0.000	0.113	0.1622	0.0000	.0000E+00	.0000E+00
258	0.00	0.000	0.174	0.1525	0.0000	.0000E+00	.0000E+00
259	0.02	0.000	0.112	0.1474	0.0000	.0000E+00	.0000E+00
260	0.26	0.000	0.116	0.1554	0.0000	.0000E+00	.0000E+00
261	0.00	0.000	0.143	0.1474	0.0000	.0000E+00	.0000E+00
262	0.95	0.000	0.147	0.1921	0.0000	.0000E+00	.0000E+00
263	0.00	0.000	0.117	0.1855	0.0000	.0000E+00	.0000E+00
264	0.00	0.000	0.137	0.1779	0.0000	.0000E+00	.0000E+00
265	0.00	0.000	0.130	0.1707	0.0000	.0000E+00	.0000E+00
266	0.00	0.000	0.110	0.1646	0.0000	.0000E+00	.0000E+00
267	0.00	0.000	0.105	0.1588	0.0000	.0000E+00	.0000E+00
268	0.00	0.000	0.121	0.1520	0.0000	.0000E+00	.0000E+00
269	0.00	0.000	0.105	0.1462	0.0000	.0000E+00	.0000E+00
270	0.00	0.000	0.122	0.1395	0.0000	.0000E+00	.0000E+00
271	0.00	0.000	0.094	0.1342	0.0000	.0000E+00	.0000E+00
272	0.01	0.000	0.088	0.1299	0.0000	.0000E+00	.0000E+00
273	0.13	0.000	0.095	0.1319	0.0000	.0000E+00	.0000E+00
274	0.00	0.000	0.047	0.1293	0.0000	.0000E+00	.0000E+00
275	0.00	0.000	0.055	0.1263	0.0000	.0000E+00	.0000E+00
276	0.00	0.000	0.045	0.1238	0.0000	.0000E+00	.0000E+00
277	0.00	0.000	0.065	0.1202	0.0000	.0000E+00	.0000E+00
278	0.00	0.000	0.051	0.1173	0.0000	.0000E+00	.0000E+00
279	0.00	0.000	0.022	0.1161	0.0000	.0000E+00	.0000E+00
280	0.00	0.000	0.002	0.1160	0.0000	.0000E+00	.2481E-02
281	0.03	0.000	0.027	0.1162	0.0000	.0000E+00	.1621E-02
282	0.00	0.000	0.002	0.1161	0.0000	.0000E+00	.0000E+00
283	0.00	0.000	0.001	0.1160	0.0000	.0000E+00	.0000E+00
284	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
285	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
286	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
287	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
288	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
289	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
290	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
291	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
292	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
293	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
294	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
295	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
296	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
297	0.04	0.000	0.029	0.1166	0.0000	.0000E+00	.0000E+00
298	0.00	0.000	0.002	0.1165	0.0000	.0000E+00	.0000E+00

299		0.00	0.000	0.003	0.1164	0.0000	.0000E+00 .0000E+00
300		0.00	0.000	0.003	0.1162	0.0000	.0000E+00 .0000E+00
301		0.05	0.000	0.034	0.1171	0.0000	.0000E+00 .0000E+00
302		0.09	0.000	0.036	0.1201	0.0000	.0000E+00 .0000E+00
303		0.00	0.000	0.004	0.1199	0.0000	.0000E+00 .0000E+00
304		0.00	0.000	0.010	0.1193	0.0000	.0000E+00 .7983E-03
305		0.10	0.000	0.047	0.1223	0.0000	.0000E+00 .0000E+00
306		0.11	0.000	0.050	0.1256	0.0000	.0000E+00 .0000E+00
307		0.66	0.000	0.047	0.1597	0.0000	.0000E+00 .0000E+00
308		0.01	0.000	0.025	0.1588	0.0000	.0000E+00 .0000E+00
309		0.00	0.000	0.031	0.1571	0.0000	.0000E+00 .0000E+00
310		0.18	0.000	0.062	0.1637	0.0000	.0000E+00 .0000E+00
311		0.00	0.000	0.034	0.1618	0.0000	.0000E+00 .7947E-03
312		0.00	0.000	0.038	0.1596	0.0000	.0000E+00 .0000E+00
313		0.25	0.000	0.057	0.1704	0.0000	.0000E+00 .0000E+00
314		0.00	0.000	0.040	0.1681	0.0000	.0000E+00 .7885E-03
315		0.00	0.000	0.036	0.1661	0.0000	.0000E+00 .0000E+00
316		0.00	0.000	0.036	0.1641	0.0000	.0000E+00 .0000E+00
317		0.00	0.000	0.033	0.1623	0.0000	.0000E+00 .0000E+00
318		0.00	0.000	0.027	0.1608	0.0000	.0000E+00 .0000E+00
319		0.00	0.000	0.032	0.1591	0.0000	.0000E+00 .0000E+00
320		0.00	0.000	0.032	0.1573	0.0000	.0000E+00 .0000E+00
321		0.00	0.000	0.024	0.1560	0.0000	.0000E+00 .0000E+00
322		0.00	0.000	0.020	0.1549	0.0000	.0000E+00 .0000E+00
323		0.00	0.000	0.017	0.1539	0.0000	.0000E+00 .0000E+00
324		0.15	0.000	0.053	0.1593	0.0000	.0000E+00 .0000E+00
325		0.00	0.000	0.015	0.1585	0.0000	.0000E+00 .0000E+00
326		0.00	0.000	0.017	0.1575	0.0000	.0000E+00 .0000E+00
327		0.00	0.000	0.015	0.1567	0.0000	.0000E+00 .0000E+00
328		0.00	0.000	0.013	0.1559	0.0000	.0000E+00 .0000E+00
329		0.00	0.000	0.014	0.1551	0.0000	.0000E+00 .0000E+00
330		0.76	0.000	0.053	0.1944	0.0000	.0000E+00 .0000E+00
331		0.00	0.000	0.014	0.1936	0.0000	.0000E+00 .0000E+00
332		0.00	0.000	0.015	0.1928	0.0000	.0000E+00 .0000E+00
333		0.34	0.000	0.053	0.2087	0.0000	.0000E+00 .7824E-03
334		0.06	0.000	0.042	0.2098	0.0000	.0000E+00 .0000E+00
335		0.00	0.000	0.017	0.2088	0.0000	.0000E+00 .0000E+00
336		0.00	0.000	0.013	0.2081	0.0000	.0000E+00 .0000E+00
337		0.00	0.000	0.013	0.2074	0.0000	.0000E+00 .0000E+00
338		0.00	0.000	0.013	0.2067	0.0000	.0000E+00 .0000E+00
339		0.08	0.000	0.043	0.2087	0.0000	.0000E+00 .0000E+00
340		0.02	0.000	0.029	0.2082	0.0000	.0000E+00 .0000E+00
341		0.00	0.000	0.012	0.2075	0.0000	.0000E+00 .0000E+00
342		0.13	0.000	0.049	0.2121	0.0000	.0000E+00 .0000E+00
343		0.00	0.000	0.016	0.2112	0.0000	.0000E+00 .0000E+00
344		0.00	0.000	0.011	0.2105	0.0000	.0000E+00 .0000E+00
345	*	0.00	0.000	0.000	0.2105	0.0000	.0000E+00 .0000E+00
346	*	0.04	0.000	0.023	0.2115	0.0000	.0000E+00 .0000E+00
347	*	0.00	0.000	0.000	0.2115	0.0000	.0000E+00 .0000E+00
348	*	0.89	0.000	0.013	0.2126	0.0000	.0000E+00 .0000E+00
349	*	0.30	0.000	0.000	0.2137	0.0000	.0000E+00 .0000E+00
350		0.00	0.000	0.000	0.2300	0.0000	.0000E+00 .0000E+00
351		0.00	0.005	0.000	0.2750	0.0000	.0000E+00 .0000E+00
352		0.00	0.000	0.039	0.2744	0.0000	.0000E+00 .0000E+00
353	*	0.00	0.000	0.010	0.2738	0.0000	.0000E+00 .0000E+00
354	*	0.00	0.000	0.000	0.2731	0.0000	.0000E+00 .0000E+00
355	*	0.00	0.000	0.000	0.2689	0.0000	.0000E+00 .0000E+00
356		0.00	0.000	0.012	0.2640	0.0000	.0000E+00 .0000E+00
357		0.00	0.000	0.016	0.2597	0.0000	.0000E+00 .0000E+00
358		0.00	0.000	0.022	0.2555	0.0000	.0000E+00 .0000E+00
359		0.25	0.000	0.053	0.2635	0.0000	.0000E+00 .1059E-02
360		0.00	0.000	0.021	0.2598	0.0000	.0000E+00 .1927E-01
361		0.00	0.000	0.021	0.2569	0.0000	.0000E+00 .3678E-01

362	0.15	0.000	0.056	0.2602	0.0000	.0000E+00	.3304E-01
363	0.42	0.000	0.054	0.2787	0.0000	.0000E+00	.3244E-01
364	0.00	0.000	0.027	0.2760	0.0000	.0000E+00	.4113E-01
365	0.00	0.000	0.020	0.2741	0.0000	.0000E+00	.4150E-01

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MONTHLY TOTALS (IN INCHES) FOR YEAR 2007

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	5.38	3.59	4.08	4.56	3.23	3.78
	2.56	5.44	2.48	0.21	2.62	2.28
RUNOFF	0.559	0.158	0.065	0.284	0.000	0.010
	0.000	0.107	0.000	0.000	0.000	0.005
EVAPOTRANSPIRATION	0.991	1.398	2.071	3.350	4.769	4.036
	2.488	3.372	4.229	0.436	0.992	0.604
PERCOLATION/LEAKAGE THROUGH	3.0457	2.9387	1.9810	1.5461	0.5243	0.0159
LAYER 1	0.0046	0.0080	0.0000	0.0049	0.0024	0.2052

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ANNUAL TOTALS FOR YEAR 2007

	INCHES	CU. FEET	PERCENT
PRECIPITATION	40.21	145962.297	100.00
RUNOFF	1.188	4314.105	2.96
EVAPOTRANSPIRATION	28.736	104310.742	71.46
PERC./LEAKAGE THROUGH LAYER 1	10.276750	37304.602	25.56
CHANGE IN WATER STORAGE	0.009	32.823	0.02
SOIL WATER AT START OF YEAR	6.602	23963.699	
SOIL WATER AT END OF YEAR	6.611	23996.523	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.028	0.00

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WARNING: TEMPERATURE FOR YEAR 1976 USED WITH PRECIPITATION FOR YEAR 2008

WARNING: SOLAR RADIATION FOR YEAR 1976 USED WITH PRECIPITATION FOR YEAR 2008

LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 1

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DAILY OUTPUT FOR YEAR 2008

DAY	AIR	SOIL	RAIN IN.	RUNOFF IN.	ET IN.	E. ZONE WATER IN./IN.	HEAD #1 IN.	DRAIN #1 IN.	LEAK #1 IN.
1			0.01	0.000	0.028	0.2718	0.0000	.0000E+00	.2266E-01
2	*		0.00	0.000	0.017	0.2662	0.0000	.0000E+00	.0000E+00
3	*		0.00	0.000	0.017	0.2610	0.0000	.0000E+00	.3536E-01
4	*		0.00	0.000	0.017	0.2570	0.0000	.0000E+00	.6464E-01
5			0.00	0.000	0.019	0.2532	0.0000	.0000E+00	.5963E-01
6			0.00	0.000	0.022	0.2492	0.0000	.0000E+00	.5442E-01
7			0.28	0.000	0.049	0.2596	0.0000	.0000E+00	.5579E-01
8	*		0.00	0.000	0.018	0.2566	0.0000	.0000E+00	.5260E-01
9	*		0.00	0.000	0.000	0.2550	0.0000	.0000E+00	.4874E-01
10	*		0.00	0.000	0.000	0.2536	0.0000	.0000E+00	.4027E-01
11	*		0.00	0.000	0.000	0.2522	0.0000	.0000E+00	.3575E-01
12	*		0.00	0.000	0.000	0.2507	0.0000	.0000E+00	.3085E-01
13	*		0.08	0.000	0.016	0.2506	0.0000	.0000E+00	.3269E-01
14	*		0.00	0.000	0.018	0.2510	0.0000	.0000E+00	.3670E-01
15	*		0.00	0.000	0.007	0.2507	0.0000	.0000E+00	.3180E-01
16	*	*	0.00	0.000	0.000	0.2507	0.0000	.0000E+00	.3079E-01
17	*	*	0.00	0.000	0.000	0.2507	0.0000	.0000E+00	.2454E-01
18	*	*	0.00	0.000	0.000	0.2507	0.0000	.0000E+00	.2035E-01
19		*	0.06	0.000	0.022	0.2528	0.0000	.0000E+00	.1735E-01
20	*	*	0.00	0.000	0.000	0.2528	0.0000	.0000E+00	.1510E-01
21		*	0.00	0.000	0.000	0.2528	0.0000	.0000E+00	.1334E-01
22	*	*	0.00	0.000	0.000	0.2528	0.0000	.0000E+00	.1194E-01
23	*	*	0.00	0.000	0.000	0.2528	0.0000	.0000E+00	.1080E-01
24	*	*	0.00	0.000	0.000	0.2528	0.0000	.0000E+00	.9851E-02
25	*	*	0.38	0.000	0.023	0.2528	0.0000	.0000E+00	.9049E-02
26	*	*	0.00	0.000	0.017	0.2528	0.0000	.0000E+00	.8364E-02
27	*	*	0.00	0.000	0.028	0.2528	0.0000	.0000E+00	.7771E-02
28	*	*	0.00	0.000	0.030	0.2528	0.0000	.0000E+00	.7254E-02
29	*	*	0.00	0.000	0.024	0.2528	0.0000	.0000E+00	.6798E-02
30	*	*	0.00	0.000	0.022	0.2528	0.0000	.0000E+00	.6395E-02
31	*	*	0.02	0.000	0.000	0.2528	0.0000	.0000E+00	.6035E-02
32		*	0.00	0.020	0.029	0.2596	0.0000	.0000E+00	.5712E-02
33	*	*	0.27	0.000	0.029	0.2596	0.0000	.0000E+00	.5420E-02
34	*	*	0.00	0.000	0.025	0.2596	0.0000	.0000E+00	.5156E-02
35	*	*	0.00	0.000	0.030	0.2596	0.0000	.0000E+00	.4915E-02
36	*	*	0.44	0.000	0.028	0.2596	0.0000	.0000E+00	.4695E-02
37	*	*	0.00	0.000	0.029	0.2596	0.0000	.0000E+00	.4493E-02
38		*	0.00	0.017	0.015	0.2663	0.0000	.0000E+00	.4307E-02
39		*	0.00	0.172	0.009	0.2784	0.0000	.0000E+00	.4135E-02
40		*	0.00	0.007	0.070	0.2798	0.0000	.0000E+00	.3976E-02
41		*	0.00	0.000	0.000	0.2798	0.0000	.0000E+00	.2810E-03

42		*	0.00	0.000	0.000	0.2798	0.0000	.0000E+00	.0000E+00
43		*	0.00	0.000	0.000	0.2798	0.0000	.0000E+00	.0000E+00
44	*	*	0.00	0.000	0.000	0.2798	0.0000	.0000E+00	.0000E+00
45	*	*	0.00	0.000	0.000	0.2798	0.0000	.0000E+00	.0000E+00
46	*	*	0.00	0.000	0.000	0.2798	0.0000	.0000E+00	.0000E+00
47		*	0.01	0.000	0.008	0.2799	0.0000	.0000E+00	.0000E+00
48	*	*	0.00	0.000	0.000	0.2799	0.0000	.0000E+00	.0000E+00
49	*	*	0.00	0.000	0.000	0.2799	0.0000	.0000E+00	.0000E+00
50	*	*	0.00	0.000	0.000	0.2799	0.0000	.0000E+00	.0000E+00
51		*	0.15	0.027	0.018	0.2857	0.0000	.0000E+00	.0000E+00
52		*	0.21	0.067	0.018	0.2927	0.0000	.0000E+00	.0000E+00
53	*	*	0.00	0.000	0.000	0.2927	0.0000	.0000E+00	.0000E+00
54	*	*	0.00	0.000	0.000	0.2927	0.0000	.0000E+00	.0000E+00
55		*	0.00	0.000	0.000	0.2927	0.0000	.0000E+00	.0000E+00
56	*	*	0.00	0.000	0.000	0.2927	0.0000	.0000E+00	.0000E+00
57	*	*	0.00	0.000	0.000	0.2927	0.0000	.0000E+00	.0000E+00
58		*	0.00	0.000	0.000	0.2927	0.0000	.0000E+00	.0000E+00
59	*	*	0.00	0.000	0.000	0.2927	0.0000	.0000E+00	.0000E+00
60	*	*	0.00	0.000	0.000	0.2927	0.0000	.0000E+00	.0000E+00
61	*	*	0.00	0.000	0.000	0.2927	0.0000	.0000E+00	.0000E+00
62	*	*	0.00	0.000	0.000	0.2927	0.0000	.0000E+00	.0000E+00
63	*	*	1.49	0.000	0.000	0.2927	0.0000	.0000E+00	.0000E+00
64	*	*	0.93	0.000	0.024	0.2927	0.0000	.0000E+00	.0000E+00
65		*	0.00	0.198	0.000	0.3021	0.0000	.0000E+00	.0000E+00
66		*	0.00	1.235	0.000	0.3133	0.0000	.0000E+00	.0000E+00
67		*	0.00	0.435	0.007	0.3216	0.0000	.0000E+00	.0000E+00
68		*	0.00	0.000	0.000	0.3216	0.0000	.0000E+00	.0000E+00
69		*	0.00	0.000	0.000	0.3216	0.0000	.0000E+00	.0000E+00
70		*	0.01	0.000	0.007	0.3217	0.0000	.0000E+00	.0000E+00
71		*	0.26	0.149	0.016	0.3271	0.0000	.0000E+00	.0000E+00
72		*	0.00	0.000	0.000	0.3271	0.0000	.0000E+00	.0000E+00
73		*	0.00	0.000	0.000	0.3271	0.0000	.0000E+00	.0000E+00
74			0.00	0.000	0.087	0.2545	0.0000	.0000E+00	.7647
75			0.28	0.000	0.068	0.2605	0.0000	.0000E+00	.9106E-01
76			0.20	0.000	0.075	0.2641	0.0000	.0000E+00	.1003
77			0.00	0.000	0.098	0.2561	0.0000	.0000E+00	.8053E-01
78			0.00	0.000	0.049	0.2523	0.0000	.0000E+00	.6767E-01
79	*		0.00	0.000	0.068	0.2472	0.0000	.0000E+00	.4287E-01
80	*		0.01	0.000	0.055	0.2432	0.0000	.0000E+00	.3601E-01
81			0.00	0.000	0.088	0.2374	0.0000	.0000E+00	.3921E-01
82			0.01	0.000	0.054	0.2348	0.0000	.0000E+00	.4083E-01
83			0.00	0.000	0.079	0.2297	0.0000	.0000E+00	.2278E-01
84			0.05	0.000	0.090	0.2271	0.0000	.0000E+00	.2443E-01
85			0.00	0.000	0.128	0.2198	0.0000	.0000E+00	.2330E-01
86			0.51	0.000	0.127	0.2399	0.0000	.0000E+00	.6123E-02
87			0.16	0.000	0.094	0.2431	0.0000	.0000E+00	.1904E-01
88			0.01	0.000	0.075	0.2390	0.0000	.0000E+00	.1617E-01
89			0.36	0.000	0.085	0.2536	0.0000	.0000E+00	.1309E-01
90			0.00	0.000	0.127	0.2459	0.0000	.0000E+00	.1250E-01
91			0.00	0.000	0.092	0.2400	0.0000	.0000E+00	.9594E-02
92			0.00	0.000	0.140	0.2312	0.0000	.0000E+00	.8121E-02
93			0.00	0.000	0.170	0.2209	0.0000	.0000E+00	.1276E-01
94			0.00	0.000	0.152	0.2118	0.0000	.0000E+00	.1570E-01
95			0.00	0.000	0.120	0.2052	0.0000	.0000E+00	.2417E-01
96			0.00	0.000	0.133	0.1972	0.0000	.0000E+00	.1173E-01
97			0.00	0.000	0.102	0.1911	0.0000	.0000E+00	.1328E-01
98			0.00	0.000	0.105	0.1852	0.0000	.0000E+00	.1767E-01
99			0.00	0.000	0.140	0.1774	0.0000	.0000E+00	.1677E-01
100			0.00	0.000	0.135	0.1699	0.0000	.0000E+00	.1465E-01
101			0.00	0.000	0.078	0.1655	0.0000	.0000E+00	.1299E-01
102			0.00	0.000	0.061	0.1621	0.0000	.0000E+00	.1166E-01
103			0.00	0.000	0.052	0.1592	0.0000	.0000E+00	.1057E-01
104			0.00	0.000	0.046	0.1567	0.0000	.0000E+00	.9654E-02

105	0.00	0.000	0.042	0.1543	0.0000	.0000E+00	.8881E-02
106	0.00	0.000	0.040	0.1521	0.0000	.0000E+00	.8219E-02
107	0.00	0.000	0.037	0.1501	0.0000	.0000E+00	.7645E-02
108	0.00	0.000	0.035	0.1481	0.0000	.0000E+00	.7143E-02
109	0.00	0.000	0.034	0.1462	0.0000	.0000E+00	.6701E-02
110	0.71	0.000	0.045	0.1831	0.0000	.0000E+00	.6308E-02
111	0.29	0.000	0.045	0.1968	0.0000	.0000E+00	.5957E-02
112	0.00	0.000	0.204	0.1854	0.0000	.0000E+00	.5642E-02
113	0.00	0.000	0.196	0.1745	0.0000	.0000E+00	.5357E-02
114	0.00	0.000	0.197	0.1636	0.0000	.0000E+00	.5098E-02
115	0.18	0.000	0.096	0.1682	0.0000	.0000E+00	.4862E-02
116	0.13	0.000	0.079	0.1710	0.0000	.0000E+00	.4647E-02
117	0.00	0.000	0.059	0.1677	0.0000	.0000E+00	.4448E-02
118	0.06	0.000	0.066	0.1674	0.0000	.0000E+00	.4266E-02
119	0.00	0.000	0.051	0.1646	0.0000	.0000E+00	.4097E-02
120	0.00	0.000	0.049	0.1619	0.0000	.0000E+00	.3322E-02
121	0.00	0.000	0.050	0.1591	0.0000	.0000E+00	.1110E-15
122	0.01	0.000	0.052	0.1567	0.0000	.0000E+00	.0000E+00
123	0.00	0.000	0.048	0.1541	0.0000	.0000E+00	.0000E+00
124	0.00	0.000	0.048	0.1514	0.0000	.0000E+00	.0000E+00
125	0.00	0.000	0.053	0.1485	0.0000	.0000E+00	.0000E+00
126	0.03	0.000	0.062	0.1467	0.0000	.0000E+00	.0000E+00
127	0.20	0.000	0.062	0.1543	0.0000	.0000E+00	.0000E+00
128	0.00	0.000	0.063	0.1508	0.0000	.0000E+00	.0000E+00
129	0.00	0.000	0.062	0.1474	0.0000	.0000E+00	.0000E+00
130	0.00	0.000	0.064	0.1439	0.0000	.0000E+00	.0000E+00
131	0.00	0.000	0.071	0.1400	0.0000	.0000E+00	.0000E+00
132	0.00	0.000	0.070	0.1360	0.0000	.0000E+00	.0000E+00
133	0.00	0.000	0.078	0.1317	0.0000	.0000E+00	.0000E+00
134	0.60	0.000	0.080	0.1606	0.0000	.0000E+00	.0000E+00
135	0.06	0.000	0.092	0.1588	0.0000	.0000E+00	.0000E+00
136	0.32	0.000	0.089	0.1717	0.0000	.0000E+00	.0000E+00
137	0.00	0.000	0.178	0.1618	0.0000	.0000E+00	.0000E+00
138	0.04	0.000	0.177	0.1541	0.0000	.0000E+00	.0000E+00
139	0.00	0.000	0.217	0.1421	0.0000	.0000E+00	.0000E+00
140	0.00	0.000	0.178	0.1314	0.0000	.0000E+00	.2174E-02
141	0.00	0.000	0.157	0.1227	0.0000	.0000E+00	.4216E-02
142	0.00	0.000	0.107	0.1168	0.0000	.0000E+00	.4051E-02
143	0.00	0.000	0.012	0.1161	0.0000	.0000E+00	.2179E-02
144	0.00	0.000	0.002	0.1160	0.0000	.0000E+00	.0000E+00
145	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
146	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
147	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
148	0.04	0.000	0.028	0.1167	0.0000	.0000E+00	.0000E+00
149	0.11	0.000	0.027	0.1213	0.0000	.0000E+00	.0000E+00
150	0.02	0.000	0.055	0.1193	0.0000	.0000E+00	.0000E+00
151	1.78	0.123	0.089	0.2065	0.0000	.0000E+00	.0000E+00
152	0.69	0.000	0.159	0.2360	0.0000	.0000E+00	.0000E+00
153	0.00	0.000	0.223	0.2236	0.0000	.0000E+00	.0000E+00
154	0.00	0.000	0.218	0.2115	0.0000	.0000E+00	.0000E+00
155	0.00	0.000	0.230	0.1987	0.0000	.0000E+00	.0000E+00
156	0.04	0.000	0.245	0.1874	0.0000	.0000E+00	.0000E+00
157	0.10	0.000	0.253	0.1789	0.0000	.0000E+00	.0000E+00
158	0.00	0.000	0.262	0.1643	0.0000	.0000E+00	.0000E+00
159	0.00	0.000	0.268	0.1494	0.0000	.0000E+00	.0000E+00
160	0.00	0.000	0.341	0.1305	0.0000	.0000E+00	.0000E+00
161	0.00	0.000	0.232	0.1174	0.0000	.0000E+00	.3002E-02
162	0.00	0.000	0.025	0.1160	0.0000	.0000E+00	.1460E-02
163	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
164	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
165	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
166	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
167	0.01	0.000	0.010	0.1160	0.0000	.0000E+00	.0000E+00

168	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
169	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
170	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
171	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
172	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
173	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
174	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
175	1.52	0.060	0.135	0.1896	0.0000	.0000E+00	.0000E+00
176	0.65	0.000	0.164	0.2166	0.0000	.0000E+00	.0000E+00
177	0.00	0.000	0.209	0.2050	0.0000	.0000E+00	.0000E+00
178	0.00	0.000	0.219	0.1928	0.0000	.0000E+00	.0000E+00
179	0.00	0.000	0.270	0.1779	0.0000	.0000E+00	.0000E+00
180	0.00	0.000	0.315	0.1604	0.0000	.0000E+00	.0000E+00
181	0.00	0.000	0.265	0.1456	0.0000	.0000E+00	.0000E+00
182	0.00	0.000	0.246	0.1319	0.0000	.0000E+00	.0000E+00
183	0.00	0.000	0.243	0.1185	0.0000	.0000E+00	.0000E+00
184	0.33	0.000	0.147	0.1286	0.0000	.0000E+00	.0000E+00
185	0.00	0.000	0.124	0.1217	0.0000	.0000E+00	.0000E+00
186	0.00	0.000	0.081	0.1172	0.0000	.0000E+00	.0000E+00
187	0.00	0.000	0.017	0.1163	0.0000	.0000E+00	.0000E+00
188	0.00	0.000	0.004	0.1161	0.0000	.0000E+00	.0000E+00
189	0.25	0.000	0.044	0.1275	0.0000	.0000E+00	.0000E+00
190	0.00	0.000	0.103	0.1218	0.0000	.0000E+00	.0000E+00
191	0.00	0.000	0.084	0.1172	0.0000	.0000E+00	.0000E+00
192	0.00	0.000	0.016	0.1163	0.0000	.0000E+00	.0000E+00
193	0.00	0.000	0.004	0.1161	0.0000	.0000E+00	.0000E+00
194	0.00	0.000	0.001	0.1160	0.0000	.0000E+00	.0000E+00
195	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
196	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
197	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
198	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
199	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
200	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
201	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
202	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
203	0.40	0.000	0.132	0.1309	0.0000	.0000E+00	.0000E+00
204	0.00	0.000	0.106	0.1250	0.0000	.0000E+00	.0000E+00
205	0.00	0.000	0.129	0.1179	0.0000	.0000E+00	.0000E+00
206	0.00	0.000	0.029	0.1163	0.0000	.0000E+00	.0000E+00
207	0.00	0.000	0.004	0.1161	0.0000	.0000E+00	.0000E+00
208	0.05	0.000	0.042	0.1165	0.0000	.0000E+00	.0000E+00
209	0.00	0.000	0.005	0.1162	0.0000	.0000E+00	.0000E+00
210	0.68	0.000	0.112	0.1478	0.0000	.0000E+00	.0000E+00
211	0.00	0.000	0.131	0.1405	0.0000	.0000E+00	.9677E-03
212	0.00	0.000	0.166	0.1312	0.0000	.0000E+00	.9587E-03
213	0.57	0.000	0.188	0.1524	0.0000	.0000E+00	.0000E+00
214	0.00	0.000	0.241	0.1390	0.0000	.0000E+00	.0000E+00
215	0.00	0.000	0.189	0.1285	0.0000	.0000E+00	.0000E+00
216	0.00	0.000	0.193	0.1178	0.0000	.0000E+00	.0000E+00
217	0.00	0.000	0.028	0.1162	0.0000	.0000E+00	.0000E+00
218	0.21	0.000	0.053	0.1250	0.0000	.0000E+00	.0000E+00
219	0.04	0.000	0.092	0.1221	0.0000	.0000E+00	.0000E+00
220	0.00	0.000	0.066	0.1184	0.0000	.0000E+00	.9498E-03
221	0.00	0.000	0.032	0.1166	0.0000	.0000E+00	.9411E-03
222	0.00	0.000	0.008	0.1162	0.0000	.0000E+00	.0000E+00
223	0.00	0.000	0.002	0.1160	0.0000	.0000E+00	.0000E+00
224	0.00	0.000	0.001	0.1160	0.0000	.0000E+00	.9325E-03
225	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
226	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
227	0.75	0.000	0.108	0.1517	0.0000	.0000E+00	.0000E+00
228	0.01	0.000	0.135	0.1447	0.0000	.0000E+00	.0000E+00
229	0.00	0.000	0.173	0.1351	0.0000	.0000E+00	.0000E+00
230	0.00	0.000	0.074	0.1310	0.0000	.0000E+00	.0000E+00

231	0.00	0.000	0.171	0.1215	0.0000	.0000E+00	.0000E+00
232	0.00	0.000	0.087	0.1167	0.0000	.0000E+00	.0000E+00
233	0.00	0.000	0.011	0.1161	0.0000	.0000E+00	.0000E+00
234	0.00	0.000	0.002	0.1160	0.0000	.0000E+00	.0000E+00
235	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
236	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
237	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
238	0.26	0.000	0.052	0.1275	0.0000	.0000E+00	.0000E+00
239	0.00	0.000	0.088	0.1227	0.0000	.0000E+00	.0000E+00
240	0.00	0.000	0.096	0.1173	0.0000	.0000E+00	.0000E+00
241	0.00	0.000	0.020	0.1162	0.0000	.0000E+00	.0000E+00
242	0.00	0.000	0.003	0.1161	0.0000	.0000E+00	.0000E+00
243	0.00	0.000	0.001	0.1160	0.0000	.0000E+00	.0000E+00
244	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
245	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
246	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
247	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
248	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
249	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
250	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
251	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
252	0.02	0.000	0.020	0.1160	0.0000	.0000E+00	.0000E+00
253	0.26	0.000	0.046	0.1279	0.0000	.0000E+00	.0000E+00
254	0.00	0.000	0.046	0.1254	0.0000	.0000E+00	.0000E+00
255	0.00	0.000	0.073	0.1213	0.0000	.0000E+00	.0000E+00
256	0.00	0.000	0.068	0.1176	0.0000	.0000E+00	.0000E+00
257	0.00	0.000	0.023	0.1163	0.0000	.0000E+00	.0000E+00
258	0.00	0.000	0.005	0.1161	0.0000	.0000E+00	.0000E+00
259	0.00	0.000	0.001	0.1160	0.0000	.0000E+00	.0000E+00
260	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
261	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
262	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
263	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
264	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
265	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
266	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
267	0.03	0.000	0.025	0.1163	0.0000	.0000E+00	.0000E+00
268	0.00	0.000	0.003	0.1161	0.0000	.0000E+00	.0000E+00
269	0.17	0.000	0.044	0.1231	0.0000	.0000E+00	.0000E+00
270	0.29	0.000	0.053	0.1363	0.0000	.0000E+00	.9241E-03
271	0.13	0.000	0.049	0.1408	0.0000	.0000E+00	.0000E+00
272	0.00	0.000	0.019	0.1397	0.0000	.0000E+00	.0000E+00
273	0.00	0.000	0.019	0.1387	0.0000	.0000E+00	.0000E+00
274	0.00	0.000	0.014	0.1379	0.0000	.0000E+00	.1818E-02
275	0.00	0.000	0.014	0.1371	0.0000	.0000E+00	.0000E+00
276	0.00	0.000	0.014	0.1363	0.0000	.0000E+00	.0000E+00
277	0.00	0.000	0.014	0.1355	0.0000	.0000E+00	.0000E+00
278	0.08	0.000	0.048	0.1373	0.0000	.0000E+00	.0000E+00
279	0.77	0.000	0.055	0.1770	0.0000	.0000E+00	.0000E+00
280	0.00	0.000	0.051	0.1742	0.0000	.0000E+00	.0000E+00
281	0.00	0.000	0.036	0.1722	0.0000	.0000E+00	.0000E+00
282	0.00	0.000	0.044	0.1697	0.0000	.0000E+00	.0000E+00
283	0.00	0.000	0.042	0.1674	0.0000	.0000E+00	.0000E+00
284	0.00	0.000	0.042	0.1650	0.0000	.0000E+00	.0000E+00
285	0.00	0.000	0.051	0.1622	0.0000	.0000E+00	.0000E+00
286	0.00	0.000	0.051	0.1593	0.0000	.0000E+00	.0000E+00
287	0.00	0.000	0.064	0.1558	0.0000	.0000E+00	.0000E+00
288	0.00	0.000	0.078	0.1514	0.0000	.0000E+00	.0000E+00
289	0.00	0.000	0.055	0.1484	0.0000	.0000E+00	.0000E+00
290	0.00	0.000	0.054	0.1454	0.0000	.0000E+00	.0000E+00
291	0.00	0.000	0.055	0.1424	0.0000	.0000E+00	.0000E+00
292	0.00	0.000	0.046	0.1398	0.0000	.0000E+00	.0000E+00
293	0.17	0.000	0.065	0.1457	0.0000	.0000E+00	.0000E+00

294		0.01	0.000	0.033	0.1444	0.0000	.0000E+00	.0000E+00
295		0.00	0.000	0.029	0.1428	0.0000	.0000E+00	.0000E+00
296		0.00	0.000	0.024	0.1415	0.0000	.0000E+00	.0000E+00
297		1.38	0.036	0.059	0.2129	0.0000	.0000E+00	.8998E-03
298		0.12	0.000	0.059	0.2162	0.0000	.0000E+00	.0000E+00
299		0.00	0.000	0.037	0.2142	0.0000	.0000E+00	.0000E+00
300		0.00	0.000	0.032	0.2124	0.0000	.0000E+00	.0000E+00
301		0.00	0.000	0.030	0.2108	0.0000	.0000E+00	.0000E+00
302		0.00	0.000	0.042	0.2084	0.0000	.0000E+00	.0000E+00
303		0.06	0.000	0.051	0.2089	0.0000	.0000E+00	.0000E+00
304		0.78	0.000	0.054	0.2493	0.0000	.0000E+00	.0000E+00
305		0.00	0.000	0.039	0.2471	0.0000	.0000E+00	.0000E+00
306		0.00	0.000	0.032	0.2453	0.0000	.0000E+00	.0000E+00
307		0.00	0.000	0.032	0.2436	0.0000	.0000E+00	.0000E+00
308		0.00	0.000	0.047	0.2410	0.0000	.0000E+00	.0000E+00
309		0.00	0.000	0.037	0.2389	0.0000	.0000E+00	.0000E+00
310		0.00	0.000	0.036	0.2369	0.0000	.0000E+00	.0000E+00
311		0.00	0.000	0.042	0.2346	0.0000	.0000E+00	.0000E+00
312		0.00	0.000	0.047	0.2320	0.0000	.0000E+00	.0000E+00
313		0.00	0.000	0.024	0.2307	0.0000	.0000E+00	.0000E+00
314		0.00	0.000	0.035	0.2287	0.0000	.0000E+00	.0000E+00
315		0.00	0.000	0.041	0.2264	0.0000	.0000E+00	.1142E-02
316		0.00	0.000	0.035	0.2242	0.0000	.0000E+00	.1052E-02
317		0.00	0.000	0.028	0.2222	0.0000	.0000E+00	.0000E+00
318		0.00	0.000	0.031	0.2198	0.0000	.0000E+00	.0000E+00
319		0.00	0.000	0.038	0.2170	0.0000	.0000E+00	.0000E+00
320		0.00	0.000	0.037	0.2142	0.0000	.0000E+00	.0000E+00
321		0.00	0.000	0.036	0.2116	0.0000	.0000E+00	.0000E+00
322		0.00	0.000	0.038	0.2088	0.0000	.0000E+00	.0000E+00
323		0.00	0.000	0.041	0.2058	0.0000	.0000E+00	.0000E+00
324		0.00	0.000	0.042	0.2027	0.0000	.0000E+00	.0000E+00
325		0.00	0.000	0.040	0.1999	0.0000	.0000E+00	.4243E-04
326		0.00	0.000	0.038	0.1973	0.0000	.0000E+00	.1547E-02
327		0.00	0.000	0.025	0.1955	0.0000	.0000E+00	.3553E-02
328	*	0.03	0.000	0.032	0.1951	0.0000	.0000E+00	.5207E-02
329		0.00	0.000	0.036	0.1928	0.0000	.0000E+00	.4827E-02
330		0.02	0.000	0.040	0.1914	0.0000	.0000E+00	.5690E-02
331		0.66	0.000	0.054	0.2249	0.0000	.0000E+00	.9266E-02
332		0.02	0.000	0.054	0.2230	0.0000	.0000E+00	.9659E-02
333		0.00	0.000	0.050	0.2202	0.0000	.0000E+00	.8886E-02
334		0.00	0.000	0.047	0.2176	0.0000	.0000E+00	.8223E-02
335		0.00	0.000	0.043	0.2152	0.0000	.0000E+00	.6539E-02
336		0.00	0.000	0.042	0.2126	0.0000	.0000E+00	.4439E-02
337		0.00	0.000	0.055	0.2096	0.0000	.0000E+00	.7202E-02
338		0.00	0.000	0.037	0.2076	0.0000	.0000E+00	.6753E-02
339		0.00	0.000	0.030	0.2059	0.0000	.0000E+00	.6354E-02
340		0.00	0.000	0.034	0.2040	0.0000	.0000E+00	.5998E-02
341		0.89	0.000	0.050	0.2507	0.0000	.0000E+00	.5679E-02
342	*	0.01	0.000	0.032	0.2494	0.0000	.0000E+00	.5390E-02
343	*	0.02	0.000	0.020	0.2494	0.0000	.0000E+00	.5129E-02
344	*	0.00	0.000	0.000	0.2494	0.0000	.0000E+00	.4890E-02
345	*	0.05	0.000	0.024	0.2505	0.0000	.0000E+00	.4672E-02
346	*	0.00	0.000	0.006	0.2505	0.0000	.0000E+00	.4472E-02
347	*	0.00	0.000	0.000	0.2505	0.0000	.0000E+00	.4287E-02
348	*	0.00	0.000	0.000	0.2505	0.0000	.0000E+00	.4117E-02
349	*	0.00	0.000	0.000	0.2505	0.0000	.0000E+00	.3819E-02
350	*	0.00	0.000	0.000	0.2499	0.0000	.0000E+00	.0000E+00
351		0.00	0.000	0.029	0.2469	0.0000	.0000E+00	.0000E+00
352	*	0.00	0.000	0.022	0.2442	0.0000	.0000E+00	.0000E+00
353	*	0.00	0.000	0.000	0.2429	0.0000	.0000E+00	.0000E+00
354	*	0.00	0.000	0.022	0.2404	0.0000	.0000E+00	.0000E+00
355	*	0.00	0.000	0.024	0.2379	0.0000	.0000E+00	.0000E+00
356		0.00	0.000	0.029	0.2353	0.0000	.0000E+00	.0000E+00

357			0.00	0.000	0.033	0.2327	0.0000	.0000E+00 .2415E-02
358			0.00	0.000	0.031	0.2301	0.0000	.0000E+00 .1748E-02
359	*		0.00	0.000	0.028	0.2277	0.0000	.0000E+00 .3952E-02
360	*		0.00	0.000	0.023	0.2256	0.0000	.0000E+00 .6666E-02
361	*		0.00	0.000	0.000	0.2249	0.0000	.0000E+00 .8841E-02
362	*	*	0.00	0.000	0.000	0.2249	0.0000	.0000E+00 .2066E-01
363	*	*	0.16	0.000	0.025	0.2249	0.0000	.0000E+00 .1758E-01
364		*	0.00	0.005	0.027	0.2306	0.0000	.0000E+00 .1527E-01
365		*	0.00	0.000	0.000	0.2306	0.0000	.0000E+00 .1348E-01
366		*	0.00	0.000	0.000	0.2306	0.0000	.0000E+00 .1206E-01

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MONTHLY TOTALS (IN INCHES) FOR YEAR 2008

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.83	1.08	4.28	1.37	3.90	2.32
	2.28	1.27	0.90	3.37	0.73	1.13
RUNOFF	0.000	0.311	2.017	0.000	0.123	0.060
	0.000	0.000	0.000	0.036	0.000	0.005
EVAPOTRANSPIRATION	0.392	0.308	1.593	2.762	2.380	4.128
	1.911	1.926	0.507	1.368	1.160	0.625
PERCOLATION/LEAKAGE THROUGH	0.8076	0.0431	1.4103	0.2723	0.0126	0.0045
LAYER 1	0.0019	0.0028	0.0027	0.0009	0.0656	0.1759

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ANNUAL TOTALS FOR YEAR 2008

	INCHES	CU. FEET	PERCENT
PRECIPITATION	23.46	85159.820	100.00
RUNOFF	2.550	9258.312	10.87
EVAPOTRANSPIRATION	19.060	69188.687	81.25
PERC./LEAKAGE THROUGH LAYER 1	2.800297	10165.077	11.94
CHANGE IN WATER STORAGE	-0.951	-3452.314	-4.05
SOIL WATER AT START OF YEAR	6.611	23996.523	
SOIL WATER AT END OF YEAR	5.660	20544.209	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00

ANNUAL WATER BUDGET BALANCE 0.0000 0.058 0.00

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LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 1

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DAILY OUTPUT FOR YEAR 2009

DAY	AIR	SOIL	RAIN IN.	RUNOFF IN.	ET IN.	E. ZONE WATER IN./IN.	HEAD #1 IN.	DRAIN #1 IN.	LEAK #1 IN.
1		*	0.01	0.000	0.007	0.2308	0.0000	.0000E+00	.1089E-01
2		*	0.00	0.000	0.000	0.2308	0.0000	.0000E+00	.9928E-02
3		*	0.00	0.000	0.000	0.2308	0.0000	.0000E+00	.9115E-02
4	*	*	0.00	0.000	0.000	0.2308	0.0000	.0000E+00	.8420E-02
5		*	0.00	0.000	0.000	0.2308	0.0000	.0000E+00	.7820E-02
6		*	0.00	0.000	0.000	0.2308	0.0000	.0000E+00	.7296E-02
7	*	*	0.28	0.000	0.024	0.2308	0.0000	.0000E+00	.6836E-02
8	*	*	0.00	0.000	0.017	0.2308	0.0000	.0000E+00	.6429E-02
9	*	*	0.00	0.000	0.023	0.2308	0.0000	.0000E+00	.6065E-02
10		*	0.00	0.009	0.025	0.2371	0.0000	.0000E+00	.5739E-02
11		*	0.00	0.000	0.037	0.2389	0.0000	.0000E+00	.5445E-02
12	*	*	0.00	0.000	0.000	0.2389	0.0000	.0000E+00	.5178E-02
13		*	0.08	0.000	0.011	0.2427	0.0000	.0000E+00	.4935E-02
14		*	0.00	0.000	0.000	0.2427	0.0000	.0000E+00	.4713E-02
15		*	0.00	0.000	0.000	0.2427	0.0000	.0000E+00	.4510E-02
16		*	0.00	0.000	0.000	0.2427	0.0000	.0000E+00	.4322E-02
17			0.00	0.000	0.036	0.2400	0.0000	.0000E+00	.0000E+00
18	*		0.00	0.000	0.036	0.2374	0.0000	.0000E+00	.0000E+00
19			0.06	0.000	0.052	0.2371	0.0000	.0000E+00	.0000E+00
20			0.00	0.000	0.039	0.2343	0.0000	.0000E+00	.0000E+00
21			0.00	0.000	0.047	0.2311	0.0000	.0000E+00	.0000E+00
22	*		0.00	0.000	0.035	0.2287	0.0000	.0000E+00	.0000E+00
23			0.00	0.000	0.047	0.2257	0.0000	.0000E+00	.6138E-03
24	*		0.00	0.000	0.033	0.2235	0.0000	.0000E+00	.2296E-02
25	*		0.38	0.000	0.024	0.2244	0.0000	.0000E+00	.4074E-02
26	*		0.00	0.000	0.023	0.2252	0.0000	.0000E+00	.4454E-02
27			0.00	0.000	0.032	0.2262	0.0000	.0000E+00	.6716E-02
28	*		0.00	0.000	0.027	0.2273	0.0000	.0000E+00	.7972E-02
29			0.00	0.000	0.040	0.2359	0.0000	.0000E+00	.7429E-02
30			0.00	0.000	0.059	0.2325	0.0000	.0000E+00	.5837E-02
31			0.02	0.000	0.059	0.2304	0.0000	.0000E+00	.6666E-02
32			0.00	0.000	0.056	0.2272	0.0000	.0000E+00	.5159E-02
33			0.27	0.000	0.047	0.2395	0.0000	.0000E+00	.5441E-02
34			0.00	0.000	0.046	0.2370	0.0000	.0000E+00	.5798E-02
35			0.00	0.000	0.052	0.2340	0.0000	.0000E+00	.4903E-02
36			0.44	0.000	0.063	0.2550	0.0000	.0000E+00	.5285E-02
37			0.00	0.000	0.050	0.2522	0.0000	.0000E+00	.5033E-02
38			0.00	0.000	0.056	0.2491	0.0000	.0000E+00	.4803E-02
39	*		0.00	0.000	0.043	0.2467	0.0000	.0000E+00	.4592E-02
40			0.00	0.000	0.058	0.2435	0.0000	.0000E+00	.4398E-02
41			0.00	0.000	0.051	0.2407	0.0000	.0000E+00	.4219E-02

42		0.00	0.000	0.062	0.2372	0.0000	.0000E+00	.4054E-02
43		0.00	0.000	0.081	0.2327	0.0000	.0000E+00	.2256E-02
44		0.00	0.000	0.054	0.2297	0.0000	.0000E+00	.0000E+00
45		0.00	0.000	0.062	0.2260	0.0000	.0000E+00	.7071E-03
46		0.00	0.000	0.045	0.2229	0.0000	.0000E+00	.0000E+00
47	*	0.01	0.000	0.054	0.2197	0.0000	.0000E+00	.0000E+00
48		0.00	0.000	0.065	0.2152	0.0000	.0000E+00	.0000E+00
49	*	0.00	0.000	0.051	0.2114	0.0000	.0000E+00	.0000E+00
50	*	0.00	0.000	0.051	0.2076	0.0000	.0000E+00	.0000E+00
51	*	0.15	0.000	0.045	0.2078	0.0000	.0000E+00	.0000E+00
52		0.21	0.000	0.036	0.2215	0.0000	.0000E+00	.0000E+00
53	*	0.00	0.000	0.060	0.2176	0.0000	.0000E+00	.3743E-03
54	*	0.00	0.000	0.059	0.2135	0.0000	.0000E+00	.2949E-03
55	*	0.00	0.000	0.056	0.2097	0.0000	.0000E+00	.1223E-02
56		0.00	0.000	0.064	0.2056	0.0000	.0000E+00	.4293E-02
57		0.00	0.000	0.070	0.2012	0.0000	.0000E+00	.6373E-02
58		0.00	0.000	0.076	0.1965	0.0000	.0000E+00	.7658E-02
59		0.00	0.000	0.062	0.1926	0.0000	.0000E+00	.8910E-02
60		0.00	0.000	0.069	0.1886	0.0000	.0000E+00	.1157E-01
61	*	0.00	0.000	0.054	0.1856	0.0000	.0000E+00	.1355E-01
62		0.00	0.000	0.088	0.1807	0.0000	.0000E+00	.1211E-01
63		1.49	0.061	0.081	0.2556	0.0000	.0000E+00	.1094E-01
64	*	0.93	0.000	0.033	0.2567	0.0000	.0000E+00	.9964E-02
65		0.00	0.009	0.000	0.3049	0.0000	.0000E+00	.9145E-02
66		0.00	0.000	0.092	0.2805	0.0000	.0000E+00	.6083E-01
67		0.00	0.000	0.073	0.2702	0.0000	.0000E+00	.2579E-01
68		0.00	0.000	0.089	0.2597	0.0000	.0000E+00	.9244E-01
69		0.00	0.000	0.061	0.2519	0.0000	.0000E+00	.9641E-01
70	*	0.01	0.000	0.053	0.2456	0.0000	.0000E+00	.8571E-01
71	*	0.26	0.000	0.021	0.2436	0.0000	.0000E+00	.7990E-01
72		0.00	0.000	0.058	0.2456	0.0000	.0000E+00	.6848E-01
73	*	0.00	0.000	0.069	0.2445	0.0000	.0000E+00	.5800E-01
74		0.00	0.000	0.089	0.2378	0.0000	.0000E+00	.4727E-01
75	*	0.28	0.000	0.036	0.2377	0.0000	.0000E+00	.4599E-01
76		0.20	0.000	0.000	0.2602	0.0000	.0000E+00	.3756E-01
77		0.00	0.000	0.085	0.2545	0.0000	.0000E+00	.3459E-01
78		0.00	0.000	0.079	0.2492	0.0000	.0000E+00	.2837E-01
79		0.00	0.000	0.096	0.2427	0.0000	.0000E+00	.2046E-01
80		0.01	0.000	0.075	0.2380	0.0000	.0000E+00	.2280E-01
81		0.00	0.000	0.095	0.2318	0.0000	.0000E+00	.2513E-01
82		0.01	0.000	0.088	0.2275	0.0000	.0000E+00	.3351E-01
83		0.00	0.000	0.102	0.2213	0.0000	.0000E+00	.1921E-01
84		0.05	0.000	0.092	0.2188	0.0000	.0000E+00	.2329E-01
85		0.00	0.000	0.100	0.2131	0.0000	.0000E+00	.1876E-01
86		0.51	0.000	0.094	0.2356	0.0000	.0000E+00	.9833E-02
87	*	0.16	0.000	0.052	0.2364	0.0000	.0000E+00	.1408E-01
88		0.01	0.000	0.063	0.2380	0.0000	.0000E+00	.1204E-01
89		0.36	0.000	0.066	0.2538	0.0000	.0000E+00	.9317E-02
90		0.00	0.000	0.092	0.2481	0.0000	.0000E+00	.7296E-02
91		0.00	0.000	0.097	0.2420	0.0000	.0000E+00	.6932E-02
92		0.00	0.000	0.115	0.2348	0.0000	.0000E+00	.5474E-02
93		0.00	0.000	0.122	0.2271	0.0000	.0000E+00	.5576E-02
94		0.00	0.000	0.127	0.2193	0.0000	.0000E+00	.1043E-01
95		0.00	0.000	0.104	0.2130	0.0000	.0000E+00	.1433E-01
96		0.00	0.000	0.136	0.2055	0.0000	.0000E+00	.2094E-01
97		0.00	0.000	0.115	0.1988	0.0000	.0000E+00	.1312E-01
98		0.00	0.000	0.131	0.1910	0.0000	.0000E+00	.7692E-02
99		0.00	0.000	0.146	0.1823	0.0000	.0000E+00	.8947E-02
100		0.00	0.000	0.166	0.1730	0.0000	.0000E+00	.1535E-01
101		0.00	0.000	0.078	0.1686	0.0000	.0000E+00	.1543E-01
102		0.00	0.000	0.060	0.1653	0.0000	.0000E+00	.1360E-01
103		0.00	0.000	0.051	0.1624	0.0000	.0000E+00	.1216E-01
104		0.00	0.000	0.045	0.1599	0.0000	.0000E+00	.1098E-01

105	0.00	0.000	0.042	0.1576	0.0000	.0000E+00	.9997E-02
106	0.00	0.000	0.039	0.1554	0.0000	.0000E+00	.9173E-02
107	0.00	0.000	0.037	0.1533	0.0000	.0000E+00	.8470E-02
108	0.00	0.000	0.035	0.1514	0.0000	.0000E+00	.7863E-02
109	0.00	0.000	0.035	0.1494	0.0000	.0000E+00	.7334E-02
110	0.71	0.000	0.040	0.1866	0.0000	.0000E+00	.6870E-02
111	0.29	0.000	0.179	0.1928	0.0000	.0000E+00	.6458E-02
112	0.00	0.000	0.177	0.1830	0.0000	.0000E+00	.6092E-02
113	0.00	0.000	0.232	0.1701	0.0000	.0000E+00	.5763E-02
114	0.00	0.000	0.197	0.1591	0.0000	.0000E+00	.5466E-02
115	0.18	0.000	0.092	0.1640	0.0000	.0000E+00	.5198E-02
116	0.13	0.000	0.077	0.1669	0.0000	.0000E+00	.4953E-02
117	0.00	0.000	0.064	0.1633	0.0000	.0000E+00	.4730E-02
118	0.06	0.000	0.065	0.1631	0.0000	.0000E+00	.4525E-02
119	0.00	0.000	0.054	0.1600	0.0000	.0000E+00	.4186E-02
120	0.00	0.000	0.057	0.1568	0.0000	.0000E+00	.4174E-02
121	0.00	0.000	0.053	0.1539	0.0000	.0000E+00	.4012E-02
122	0.01	0.000	0.057	0.1512	0.0000	.0000E+00	.1886E-02
123	0.00	0.000	0.050	0.1485	0.0000	.0000E+00	.0000E+00
124	0.00	0.000	0.053	0.1455	0.0000	.0000E+00	.0000E+00
125	0.00	0.000	0.058	0.1422	0.0000	.0000E+00	.0000E+00
126	0.03	0.000	0.065	0.1403	0.0000	.0000E+00	.0000E+00
127	0.20	0.000	0.068	0.1476	0.0000	.0000E+00	.0000E+00
128	0.00	0.000	0.065	0.1440	0.0000	.0000E+00	.0000E+00
129	0.00	0.000	0.074	0.1398	0.0000	.0000E+00	.0000E+00
130	0.00	0.000	0.083	0.1352	0.0000	.0000E+00	.0000E+00
131	0.00	0.000	0.075	0.1311	0.0000	.0000E+00	.0000E+00
132	0.00	0.000	0.065	0.1274	0.0000	.0000E+00	.0000E+00
133	0.00	0.000	0.085	0.1227	0.0000	.0000E+00	.0000E+00
134	0.60	0.000	0.097	0.1506	0.0000	.0000E+00	.0000E+00
135	0.06	0.000	0.181	0.1439	0.0000	.0000E+00	.0000E+00
136	0.32	0.000	0.081	0.1572	0.0000	.0000E+00	.0000E+00
137	0.00	0.000	0.192	0.1465	0.0000	.0000E+00	.0000E+00
138	0.04	0.000	0.106	0.1429	0.0000	.0000E+00	.0000E+00
139	0.00	0.000	0.165	0.1337	0.0000	.0000E+00	.0000E+00
140	0.00	0.000	0.100	0.1281	0.0000	.0000E+00	.8383E-03
141	0.00	0.000	0.109	0.1221	0.0000	.0000E+00	.0000E+00
142	0.00	0.000	0.091	0.1170	0.0000	.0000E+00	.0000E+00
143	0.00	0.000	0.014	0.1162	0.0000	.0000E+00	.0000E+00
144	0.00	0.000	0.003	0.1160	0.0000	.0000E+00	.0000E+00
145	0.00	0.000	0.001	0.1160	0.0000	.0000E+00	.0000E+00
146	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
147	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
148	0.04	0.000	0.029	0.1166	0.0000	.0000E+00	.0000E+00
149	0.11	0.000	0.027	0.1212	0.0000	.0000E+00	.0000E+00
150	0.02	0.000	0.066	0.1187	0.0000	.0000E+00	.0000E+00
151	1.78	0.122	0.152	0.2024	0.0000	.0000E+00	.0000E+00
152	0.69	0.000	0.239	0.2274	0.0000	.0000E+00	.9611E-03
153	0.00	0.000	0.308	0.2103	0.0000	.0000E+00	.0000E+00
154	0.00	0.000	0.314	0.1929	0.0000	.0000E+00	.0000E+00
155	0.00	0.000	0.316	0.1753	0.0000	.0000E+00	.0000E+00
156	0.04	0.000	0.242	0.1641	0.0000	.0000E+00	.0000E+00
157	0.10	0.000	0.272	0.1545	0.0000	.0000E+00	.0000E+00
158	0.00	0.000	0.256	0.1403	0.0000	.0000E+00	.0000E+00
159	0.00	0.000	0.160	0.1314	0.0000	.0000E+00	.0000E+00
160	0.00	0.000	0.176	0.1216	0.0000	.0000E+00	.0000E+00
161	0.00	0.000	0.101	0.1160	0.0000	.0000E+00	.0000E+00
162	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
163	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
164	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
165	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
166	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
167	0.01	0.000	0.010	0.1160	0.0000	.0000E+00	.0000E+00

168	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
169	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
170	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
171	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
172	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
173	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
174	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
175	1.52	0.060	0.134	0.1897	0.0000	.0000E+00	.0000E+00
176	0.65	0.000	0.256	0.2116	0.0000	.0000E+00	.0000E+00
177	0.00	0.000	0.263	0.1970	0.0000	.0000E+00	.0000E+00
178	0.00	0.000	0.227	0.1844	0.0000	.0000E+00	.0000E+00
179	0.00	0.000	0.248	0.1706	0.0000	.0000E+00	.0000E+00
180	0.00	0.000	0.218	0.1585	0.0000	.0000E+00	.0000E+00
181	0.00	0.000	0.239	0.1452	0.0000	.0000E+00	.0000E+00
182	0.00	0.000	0.176	0.1354	0.0000	.0000E+00	.0000E+00
183	0.00	0.000	0.169	0.1260	0.0000	.0000E+00	.0000E+00
184	0.33	0.000	0.218	0.1322	0.0000	.0000E+00	.0000E+00
185	0.00	0.000	0.177	0.1223	0.0000	.0000E+00	.0000E+00
186	0.00	0.000	0.093	0.1172	0.0000	.0000E+00	.0000E+00
187	0.00	0.000	0.016	0.1163	0.0000	.0000E+00	.0000E+00
188	0.00	0.000	0.004	0.1161	0.0000	.0000E+00	.0000E+00
189	0.25	0.000	0.043	0.1276	0.0000	.0000E+00	.0000E+00
190	0.00	0.000	0.103	0.1219	0.0000	.0000E+00	.0000E+00
191	0.00	0.000	0.084	0.1172	0.0000	.0000E+00	.0000E+00
192	0.00	0.000	0.016	0.1163	0.0000	.0000E+00	.0000E+00
193	0.00	0.000	0.004	0.1161	0.0000	.0000E+00	.0000E+00
194	0.00	0.000	0.001	0.1160	0.0000	.0000E+00	.0000E+00
195	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
196	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
197	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
198	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
199	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
200	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
201	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
202	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
203	0.40	0.000	0.113	0.1319	0.0000	.0000E+00	.0000E+00
204	0.00	0.000	0.104	0.1262	0.0000	.0000E+00	.0000E+00
205	0.00	0.000	0.134	0.1188	0.0000	.0000E+00	.0000E+00
206	0.00	0.000	0.041	0.1165	0.0000	.0000E+00	.0000E+00
207	0.00	0.000	0.007	0.1161	0.0000	.0000E+00	.0000E+00
208	0.05	0.000	0.042	0.1166	0.0000	.0000E+00	.0000E+00
209	0.00	0.000	0.006	0.1162	0.0000	.0000E+00	.0000E+00
210	0.68	0.000	0.075	0.1499	0.0000	.0000E+00	.0000E+00
211	0.00	0.000	0.170	0.1404	0.0000	.0000E+00	.9646E-03
212	0.00	0.000	0.207	0.1289	0.0000	.0000E+00	.9556E-03
213	0.57	0.000	0.174	0.1509	0.0000	.0000E+00	.0000E+00
214	0.00	0.000	0.202	0.1397	0.0000	.0000E+00	.0000E+00
215	0.00	0.000	0.177	0.1298	0.0000	.0000E+00	.0000E+00
216	0.00	0.000	0.182	0.1197	0.0000	.0000E+00	.0000E+00
217	0.00	0.000	0.059	0.1165	0.0000	.0000E+00	.0000E+00
218	0.21	0.000	0.049	0.1254	0.0000	.0000E+00	.0000E+00
219	0.04	0.000	0.128	0.1205	0.0000	.0000E+00	.0000E+00
220	0.00	0.000	0.052	0.1176	0.0000	.0000E+00	.2815E-02
221	0.00	0.000	0.022	0.1164	0.0000	.0000E+00	.0000E+00
222	0.00	0.000	0.005	0.1161	0.0000	.0000E+00	.0000E+00
223	0.00	0.000	0.001	0.1160	0.0000	.0000E+00	.0000E+00
224	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.9212E-03
225	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
226	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
227	0.75	0.000	0.073	0.1536	0.0000	.0000E+00	.0000E+00
228	0.01	0.000	0.121	0.1475	0.0000	.0000E+00	.0000E+00
229	0.00	0.000	0.163	0.1384	0.0000	.0000E+00	.0000E+00
230	0.00	0.000	0.201	0.1273	0.0000	.0000E+00	.0000E+00

231	0.00	0.000	0.139	0.1195	0.0000	.0000E+00	.0000E+00
232	0.00	0.000	0.058	0.1163	0.0000	.0000E+00	.0000E+00
233	0.00	0.000	0.004	0.1161	0.0000	.0000E+00	.0000E+00
234	0.00	0.000	0.001	0.1160	0.0000	.0000E+00	.0000E+00
235	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
236	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
237	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
238	0.26	0.000	0.043	0.1281	0.0000	.0000E+00	.0000E+00
239	0.00	0.000	0.097	0.1227	0.0000	.0000E+00	.0000E+00
240	0.00	0.000	0.097	0.1173	0.0000	.0000E+00	.0000E+00
241	0.00	0.000	0.018	0.1163	0.0000	.0000E+00	.0000E+00
242	0.00	0.000	0.004	0.1161	0.0000	.0000E+00	.0000E+00
243	0.00	0.000	0.001	0.1160	0.0000	.0000E+00	.0000E+00
244	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
245	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
246	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
247	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
248	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
249	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
250	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
251	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
252	0.02	0.000	0.020	0.1160	0.0000	.0000E+00	.0000E+00
253	0.26	0.000	0.052	0.1276	0.0000	.0000E+00	.0000E+00
254	0.00	0.000	0.059	0.1243	0.0000	.0000E+00	.0000E+00
255	0.00	0.000	0.088	0.1194	0.0000	.0000E+00	.0000E+00
256	0.00	0.000	0.047	0.1168	0.0000	.0000E+00	.9130E-03
257	0.00	0.000	0.011	0.1162	0.0000	.0000E+00	.9049E-03
258	0.00	0.000	0.003	0.1160	0.0000	.0000E+00	.0000E+00
259	0.00	0.000	0.001	0.1160	0.0000	.0000E+00	.0000E+00
260	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
261	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
262	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
263	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
264	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
265	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
266	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
267	0.03	0.000	0.026	0.1162	0.0000	.0000E+00	.0000E+00
268	0.00	0.000	0.002	0.1161	0.0000	.0000E+00	.0000E+00
269	0.17	0.000	0.045	0.1231	0.0000	.0000E+00	.0000E+00
270	0.29	0.000	0.065	0.1356	0.0000	.0000E+00	.8970E-03
271	0.13	0.000	0.060	0.1395	0.0000	.0000E+00	.0000E+00
272	0.00	0.000	0.034	0.1376	0.0000	.0000E+00	.0000E+00
273	0.00	0.000	0.043	0.1352	0.0000	.0000E+00	.0000E+00
274	0.00	0.000	0.043	0.1328	0.0000	.0000E+00	.1767E-02
275	0.00	0.000	0.037	0.1307	0.0000	.0000E+00	.0000E+00
276	0.00	0.000	0.038	0.1287	0.0000	.0000E+00	.0000E+00
277	0.00	0.000	0.036	0.1267	0.0000	.0000E+00	.0000E+00
278	0.08	0.000	0.063	0.1276	0.0000	.0000E+00	.0000E+00
279	0.77	0.000	0.061	0.1669	0.0000	.0000E+00	.0000E+00
280	0.00	0.000	0.072	0.1629	0.0000	.0000E+00	.0000E+00
281	0.00	0.000	0.075	0.1588	0.0000	.0000E+00	.0000E+00
282	0.00	0.000	0.072	0.1548	0.0000	.0000E+00	.0000E+00
283	0.00	0.000	0.072	0.1508	0.0000	.0000E+00	.0000E+00
284	0.00	0.000	0.066	0.1471	0.0000	.0000E+00	.0000E+00
285	0.00	0.000	0.038	0.1450	0.0000	.0000E+00	.0000E+00
286	0.00	0.000	0.053	0.1421	0.0000	.0000E+00	.0000E+00
287	0.00	0.000	0.068	0.1383	0.0000	.0000E+00	.0000E+00
288	0.00	0.000	0.053	0.1354	0.0000	.0000E+00	.2600E-02
289	0.00	0.000	0.047	0.1327	0.0000	.0000E+00	.0000E+00
290	0.00	0.000	0.043	0.1303	0.0000	.0000E+00	.0000E+00
291	0.00	0.000	0.025	0.1289	0.0000	.0000E+00	.0000E+00
292	0.00	0.000	0.019	0.1279	0.0000	.0000E+00	.0000E+00
293	0.17	0.000	0.061	0.1339	0.0000	.0000E+00	.0000E+00

294	*		0.01	0.000	0.025	0.1331	0.0000	.0000E+00	.0000E+00
295	*		0.00	0.000	0.000	0.1331	0.0000	.0000E+00	.0000E+00
296	*		0.00	0.000	0.020	0.1320	0.0000	.0000E+00	.0000E+00
297			1.38	0.036	0.058	0.2034	0.0000	.0000E+00	.0000E+00
298			0.12	0.000	0.059	0.2068	0.0000	.0000E+00	.0000E+00
299			0.00	0.000	0.040	0.2046	0.0000	.0000E+00	.0000E+00
300			0.00	0.000	0.041	0.2023	0.0000	.0000E+00	.0000E+00
301			0.00	0.000	0.037	0.2002	0.0000	.0000E+00	.0000E+00
302			0.00	0.000	0.045	0.1977	0.0000	.0000E+00	.0000E+00
303			0.06	0.000	0.054	0.1980	0.0000	.0000E+00	.0000E+00
304			0.78	0.000	0.068	0.2376	0.0000	.0000E+00	.0000E+00
305			0.00	0.000	0.048	0.2349	0.0000	.0000E+00	.0000E+00
306			0.00	0.000	0.047	0.2323	0.0000	.0000E+00	.0000E+00
307			0.00	0.000	0.033	0.2304	0.0000	.0000E+00	.0000E+00
308			0.00	0.000	0.043	0.2280	0.0000	.0000E+00	.0000E+00
309			0.00	0.000	0.043	0.2256	0.0000	.0000E+00	.0000E+00
310			0.00	0.000	0.055	0.2226	0.0000	.0000E+00	.0000E+00
311			0.00	0.000	0.036	0.2206	0.0000	.0000E+00	.0000E+00
312			0.00	0.000	0.030	0.2189	0.0000	.0000E+00	.0000E+00
313			0.00	0.000	0.029	0.2173	0.0000	.0000E+00	.0000E+00
314			0.00	0.000	0.033	0.2155	0.0000	.0000E+00	.0000E+00
315			0.00	0.000	0.040	0.2133	0.0000	.0000E+00	.0000E+00
316			0.00	0.000	0.046	0.2107	0.0000	.0000E+00	.0000E+00
317			0.00	0.000	0.034	0.2089	0.0000	.0000E+00	.0000E+00
318			0.00	0.000	0.036	0.2068	0.0000	.0000E+00	.0000E+00
319			0.00	0.000	0.044	0.2044	0.0000	.0000E+00	.0000E+00
320			0.00	0.000	0.055	0.2013	0.0000	.0000E+00	.0000E+00
321			0.00	0.000	0.046	0.1987	0.0000	.0000E+00	.0000E+00
322			0.00	0.000	0.040	0.1965	0.0000	.0000E+00	.0000E+00
323			0.00	0.000	0.038	0.1944	0.0000	.0000E+00	.0000E+00
324			0.00	0.000	0.037	0.1924	0.0000	.0000E+00	.0000E+00
325	*		0.00	0.000	0.025	0.1910	0.0000	.0000E+00	.0000E+00
326			0.00	0.000	0.032	0.1892	0.0000	.0000E+00	.0000E+00
327			0.00	0.000	0.027	0.1877	0.0000	.0000E+00	.0000E+00
328			0.03	0.000	0.046	0.1868	0.0000	.0000E+00	.0000E+00
329			0.00	0.000	0.043	0.1844	0.0000	.0000E+00	.0000E+00
330			0.02	0.000	0.047	0.1829	0.0000	.0000E+00	.7812E-03
331			0.66	0.000	0.042	0.2173	0.0000	.0000E+00	.7137E-03
332	*		0.02	0.000	0.020	0.2173	0.0000	.0000E+00	.0000E+00
333			0.00	0.000	0.026	0.2158	0.0000	.0000E+00	.0000E+00
334	*		0.00	0.000	0.025	0.2145	0.0000	.0000E+00	.0000E+00
335			0.00	0.000	0.029	0.2129	0.0000	.0000E+00	.0000E+00
336			0.00	0.000	0.028	0.2113	0.0000	.0000E+00	.0000E+00
337	*		0.00	0.000	0.024	0.2099	0.0000	.0000E+00	.0000E+00
338	*		0.00	0.000	0.021	0.2087	0.0000	.0000E+00	.6382E-03
339	*		0.00	0.000	0.000	0.2087	0.0000	.0000E+00	.0000E+00
340	*		0.00	0.000	0.000	0.2087	0.0000	.0000E+00	.0000E+00
341	*		0.89	0.000	0.017	0.2098	0.0000	.0000E+00	.0000E+00
342	*		0.01	0.000	0.016	0.2109	0.0000	.0000E+00	.0000E+00
343	*		0.02	0.000	0.000	0.2120	0.0000	.0000E+00	.0000E+00
344			0.00	0.000	0.032	0.2131	0.0000	.0000E+00	.0000E+00
345			0.05	0.000	0.000	0.2285	0.0000	.0000E+00	.0000E+00
346	*		0.00	0.000	0.027	0.2296	0.0000	.0000E+00	.0000E+00
347			0.00	0.000	0.027	0.2327	0.0000	.0000E+00	.0000E+00
348	*		0.00	0.000	0.028	0.2338	0.0000	.0000E+00	.0000E+00
349			0.00	0.000	0.012	0.2459	0.0000	.0000E+00	.0000E+00
350	*		0.00	0.000	0.030	0.2470	0.0000	.0000E+00	.0000E+00
351	*	*	0.00	0.000	0.028	0.2470	0.0000	.0000E+00	.0000E+00
352	*	*	0.00	0.000	0.027	0.2470	0.0000	.0000E+00	.0000E+00
353	*	*	0.00	0.000	0.030	0.2470	0.0000	.0000E+00	.0000E+00
354		*	0.00	0.000	0.008	0.2470	0.0000	.0000E+00	.0000E+00
355		*	0.00	0.000	0.000	0.2470	0.0000	.0000E+00	.0000E+00
356		*	0.00	0.000	0.000	0.2470	0.0000	.0000E+00	.0000E+00

357		*	0.00	0.000	0.000	0.2470	0.0000	.0000E+00 .0000E+00
358		*	0.00	0.000	0.000	0.2470	0.0000	.0000E+00 .0000E+00
359		*	0.00	0.000	0.000	0.2470	0.0000	.0000E+00 .0000E+00
360	*	*	0.00	0.000	0.000	0.2470	0.0000	.0000E+00 .0000E+00
361	*	*	0.00	0.000	0.000	0.2470	0.0000	.0000E+00 .0000E+00
362	*	*	0.00	0.000	0.000	0.2470	0.0000	.0000E+00 .0000E+00
363	*	*	0.16	0.000	0.026	0.2470	0.0000	.0000E+00 .0000E+00
364	*	*	0.00	0.000	0.027	0.2470	0.0000	.0000E+00 .0000E+00
365		*	0.00	0.000	0.037	0.2470	0.0000	.0000E+00 .0000E+00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 2009

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.83	1.08	4.28	1.37	3.21	3.01
	1.71	1.84	0.90	3.37	0.73	1.13
RUNOFF	0.009	0.000	0.070	0.000	0.122	0.060
	0.000	0.000	0.000	0.036	0.000	0.000
EVAPOTRANSPIRATION	0.735	1.576	2.144	2.919	2.268	3.979
	2.002	2.072	0.554	1.491	1.147	0.473
PERCOLATION/LEAKAGE THROUGH	0.1537	0.0858	1.0444	0.2622	0.0067	0.0010
LAYER 1	0.0019	0.0037	0.0027	0.0044	0.0015	0.0006

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ANNUAL TOTALS FOR YEAR 2009

	INCHES	CU. FEET	PERCENT
PRECIPITATION	23.46	85159.820	100.00
RUNOFF	0.297	1078.498	1.27
EVAPOTRANSPIRATION	21.360	77535.961	91.05
PERC./LEAKAGE THROUGH LAYER 1	1.568608	5694.047	6.69
CHANGE IN WATER STORAGE	0.235	851.304	1.00
SOIL WATER AT START OF YEAR	5.660	20544.209	
SOIL WATER AT END OF YEAR	5.823	21137.121	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.071	258.392	0.30
ANNUAL WATER BUDGET BALANCE	0.0000	0.011	0.00

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WARNING: TEMPERATURE FOR YEAR 1977 USED WITH PRECIPITATION FOR YEAR 2010

WARNING: SOLAR RADIATION FOR YEAR 1977 USED WITH PRECIPITATION FOR YEAR 2010

LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 1

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DAILY OUTPUT FOR YEAR 2010

DAY	AIR	SOIL	RAIN IN.	RUNOFF IN.	ET IN.	E. ZONE WATER IN./IN.	HEAD #1 IN.	DRAIN #1 IN.	LEAK #1 IN.
1	*	*	0.00	0.000	0.035	0.2470	0.0000	.0000E+00	.0000E+00
2	*	*	0.00	0.000	0.025	0.2470	0.0000	.0000E+00	.0000E+00
3	*	*	0.22	0.000	0.000	0.2470	0.0000	.0000E+00	.0000E+00
4	*	*	0.01	0.000	0.026	0.2470	0.0000	.0000E+00	.0000E+00
5		*	0.61	0.511	0.000	0.2645	0.0000	.0000E+00	.0000E+00
6		*	0.01	0.000	0.007	0.2646	0.0000	.0000E+00	.0000E+00
7		*	0.14	0.020	0.012	0.2707	0.0000	.0000E+00	.0000E+00
8		*	0.00	0.000	0.000	0.2707	0.0000	.0000E+00	.0000E+00
9		*	0.00	0.000	0.000	0.2707	0.0000	.0000E+00	.0000E+00
10	*	*	0.39	0.000	0.031	0.2707	0.0000	.0000E+00	.0000E+00
11	*	*	0.03	0.000	0.024	0.2707	0.0000	.0000E+00	.0000E+00
12	*	*	0.00	0.000	0.020	0.2707	0.0000	.0000E+00	.0000E+00
13	*	*	0.00	0.000	0.026	0.2707	0.0000	.0000E+00	.0000E+00
14	*	*	0.33	0.000	0.023	0.2707	0.0000	.0000E+00	.0000E+00
15	*	*	0.02	0.000	0.017	0.2707	0.0000	.0000E+00	.0000E+00
16	*	*	0.09	0.000	0.016	0.2707	0.0000	.0000E+00	.0000E+00
17	*	*	0.00	0.000	0.013	0.2707	0.0000	.0000E+00	.0000E+00
18	*	*	0.00	0.000	0.019	0.2707	0.0000	.0000E+00	.0000E+00
19	*	*	0.01	0.000	0.000	0.2707	0.0000	.0000E+00	.0000E+00
20	*	*	0.12	0.000	0.000	0.2707	0.0000	.0000E+00	.0000E+00
21	*	*	0.00	0.000	0.017	0.2707	0.0000	.0000E+00	.0000E+00
22	*	*	0.00	0.000	0.021	0.2707	0.0000	.0000E+00	.0000E+00
23	*	*	0.00	0.000	0.024	0.2707	0.0000	.0000E+00	.0000E+00
24		*	0.32	0.408	0.000	0.2833	0.0000	.0000E+00	.0000E+00
25		*	0.00	0.114	0.009	0.2911	0.0000	.0000E+00	.0000E+00
26		*	0.02	0.063	0.030	0.2959	0.0000	.0000E+00	.0000E+00
27		*	0.00	0.000	0.000	0.2959	0.0000	.0000E+00	.0000E+00
28		*	0.03	0.000	0.009	0.2971	0.0000	.0000E+00	.0000E+00
29		*	0.03	0.000	0.009	0.2982	0.0000	.0000E+00	.0000E+00
30		*	0.00	0.000	0.000	0.2982	0.0000	.0000E+00	.0000E+00
31		*	0.00	0.000	0.000	0.2982	0.0000	.0000E+00	.0000E+00
32		*	0.00	0.000	0.000	0.2982	0.0000	.0000E+00	.0000E+00
33			0.00	0.000	0.051	0.2665	0.0000	.0000E+00	.0000E+00
34			0.00	0.000	0.047	0.2594	0.0000	.0000E+00	.1287
35			0.00	0.000	0.042	0.2540	0.0000	.0000E+00	.9386E-01
36	*		0.00	0.000	0.043	0.2487	0.0000	.0000E+00	.6969E-01

37	*		0.00	0.000	0.051	0.2432	0.0000	.0000E+00	.6030E-01
38	*		0.00	0.000	0.000	0.2409	0.0000	.0000E+00	.5710E-01
39	*	*	0.00	0.000	0.000	0.2409	0.0000	.0000E+00	.7063E-01
40	*	*	0.00	0.000	0.000	0.2409	0.0000	.0000E+00	.4526E-01
41		*	0.00	0.000	0.000	0.2409	0.0000	.0000E+00	.3314E-01
42		*	0.00	0.000	0.000	0.2409	0.0000	.0000E+00	.2604E-01
43		*	0.00	0.000	0.000	0.2409	0.0000	.0000E+00	.2138E-01
44		*	0.38	0.119	0.009	0.2549	0.0000	.0000E+00	.1810E-01
45		*	0.00	0.000	0.000	0.2549	0.0000	.0000E+00	.1567E-01
46		*	0.01	0.000	0.006	0.2551	0.0000	.0000E+00	.1380E-01
47		*	0.00	0.000	0.000	0.2551	0.0000	.0000E+00	.1231E-01
48		*	0.00	0.000	0.000	0.2551	0.0000	.0000E+00	.1110E-01
49		*	0.00	0.000	0.000	0.2551	0.0000	.0000E+00	.1010E-01
50			0.00	0.000	0.065	0.2495	0.0000	.0000E+00	.0000E+00
51			0.11	0.000	0.061	0.2501	0.0000	.0000E+00	.0000E+00
52			0.00	0.000	0.081	0.2438	0.0000	.0000E+00	.0000E+00
53			0.00	0.000	0.056	0.2391	0.0000	.0000E+00	.6324E-03
54			0.00	0.000	0.073	0.2337	0.0000	.0000E+00	.9478E-02
55			0.74	0.000	0.065	0.2700	0.0000	.0000E+00	.1394E-01
56			0.00	0.000	0.060	0.2659	0.0000	.0000E+00	.2256E-01
57			0.00	0.000	0.057	0.2589	0.0000	.0000E+00	.2370E-02
58			1.01	0.017	0.057	0.3077	0.0000	.0000E+00	.2482E-01
59			0.05	0.000	0.059	0.2655	0.0000	.0000E+00	.5522
60			0.17	0.000	0.066	0.2706	0.0000	.0000E+00	.1601
61	*		0.01	0.000	0.049	0.2661	0.0000	.0000E+00	.6131E-01
62	*		0.10	0.000	0.049	0.2655	0.0000	.0000E+00	.5243E-01
63	*		0.02	0.000	0.040	0.2638	0.0000	.0000E+00	.4037E-01
64	*		0.00	0.000	0.054	0.2601	0.0000	.0000E+00	.5780E-01
65			0.00	0.000	0.071	0.2553	0.0000	.0000E+00	.3543E-01
66			0.00	0.000	0.065	0.2507	0.0000	.0000E+00	.2997E-01
67			0.00	0.000	0.066	0.2453	0.0000	.0000E+00	.1601E-01
68			0.00	0.000	0.086	0.2383	0.0000	.0000E+00	.1536E-01
69			0.00	0.000	0.067	0.2326	0.0000	.0000E+00	.2724E-01
70			0.00	0.000	0.085	0.2261	0.0000	.0000E+00	.3346E-01
71			2.26	0.338	0.073	0.3174	0.0000	.0000E+00	.2373E-01
72			0.26	0.000	0.065	0.2984	0.0000	.0000E+00	.5282
73			0.00	0.000	0.082	0.2856	0.0000	.0000E+00	.1488
74	*		0.00	0.000	0.057	0.2755	0.0000	.0000E+00	.1184
75	*		0.00	0.000	0.068	0.2650	0.0000	.0000E+00	.1425
76	*		0.00	0.000	0.069	0.2564	0.0000	.0000E+00	.1213
77			0.17	0.000	0.073	0.2577	0.0000	.0000E+00	.9431E-01
78			0.02	0.000	0.070	0.2515	0.0000	.0000E+00	.8383E-01
79			0.02	0.000	0.070	0.2461	0.0000	.0000E+00	.7251E-01
80			0.00	0.000	0.134	0.2364	0.0000	.0000E+00	.6429E-01
81			0.17	0.000	0.077	0.2397	0.0000	.0000E+00	.5314E-01
82			0.00	0.000	0.106	0.2326	0.0000	.0000E+00	.4869E-01
83			0.00	0.000	0.079	0.2272	0.0000	.0000E+00	.4169E-01
84	*		0.00	0.000	0.074	0.2224	0.0000	.0000E+00	.3689E-01
85	*		0.00	0.000	0.062	0.2182	0.0000	.0000E+00	.2637E-01
86			0.00	0.000	0.099	0.2118	0.0000	.0000E+00	.2361E-01
87			0.87	0.000	0.094	0.2541	0.0000	.0000E+00	.2178E-01
88			2.38	0.558	0.104	0.3122	0.0000	.0000E+00	.9048E-02
89			0.00	0.000	0.090	0.2885	0.0000	.0000E+00	.6846
90			0.00	0.000	0.074	0.2741	0.0000	.0000E+00	.2007
91			0.00	0.000	0.076	0.2635	0.0000	.0000E+00	.1685
92			0.20	0.000	0.075	0.2656	0.0000	.0000E+00	.1204
93			0.02	0.000	0.124	0.2558	0.0000	.0000E+00	.9664E-01
94			0.00	0.000	0.093	0.2472	0.0000	.0000E+00	.8296E-01
95			0.05	0.000	0.122	0.2408	0.0000	.0000E+00	.7332E-01
96			0.01	0.000	0.096	0.2342	0.0000	.0000E+00	.6136E-01
97			0.00	0.000	0.148	0.2241	0.0000	.0000E+00	.4403E-01
98			0.00	0.000	0.160	0.2138	0.0000	.0000E+00	.4828E-01
99			0.00	0.000	0.180	0.2030	0.0000	.0000E+00	.4568E-01

100	0.00	0.000	0.160	0.1933	0.0000	.0000E+00	.3315E-01
101	0.00	0.000	0.146	0.1843	0.0000	.0000E+00	.2709E-01
102	0.00	0.000	0.169	0.1736	0.0000	.0000E+00	.1873E-01
103	0.00	0.000	0.079	0.1684	0.0000	.0000E+00	.2572E-01
104	0.00	0.000	0.062	0.1644	0.0000	.0000E+00	.2509E-01
105	0.00	0.000	0.052	0.1610	0.0000	.0000E+00	.2321E-01
106	0.00	0.000	0.046	0.1581	0.0000	.0000E+00	.2115E-01
107	0.00	0.000	0.042	0.1554	0.0000	.0000E+00	.1922E-01
108	0.00	0.000	0.039	0.1529	0.0000	.0000E+00	.1750E-01
109	0.00	0.000	0.037	0.1507	0.0000	.0000E+00	.1800E-01
110	0.30	0.000	0.042	0.1650	0.0000	.0000E+00	.1805E-01
111	0.01	0.000	0.039	0.1634	0.0000	.0000E+00	.1563E-01
112	0.33	0.000	0.039	0.1796	0.0000	.0000E+00	.1376E-01
113	0.00	0.000	0.032	0.1778	0.0000	.0000E+00	.1228E-01
114	0.00	0.000	0.032	0.1760	0.0000	.0000E+00	.1108E-01
115	0.00	0.000	0.032	0.1743	0.0000	.0000E+00	.1008E-01
116	0.00	0.000	0.031	0.1725	0.0000	.0000E+00	.9247E-02
117	0.00	0.000	0.033	0.1707	0.0000	.0000E+00	.8533E-02
118	0.00	0.000	0.033	0.1688	0.0000	.0000E+00	.7918E-02
119	0.00	0.000	0.035	0.1669	0.0000	.0000E+00	.7383E-02
120	0.00	0.000	0.034	0.1651	0.0000	.0000E+00	.6912E-02
121	0.07	0.000	0.045	0.1664	0.0000	.0000E+00	.6496E-02
122	0.21	0.000	0.047	0.1755	0.0000	.0000E+00	.6125E-02
123	0.00	0.000	0.048	0.1728	0.0000	.0000E+00	.5793E-02
124	0.01	0.000	0.053	0.1704	0.0000	.0000E+00	.5494E-02
125	0.38	0.000	0.049	0.1888	0.0000	.0000E+00	.5223E-02
126	0.08	0.000	0.168	0.1839	0.0000	.0000E+00	.4976E-02
127	0.69	0.000	0.193	0.2115	0.0000	.0000E+00	.4751E-02
128	0.02	0.000	0.228	0.1999	0.0000	.0000E+00	.4544E-02
129	0.00	0.000	0.251	0.1860	0.0000	.0000E+00	.4354E-02
130	0.00	0.000	0.255	0.1718	0.0000	.0000E+00	.4179E-02
131	0.00	0.000	0.295	0.1554	0.0000	.0000E+00	.4016E-02
132	0.00	0.000	0.241	0.1421	0.0000	.0000E+00	.1307E-02
133	0.00	0.000	0.162	0.1330	0.0000	.0000E+00	.9180E-03
134	0.00	0.000	0.150	0.1247	0.0000	.0000E+00	.0000E+00
135	0.00	0.000	0.122	0.1160	0.0000	.0000E+00	.2668E-02
136	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.5141E-02
137	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.4902E-02
138	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.4683E-02
139	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.4481E-02
140	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.4296E-02
141	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.4125E-02
142	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.3967E-02
143	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.5364E-04
144	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
145	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
146	0.56	0.000	0.062	0.1437	0.0000	.0000E+00	.0000E+00
147	0.00	0.000	0.045	0.1412	0.0000	.0000E+00	.0000E+00
148	0.00	0.000	0.084	0.1365	0.0000	.0000E+00	.0000E+00
149	0.00	0.000	0.092	0.1314	0.0000	.0000E+00	.0000E+00
150	0.00	0.000	0.122	0.1246	0.0000	.0000E+00	.0000E+00
151	0.18	0.000	0.129	0.1274	0.0000	.0000E+00	.0000E+00
152	0.00	0.000	0.111	0.1212	0.0000	.0000E+00	.0000E+00
153	0.00	0.000	0.076	0.1170	0.0000	.0000E+00	.0000E+00
154	0.00	0.000	0.015	0.1162	0.0000	.0000E+00	.0000E+00
155	0.00	0.000	0.003	0.1160	0.0000	.0000E+00	.0000E+00
156	0.00	0.000	0.001	0.1160	0.0000	.0000E+00	.0000E+00
157	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
158	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
159	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
160	0.10	0.000	0.023	0.1203	0.0000	.0000E+00	.0000E+00
161	0.00	0.000	0.017	0.1193	0.0000	.0000E+00	.0000E+00
162	0.00	0.000	0.048	0.1167	0.0000	.0000E+00	.0000E+00

163	0.00	0.000	0.009	0.1162	0.0000	.0000E+00	.0000E+00
164	0.00	0.000	0.002	0.1160	0.0000	.0000E+00	.0000E+00
165	0.73	0.000	0.090	0.1516	0.0000	.0000E+00	.0000E+00
166	0.00	0.000	0.179	0.1416	0.0000	.0000E+00	.0000E+00
167	0.00	0.000	0.233	0.1287	0.0000	.0000E+00	.0000E+00
168	0.00	0.000	0.195	0.1179	0.0000	.0000E+00	.0000E+00
169	0.00	0.000	0.025	0.1165	0.0000	.0000E+00	.0000E+00
170	0.00	0.000	0.006	0.1161	0.0000	.0000E+00	.0000E+00
171	0.00	0.000	0.002	0.1160	0.0000	.0000E+00	.0000E+00
172	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
173	1.24	0.016	0.102	0.1783	0.0000	.0000E+00	.0000E+00
174	0.08	0.000	0.193	0.1721	0.0000	.0000E+00	.0000E+00
175	0.40	0.000	0.176	0.1845	0.0000	.0000E+00	.0000E+00
176	0.85	0.004	0.231	0.2187	0.0000	.0000E+00	.0000E+00
177	0.01	0.000	0.245	0.2057	0.0000	.0000E+00	.0000E+00
178	1.28	0.062	0.167	0.2640	0.0000	.0000E+00	.9466E-03
179	0.68	0.001	0.229	0.2890	0.0000	.0000E+00	.0000E+00
180	0.04	0.000	0.323	0.2695	0.0000	.0000E+00	.1835E-02
181	0.00	0.000	0.288	0.2407	0.0000	.0000E+00	.0000E+00
182	0.06	0.000	0.241	0.2271	0.0000	.0000E+00	.6005E-02
183	0.00	0.000	0.266	0.2093	0.0000	.0000E+00	.3510E-01
184	0.00	0.000	0.305	0.1903	0.0000	.0000E+00	.4808E-01
185	0.00	0.000	0.285	0.1724	0.0000	.0000E+00	.4971E-01
186	0.00	0.000	0.300	0.1528	0.0000	.0000E+00	.3040E-01
187	0.00	0.000	0.271	0.1357	0.0000	.0000E+00	.6420E-01
188	0.00	0.000	0.149	0.1274	0.0000	.0000E+00	.5953E-01
189	0.00	0.000	0.137	0.1179	0.0000	.0000E+00	.3981E-01
190	0.07	0.000	0.073	0.1177	0.0000	.0000E+00	.3886E-01
191	0.00	0.000	0.017	0.1167	0.0000	.0000E+00	.2951E-01
192	1.31	0.025	0.120	0.1815	0.0000	.0000E+00	.2371E-01
193	0.23	0.000	0.137	0.1867	0.0000	.0000E+00	.1977E-01
194	0.11	0.000	0.193	0.1821	0.0000	.0000E+00	.1692E-01
195	0.00	0.000	0.247	0.1683	0.0000	.0000E+00	.1477E-01
196	0.00	0.000	0.237	0.1551	0.0000	.0000E+00	.1308E-01
197	0.00	0.000	0.274	0.1399	0.0000	.0000E+00	.1173E-01
198	0.00	0.000	0.259	0.1256	0.0000	.0000E+00	.1063E-01
199	0.00	0.000	0.151	0.1172	0.0000	.0000E+00	.9705E-02
200	0.00	0.000	0.020	0.1160	0.0000	.0000E+00	.7723E-02
201	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.8446E-02
202	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.7842E-02
203	1.49	0.054	0.141	0.1879	0.0000	.0000E+00	.7316E-02
204	0.00	0.000	0.211	0.1762	0.0000	.0000E+00	.6854E-02
205	0.00	0.000	0.220	0.1640	0.0000	.0000E+00	.6444E-02
206	0.31	0.000	0.250	0.1673	0.0000	.0000E+00	.6079E-02
207	0.76	0.000	0.201	0.1984	0.0000	.0000E+00	.5751E-02
208	0.00	0.000	0.268	0.1835	0.0000	.0000E+00	.5456E-02
209	0.00	0.000	0.260	0.1691	0.0000	.0000E+00	.5188E-02
210	0.00	0.000	0.238	0.1558	0.0000	.0000E+00	.4945E-02
211	0.00	0.000	0.265	0.1411	0.0000	.0000E+00	.4722E-02
212	0.00	0.000	0.270	0.1261	0.0000	.0000E+00	.4518E-02
213	0.00	0.000	0.151	0.1177	0.0000	.0000E+00	.4330E-02
214	0.00	0.000	0.031	0.1160	0.0000	.0000E+00	.4156E-02
215	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.3995E-02
216	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.7832E-03
217	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
218	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
219	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
220	0.63	0.000	0.104	0.1452	0.0000	.0000E+00	.0000E+00
221	1.20	0.032	0.122	0.2033	0.0000	.0000E+00	.0000E+00
222	0.77	0.002	0.199	0.2349	0.0000	.0000E+00	.0000E+00
223	0.60	0.000	0.235	0.2552	0.0000	.0000E+00	.0000E+00
224	0.02	0.000	0.232	0.2434	0.0000	.0000E+00	.0000E+00
225	0.00	0.000	0.266	0.2286	0.0000	.0000E+00	.0000E+00

226	0.00	0.000	0.263	0.2140	0.0000	.0000E+00	.0000E+00
227	0.00	0.000	0.271	0.1990	0.0000	.0000E+00	.0000E+00
228	0.00	0.000	0.257	0.1847	0.0000	.0000E+00	.0000E+00
229	0.00	0.000	0.182	0.1746	0.0000	.0000E+00	.0000E+00
230	0.00	0.000	0.206	0.1631	0.0000	.0000E+00	.0000E+00
231	0.00	0.000	0.254	0.1490	0.0000	.0000E+00	.0000E+00
232	0.00	0.000	0.224	0.1366	0.0000	.0000E+00	.0000E+00
233	0.00	0.000	0.186	0.1262	0.0000	.0000E+00	.0000E+00
234	0.00	0.000	0.089	0.1213	0.0000	.0000E+00	.0000E+00
235	0.00	0.000	0.069	0.1174	0.0000	.0000E+00	.0000E+00
236	1.58	0.073	0.163	0.1921	0.0000	.0000E+00	.0000E+00
237	0.00	0.000	0.202	0.1809	0.0000	.0000E+00	.1926E-02
238	0.00	0.000	0.252	0.1669	0.0000	.0000E+00	.9498E-03
239	0.00	0.000	0.213	0.1550	0.0000	.0000E+00	.0000E+00
240	0.00	0.000	0.196	0.1441	0.0000	.0000E+00	.0000E+00
241	0.47	0.000	0.122	0.1635	0.0000	.0000E+00	.0000E+00
242	0.07	0.000	0.110	0.1612	0.0000	.0000E+00	.0000E+00
243	0.00	0.000	0.190	0.1507	0.0000	.0000E+00	.0000E+00
244	0.00	0.000	0.220	0.1384	0.0000	.0000E+00	.0000E+00
245	0.00	0.000	0.232	0.1255	0.0000	.0000E+00	.0000E+00
246	0.00	0.000	0.151	0.1171	0.0000	.0000E+00	.0000E+00
247	0.07	0.000	0.067	0.1173	0.0000	.0000E+00	.0000E+00
248	0.01	0.000	0.019	0.1168	0.0000	.0000E+00	.0000E+00
249	0.58	0.000	0.091	0.1440	0.0000	.0000E+00	.0000E+00
250	0.00	0.000	0.089	0.1390	0.0000	.0000E+00	.0000E+00
251	0.00	0.000	0.113	0.1328	0.0000	.0000E+00	.1874E-02
252	0.00	0.000	0.122	0.1260	0.0000	.0000E+00	.0000E+00
253	0.00	0.000	0.103	0.1203	0.0000	.0000E+00	.0000E+00
254	0.00	0.000	0.070	0.1164	0.0000	.0000E+00	.0000E+00
255	0.00	0.000	0.006	0.1161	0.0000	.0000E+00	.0000E+00
256	0.63	0.000	0.091	0.1461	0.0000	.0000E+00	.0000E+00
257	0.14	0.000	0.093	0.1487	0.0000	.0000E+00	.0000E+00
258	0.66	0.000	0.126	0.1784	0.0000	.0000E+00	.0000E+00
259	0.15	0.000	0.118	0.1801	0.0000	.0000E+00	.0000E+00
260	0.00	0.000	0.144	0.1721	0.0000	.0000E+00	.0000E+00
261	0.00	0.000	0.125	0.1652	0.0000	.0000E+00	.0000E+00
262	0.90	0.000	0.116	0.2087	0.0000	.0000E+00	.8514E-03
263	0.00	0.000	0.086	0.2039	0.0000	.0000E+00	.0000E+00
264	0.00	0.000	0.075	0.1997	0.0000	.0000E+00	.0000E+00
265	0.00	0.000	0.090	0.1947	0.0000	.0000E+00	.0000E+00
266	0.00	0.000	0.075	0.1906	0.0000	.0000E+00	.0000E+00
267	0.00	0.000	0.103	0.1849	0.0000	.0000E+00	.0000E+00
268	0.32	0.000	0.088	0.1977	0.0000	.0000E+00	.0000E+00
269	0.18	0.000	0.117	0.2012	0.0000	.0000E+00	.0000E+00
270	0.00	0.000	0.066	0.1976	0.0000	.0000E+00	.0000E+00
271	0.00	0.000	0.074	0.1935	0.0000	.0000E+00	.0000E+00
272	0.00	0.000	0.066	0.1899	0.0000	.0000E+00	.0000E+00
273	0.00	0.000	0.063	0.1864	0.0000	.0000E+00	.0000E+00
274	0.00	0.000	0.045	0.1839	0.0000	.0000E+00	.0000E+00
275	0.04	0.000	0.056	0.1830	0.0000	.0000E+00	.0000E+00
276	0.00	0.000	0.031	0.1813	0.0000	.0000E+00	.0000E+00
277	0.00	0.000	0.048	0.1786	0.0000	.0000E+00	.0000E+00
278	0.13	0.000	0.066	0.1822	0.0000	.0000E+00	.0000E+00
279	0.68	0.000	0.063	0.2165	0.0000	.0000E+00	.0000E+00
280	0.00	0.000	0.028	0.2149	0.0000	.0000E+00	.0000E+00
281	1.65	0.187	0.065	0.2926	0.0000	.0000E+00	.0000E+00
282	0.00	0.000	0.040	0.2847	0.0000	.0000E+00	.0000E+00
283	0.00	0.000	0.049	0.2761	0.0000	.0000E+00	.0000E+00
284	0.04	0.000	0.062	0.2699	0.0000	.0000E+00	.0000E+00
285	0.01	0.000	0.041	0.2631	0.0000	.0000E+00	.8854E-03
286	0.00	0.000	0.047	0.2564	0.0000	.0000E+00	.4403E-01
287	0.00	0.000	0.053	0.2507	0.0000	.0000E+00	.7005E-01
288	0.00	0.000	0.060	0.2447	0.0000	.0000E+00	.5502E-01

289		0.02	0.000	0.032	0.2415	0.0000	.0000E+00	.5366E-01
290		0.00	0.000	0.045	0.2368	0.0000	.0000E+00	.5258E-01
291		0.00	0.000	0.041	0.2328	0.0000	.0000E+00	.4923E-01
292		0.00	0.000	0.020	0.2302	0.0000	.0000E+00	.4388E-01
293		0.00	0.000	0.018	0.2280	0.0000	.0000E+00	.3846E-01
294		0.00	0.000	0.024	0.2255	0.0000	.0000E+00	.3442E-01
295		0.00	0.000	0.032	0.2229	0.0000	.0000E+00	.3272E-01
296		0.00	0.000	0.031	0.2202	0.0000	.0000E+00	.2645E-01
297		0.00	0.000	0.026	0.2178	0.0000	.0000E+00	.2438E-01
298		0.95	0.001	0.055	0.2666	0.0000	.0000E+00	.2321E-01
299		0.01	0.000	0.023	0.2649	0.0000	.0000E+00	.1939E-01
300		0.00	0.000	0.024	0.2635	0.0000	.0000E+00	.3044E-01
301		0.00	0.000	0.013	0.2627	0.0000	.0000E+00	.2608E-01
302		0.00	0.000	0.035	0.2603	0.0000	.0000E+00	.1262E-01
303		0.00	0.000	0.022	0.2567	0.0000	.0000E+00	.0000E+00
304		0.00	0.000	0.032	0.2521	0.0000	.0000E+00	.0000E+00
305		0.23	0.000	0.050	0.2590	0.0000	.0000E+00	.6435E-02
306		0.21	0.000	0.054	0.2652	0.0000	.0000E+00	.3040E-01
307		0.10	0.000	0.061	0.2654	0.0000	.0000E+00	.4339E-01
308		0.06	0.000	0.053	0.2640	0.0000	.0000E+00	.4130E-01
309		0.02	0.000	0.051	0.2606	0.0000	.0000E+00	.3618E-01
310		0.00	0.000	0.044	0.2564	0.0000	.0000E+00	.3573E-01
311		0.14	0.000	0.064	0.2595	0.0000	.0000E+00	.3907E-01
312		0.06	0.000	0.063	0.2587	0.0000	.0000E+00	.3897E-01
313		0.00	0.000	0.053	0.2558	0.0000	.0000E+00	.3822E-01
314		0.18	0.000	0.062	0.2617	0.0000	.0000E+00	.2041E-01
315		0.00	0.000	0.053	0.2574	0.0000	.0000E+00	.9070E-02
316		0.00	0.000	0.056	0.2534	0.0000	.0000E+00	.2008E-01
317		0.00	0.000	0.053	0.2492	0.0000	.0000E+00	.1156E-01
318		0.00	0.000	0.041	0.2449	0.0000	.0000E+00	.5409E-02
319		0.00	0.000	0.031	0.2423	0.0000	.0000E+00	.2969E-01
320		1.20	0.038	0.043	0.3042	0.0000	.0000E+00	.3337E-01
321	*	0.02	0.000	0.036	0.2822	0.0000	.0000E+00	.9879E-01
322		0.00	0.000	0.028	0.2755	0.0000	.0000E+00	.1550
323		0.00	0.000	0.031	0.2691	0.0000	.0000E+00	.9060E-01
324		0.64	0.000	0.049	0.2983	0.0000	.0000E+00	.1020
325		0.33	0.000	0.057	0.2957	0.0000	.0000E+00	.2019
326		0.00	0.000	0.036	0.2868	0.0000	.0000E+00	.1494
327		0.00	0.000	0.032	0.2798	0.0000	.0000E+00	.1032
328		0.04	0.000	0.041	0.2726	0.0000	.0000E+00	.1319
329		0.00	0.000	0.039	0.2650	0.0000	.0000E+00	.1194
330		0.00	0.000	0.042	0.2586	0.0000	.0000E+00	.1058
331		0.05	0.000	0.050	0.2554	0.0000	.0000E+00	.8316E-01
332		0.32	0.000	0.041	0.2679	0.0000	.0000E+00	.7005E-01
333	*	0.00	0.000	0.024	0.2640	0.0000	.0000E+00	.6347E-01
334		0.00	0.000	0.033	0.2601	0.0000	.0000E+00	.5599E-01
335		0.96	0.016	0.041	0.3068	0.0000	.0000E+00	.3315E-01
336		0.08	0.000	0.044	0.2801	0.0000	.0000E+00	.3230
337		0.00	0.000	0.030	0.2770	0.0000	.0000E+00	.2040
338	*	0.01	0.000	0.032	0.2713	0.0000	.0000E+00	.5634E-01
339		0.14	0.000	0.045	0.2727	0.0000	.0000E+00	.7705E-01
340	*	0.86	0.000	0.029	0.2710	0.0000	.0000E+00	.7381E-01
341		0.00	0.000	0.030	0.2690	0.0000	.0000E+00	.5764E-01
342	*	0.02	0.000	0.025	0.2664	0.0000	.0000E+00	.5859E-01
343	*	0.40	0.000	0.022	0.2653	0.0000	.0000E+00	.7147E-01
344	*	0.00	0.000	0.021	0.2648	0.0000	.0000E+00	.5885E-01
345	*	0.00	0.000	0.027	0.2643	0.0000	.0000E+00	.4362E-01
346		0.00	0.000	0.020	0.2694	0.0000	.0000E+00	.3898E-01
347	*	0.00	0.000	0.028	0.2685	0.0000	.0000E+00	.3305E-01
348		0.70	0.163	0.000	0.2960	0.0000	.0000E+00	.7631
349	*	0.01	0.000	0.033	0.2837	0.0000	.0000E+00	.7655E-01
350	*	0.00	0.000	0.000	0.2773	0.0000	.0000E+00	.1786
351	*	0.03	0.000	0.027	0.2736	0.0000	.0000E+00	.1039

352	*		0.03	0.000	0.028	0.2691	0.0000	.0000E+00	.8230E-01
353	*		0.00	0.000	0.000	0.2650	0.0000	.0000E+00	.8499E-01
354	*		0.00	0.000	0.000	0.2613	0.0000	.0000E+00	.7937E-01
355	*	*	0.00	0.000	0.000	0.2613	0.0000	.0000E+00	.9463E-01
356		*	0.02	0.000	0.010	0.2619	0.0000	.0000E+00	.5416E-01
357		*	0.00	0.000	0.000	0.2619	0.0000	.0000E+00	.3777E-01
358		*	0.00	0.000	0.000	0.2619	0.0000	.0000E+00	.2887E-01
359		*	0.00	0.000	0.000	0.2619	0.0000	.0000E+00	.2329E-01
360		*	0.00	0.000	0.000	0.2619	0.0000	.0000E+00	.1947E-01
361		*	0.00	0.000	0.000	0.2619	0.0000	.0000E+00	.1670E-01
362		*	0.00	0.000	0.000	0.2619	0.0000	.0000E+00	.1459E-01
363		*	0.00	0.000	0.000	0.2619	0.0000	.0000E+00	.1295E-01
364	*	*	0.00	0.000	0.000	0.2619	0.0000	.0000E+00	.1162E-01
365	*	*	0.00	0.000	0.000	0.2619	0.0000	.0000E+00	.1054E-01

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MONTHLY TOTALS (IN INCHES) FOR YEAR 2010

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	2.38	2.30	6.45	0.92	2.20	5.41
	4.34	5.34	3.64	3.53	3.60	3.26
RUNOFF	1.116	0.136	0.896	0.000	0.000	0.083
	0.079	0.107	0.000	0.188	0.038	0.180
EVAPOTRANSPIRATION	0.413	0.882	2.317	2.286	2.842	2.988
	6.005	4.791	2.996	1.226	1.370	0.492
PERCOLATION/LEAKAGE THROUGH	0.0000	1.3132	3.0738	1.0909	0.0925	0.0028
LAYER 1	0.6028	0.0161	0.0027	0.6375	1.9699	2.8230

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ANNUAL TOTALS FOR YEAR 2010

	INCHES	CU. FEET	PERCENT
PRECIPITATION	43.37	157433.109	100.00
RUNOFF	2.822	10245.292	6.51
EVAPOTRANSPIRATION	28.609	103850.648	65.96
PERC./LEAKAGE THROUGH LAYER 1	11.625140	42199.258	26.80
CHANGE IN WATER STORAGE	0.313	1137.889	0.72
SOIL WATER AT START OF YEAR	5.823	21137.121	
SOIL WATER AT END OF YEAR	6.208	22533.402	

SNOW WATER AT START OF YEAR	0.071	258.392	0.16
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.024	0.00

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WARNING: TEMPERATURE FOR YEAR 1978 USED WITH PRECIPITATION FOR YEAR 2011

WARNING: SOLAR RADIATION FOR YEAR 1978 USED WITH PRECIPITATION FOR YEAR 2011

LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 1

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DAILY OUTPUT FOR YEAR 2011

DAY	AIR	SOIL	RAIN IN.	RUNOFF IN.	ET IN.	E. ZONE WATER IN./IN.	HEAD #1 IN.	DRAIN #1 IN.	LEAK #1 IN.
1		*	0.04	0.000	0.012	0.2635	0.0000	.0000E+00	.9628E-02
2		*	0.00	0.000	0.000	0.2635	0.0000	.0000E+00	.8859E-02
3		*	0.00	0.000	0.000	0.2635	0.0000	.0000E+00	.8200E-02
4	*	*	0.00	0.000	0.000	0.2635	0.0000	.0000E+00	.7628E-02
5	*	*	0.00	0.000	0.000	0.2635	0.0000	.0000E+00	.7129E-02
6	*	*	0.00	0.000	0.000	0.2635	0.0000	.0000E+00	.6688E-02
7		*	0.00	0.000	0.000	0.2635	0.0000	.0000E+00	.6297E-02
8		*	0.04	0.000	0.011	0.2651	0.0000	.0000E+00	.5947E-02
9		*	0.00	0.000	0.000	0.2651	0.0000	.0000E+00	.5632E-02
10	*	*	0.00	0.000	0.000	0.2651	0.0000	.0000E+00	.5348E-02
11		*	0.00	0.000	0.000	0.2651	0.0000	.0000E+00	.5090E-02
12	*	*	0.00	0.000	0.000	0.2651	0.0000	.0000E+00	.4855E-02
13	*	*	0.11	0.000	0.023	0.2651	0.0000	.0000E+00	.4640E-02
14	*	*	0.02	0.000	0.031	0.2651	0.0000	.0000E+00	.4442E-02
15	*	*	0.01	0.000	0.026	0.2651	0.0000	.0000E+00	.4260E-02
16	*	*	0.05	0.000	0.017	0.2651	0.0000	.0000E+00	.4092E-02
17	*	*	0.84	0.000	0.019	0.2651	0.0000	.0000E+00	.3198E-02
18	*	*	0.16	0.000	0.019	0.2651	0.0000	.0000E+00	.4857E-16
19	*	*	0.00	0.000	0.016	0.2651	0.0000	.0000E+00	.0000E+00
20	*	*	0.00	0.000	0.014	0.2651	0.0000	.0000E+00	.0000E+00
21	*	*	0.01	0.000	0.017	0.2651	0.0000	.0000E+00	.0000E+00
22	*	*	0.00	0.000	0.021	0.2651	0.0000	.0000E+00	.0000E+00
23		*	0.00	0.000	0.000	0.2651	0.0000	.0000E+00	.0000E+00
24	*	*	0.00	0.000	0.031	0.2651	0.0000	.0000E+00	.0000E+00
25		*	0.23	0.083	0.000	0.2768	0.0000	.0000E+00	.0000E+00
26		*	0.20	0.385	0.000	0.2918	0.0000	.0000E+00	.0000E+00
27		*	0.00	0.240	0.010	0.3028	0.0000	.0000E+00	.0000E+00
28		*	0.00	0.000	0.000	0.3028	0.0000	.0000E+00	.0000E+00
29		*	0.00	0.000	0.000	0.3028	0.0000	.0000E+00	.0000E+00
30		*	0.00	0.000	0.000	0.3028	0.0000	.0000E+00	.0000E+00
31		*	0.02	0.000	0.008	0.3035	0.0000	.0000E+00	.0000E+00

32		*	0.01	0.000	0.006	0.3037	0.0000	.0000E+00 .0000E+00
33		*	0.00	0.000	0.000	0.3037	0.0000	.0000E+00 .0000E+00
34			0.00	0.000	0.057	0.2702	0.0000	.0000E+00 .1537E-01
35			0.00	0.000	0.041	0.2594	0.0000	.0000E+00 .1635
36	*		0.08	0.000	0.038	0.2555	0.0000	.0000E+00 .1393
37	*		0.00	0.000	0.050	0.2505	0.0000	.0000E+00 .1027
38	*		0.00	0.000	0.047	0.2449	0.0000	.0000E+00 .7582E-01
39	*	*	0.00	0.000	0.000	0.2449	0.0000	.0000E+00 .8613E-01
40	*	*	0.00	0.000	0.000	0.2449	0.0000	.0000E+00 .5125E-01
41	*	*	0.00	0.000	0.000	0.2449	0.0000	.0000E+00 .3630E-01
42	*	*	0.00	0.000	0.000	0.2449	0.0000	.0000E+00 .2799E-01
43	*	*	0.00	0.000	0.000	0.2449	0.0000	.0000E+00 .2270E-01
44	*	*	0.24	0.000	0.021	0.2449	0.0000	.0000E+00 .1905E-01
45	*	*	0.78	0.000	0.022	0.2449	0.0000	.0000E+00 .1639E-01
46	*	*	0.01	0.000	0.022	0.2449	0.0000	.0000E+00 .1435E-01
47	*	*	0.00	0.000	0.020	0.2449	0.0000	.0000E+00 .1276E-01
48	*	*	0.00	0.000	0.031	0.2449	0.0000	.0000E+00 .1147E-01
49		*	0.00	0.055	0.000	0.2569	0.0000	.0000E+00 .1041E-01
50		*	0.00	0.126	0.000	0.2703	0.0000	.0000E+00 .9519E-02
51		*	0.00	0.082	0.041	0.2788	0.0000	.0000E+00 .8766E-02
52		*	0.01	0.000	0.006	0.2790	0.0000	.0000E+00 .8120E-02
53		*	0.00	0.000	0.000	0.2790	0.0000	.0000E+00 .7558E-02
54		*	0.08	0.002	0.008	0.2829	0.0000	.0000E+00 .7067E-02
55		*	0.02	0.000	0.007	0.2836	0.0000	.0000E+00 .6633E-02
56		*	0.00	0.000	0.000	0.2836	0.0000	.0000E+00 .6248E-02
57		*	0.00	0.000	0.000	0.2836	0.0000	.0000E+00 .5903E-02
58			0.00	0.000	0.074	0.2758	0.0000	.0000E+00 .1933E-02
59			0.22	0.000	0.066	0.2722	0.0000	.0000E+00 .0000E+00
60	*		0.16	0.000	0.043	0.2682	0.0000	.0000E+00 .1732E-01
61	*		0.00	0.000	0.053	0.2669	0.0000	.0000E+00 .6114E-01
62			0.34	0.000	0.007	0.2838	0.0000	.0000E+00 .4503E-01
63			0.02	0.000	0.060	0.2796	0.0000	.0000E+00 .5838E-01
64			0.00	0.000	0.080	0.2745	0.0000	.0000E+00 .6463E-01
65	*		0.00	0.000	0.053	0.2670	0.0000	.0000E+00 .3211E-02
66			0.02	0.000	0.052	0.2603	0.0000	.0000E+00 .4364E-01
67			1.80	0.227	0.063	0.3052	0.0000	.0000E+00 .5613
68			0.50	0.000	0.100	0.2954	0.0000	.0000E+00 .5880
69			0.00	0.000	0.154	0.2798	0.0000	.0000E+00 .2075
70			0.00	0.000	0.156	0.2572	0.0000	.0000E+00 .2354
71			0.06	0.000	0.091	0.2518	0.0000	.0000E+00 .1213
72			0.01	0.000	0.074	0.2443	0.0000	.0000E+00 .8388E-01
73			0.75	0.000	0.079	0.2785	0.0000	.0000E+00 .8204E-01
74			0.00	0.000	0.120	0.2697	0.0000	.0000E+00 .7312E-01
75			0.00	0.000	0.133	0.2605	0.0000	.0000E+00 .4497E-01
76			0.00	0.000	0.189	0.2481	0.0000	.0000E+00 .4933E-01
77			0.08	0.000	0.078	0.2458	0.0000	.0000E+00 .3194E-01
78			0.00	0.000	0.121	0.2359	0.0000	.0000E+00 .3383E-01
79			0.00	0.000	0.086	0.2284	0.0000	.0000E+00 .4999E-01
80			0.28	0.000	0.103	0.2362	0.0000	.0000E+00 .5628E-01
81			0.00	0.000	0.090	0.2300	0.0000	.0000E+00 .5280E-01
82			0.00	0.000	0.083	0.2243	0.0000	.0000E+00 .4175E-01
83			0.50	0.000	0.058	0.2481	0.0000	.0000E+00 .3669E-01
84			1.90	0.300	0.059	0.3080	0.0000	.0000E+00 .2499E-01
85			0.35	0.000	0.067	0.3051	0.0000	.0000E+00 .4423
86			0.05	0.000	0.064	0.2940	0.0000	.0000E+00 .1944
87			0.00	0.000	0.115	0.2762	0.0000	.0000E+00 .2395
88			0.00	0.000	0.082	0.2648	0.0000	.0000E+00 .1886
89			0.01	0.000	0.108	0.2541	0.0000	.0000E+00 .1252
90			0.00	0.000	0.104	0.2443	0.0000	.0000E+00 .1051
91			0.00	0.000	0.119	0.2344	0.0000	.0000E+00 .8359E-01
92			0.00	0.000	0.098	0.2263	0.0000	.0000E+00 .7231E-01
93	*		0.07	0.000	0.073	0.2241	0.0000	.0000E+00 .6165E-01
94			0.00	0.000	0.133	0.2149	0.0000	.0000E+00 .5274E-01

95	0.03	0.000	0.089	0.2104	0.0000	.0000E+00	.4691E-01
96	0.00	0.000	0.104	0.2033	0.0000	.0000E+00	.3699E-01
97	0.31	0.000	0.094	0.2140	0.0000	.0000E+00	.3386E-01
98	0.00	0.000	0.132	0.2057	0.0000	.0000E+00	.3205E-01
99	0.00	0.000	0.108	0.1986	0.0000	.0000E+00	.2574E-01
100	0.00	0.000	0.150	0.1892	0.0000	.0000E+00	.2535E-01
101	0.39	0.000	0.081	0.2056	0.0000	.0000E+00	.2820E-01
102	0.00	0.000	0.099	0.1995	0.0000	.0000E+00	.2527E-01
103	0.00	0.000	0.123	0.1922	0.0000	.0000E+00	.2261E-01
104	0.00	0.000	0.129	0.1845	0.0000	.0000E+00	.2070E-01
105	0.00	0.000	0.142	0.1765	0.0000	.0000E+00	.2389E-01
106	0.29	0.000	0.136	0.1851	0.0000	.0000E+00	.2147E-01
107	0.33	0.000	0.103	0.1977	0.0000	.0000E+00	.1817E-01
108	0.98	0.008	0.100	0.2461	0.0000	.0000E+00	.1572E-01
109	0.14	0.000	0.095	0.2486	0.0000	.0000E+00	.1384E-01
110	0.14	0.000	0.164	0.2473	0.0000	.0000E+00	.1234E-01
111	0.00	0.000	0.163	0.2382	0.0000	.0000E+00	.1113E-01
112	0.00	0.000	0.195	0.2274	0.0000	.0000E+00	.1012E-01
113	0.21	0.000	0.146	0.2310	0.0000	.0000E+00	.9280E-02
114	0.08	0.000	0.174	0.2258	0.0000	.0000E+00	.8562E-02
115	0.08	0.000	0.118	0.2236	0.0000	.0000E+00	.7194E-02
116	0.02	0.000	0.139	0.2170	0.0000	.0000E+00	.7504E-02
117	0.00	0.000	0.187	0.2066	0.0000	.0000E+00	.7019E-02
118	0.00	0.000	0.164	0.1975	0.0000	.0000E+00	.6591E-02
119	0.00	0.000	0.232	0.1846	0.0000	.0000E+00	.6210E-02
120	0.01	0.000	0.112	0.1789	0.0000	.0000E+00	.5869E-02
121	0.13	0.000	0.197	0.1752	0.0000	.0000E+00	.5563E-02
122	0.00	0.000	0.081	0.1707	0.0000	.0000E+00	.5285E-02
123	0.00	0.000	0.064	0.1671	0.0000	.0000E+00	.5033E-02
124	0.09	0.000	0.059	0.1689	0.0000	.0000E+00	.4803E-02
125	0.42	0.000	0.053	0.1893	0.0000	.0000E+00	.4592E-02
126	0.00	0.000	0.175	0.1795	0.0000	.0000E+00	.4398E-02
127	0.06	0.000	0.050	0.1800	0.0000	.0000E+00	.4219E-02
128	0.59	0.000	0.050	0.2101	0.0000	.0000E+00	.4054E-02
129	0.01	0.000	0.277	0.1952	0.0000	.0000E+00	.2253E-02
130	0.00	0.000	0.220	0.1830	0.0000	.0000E+00	.0000E+00
131	0.00	0.000	0.159	0.1741	0.0000	.0000E+00	.0000E+00
132	0.65	0.000	0.093	0.2051	0.0000	.0000E+00	.0000E+00
133	0.54	0.000	0.202	0.2238	0.0000	.0000E+00	.0000E+00
134	0.31	0.000	0.267	0.2262	0.0000	.0000E+00	.0000E+00
135	0.00	0.000	0.243	0.2127	0.0000	.0000E+00	.0000E+00
136	0.00	0.000	0.252	0.1987	0.0000	.0000E+00	.0000E+00
137	0.00	0.000	0.248	0.1849	0.0000	.0000E+00	.0000E+00
138	0.00	0.000	0.210	0.1733	0.0000	.0000E+00	.5024E-03
139	0.00	0.000	0.160	0.1643	0.0000	.0000E+00	.5502E-03
140	0.00	0.000	0.111	0.1582	0.0000	.0000E+00	.0000E+00
141	0.04	0.000	0.099	0.1549	0.0000	.0000E+00	.0000E+00
142	0.00	0.000	0.090	0.1499	0.0000	.0000E+00	.0000E+00
143	0.44	0.000	0.085	0.1696	0.0000	.0000E+00	.0000E+00
144	0.10	0.000	0.211	0.1634	0.0000	.0000E+00	.0000E+00
145	0.00	0.000	0.116	0.1570	0.0000	.0000E+00	.0000E+00
146	0.07	0.000	0.097	0.1555	0.0000	.0000E+00	.0000E+00
147	0.00	0.000	0.101	0.1499	0.0000	.0000E+00	.0000E+00
148	0.00	0.000	0.116	0.1435	0.0000	.0000E+00	.0000E+00
149	0.37	0.000	0.111	0.1578	0.0000	.0000E+00	.0000E+00
150	0.00	0.000	0.230	0.1451	0.0000	.0000E+00	.0000E+00
151	0.00	0.000	0.148	0.1369	0.0000	.0000E+00	.0000E+00
152	0.00	0.000	0.125	0.1299	0.0000	.0000E+00	.0000E+00
153	0.16	0.000	0.183	0.1286	0.0000	.0000E+00	.0000E+00
154	0.00	0.000	0.169	0.1192	0.0000	.0000E+00	.0000E+00
155	0.00	0.000	0.047	0.1166	0.0000	.0000E+00	.0000E+00
156	0.00	0.000	0.009	0.1162	0.0000	.0000E+00	.9677E-03
157	0.00	0.000	0.002	0.1160	0.0000	.0000E+00	.9587E-03

158	0.14	0.000	0.026	0.1224	0.0000	.0000E+00	.0000E+00
159	0.09	0.000	0.091	0.1223	0.0000	.0000E+00	.0000E+00
160	0.00	0.000	0.053	0.1194	0.0000	.0000E+00	.0000E+00
161	0.00	0.000	0.049	0.1166	0.0000	.0000E+00	.0000E+00
162	0.00	0.000	0.008	0.1162	0.0000	.0000E+00	.0000E+00
163	0.00	0.000	0.002	0.1161	0.0000	.0000E+00	.0000E+00
164	0.00	0.000	0.001	0.1160	0.0000	.0000E+00	.9498E-03
165	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
166	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
167	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
168	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
169	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
170	0.95	0.000	0.105	0.1629	0.0000	.0000E+00	.0000E+00
171	0.00	0.000	0.174	0.1533	0.0000	.0000E+00	.0000E+00
172	0.00	0.000	0.208	0.1417	0.0000	.0000E+00	.0000E+00
173	0.00	0.000	0.256	0.1275	0.0000	.0000E+00	.0000E+00
174	0.06	0.000	0.201	0.1196	0.0000	.0000E+00	.0000E+00
175	0.45	0.000	0.116	0.1382	0.0000	.0000E+00	.0000E+00
176	0.54	0.000	0.076	0.1640	0.0000	.0000E+00	.0000E+00
177	0.00	0.000	0.171	0.1545	0.0000	.0000E+00	.0000E+00
178	0.00	0.000	0.252	0.1405	0.0000	.0000E+00	.0000E+00
179	0.00	0.000	0.266	0.1257	0.0000	.0000E+00	.0000E+00
180	0.00	0.000	0.155	0.1171	0.0000	.0000E+00	.0000E+00
181	0.00	0.000	0.016	0.1162	0.0000	.0000E+00	.0000E+00
182	0.00	0.000	0.004	0.1160	0.0000	.0000E+00	.0000E+00
183	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.9411E-03
184	1.14	0.007	0.074	0.1748	0.0000	.0000E+00	.0000E+00
185	0.00	0.000	0.171	0.1654	0.0000	.0000E+00	.0000E+00
186	0.00	0.000	0.224	0.1529	0.0000	.0000E+00	.0000E+00
187	0.00	0.000	0.272	0.1378	0.0000	.0000E+00	.0000E+00
188	0.00	0.000	0.168	0.1284	0.0000	.0000E+00	.0000E+00
189	0.00	0.000	0.208	0.1169	0.0000	.0000E+00	.0000E+00
190	0.00	0.000	0.012	0.1162	0.0000	.0000E+00	.0000E+00
191	0.21	0.000	0.048	0.1252	0.0000	.0000E+00	.0000E+00
192	0.24	0.000	0.125	0.1316	0.0000	.0000E+00	.0000E+00
193	0.00	0.000	0.104	0.1258	0.0000	.0000E+00	.0000E+00
194	0.10	0.000	0.172	0.1218	0.0000	.0000E+00	.0000E+00
195	0.02	0.000	0.056	0.1198	0.0000	.0000E+00	.0000E+00
196	2.50	0.383	0.197	0.2265	0.0000	.0000E+00	.0000E+00
197	0.00	0.000	0.301	0.2097	0.0000	.0000E+00	.0000E+00
198	0.00	0.000	0.295	0.1933	0.0000	.0000E+00	.0000E+00
199	0.00	0.000	0.321	0.1755	0.0000	.0000E+00	.0000E+00
200	0.00	0.000	0.326	0.1574	0.0000	.0000E+00	.0000E+00
201	0.00	0.000	0.224	0.1450	0.0000	.0000E+00	.0000E+00
202	0.00	0.000	0.259	0.1306	0.0000	.0000E+00	.0000E+00
203	0.00	0.000	0.206	0.1191	0.0000	.0000E+00	.0000E+00
204	0.00	0.000	0.056	0.1160	0.0000	.0000E+00	.0000E+00
205	0.36	0.000	0.102	0.1303	0.0000	.0000E+00	.0000E+00
206	0.59	0.000	0.125	0.1562	0.0000	.0000E+00	.0000E+00
207	0.00	0.000	0.214	0.1443	0.0000	.0000E+00	.0000E+00
208	0.87	0.000	0.210	0.1809	0.0000	.0000E+00	.0000E+00
209	0.00	0.000	0.234	0.1680	0.0000	.0000E+00	.0000E+00
210	0.00	0.000	0.226	0.1554	0.0000	.0000E+00	.0000E+00
211	0.00	0.000	0.247	0.1417	0.0000	.0000E+00	.0000E+00
212	0.00	0.000	0.281	0.1261	0.0000	.0000E+00	.0000E+00
213	0.00	0.000	0.146	0.1180	0.0000	.0000E+00	.0000E+00
214	0.09	0.000	0.065	0.1194	0.0000	.0000E+00	.0000E+00
215	0.06	0.000	0.049	0.1200	0.0000	.0000E+00	.0000E+00
216	0.00	0.000	0.029	0.1184	0.0000	.0000E+00	.0000E+00
217	0.00	0.000	0.036	0.1164	0.0000	.0000E+00	.0000E+00
218	0.00	0.000	0.005	0.1161	0.0000	.0000E+00	.0000E+00
219	0.00	0.000	0.001	0.1160	0.0000	.0000E+00	.0000E+00
220	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00

221	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
222	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
223	0.16	0.000	0.049	0.1222	0.0000	.0000E+00	.0000E+00
224	0.05	0.000	0.085	0.1202	0.0000	.0000E+00	.0000E+00
225	0.00	0.000	0.035	0.1183	0.0000	.0000E+00	.0000E+00
226	0.00	0.000	0.034	0.1164	0.0000	.0000E+00	.0000E+00
227	0.00	0.000	0.005	0.1161	0.0000	.0000E+00	.0000E+00
228	0.02	0.000	0.022	0.1160	0.0000	.0000E+00	.9324E-03
229	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.9241E-03
230	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
231	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
232	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
233	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
234	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
235	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
236	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
237	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
238	0.02	0.000	0.020	0.1160	0.0000	.0000E+00	.0000E+00
239	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
240	0.14	0.000	0.044	0.1213	0.0000	.0000E+00	.0000E+00
241	0.02	0.000	0.071	0.1185	0.0000	.0000E+00	.0000E+00
242	0.00	0.000	0.030	0.1168	0.0000	.0000E+00	.0000E+00
243	0.20	0.000	0.058	0.1247	0.0000	.0000E+00	.0000E+00
244	0.00	0.000	0.094	0.1195	0.0000	.0000E+00	.0000E+00
245	0.00	0.000	0.050	0.1167	0.0000	.0000E+00	.9158E-03
246	0.00	0.000	0.009	0.1162	0.0000	.0000E+00	.0000E+00
247	0.00	0.000	0.002	0.1160	0.0000	.0000E+00	.0000E+00
248	0.00	0.000	0.001	0.1160	0.0000	.0000E+00	.0000E+00
249	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.2700E-02
250	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
251	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
252	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
253	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
254	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
255	0.00	0.000	0.000	0.1160	0.0000	.0000E+00	.0000E+00
256	0.15	0.000	0.046	0.1218	0.0000	.0000E+00	.0000E+00
257	0.00	0.000	0.051	0.1189	0.0000	.0000E+00	.0000E+00
258	0.04	0.000	0.058	0.1179	0.0000	.0000E+00	.0000E+00
259	0.00	0.000	0.015	0.1171	0.0000	.0000E+00	.0000E+00
260	2.58	0.413	0.109	0.2314	0.0000	.0000E+00	.0000E+00
261	0.00	0.000	0.149	0.2231	0.0000	.0000E+00	.0000E+00
262	0.00	0.000	0.135	0.2156	0.0000	.0000E+00	.0000E+00
263	0.00	0.000	0.150	0.2072	0.0000	.0000E+00	.0000E+00
264	0.00	0.000	0.129	0.2000	0.0000	.0000E+00	.0000E+00
265	0.13	0.000	0.149	0.1990	0.0000	.0000E+00	.0000E+00
266	0.00	0.000	0.106	0.1930	0.0000	.0000E+00	.0000E+00
267	0.00	0.000	0.127	0.1860	0.0000	.0000E+00	.0000E+00
268	0.00	0.000	0.151	0.1776	0.0000	.0000E+00	.0000E+00
269	0.00	0.000	0.144	0.1696	0.0000	.0000E+00	.0000E+00
270	0.00	0.000	0.128	0.1625	0.0000	.0000E+00	.0000E+00
271	0.00	0.000	0.133	0.1551	0.0000	.0000E+00	.0000E+00
272	0.00	0.000	0.144	0.1471	0.0000	.0000E+00	.0000E+00
273	0.00	0.000	0.135	0.1396	0.0000	.0000E+00	.0000E+00
274	0.20	0.000	0.135	0.1432	0.0000	.0000E+00	.0000E+00
275	0.00	0.000	0.174	0.1335	0.0000	.0000E+00	.0000E+00
276	0.16	0.000	0.140	0.1346	0.0000	.0000E+00	.0000E+00
277	0.14	0.000	0.115	0.1360	0.0000	.0000E+00	.0000E+00
278	0.00	0.000	0.095	0.1306	0.0000	.0000E+00	.0000E+00
279	0.02	0.000	0.087	0.1259	0.0000	.0000E+00	.0000E+00
280	0.00	0.000	0.078	0.1216	0.0000	.0000E+00	.4220E-02
281	0.00	0.000	0.047	0.1190	0.0000	.0000E+00	.4055E-02
282	0.00	0.000	0.048	0.1163	0.0000	.0000E+00	.2280E-02
283	0.17	0.000	0.050	0.1230	0.0000	.0000E+00	.0000E+00

284		0.09	0.000	0.061	0.1246	0.0000	.0000E+00	.0000E+00
285		0.00	0.000	0.028	0.1230	0.0000	.0000E+00	.0000E+00
286		1.32	0.028	0.059	0.1916	0.0000	.0000E+00	.0000E+00
287		0.12	0.000	0.071	0.1943	0.0000	.0000E+00	.0000E+00
288		0.01	0.000	0.036	0.1928	0.0000	.0000E+00	.0000E+00
289		0.00	0.000	0.022	0.1916	0.0000	.0000E+00	.9677E-03
290		0.00	0.000	0.041	0.1893	0.0000	.0000E+00	.0000E+00
291		0.00	0.000	0.030	0.1877	0.0000	.0000E+00	.0000E+00
292		0.00	0.000	0.034	0.1858	0.0000	.0000E+00	.0000E+00
293		0.00	0.000	0.037	0.1837	0.0000	.0000E+00	.0000E+00
294		0.00	0.000	0.028	0.1822	0.0000	.0000E+00	.0000E+00
295	*	0.00	0.000	0.023	0.1809	0.0000	.0000E+00	.0000E+00
296		0.00	0.000	0.021	0.1798	0.0000	.0000E+00	.0000E+00
297		0.07	0.000	0.051	0.1808	0.0000	.0000E+00	.0000E+00
298		0.00	0.000	0.027	0.1793	0.0000	.0000E+00	.0000E+00
299		0.18	0.000	0.060	0.1860	0.0000	.0000E+00	.0000E+00
300		0.00	0.000	0.032	0.1843	0.0000	.0000E+00	.0000E+00
301		0.00	0.000	0.024	0.1830	0.0000	.0000E+00	.0000E+00
302		0.00	0.000	0.027	0.1814	0.0000	.0000E+00	.0000E+00
303		0.00	0.000	0.031	0.1797	0.0000	.0000E+00	.0000E+00
304		0.00	0.000	0.032	0.1780	0.0000	.0000E+00	.0000E+00
305		0.00	0.000	0.044	0.1755	0.0000	.0000E+00	.0000E+00
306		0.00	0.000	0.037	0.1734	0.0000	.0000E+00	.0000E+00
307		0.00	0.000	0.047	0.1708	0.0000	.0000E+00	.0000E+00
308		0.00	0.000	0.051	0.1680	0.0000	.0000E+00	.0000E+00
309		0.00	0.000	0.046	0.1654	0.0000	.0000E+00	.0000E+00
310		0.00	0.000	0.026	0.1640	0.0000	.0000E+00	.0000E+00
311		0.16	0.000	0.050	0.1701	0.0000	.0000E+00	.0000E+00
312		0.00	0.000	0.028	0.1686	0.0000	.0000E+00	.0000E+00
313		0.00	0.000	0.033	0.1667	0.0000	.0000E+00	.0000E+00
314		0.00	0.000	0.030	0.1651	0.0000	.0000E+00	.0000E+00
315		0.00	0.000	0.022	0.1638	0.0000	.0000E+00	.0000E+00
316		0.00	0.000	0.026	0.1624	0.0000	.0000E+00	.0000E+00
317		0.00	0.000	0.033	0.1605	0.0000	.0000E+00	.0000E+00
318		0.64	0.000	0.058	0.1928	0.0000	.0000E+00	.0000E+00
319		0.18	0.000	0.057	0.1997	0.0000	.0000E+00	.0000E+00
320		0.45	0.000	0.057	0.2215	0.0000	.0000E+00	.0000E+00
321		0.80	0.005	0.058	0.2624	0.0000	.0000E+00	.0000E+00
322		0.22	0.000	0.062	0.2712	0.0000	.0000E+00	.0000E+00
323		0.00	0.000	0.035	0.2691	0.0000	.0000E+00	.0000E+00
324		0.00	0.000	0.037	0.2670	0.0000	.0000E+00	.1796E-02
325		0.00	0.000	0.042	0.2646	0.0000	.0000E+00	.0000E+00
326		0.00	0.000	0.032	0.2616	0.0000	.0000E+00	.0000E+00
327		0.24	0.000	0.055	0.2684	0.0000	.0000E+00	.0000E+00
328		0.01	0.000	0.041	0.2632	0.0000	.0000E+00	.0000E+00
329		0.00	0.000	0.044	0.2578	0.0000	.0000E+00	.0000E+00
330		0.74	0.000	0.059	0.2927	0.0000	.0000E+00	.0000E+00
331		1.01	0.047	0.059	0.2952	0.0000	.0000E+00	.3691
332		0.00	0.000	0.035	0.2853	0.0000	.0000E+00	.3407
333		0.00	0.000	0.050	0.2742	0.0000	.0000E+00	.1645
334		0.02	0.000	0.054	0.2663	0.0000	.0000E+00	.1459
335		0.00	0.000	0.028	0.2602	0.0000	.0000E+00	.1141
336		0.00	0.000	0.025	0.2550	0.0000	.0000E+00	.9280E-01
337		0.07	0.000	0.042	0.2531	0.0000	.0000E+00	.7733E-01
338	*	0.31	0.000	0.027	0.2513	0.0000	.0000E+00	.7182E-01
339		0.00	0.000	0.015	0.2628	0.0000	.0000E+00	.6346E-01
340		0.00	0.000	0.027	0.2594	0.0000	.0000E+00	.5498E-01
341		0.02	0.000	0.045	0.2566	0.0000	.0000E+00	.4841E-01
342		0.19	0.000	0.045	0.2632	0.0000	.0000E+00	.3834E-01
343		0.07	0.000	0.048	0.2629	0.0000	.0000E+00	.3531E-01
344		0.00	0.000	0.031	0.2600	0.0000	.0000E+00	.3439E-01
345		0.00	0.000	0.036	0.2572	0.0000	.0000E+00	.3493E-01
346		0.00	0.000	0.027	0.2548	0.0000	.0000E+00	.2740E-01

347		0.00	0.000	0.037	0.2524	0.0000	.0000E+00 .3327E-01
348		0.00	0.000	0.049	0.2497	0.0000	.0000E+00 .2960E-01
349		0.00	0.000	0.040	0.2471	0.0000	.0000E+00 .1830E-01
350		0.00	0.000	0.028	0.2439	0.0000	.0000E+00 .2364E-03
351		0.00	0.000	0.026	0.2406	0.0000	.0000E+00 .1627E-02
352		0.00	0.000	0.035	0.2369	0.0000	.0000E+00 .1183E-01
353		0.00	0.000	0.028	0.2339	0.0000	.0000E+00 .2057E-01
354	*	0.00	0.000	0.024	0.2313	0.0000	.0000E+00 .2463E-01
355	*	0.00	0.000	0.025	0.2288	0.0000	.0000E+00 .2597E-01
356	*	0.00	0.000	0.000	0.2278	0.0000	.0000E+00 .2700E-01
357	*	0.00	0.000	0.021	0.2258	0.0000	.0000E+00 .2465E-01
358	*	0.00	0.000	0.024	0.2236	0.0000	.0000E+00 .2177E-01
359	*	0.00	0.000	0.023	0.2214	0.0000	.0000E+00 .2100E-01
360		0.00	0.000	0.028	0.2191	0.0000	.0000E+00 .2063E-01
361	*	0.00	0.000	0.023	0.2171	0.0000	.0000E+00 .1999E-01
362	*	0.00	0.000	0.027	0.2150	0.0000	.0000E+00 .1936E-01
363		0.02	0.000	0.047	0.2129	0.0000	.0000E+00 .1807E-01
364		0.41	0.000	0.043	0.2325	0.0000	.0000E+00 .1474E-01
365		0.10	0.000	0.049	0.2347	0.0000	.0000E+00 .1644E-01

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MONTHLY TOTALS (IN INCHES) FOR YEAR 2011

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	1.73	1.45	6.83	3.08	3.82	2.39
	6.03	0.76	2.90	2.48	4.47	1.19
RUNOFF	0.708	0.266	0.527	0.008	0.000	0.000
	0.390	0.000	0.413	0.028	0.052	0.000
EVAPOTRANSPIRATION	0.273	0.555	2.723	3.899	4.576	2.762
	5.462	0.785	2.218	1.742	1.312	0.971
PERCOLATION/LEAKAGE THROUGH	0.1019	0.8672	3.9636	0.7529	0.0413	0.0029
LAYER 1	0.0009	0.0019	0.0036	0.0115	1.0220	1.0629

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ANNUAL TOTALS FOR YEAR 2011

	INCHES	CU. FEET	PERCENT
PRECIPITATION	37.13	134781.937	100.00
RUNOFF	2.393	8685.654	6.44
EVAPOTRANSPIRATION	27.278	99019.883	73.47
PERC./LEAKAGE THROUGH LAYER 1	7.832545	28432.139	21.09
CHANGE IN WATER STORAGE	-0.373	-1355.734	-1.01

SOIL WATER AT START OF YEAR	6.208	22533.402	
SOIL WATER AT END OF YEAR	5.834	21177.668	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.009	0.00

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AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 2007 THROUGH 2011

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION						
TOTALS	2.23	1.90	5.18	2.26	3.27	3.38
	3.38	2.93	2.16	2.59	2.43	1.80
STD. DEVIATIONS	1.88	1.07	1.34	1.53	0.68	1.28
	1.78	2.28	1.23	1.39	1.68	0.95
RUNOFF						
TOTALS	0.478	0.174	0.715	0.059	0.049	0.043
	0.094	0.043	0.083	0.057	0.018	0.038
STD. DEVIATIONS	0.478	0.121	0.806	0.126	0.067	0.036
	0.169	0.059	0.185	0.074	0.025	0.079
EVAPOTRANSPIRATION						
TOTALS	0.561	0.944	2.170	3.043	3.367	3.579
	3.574	2.589	2.101	1.253	1.196	0.633
STD. DEVIATIONS	0.295	0.540	0.409	0.611	1.213	0.650
	1.993	1.535	1.603	0.494	0.149	0.200
PERCOLATION/LEAKAGE THROUGH LAYER 1						
TOTALS	0.8218	1.0496	2.2946	0.7849	0.1355	0.0054
	0.1224	0.0065	0.0024	0.1318	0.6123	0.8535
STD. DEVIATIONS	1.2831	1.1846	1.2079	0.5500	0.2200	0.0060
	0.2685	0.0059	0.0014	0.2827	0.8739	1.1757

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AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 2007 THROUGH 2011

	INCHES		CU. FEET	PERCENT
PRECIPITATION	33.53	(9.450)	121699.4	100.00
RUNOFF	1.850	(1.0700)	6716.37	5.519
EVAPOTRANSPIRATION	25.009	(4.4917)	90781.18	74.595
PERCOLATION/LEAKAGE THROUGH LAYER 1	6.82067	(4.46651)	24759.025	20.34441
CHANGE IN WATER STORAGE	-0.154	(0.5195)	-557.21	-0.458

PEAK DAILY VALUES FOR YEARS 2007 THROUGH 2011

	(INCHES)	(CU. FT.)
PRECIPITATION	2.58	9365.399
RUNOFF	1.235	4482.7627
PERCOLATION/LEAKAGE THROUGH LAYER 1	0.764749	2776.03955
SNOW WATER	2.42	8784.6006

MAXIMUM VEG. SOIL WATER (VOL/VOL)	0.3271
MINIMUM VEG. SOIL WATER (VOL/VOL)	0.1160

FINAL WATER STORAGE AT END OF YEAR 2011

LAYER	(INCHES)	(VOL/VOL)
1	5.8341	0.2431
SNOW WATER	0.000	

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** HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE **
** HELP MODEL VERSION 3.07 (1 NOVEMBER 1997) **
** DEVELOPED BY ENVIRONMENTAL LABORATORY **
** USAE WATERWAYS EXPERIMENT STATION **
** FOR USEPA RISK REDUCTION ENGINEERING LABORATORY **
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PRECIPITATION DATA FILE: C:\HELP3\EZFSP.D4
TEMPERATURE DATA FILE: C:\HELP3\EZFST.D7
SOLAR RADIATION DATA FILE: C:\HELP3\EZFSS.D13
EVAPOTRANSPIRATION DATA: C:\HELP3\EZFSE.D11
SOIL AND DESIGN DATA FILE: C:\HELP3\EZALT2.D10
OUTPUT DATA FILE: C:\HELP3\EZALT2.OUT

TIME: 9: 8 DATE: 2/ 7/2012

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TITLE: Eagle Zinc Alternative 2

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NOTE: INITIAL MOISTURE CONTENT OF THE LAYERS AND SNOW WATER WERE
COMPUTED AS NEARLY STEADY-STATE VALUES BY THE PROGRAM.

LAYER 1

TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 9

THICKNESS	=	6.00	INCHES
POROSITY	=	0.5010	VOL/VOL
FIELD CAPACITY	=	0.2840	VOL/VOL
WILTING POINT	=	0.1350	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.4396	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.190000006000E-03	CM/SEC

NOTE: SATURATED HYDRAULIC CONDUCTIVITY IS MULTIPLIED BY 4.63
FOR ROOT CHANNELS IN TOP HALF OF EVAPORATIVE ZONE.

LAYER 2

TYPE 3 - BARRIER SOIL LINER
MATERIAL TEXTURE NUMBER 29

THICKNESS	=	24.00	INCHES
POROSITY	=	0.4510	VOL/VOL
FIELD CAPACITY	=	0.4190	VOL/VOL
WILTING POINT	=	0.3320	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.4510	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.680000028000E-06	CM/SEC

LAYER 3

TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 8

THICKNESS	=	225.00	INCHES
POROSITY	=	0.4630	VOL/VOL
FIELD CAPACITY	=	0.2320	VOL/VOL
WILTING POINT	=	0.1160	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.2466	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.369999994000E-03	CM/SEC

GENERAL DESIGN AND EVAPORATIVE ZONE DATA

NOTE: SCS RUNOFF CURVE NUMBER WAS COMPUTED FROM DEFAULT SOIL DATA BASE USING SOIL TEXTURE # 9 WITH A FAIR STAND OF GRASS, A SURFACE SLOPE OF 9.% AND A SLOPE LENGTH OF 425. FEET.

SCS RUNOFF CURVE NUMBER	=	82.00	
FRACTION OF AREA ALLOWING RUNOFF	=	100.0	PERCENT
AREA PROJECTED ON HORIZONTAL PLANE	=	1.000	ACRES
EVAPORATIVE ZONE DEPTH	=	6.0	INCHES
INITIAL WATER IN EVAPORATIVE ZONE	=	2.637	INCHES
UPPER LIMIT OF EVAPORATIVE STORAGE	=	3.006	INCHES
LOWER LIMIT OF EVAPORATIVE STORAGE	=	0.810	INCHES
INITIAL SNOW WATER	=	0.000	INCHES
INITIAL WATER IN LAYER MATERIALS	=	68.936	INCHES
TOTAL INITIAL WATER	=	68.936	INCHES
TOTAL SUBSURFACE INFLOW	=	0.00	INCHES/YEAR

EVAPOTRANSPIRATION AND WEATHER DATA

NOTE: EVAPOTRANSPIRATION DATA WAS OBTAINED FROM
East St. Louis Illinois

STATION LATITUDE	=	38.80	DEGREES
MAXIMUM LEAF AREA INDEX	=	3.50	
START OF GROWING SEASON (JULIAN DATE)	=	97	
END OF GROWING SEASON (JULIAN DATE)	=	300	
EVAPORATIVE ZONE DEPTH	=	6.0	INCHES

AVERAGE ANNUAL WIND SPEED = 10.40 MPH
AVERAGE 1ST QUARTER RELATIVE HUMIDITY = 73.00 %
AVERAGE 2ND QUARTER RELATIVE HUMIDITY = 67.00 %
AVERAGE 3RD QUARTER RELATIVE HUMIDITY = 71.00 %
AVERAGE 4TH QUARTER RELATIVE HUMIDITY = 74.00 %

NOTE: PRECIPITATION DATA FOR E. ST. LOUIS ILLINOIS
WAS ENTERED FROM THE DEFAULT DATA FILE.

NOTE: TEMPERATURE DATA WAS SYNTHETICALLY GENERATED USING
COEFFICIENTS FOR EAST ST. LOUIS ILLINOIS

NORMAL MEAN MONTHLY TEMPERATURE (DEGREES FAHRENHEIT)

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
29.80	34.60	43.80	56.20	65.20	74.10
77.70	75.70	69.00	57.60	44.90	35.00

NOTE: SOLAR RADIATION DATA WAS SYNTHETICALLY GENERATED USING
COEFFICIENTS FOR EAST ST. LOUIS ILLINOIS
AND STATION LATITUDE = 38.80 DEGREES

HEAD #1: AVERAGE HEAD ON TOP OF LAYER 2
DRAIN #1: LATERAL DRAINAGE FROM LAYER 1 (RECIRCULATION AND COLLECTION)
LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 2
LEAK #2: PERCOLATION OR LEAKAGE THROUGH LAYER 3

****

DAILY OUTPUT FOR YEAR 2007

DAY	A	SOIL	RAIN	RUNOFF	ET	E. ZONE WATER	HEAD #1	DRAIN #1	LEAK #1	HEAD #2	DRAIN #2	LEAK #2
	I	I										
	R	L	IN.	IN.	IN.	IN./IN.	IN.	IN.	IN.	IN.	IN.	IN.
1	*		0.00	0.000	0.029	0.4302	4.4643	.0000E+00	.2743E-01	0.0000	.0000E+00	.6845E-02
2	*		0.16	0.000	0.031	0.4290	4.2902	.0000E+00	.2727E-01	0.0000	.0000E+00	.6636E-02
3	*		0.00	0.000	0.032	0.4277	4.1689	.0000E+00	.2715E-01	0.0000		

.0000E+00	.6438E-02								
4	*	0.00	0.000	0.025	0.4265	4.0704	.0000E+00	.2705E-01	0.0000
.0000E+00	.6251E-02								
5	*	0.00	0.000	0.037	0.4178	4.0112	.0000E+00	.2700E-01	0.0000
.0000E+00	.6074E-02								
6		0.02	0.000	0.044	0.4093	3.9639	.0000E+00	.2695E-01	0.0000
.0000E+00	.5906E-02								
7	*	0.01	0.000	0.037	0.4003	3.8629	.0000E+00	.2685E-01	0.0000
.0000E+00	.5747E-02								
8	*	0.08	0.000	0.035	0.3991	3.7333	.0000E+00	.2673E-01	0.0000
.0000E+00	.5596E-02								
9		0.34	0.000	0.000	0.4544	3.8797	.0000E+00	.2687E-01	0.0000
.0000E+00	.5453E-02								
10	*	2.09	0.000	0.000	0.4530	4.7610	.0000E+00	.2772E-01	0.0000
.0000E+00	.5316E-02								
11	*	0.00	0.000	0.029	0.4517	4.7249	.0000E+00	.2768E-01	0.0000
.0000E+00	.5186E-02								
12	*	0.00	0.000	0.023	0.4504	4.6882	.0000E+00	.2765E-01	0.0000
.0000E+00	.5062E-02								
13	*	0.00	0.000	0.023	0.4491	4.6516	.0000E+00	.2761E-01	0.0000
.0000E+00	.4943E-02								
14	*	0.06	0.000	0.021	0.4477	4.6151	.0000E+00	.2758E-01	0.0000
.0000E+00	.4829E-02								
15	*	0.00	0.000	0.016	0.4464	4.5788	.0000E+00	.2754E-01	0.0000
.0000E+00	.4721E-02								
16	*	0.00	0.000	0.020	0.4451	4.5426	.0000E+00	.2751E-01	0.0000
.0000E+00	.4617E-02								
17	*	0.00	0.000	0.026	0.4438	4.5066	.0000E+00	.2747E-01	0.0000
.0000E+00	.4517E-02								
18	*	0.00	0.000	0.029	0.4425	4.4708	.0000E+00	.2744E-01	0.0000
.0000E+00	.4421E-02								
19		0.43	1.844	0.000	0.5010	5.6145	.0000E+00	.2854E-01	0.0000
.0000E+00	.4329E-02								
20		0.00	0.000	0.059	0.4864	5.8500	.0000E+00	.2877E-01	0.0000
.0000E+00	.4241E-02								
21		0.00	0.000	0.067	0.4706	5.4535	.0000E+00	.2839E-01	0.0000
.0000E+00	.4156E-02								
22		0.00	0.000	0.050	0.4576	5.0693	.0000E+00	.2802E-01	0.0000
.0000E+00	.4074E-02								
23		0.00	0.000	0.064	0.4423	4.7644	.0000E+00	.2772E-01	0.0000
.0000E+00	.3995E-02								
24		0.21	0.000	0.067	0.4615	4.5867	.0000E+00	.2755E-01	0.0000
.0000E+00	.3799E-02								
25		0.09	0.000	0.057	0.4623	4.9479	.0000E+00	.2790E-01	0.0000
.0000E+00	.0000E+00								
26		0.00	0.000	0.049	0.4496	4.8383	.0000E+00	.2779E-01	0.0000
.0000E+00	.0000E+00								
27		0.00	0.000	0.053	0.4361	4.5793	.0000E+00	.2754E-01	0.0000
.0000E+00	.0000E+00								
28		0.08	0.000	0.054	0.4360	4.3212	.0000E+00	.2729E-01	0.0000
.0000E+00	.0000E+00								
29		0.03	0.000	0.049	0.4282	4.1712	.0000E+00	.2715E-01	0.0000
.0000E+00	.0000E+00								
30		1.41	0.887	0.058	0.5010	5.2393	.0000E+00	.2818E-01	0.0000
.0000E+00	.0000E+00								
31		0.37	0.360	0.053	0.4891	5.8768	.0000E+00	.2879E-01	0.0000
.0000E+00	.0000E+00								
32		0.08	0.000	0.045	0.4901	5.7104	.0000E+00	.2863E-01	0.0000
.0000E+00	.0000E+00								
33	*	0.00	0.000	0.040	0.4786	5.6229	.0000E+00	.2855E-01	0.0000
.0000E+00	.0000E+00								
34		0.00	0.000	0.048	0.4659	5.3094	.0000E+00	.2825E-01	0.0000
.0000E+00	.0000E+00								

35	*	0.04	0.000	0.035	0.4621	5.0532	.0000E+00	.2800E-01	0.0000
.0000E+00	.0000E+00								
36	*	0.11	0.000	0.033	0.4608	4.9548	.0000E+00	.2791E-01	0.0000
.0000E+00	.0000E+00								
37	*	0.00	0.000	0.051	0.4571	4.9394	.0000E+00	.2789E-01	0.0000
.0000E+00	.0000E+00								
38		0.00	0.000	0.069	0.4409	4.7931	.0000E+00	.2775E-01	0.0000
.0000E+00	.0000E+00								
39		0.01	0.000	0.058	0.4283	4.5285	.0000E+00	.2749E-01	0.0000
.0000E+00	.0000E+00								
40		0.01	0.000	0.053	0.4165	4.3434	.0000E+00	.2732E-01	0.0000
.0000E+00	.0000E+00								
41		0.00	0.000	0.071	0.4002	4.1117	.0000E+00	.2709E-01	0.0000
.0000E+00	.0000E+00								
42		0.23	0.000	0.074	0.4217	3.8677	.0000E+00	.2686E-01	0.0000
.0000E+00	.0000E+00								
43		0.00	0.000	0.077	0.4045	3.7143	.0000E+00	.2671E-01	0.0000
.0000E+00	.0000E+00								
44		0.00	0.000	0.080	0.3867	3.4882	.0000E+00	.2649E-01	0.0000
.0000E+00	.0000E+00								
45		0.03	0.000	0.071	0.3756	3.2557	.0000E+00	.2627E-01	0.0000
.0000E+00	.0000E+00								
46		0.03	0.000	0.068	0.3649	3.0554	.0000E+00	.2608E-01	0.0000
.0000E+00	.0000E+00								
47		0.43	0.000	0.060	0.4222	3.1180	.0000E+00	.2614E-01	0.0000
.0000E+00	.0000E+00								
48		0.00	0.000	0.068	0.4065	3.7084	.0000E+00	.2670E-01	0.0000
.0000E+00	.0000E+00								
49		0.02	0.000	0.063	0.3949	3.5577	.0000E+00	.2656E-01	0.0000
.0000E+00	.0000E+00								
50		0.00	0.000	0.064	0.3799	3.4215	.0000E+00	.2643E-01	0.0000
.0000E+00	.0000E+00								
51		0.00	0.000	0.064	0.3649	3.2385	.0000E+00	.2625E-01	0.0000
.0000E+00	.0000E+00								
52		0.00	0.000	0.076	0.3479	3.0426	.0000E+00	.2606E-01	0.0000
.0000E+00	.0000E+00								
53		1.62	0.624	0.050	0.5010	4.2328	.0000E+00	.2721E-01	0.0000
.0000E+00	.0000E+00								
54	*	0.48	0.000	0.032	0.4995	5.9841	.0000E+00	.2890E-01	0.0000
.0000E+00	.0000E+00								
55		0.50	0.890	0.000	0.5010	5.9894	.0000E+00	.2890E-01	0.0000
.0000E+00	.0000E+00								
56	*	0.00	0.000	0.047	0.4884	5.8705	.0000E+00	.2879E-01	0.0000
.0000E+00	.0000E+00								
57		0.00	0.000	0.056	0.4743	5.5228	.0000E+00	.2845E-01	0.0000
.0000E+00	.0000E+00								
58		0.00	0.000	0.074	0.4573	5.1270	.0000E+00	.2807E-01	0.0000
.0000E+00	.0000E+00								
59		0.00	0.000	0.069	0.4411	4.7622	.0000E+00	.2772E-01	0.0000
.0000E+00	.0000E+00								
60		0.02	0.000	0.061	0.4298	4.4654	.0000E+00	.2743E-01	0.0000
.0000E+00	.0000E+00								
61	*	0.00	0.000	0.052	0.4167	4.1982	.0000E+00	.2718E-01	0.0000
.0000E+00	.0000E+00								
62	*	0.00	0.000	0.000	0.4122	3.9868	.0000E+00	.2697E-01	0.0000
.0000E+00	.0000E+00								
63		0.00	0.000	0.063	0.3972	3.8270	.0000E+00	.2682E-01	0.0000
.0000E+00	.0000E+00								
64		0.00	0.000	0.086	0.3784	3.5953	.0000E+00	.2660E-01	0.0000
.0000E+00	.0000E+00								
65		0.03	0.000	0.050	0.3706	3.3676	.0000E+00	.2638E-01	0.0000
.0000E+00	.0000E+00								
66	*	0.36	0.000	0.032	0.3695	3.2063	.0000E+00	.2622E-01	0.0000

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.0000E+00 .0000E+00
   67          0.00  0.000  0.071  0.4047    3.0857 .0000E+00 .2610E-01    0.0000
.0000E+00 .0000E+00
   68  *       0.37  0.000  0.034  0.4035    3.5445 .0000E+00 .2655E-01    0.0000
.0000E+00 .0000E+00
   69          0.13  0.000  0.000  0.4601    3.8613 .0000E+00 .2685E-01    0.0000
.0000E+00 .0000E+00
   70  *       0.95  0.000  0.033  0.4588    4.9270 .0000E+00 .2788E-01    0.0000
.0000E+00 .0000E+00
   71  *       0.00  0.000  0.031  0.4574    4.8841 .0000E+00 .2784E-01    0.0000
.0000E+00 .0000E+00
   72  *       0.00  0.000  0.028  0.4561    4.8463 .0000E+00 .2780E-01    0.0000
.0000E+00 .0000E+00
   73  *       0.00  0.000  0.036  0.4547    4.8090 .0000E+00 .2777E-01    0.0000
.0000E+00 .0000E+00
   74          0.00  0.249  0.000  0.5010    5.4848 .0000E+00 .2842E-01    0.0000
.0000E+00 .0000E+00
   75          0.00  0.196  0.070  0.4962    5.9501 .0000E+00 .2886E-01    0.0000
.0000E+00 .0000E+00
   76          0.00  0.000  0.057  0.4819    5.7226 .0000E+00 .2865E-01    0.0000
.0000E+00 .0000E+00
   77          0.34  0.141  0.055  0.5010    5.7895 .0000E+00 .2871E-01    0.0000
.0000E+00 .0000E+00
   78          0.00  0.000  0.116  0.4769    5.7581 .0000E+00 .2868E-01    0.0000
.0000E+00 .0000E+00
   79          0.00  0.000  0.119  0.4523    5.1291 .0000E+00 .2807E-01    0.0000
.0000E+00 .0000E+00
   80          0.01  0.000  0.072  0.4373    4.7268 .0000E+00 .2769E-01    0.0000
.0000E+00 .0000E+00
   81          0.00  0.000  0.112  0.4141    4.4528 .0000E+00 .2742E-01    0.0000
.0000E+00 .0000E+00
   82          0.02  0.000  0.114  0.3939    4.0179 .0000E+00 .2700E-01    0.0000
.0000E+00 .0000E+00
   83          0.00  0.000  0.111  0.3710    3.6921 .0000E+00 .2669E-01    0.0000
.0000E+00 .0000E+00
   84          0.00  0.000  0.122  0.3463    3.3534 .0000E+00 .2636E-01    0.0000
.0000E+00 .0000E+00
   85          0.03  0.000  0.113  0.3281    2.9498 .0000E+00 .2597E-01    0.0000
.0000E+00 .0000E+00
   86          1.44  0.284  0.092  0.5010    3.5868 .0000E+00 .2659E-01    0.0000
.0000E+00 .0000E+00
   87          0.38  0.254  0.097  0.5010    6.0000 .0000E+00 .2891E-01    0.0000
.0000E+00 .0000E+00
   88          0.00  0.000  0.142  0.4725    5.7147 .0000E+00 .2864E-01    0.0000
.0000E+00 .0000E+00
   89          0.00  0.000  0.146  0.4435    4.9875 .0000E+00 .2794E-01    0.0000
.0000E+00 .0000E+00
   90          0.00  0.000  0.139  0.4157    4.4325 .0000E+00 .2740E-01    0.0000
.0000E+00 .0000E+00
   91          0.00  0.000  0.108  0.3932    3.9804 .0000E+00 .2697E-01    0.0000
.0000E+00 .0000E+00
   92          0.04  0.000  0.123  0.3748    3.6716 .0000E+00 .2667E-01    0.0000
.0000E+00 .0000E+00
   93          0.00  0.000  0.160  0.3438    3.2932 .0000E+00 .2630E-01    0.0000
.0000E+00 .0000E+00
   94          0.00  0.000  0.126  0.3184    2.8903 .0000E+00 .2592E-01    0.0000
.0000E+00 .0000E+00
   95          0.00  0.000  0.129  0.2925    2.5790 .0000E+00 .2562E-01    0.0000
.0000E+00 .0000E+00
   96          0.00  0.000  0.079  0.2751    2.1221 .0000E+00 .2518E-01    0.0000
.0000E+00 .0000E+00
   97          0.00  0.000  0.092  0.2556    1.8690 .0000E+00 .2493E-01    0.0000
.0000E+00 .0000E+00
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98	0.03	0.000	0.078	0.2435	1.6876	.0000E+00	.2476E-01	0.0000
.0000E+00	.0000E+00							
99 *	0.00	0.000	0.081	0.2259	1.3738	.0000E+00	.2445E-01	0.0000
.0000E+00	.0000E+00							
100	0.00	0.000	0.080	0.2086	0.9842	.0000E+00	.2408E-01	0.0000
.0000E+00	.0000E+00							
101	0.00	0.000	0.063	0.1941	0.8423	.0000E+00	.2394E-01	0.0000
.0000E+00	.0000E+00							
102	0.00	0.000	0.054	0.1812	0.7008	.0000E+00	.2381E-01	0.0000
.0000E+00	.0000E+00							
103	0.00	0.000	0.048	0.1693	0.4670	.0000E+00	.2358E-01	0.0000
.0000E+00	.0000E+00							
104	0.31	0.000	0.049	0.2089	0.1792	.0000E+00	.2330E-01	0.0000
.0000E+00	.0000E+00							
105	0.00	0.000	0.040	0.2014	0.0100	.0000E+00	.5433E-02	0.0000
.0000E+00	.0000E+00							
106	0.19	0.000	0.043	0.2259	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
107	0.00	0.000	0.215	0.1900	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
108	0.48	0.000	0.041	0.2631	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
109	0.00	0.000	0.227	0.2254	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
110	0.00	0.000	0.244	0.1847	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
111	0.00	0.000	0.188	0.1534	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
112	0.00	0.000	0.086	0.1391	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
113	1.76	0.059	0.072	0.4107	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
114	1.44	0.704	0.167	0.5010	4.2588	.0000E+00	.2723E-01	0.0000
.0000E+00	.0000E+00							
115	0.00	0.000	0.162	0.4693	5.6829	.0000E+00	.2861E-01	0.0000
.0000E+00	.0000E+00							
116	0.00	0.000	0.190	0.4330	4.8753	.0000E+00	.2783E-01	0.0000
.0000E+00	.0000E+00							
117	0.00	0.000	0.203	0.3946	4.1904	.0000E+00	.2717E-01	0.0000
.0000E+00	.0000E+00							
118	0.00	0.000	0.176	0.3607	3.6686	.0000E+00	.2667E-01	0.0000
.0000E+00	.0000E+00							
119	0.31	0.000	0.181	0.3779	3.2299	.0000E+00	.2624E-01	0.0000
.0000E+00	.0000E+00							
120	0.00	0.000	0.165	0.3462	2.8758	.0000E+00	.2590E-01	0.0000
.0000E+00	.0000E+00							
121	0.00	0.000	0.134	0.3196	2.6439	.0000E+00	.2568E-01	0.0000
.0000E+00	.5301E-03							
122	0.00	0.000	0.167	0.2875	2.3724	.0000E+00	.2542E-01	0.0000
.0000E+00	.2720E-02							
123	0.10	0.000	0.133	0.2778	2.0096	.0000E+00	.2507E-01	0.0000
.0000E+00	.4664E-02							
124	0.00	0.000	0.205	0.2396	1.7056	.0000E+00	.2477E-01	0.0000
.0000E+00	.6101E-02							
125	0.00	0.000	0.173	0.2066	1.1516	.0000E+00	.2424E-01	0.0000
.0000E+00	.6245E-02							
126	0.46	0.000	0.104	0.2619	0.8845	.0000E+00	.2398E-01	0.0000
.0000E+00	.6068E-02							
127	0.11	0.000	0.227	0.2384	0.7418	.0000E+00	.2385E-01	0.0000
.0000E+00	.5901E-02							
128	0.57	0.000	0.172	0.3008	0.5659	.0000E+00	.2368E-01	0.0000
.0000E+00	.5742E-02							
129	0.00	0.000	0.273	0.2515	0.3964	.0000E+00	.2351E-01	0.0000

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.0000E+00 .5592E-02
  130         0.00  0.000  0.227  0.2098    0.2507 .0000E+00 .2337E-01    0.0000
.0000E+00 .5448E-02
  131         0.49  0.000  0.155  0.2617    0.1141 .0000E+00 .2324E-01    0.0000
.0000E+00 .5312E-02
  132         0.00  0.000  0.260  0.2175    0.0084 .0000E+00 .5491E-02    0.0000
.0000E+00 .5182E-02
  133         0.00  0.000  0.272  0.1722    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .5058E-02
  134         0.00  0.000  0.182  0.1419    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4939E-02
  135         0.00  0.000  0.042  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4826E-02
  136         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4717E-02
  137         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4613E-02
  138         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4514E-02
  139         0.47  0.000  0.048  0.2053    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4294E-02
  140         0.03  0.000  0.071  0.1984    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2960E-02
  141         0.00  0.000  0.080  0.1851    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1602E-02
  142         0.00  0.000  0.099  0.1686    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4724E-03
  143         0.00  0.000  0.111  0.1502    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  144         0.08  0.000  0.087  0.1490    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  145         0.12  0.000  0.071  0.1572    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  146         0.00  0.000  0.049  0.1490    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  147         0.00  0.000  0.067  0.1378    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  148         0.48  0.000  0.071  0.2060    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  149         0.15  0.000  0.165  0.2035    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  150         0.17  0.000  0.293  0.1831    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  151         0.00  0.000  0.193  0.1508    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  152         0.19  0.000  0.183  0.1520    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  153         0.00  0.000  0.073  0.1398    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  154         0.00  0.000  0.021  0.1363    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  155         0.00  0.000  0.005  0.1354    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  156         0.00  0.000  0.002  0.1351    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  157         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  158         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  159         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  160         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
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161	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
162	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
163	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
164	0.02	0.000	0.018	0.1353	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
165	0.35	0.000	0.084	0.1795	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
166	0.25	0.000	0.140	0.1979	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2021E-03							
167	1.08	0.005	0.154	0.3514	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8736E-03							
168	0.41	0.000	0.238	0.3760	1.4935	.0000E+00	.2457E-01	0.0000
.0000E+00	.0000E+00							
169	0.00	0.000	0.280	0.3250	2.6118	.0000E+00	.2565E-01	0.0000
.0000E+00	.0000E+00							
170	0.00	0.000	0.256	0.2781	2.2080	.0000E+00	.2526E-01	0.0000
.0000E+00	.0000E+00							
171	0.00	0.000	0.213	0.2385	1.8344	.0000E+00	.2490E-01	0.0000
.0000E+00	.8953E-03							
172	0.00	0.000	0.303	0.1840	1.0601	.0000E+00	.2415E-01	0.0000
.0000E+00	.2478E-02							
173	0.47	0.000	0.337	0.2041	0.3186	.0000E+00	.1183E-01	0.0000
.0000E+00	.4005E-02							
174	0.22	0.000	0.240	0.2008	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1460E-01							
175	0.00	0.000	0.300	0.1508	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1366E-01							
176	0.79	0.000	0.245	0.2416	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1288E-01							
177	0.00	0.000	0.300	0.1915	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1224E-01							
178	0.00	0.000	0.291	0.1429	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1172E-01							
179	0.00	0.000	0.047	0.1351	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1130E-01							
180	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1097E-01							
181	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1071E-01							
182	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1052E-01							
183	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1039E-01							
184	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1030E-01							
185	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1025E-01							
186	0.85	0.000	0.119	0.2568	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1023E-01							
187	0.54	0.000	0.260	0.3036	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1025E-01							
188	0.00	0.000	0.282	0.2546	0.0246	.0000E+00	.1159E-01	0.0000
.0000E+00	.4734E-02							
189	0.00	0.000	0.257	0.2102	0.0235	.0000E+00	.9983E-02	0.0000
.0000E+00	.6115E-02							
190	0.00	0.000	0.257	0.1673	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1349E-01							
191	0.00	0.000	0.194	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1314E-01							
192	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.1286E-01							
193	0.20	0.000	0.099	0.1519	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1263E-01							
194	0.10	0.000	0.094	0.1529	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1245E-01							
195	0.00	0.000	0.080	0.1397	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1231E-01							
196	0.00	0.000	0.022	0.1360	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1221E-01							
197	0.00	0.000	0.005	0.1352	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1213E-01							
198	0.06	0.000	0.042	0.1381	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1209E-01							
199	0.30	0.000	0.076	0.1756	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1206E-01							
200	0.09	0.000	0.126	0.1695	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1206E-01							
201	0.00	0.000	0.121	0.1493	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1207E-01							
202	0.00	0.000	0.064	0.1387	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1209E-01							
203	0.00	0.000	0.016	0.1361	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1213E-01							
204	0.20	0.000	0.087	0.1549	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1217E-01							
205	0.00	0.000	0.049	0.1467	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1223E-01							
206	0.00	0.000	0.057	0.1373	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1228E-01							
207	0.00	0.000	0.010	0.1356	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1235E-01							
208	0.00	0.000	0.003	0.1351	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1241E-01							
209	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1248E-01							
210	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1255E-01							
211	0.16	0.000	0.078	0.1486	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1263E-01							
212	0.06	0.000	0.081	0.1452	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1270E-01							
213	0.12	0.000	0.101	0.1483	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1183E-01							
214	0.10	0.000	0.084	0.1509	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9636E-02							
215	0.00	0.000	0.065	0.1400	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1055E-01							
216	0.00	0.000	0.023	0.1362	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1137E-01							
217	0.36	0.000	0.093	0.1806	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1211E-01							
218	0.00	0.000	0.140	0.1574	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1276E-01							
219	0.00	0.000	0.122	0.1370	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1334E-01							
220	0.00	0.000	0.009	0.1355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1385E-01							
221	0.00	0.000	0.002	0.1351	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1430E-01							
222	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1469E-01							
223	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1502E-01							

224	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1531E-01							
225	0.17	0.000	0.075	0.1508	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1555E-01							
226	0.37	0.000	0.073	0.2003	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1575E-01							
227	0.56	0.000	0.170	0.2653	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1592E-01							
228	0.00	0.000	0.200	0.2319	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1607E-01							
229	0.48	0.000	0.224	0.2747	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1618E-01							
230	0.00	0.000	0.275	0.2289	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1627E-01							
231	0.00	0.000	0.232	0.1902	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1634E-01							
232	0.00	0.000	0.185	0.1593	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1640E-01							
233	0.00	0.000	0.133	0.1371	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1644E-01							
234	0.00	0.000	0.010	0.1355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1646E-01							
235	0.00	0.000	0.003	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1647E-01							
236	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1648E-01							
237	1.15	0.000	0.116	0.3073	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1647E-01							
238	0.58	0.000	0.206	0.3666	0.6450	.0000E+00	.1797E-01	0.0000
.0000E+00	.1646E-01							
239	0.00	0.000	0.228	0.3244	1.8010	.0000E+00	.2487E-01	0.0000
.0000E+00	.1644E-01							
240	0.02	0.000	0.141	0.3001	1.7901	.0000E+00	.2486E-01	0.0000
.0000E+00	.1641E-01							
241	1.53	0.115	0.184	0.5010	2.3687	.0000E+00	.2541E-01	0.0000
.0000E+00	.1638E-01							
242	0.00	0.000	0.219	0.4597	5.5878	.0000E+00	.2852E-01	0.0000
.0000E+00	.1635E-01							
243	0.00	0.000	0.195	0.4227	4.6735	.0000E+00	.2763E-01	0.0000
.0000E+00	.1631E-01							
244	0.00	0.000	0.180	0.3883	4.0179	.0000E+00	.2700E-01	0.0000
.0000E+00	.1627E-01							
245	0.00	0.000	0.200	0.3505	3.5138	.0000E+00	.2652E-01	0.0000
.0000E+00	.1623E-01							
246	0.00	0.000	0.197	0.3133	2.9051	.0000E+00	.2593E-01	0.0000
.0000E+00	.1618E-01							
247	0.00	0.000	0.225	0.2717	2.2626	.0000E+00	.2531E-01	0.0000
.0000E+00	.1614E-01							
248	0.00	0.000	0.159	0.2411	1.8180	.0000E+00	.2488E-01	0.0000
.0000E+00	.1609E-01							
249	0.00	0.000	0.178	0.2074	1.2322	.0000E+00	.2432E-01	0.0000
.0000E+00	.1604E-01							
250	0.00	0.000	0.170	0.1751	0.7211	.0000E+00	.2383E-01	0.0000
.0000E+00	.1599E-01							
251	0.00	0.000	0.129	0.1517	0.1851	.0000E+00	.1173E-01	0.0000
.0000E+00	.2090E-01							
252	0.00	0.000	0.100	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2798E-01							
253	0.26	0.000	0.080	0.1650	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2509E-01							
254	0.85	0.000	0.099	0.2901	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2235E-01							
255	0.00	0.000	0.164	0.2628	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.1958E-01								
256	0.00	0.000	0.150	0.2339	0.0695	.0000E+00	.2320E-01	0.0000	
.0000E+00	.5331E-02								
257	0.00	0.000	0.124	0.2124	0.0082	.0000E+00	.5790E-02	0.0000	
.0000E+00	.1445E-01								
258	0.00	0.000	0.188	0.1811	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1856E-01								
259	0.02	0.000	0.123	0.1639	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1640E-01								
260	0.26	0.000	0.116	0.1880	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1462E-01								
261	0.00	0.000	0.148	0.1633	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1313E-01								
262	0.95	0.000	0.147	0.2971	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1189E-01								
263	0.00	0.000	0.129	0.2727	0.0951	.0000E+00	.1744E-01	0.0000	
.0000E+00	.7250E-03								
264	0.00	0.000	0.150	0.2439	0.2043	.0000E+00	.2333E-01	0.0000	
.0000E+00	.1788E-02								
265	0.00	0.000	0.141	0.2164	0.1316	.0000E+00	.2326E-01	0.0000	
.0000E+00	.2822E-02								
266	0.00	0.000	0.121	0.1947	0.0179	.0000E+00	.9208E-02	0.0000	
.0000E+00	.9007E-02								
267	0.00	0.000	0.116	0.1754	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1721E-01								
268	0.00	0.000	0.132	0.1535	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1520E-01								
269	0.00	0.000	0.111	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1353E-01								
270	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1213E-01								
271	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1096E-01								
272	0.01	0.000	0.010	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.9975E-02								
273	0.13	0.000	0.051	0.1481	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.9142E-02								
274	0.00	0.000	0.023	0.1443	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8438E-02								
275	0.00	0.000	0.037	0.1381	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7847E-02								
276	0.00	0.000	0.014	0.1358	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7351E-02								
277	0.00	0.000	0.004	0.1352	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.6939E-02								
278	0.00	0.000	0.001	0.1351	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.6600E-02								
279	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.6326E-02								
280	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.6109E-02								
281	0.03	0.000	0.027	0.1356	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.5943E-02								
282	0.00	0.000	0.002	0.1353	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.5823E-02								
283	0.00	0.000	0.001	0.1351	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.5742E-02								
284	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.5698E-02								
285	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.5685E-02								
286	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.5701E-02								

287	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5743E-02							
288	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5807E-02							
289	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5891E-02							
290	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5992E-02							
291	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6108E-02							
292	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6237E-02							
293	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6377E-02							
294	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6527E-02							
295	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6683E-02							
296	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6846E-02							
297	0.04	0.000	0.028	0.1370	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7014E-02							
298	0.00	0.000	0.002	0.1367	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7185E-02							
299	0.00	0.000	0.004	0.1359	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7358E-02							
300	0.00	0.000	0.004	0.1353	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7532E-02							
301	0.05	0.000	0.033	0.1382	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7706E-02							
302	0.09	0.000	0.031	0.1480	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7879E-02							
303	0.00	0.000	0.010	0.1464	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8051E-02							
304	0.00	0.000	0.013	0.1442	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8221E-02							
305	0.10	0.000	0.044	0.1535	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8387E-02							
306	0.11	0.000	0.041	0.1651	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8551E-02							
307	0.66	0.000	0.045	0.2675	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8711E-02							
308	0.01	0.000	0.040	0.2625	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5933E-02							
309	0.00	0.000	0.046	0.2548	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6088E-02							
310	0.18	0.000	0.070	0.2732	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6905E-02							
311	0.00	0.000	0.049	0.2650	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7666E-02							
312	0.00	0.000	0.053	0.2562	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8372E-02							
313	0.25	0.000	0.063	0.2873	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9022E-02							
314	0.00	0.000	0.061	0.2743	0.1250	.0000E+00	.1747E-01	0.0000
.0000E+00	.9617E-02							
315	0.00	0.000	0.056	0.2611	0.2485	.0000E+00	.2337E-01	0.0000
.0000E+00	.1016E-01							
316	0.00	0.000	0.058	0.2476	0.1523	.0000E+00	.2328E-01	0.0000
.0000E+00	.1065E-01							
317	0.00	0.000	0.054	0.2359	0.0384	.0000E+00	.1605E-01	0.0000
.0000E+00	.1109E-01							
318	0.00	0.000	0.046	0.2282	0.0000	.0000E+00	.0000E+00	0.0000

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.0000E+00 .1652E-01
  319         0.00  0.000  0.055  0.2190    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1565E-01
  320         0.00  0.000  0.057  0.2095    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1491E-01
  321         0.00  0.000  0.042  0.2026    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1426E-01
  322         0.00  0.000  0.034  0.1969    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1370E-01
  323         0.00  0.000  0.033  0.1913    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1322E-01
  324         0.15  0.000  0.057  0.2068    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1280E-01
  325         0.00  0.000  0.028  0.2021    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1243E-01
  326         0.00  0.000  0.031  0.1970    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1211E-01
  327         0.00  0.000  0.027  0.1926    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1183E-01
  328         0.00  0.000  0.026  0.1882    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1159E-01
  329         0.00  0.000  0.030  0.1831    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1138E-01
  330         0.76  0.000  0.052  0.3011    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1120E-01
  331         0.00  0.000  0.028  0.2934    0.3029 .0000E+00 .1764E-01    0.0000
.0000E+00 .7255E-02
  332         0.00  0.000  0.029  0.2846    0.5113 .0000E+00 .2362E-01    0.0000
.0000E+00 .7913E-02
  333         0.34  0.000  0.057  0.3278    0.4912 .0000E+00 .2360E-01    0.0000
.0000E+00 .8522E-02
  334         0.06  0.000  0.046  0.3261    0.9845 .0000E+00 .2408E-01    0.0000
.0000E+00 .9082E-02
  335         0.00  0.000  0.035  0.3162    1.3759 .0000E+00 .2446E-01    0.0000
.0000E+00 .9595E-02
  336         0.00  0.000  0.028  0.3075    1.2927 .0000E+00 .2438E-01    0.0000
.0000E+00 .1006E-01
  337         0.00  0.000  0.031  0.2983    1.1689 .0000E+00 .2426E-01    0.0000
.0000E+00 .1048E-01
  338         0.00  0.000  0.026  0.2900    1.0345 .0000E+00 .2413E-01    0.0000
.0000E+00 .1087E-01
  339         0.08  0.000  0.043  0.2921    0.9266 .0000E+00 .2402E-01    0.0000
.0000E+00 .1121E-01
  340         0.02  0.000  0.044  0.2841    0.8120 .0000E+00 .2391E-01    0.0000
.0000E+00 .1152E-01
  341         0.00  0.000  0.028  0.2755    0.7192 .0000E+00 .2382E-01    0.0000
.0000E+00 .1179E-01
  342         0.13  0.000  0.047  0.2853    0.6196 .0000E+00 .2373E-01    0.0000
.0000E+00 .1203E-01
  343         0.00  0.000  0.036  0.2754    0.5058 .0000E+00 .2362E-01    0.0000
.0000E+00 .1225E-01
  344         0.00  0.000  0.026  0.2672    0.3924 .0000E+00 .2351E-01    0.0000
.0000E+00 .1243E-01
  345  *      0.00  0.000  0.000  0.2633    0.2825 .0000E+00 .2340E-01    0.0000
.0000E+00 .1260E-01
  346  *      0.04  0.000  0.023  0.2622    0.1816 .0000E+00 .2331E-01    0.0000
.0000E+00 .1274E-01
  347  *      0.00  0.000  0.000  0.2584    0.0744 .0000E+00 .2320E-01    0.0000
.0000E+00 .1338E-01
  348  *      0.89  0.000  0.013  0.2611    0.0036 .0000E+00 .3117E-02    0.0000
.0000E+00 .2494E-01
  349  *      0.30  0.000  0.000  0.2644    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2261E-01
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350	0.00	0.000	0.000	0.3133	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2066E-01							
351	0.00	0.000	0.000	0.4451	1.7900	.0000E+00	.2486E-01	0.0000
.0000E+00	.6435E-02							
352	0.00	0.000	0.040	0.4386	4.3931	.0000E+00	.2736E-01	0.0000
.0000E+00	.7071E-02							
353 *	0.00	0.000	0.023	0.4303	4.2339	.0000E+00	.2721E-01	0.0000
.0000E+00	.7663E-02							
354 *	0.00	0.000	0.000	0.4258	4.0710	.0000E+00	.2705E-01	0.0000
.0000E+00	.9422E-02							
355 *	0.00	0.000	0.000	0.4213	3.9466	.0000E+00	.2693E-01	0.0000
.0000E+00	.1246E-01							
356	0.00	0.000	0.026	0.4124	3.8076	.0000E+00	.2680E-01	0.0000
.0000E+00	.1483E-01							
357	0.00	0.000	0.036	0.4020	3.6392	.0000E+00	.2664E-01	0.0000
.0000E+00	.1660E-01							
358	0.00	0.000	0.045	0.3902	3.4578	.0000E+00	.2646E-01	0.0000
.0000E+00	.1782E-01							
359	0.25	0.000	0.055	0.4182	3.2934	.0000E+00	.2630E-01	0.0000
.0000E+00	.1758E-01							
360	0.00	0.000	0.041	0.4069	3.8655	.0000E+00	.2686E-01	0.0000
.0000E+00	.1636E-01							
361	0.00	0.000	0.040	0.3957	3.6805	.0000E+00	.2668E-01	0.0000
.0000E+00	.1528E-01							
362	0.15	0.000	0.062	0.4060	3.5064	.0000E+00	.2651E-01	0.0000
.0000E+00	.1434E-01							
363	0.42	0.000	0.057	0.4619	4.0315	.0000E+00	.2702E-01	0.0000
.0000E+00	.1350E-01							
364	0.00	0.000	0.049	0.4491	4.9114	.0000E+00	.2786E-01	0.0000
.0000E+00	.1275E-01							
365	0.00	0.000	0.037	0.4384	4.6672	.0000E+00	.2763E-01	0.0000
.0000E+00	.1208E-01							

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MONTHLY TOTALS (IN INCHES) FOR YEAR 2007

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	5.38	3.59	4.08	4.56	3.23	3.78
	2.56	5.44	2.48	0.21	2.62	2.28
RUNOFF	3.092	1.514	1.124	0.763	0.000	0.005
	0.000	0.115	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	1.136	1.596	2.258	3.670	4.130	3.734
	2.477	3.510	3.836	0.233	1.359	0.892
PERCOLATION/LEAKAGE THROUGH	0.8551	0.7675	0.8504	0.5446	0.2723	0.1364
LAYER 2	0.0216	0.1493	0.2917	0.0000	0.1691	0.7150
PERCOLATION/LEAKAGE THROUGH	0.1232	0.0000	0.0000	0.0000	0.0975	0.1065
LAYER 3	0.3583	0.4639	0.4257	0.2074	0.3155	0.4134

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON	4.622	4.440	4.463	1.848	0.414	0.318
TOP OF LAYER 2	0.002	0.544	0.573	0.000	0.095	2.151
STD. DEVIATION OF DAILY	0.556	0.983	0.932	1.779	0.763	0.731
HEAD ON TOP OF LAYER 2	0.006	1.371	1.140	0.000	0.219	1.747

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ANNUAL TOTALS FOR YEAR 2007

	INCHES	CU. FEET	PERCENT
PRECIPITATION	40.21	145962.297	100.00
RUNOFF	6.613	24004.648	16.45
EVAPOTRANSPIRATION	28.831	104657.687	71.70
PERC./LEAKAGE THROUGH LAYER 2	4.772931	17325.738	11.87
AVG. HEAD ON TOP OF LAYER 2	1.6225		
PERC./LEAKAGE THROUGH LAYER 3	2.511369	9116.271	6.25
CHANGE IN WATER STORAGE	2.254	8183.729	5.61
SOIL WATER AT START OF YEAR	68.936	250237.719	
SOIL WATER AT END OF YEAR	71.190	258421.453	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.035	0.00

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WARNING: TEMPERATURE FOR YEAR 1976 USED WITH PRECIPITATION FOR YEAR 2008

WARNING: SOLAR RADIATION FOR YEAR 1976 USED WITH PRECIPITATION FOR YEAR 2008

HEAD #1: AVERAGE HEAD ON TOP OF LAYER 2
DRAIN #1: LATERAL DRAINAGE FROM LAYER 1 (RECIRCULATION AND COLLECTION)
LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 2
LEAK #2: PERCOLATION OR LEAKAGE THROUGH LAYER 3

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DAILY OUTPUT FOR YEAR 2008

DAY	A	S O L I	RAIN	RUNOFF	ET	E. ZONE	HEAD	DRAIN	LEAK	HEAD	DRAIN	LEAK
	I	I				WATER	#1	#1	#1	#2	#2	#2
	R	L	IN.	IN.	IN.	IN./IN.	IN.	IN.	IN.	IN.	IN.	IN.
1			0.01	0.000	0.042	0.4285	4.4643	.0000E+00	.2743E-01	0.0000	.0000E+00	.1147E-01
2	*		0.00	0.000	0.029	0.4190	4.2976	.0000E+00	.2727E-01	0.0000	.0000E+00	.1091E-01
3	*		0.00	0.000	0.029	0.4097	4.1349	.0000E+00	.2712E-01	0.0000	.0000E+00	.1041E-01
4	*		0.00	0.000	0.028	0.4005	4.0072	.0000E+00	.2699E-01	0.0000	.0000E+00	.9949E-02
5			0.00	0.000	0.031	0.3909	3.9369	.0000E+00	.2692E-01	0.0000	.0000E+00	.9525E-02
6			0.00	0.000	0.036	0.3804	3.7698	.0000E+00	.2676E-01	0.0000	.0000E+00	.9134E-02
7			0.28	0.000	0.049	0.4144	3.5918	.0000E+00	.2659E-01	0.0000	.0000E+00	.8773E-02
8	*		0.00	0.000	0.029	0.4052	3.5922	.0000E+00	.2659E-01	0.0000	.0000E+00	.8439E-02
9	*		0.00	0.000	0.000	0.4007	3.5003	.0000E+00	.2650E-01	0.0000	.0000E+00	.8127E-02
10	*		0.00	0.000	0.000	0.3963	3.3784	.0000E+00	.2639E-01	0.0000	.0000E+00	.7837E-02
11	*		0.00	0.000	0.000	0.3920	3.2570	.0000E+00	.2627E-01	0.0000	.0000E+00	.7567E-02
12	*		0.00	0.000	0.000	0.3876	3.1361	.0000E+00	.2615E-01	0.0000	.0000E+00	.7313E-02
13	*		0.08	0.000	0.016	0.3865	3.0158	.0000E+00	.2604E-01	0.0000	.0000E+00	.7075E-02
14	*		0.00	0.000	0.018	0.3855	2.9583	.0000E+00	.2598E-01	0.0000	.0000E+00	.6852E-02
15	*		0.00	0.000	0.007	0.3812	2.9687	.0000E+00	.2599E-01	0.0000	.0000E+00	.6642E-02
16	*	*	0.00	0.000	0.000	0.3771	1.4428	.0000E+00	.2452E-01	0.0000	.0000E+00	.6444E-02
17	*	*	0.00	0.000	0.000	0.3731	0.8456	.0000E+00	.2395E-01	0.0000	.0000E+00	.6256E-02
18	*	*	0.00	0.000	0.000	0.3691	0.7354	.0000E+00	.2384E-01	0.0000	.0000E+00	.6079E-02
19		*	0.06	0.000	0.012	0.3732	0.6257	.0000E+00	.2373E-01	0.0000	.0000E+00	.5911E-02
20	*	*	0.00	0.000	0.000	0.3692	0.5166	.0000E+00	.2363E-01	0.0000	.0000E+00	.5752E-02
21		*	0.00	0.000	0.000	0.3653	0.4079	.0000E+00	.2352E-01	0.0000	.0000E+00	.5601E-02
22	*	*	0.00	0.000	0.000	0.3614	0.2996	.0000E+00	.2342E-01	0.0000	.0000E+00	.5457E-02

23	*	*	0.00	0.000	0.000	0.3575	0.1919	.0000E+00	.2332E-01	0.0000 .0000E+00 .5320E-02
24	*	*	0.00	0.000	0.000	0.3537	0.0846	.0000E+00	.2321E-01	0.0000 .0000E+00 .5190E-02
25	*	*	0.38	0.000	0.023	0.3530	0.0045	.0000E+00	.3863E-02	0.0000 .0000E+00 .5065E-02
26	*	*	0.00	0.000	0.017	0.3530	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .4946E-02
27	*	*	0.00	0.000	0.028	0.3530	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .4833E-02
28	*	*	0.00	0.000	0.030	0.3530	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .4724E-02
29	*	*	0.00	0.000	0.024	0.3530	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .4620E-02
30	*	*	0.00	0.000	0.022	0.3530	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .4520E-02
31	*	*	0.02	0.000	0.000	0.3530	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .4424E-02
32		*	0.00	0.029	0.029	0.3720	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .4332E-02
33	*	*	0.27	0.000	0.029	0.3720	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .4243E-02
34	*	*	0.00	0.000	0.025	0.3720	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .3535E-02
35	*	*	0.00	0.000	0.030	0.3720	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .2293E-02
36	*	*	0.44	0.000	0.028	0.3720	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1245E-02
37	*	*	0.00	0.000	0.029	0.3720	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .3608E-03
38		*	0.00	0.034	0.015	0.3893	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
39		*	0.00	0.248	0.009	0.4128	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
40		*	0.00	0.033	0.070	0.4128	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
41		*	0.00	0.000	0.000	0.4128	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
42		*	0.00	0.000	0.000	0.4128	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
43		*	0.00	0.000	0.000	0.4128	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
44	*	*	0.00	0.000	0.000	0.4128	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
45	*	*	0.00	0.000	0.000	0.4128	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
46	*	*	0.00	0.000	0.000	0.4128	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
47		*	0.01	0.000	0.006	0.4135	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
48	*	*	0.00	0.000	0.000	0.4135	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
49	*	*	0.00	0.000	0.000	0.4135	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
50	*	*	0.00	0.000	0.000	0.4135	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
51		*	0.15	0.073	0.010	0.4248	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
52		*	0.21	0.140	0.010	0.4349	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
53	*	*	0.00	0.000	0.000	0.4349	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
54	*	*	0.00	0.000	0.000	0.4349	0.0000	.0000E+00	.0000E+00	0.0000

```
.0000E+00 .0000E+00
   55      *    0.00  0.000  0.000  0.4349    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   56   *  *    0.00  0.000  0.000  0.4349    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   57   *  *    0.00  0.000  0.000  0.4349    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   58      *    0.00  0.000  0.000  0.4349    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   59   *  *    0.00  0.000  0.000  0.4349    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   60   *  *    0.00  0.000  0.000  0.4349    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   61   *  *    0.00  0.000  0.000  0.4349    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   62   *  *    0.00  0.000  0.000  0.4349    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1666E-03
   63   *  *    1.49  0.000  0.000  0.4349    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .7088E-03
   64   *  *    0.93  0.000  0.024  0.4349    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1275E-02
   65      *    0.00  0.307  0.000  0.4451    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1849E-02
   66      *    0.00  1.387  0.000  0.4536    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2427E-02
   67      *    0.00  0.556  0.007  0.4582    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3004E-02
   68      *    0.00  0.000  0.000  0.4582    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3578E-02
   69      *    0.00  0.000  0.000  0.4582    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4145E-02
   70      *    0.01  0.001  0.006  0.4587    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4701E-02
   71      *    0.26  0.237  0.008  0.4612    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .5245E-02
   72      *    0.00  0.000  0.000  0.4612    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .5774E-02
   73      *    0.00  0.000  0.000  0.4612    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6285E-02
   74           0.00  0.000  0.099  0.4411    3.6800 .0000E+00 .2089E-01    0.0000
.0000E+00 .3018E-02
   75           0.28  0.000  0.071  0.4714    4.7386 .0000E+00 .2770E-01    0.0000
.0000E+00 .4265E-02
   76           0.20  0.000  0.080  0.4867    5.3179 .0000E+00 .2826E-01    0.0000
.0000E+00 .5452E-02
   77           0.00  0.000  0.111  0.4635    5.4274 .0000E+00 .2836E-01    0.0000
.0000E+00 .6571E-02
   78           0.00  0.000  0.057  0.4493    4.9310 .0000E+00 .2788E-01    0.0000
.0000E+00 .7617E-02
   79   *       0.00  0.000  0.076  0.4320    4.6251 .0000E+00 .2759E-01    0.0000
.0000E+00 .8586E-02
   80   *       0.01  0.000  0.061  0.4190    4.3197 .0000E+00 .2729E-01    0.0000
.0000E+00 .9477E-02
   81           0.00  0.000  0.099  0.3980    4.0169 .0000E+00 .2700E-01    0.0000
.0000E+00 .1029E-01
   82           0.01  0.000  0.061  0.3850    3.7463 .0000E+00 .2674E-01    0.0000
.0000E+00 .1103E-01
   83           0.00  0.000  0.092  0.3653    3.5188 .0000E+00 .2652E-01    0.0000
.0000E+00 .1169E-01
   84           0.05  0.000  0.097  0.3530    3.2592 .0000E+00 .2627E-01    0.0000
.0000E+00 .1228E-01
   85           0.00  0.000  0.136  0.3260    2.9414 .0000E+00 .2597E-01    0.0000
.0000E+00 .1280E-01
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86	0.51	0.000	0.136	0.3841	2.6862	.0000E+00	.2572E-01	0.0000
.0000E+00	.1327E-01							
87	0.16	0.000	0.099	0.3900	2.6804	.0000E+00	.2571E-01	0.0000
.0000E+00	.1367E-01							
88	0.01	0.000	0.086	0.3731	2.7807	.0000E+00	.2581E-01	0.0000
.0000E+00	.1403E-01							
89	0.36	0.000	0.090	0.4137	3.0193	.0000E+00	.2604E-01	0.0000
.0000E+00	.1455E-01							
90	0.00	0.000	0.143	0.3855	3.5536	.0000E+00	.2656E-01	0.0000
.0000E+00	.1641E-01							
91	0.00	0.000	0.105	0.3637	3.2375	.0000E+00	.2625E-01	0.0000
.0000E+00	.1888E-01							
92	0.00	0.000	0.158	0.3331	2.9492	.0000E+00	.2597E-01	0.0000
.0000E+00	.2051E-01							
93	0.00	0.000	0.190	0.2972	2.6507	.0000E+00	.2568E-01	0.0000
.0000E+00	.2149E-01							
94	0.00	0.000	0.171	0.2645	2.1300	.0000E+00	.2518E-01	0.0000
.0000E+00	.2209E-01							
95	0.00	0.000	0.135	0.2380	1.7274	.0000E+00	.2480E-01	0.0000
.0000E+00	.2210E-01							
96	0.00	0.000	0.148	0.2093	1.1978	.0000E+00	.2428E-01	0.0000
.0000E+00	.2109E-01							
97	0.00	0.000	0.116	0.1859	0.8539	.0000E+00	.2395E-01	0.0000
.0000E+00	.1937E-01							
98	0.00	0.000	0.119	0.1621	0.4746	.0000E+00	.2359E-01	0.0000
.0000E+00	.1791E-01							
99	0.00	0.000	0.083	0.1483	0.0160	.0000E+00	.0000E+00	0.0000
.0000E+00	.1664E-01							
100	0.00	0.000	0.064	0.1375	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1553E-01							
101	0.00	0.000	0.015	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1456E-01							
102	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1369E-01							
103	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1292E-01							
104	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1223E-01							
105	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1161E-01							
106	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1104E-01							
107	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1033E-01							
108	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8809E-02							
109	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7432E-02							
110	0.71	0.000	0.026	0.2490	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6291E-02							
111	0.29	0.000	0.151	0.2722	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5346E-02							
112	0.00	0.000	0.212	0.2369	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4565E-02							
113	0.00	0.000	0.203	0.2031	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3926E-02							
114	0.00	0.000	0.086	0.1888	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3408E-02							
115	0.18	0.000	0.072	0.2067	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2997E-02							
116	0.13	0.000	0.063	0.2179	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2680E-02							
117	0.00	0.000	0.050	0.2095	0.0000	.0000E+00	.0000E+00	0.0000

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.0000E+00 .2447E-02
  118         0.06  0.000  0.053  0.2107    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2289E-02
  119         0.00  0.000  0.043  0.2035    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2198E-02
  120         0.00  0.000  0.041  0.1966    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2168E-02
  121         0.00  0.000  0.040  0.1899    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2193E-02
  122         0.01  0.000  0.043  0.1844    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2268E-02
  123         0.00  0.000  0.036  0.1784    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2387E-02
  124         0.00  0.000  0.037  0.1723    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2546E-02
  125         0.00  0.000  0.039  0.1658    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2741E-02
  126         0.03  0.000  0.044  0.1635    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2967E-02
  127         0.20  0.000  0.043  0.1897    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3222E-02
  128         0.00  0.000  0.041  0.1828    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3501E-02
  129         0.00  0.000  0.040  0.1761    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3800E-02
  130         0.00  0.000  0.041  0.1693    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4117E-02
  131         0.00  0.000  0.043  0.1621    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4447E-02
  132         0.00  0.000  0.042  0.1550    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4788E-02
  133         0.00  0.000  0.045  0.1476    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .5138E-02
  134         0.60  0.000  0.048  0.2396    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .5492E-02
  135         0.06  0.000  0.095  0.2337    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .5849E-02
  136         0.32  0.000  0.089  0.2722    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6206E-02
  137         0.00  0.000  0.178  0.2425    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6561E-02
  138         0.04  0.000  0.177  0.2196    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6912E-02
  139         0.00  0.000  0.209  0.1847    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .7258E-02
  140         0.00  0.000  0.235  0.1455    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .7597E-02
  141         0.00  0.000  0.062  0.1351    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .7927E-02
  142         0.00  0.000  0.001  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8247E-02
  143         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8557E-02
  144         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8856E-02
  145         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9143E-02
  146         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9418E-02
  147         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9680E-02
  148         0.04  0.000  0.015  0.1392    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9930E-02
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149	0.11	0.000	0.038	0.1512	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1017E-01							
150	0.02	0.000	0.037	0.1484	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9473E-02							
151	1.78	0.066	0.066	0.4232	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7342E-02							
152	0.69	0.011	0.190	0.5002	3.8355	.0000E+00	.2683E-01	0.0000
.0000E+00	.8325E-02							
153	0.00	0.000	0.231	0.4570	5.5461	.0000E+00	.2848E-01	0.0000
.0000E+00	.9231E-02							
154	0.00	0.000	0.224	0.4151	4.5776	.0000E+00	.2754E-01	0.0000
.0000E+00	.1006E-01							
155	0.00	0.000	0.237	0.3711	3.8496	.0000E+00	.2684E-01	0.0000
.0000E+00	.1081E-01							
156	0.04	0.000	0.252	0.3313	3.2022	.0000E+00	.2622E-01	0.0000
.0000E+00	.1149E-01							
157	0.10	0.000	0.261	0.3003	2.6084	.0000E+00	.2564E-01	0.0000
.0000E+00	.1209E-01							
158	0.00	0.000	0.250	0.2544	1.9799	.0000E+00	.2504E-01	0.0000
.0000E+00	.1263E-01							
159	0.00	0.000	0.274	0.2046	1.3439	.0000E+00	.2443E-01	0.0000
.0000E+00	.1311E-01							
160	0.00	0.000	0.305	0.1508	0.5193	.0000E+00	.1784E-01	0.0000
.0000E+00	.1353E-01							
161	0.00	0.000	0.095	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2353E-01							
162	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2110E-01							
163	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1911E-01							
164	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1747E-01							
165	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1610E-01							
166	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1496E-01							
167	0.01	0.000	0.010	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1399E-01							
168	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1318E-01							
169	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1249E-01							
170	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1190E-01							
171	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1141E-01							
172	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1100E-01							
173	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1066E-01							
174	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1037E-01							
175	1.52	0.022	0.139	0.3614	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1014E-01							
176	0.65	0.000	0.195	0.4340	2.0499	.0000E+00	.1932E-01	0.0000
.0000E+00	.4230E-02							
177	0.00	0.000	0.229	0.3913	3.8470	.0000E+00	.2684E-01	0.0000
.0000E+00	.5292E-02							
178	0.00	0.000	0.227	0.3490	3.3862	.0000E+00	.2639E-01	0.0000
.0000E+00	.6295E-02							
179	0.00	0.000	0.279	0.2983	2.8195	.0000E+00	.2585E-01	0.0000
.0000E+00	.7236E-02							
180	0.00	0.000	0.300	0.2442	2.0379	.0000E+00	.2509E-01	0.0000

.0000E+00	.8110E-02								
181	0.00	0.000	0.274	0.1944	1.2003	.0000E+00	.2429E-01	0.0000	
.0000E+00	.8917E-02								
182	0.00	0.000	0.245	0.1507	0.4191	.0000E+00	.1757E-01	0.0000	
.0000E+00	.9656E-02								
183	0.00	0.000	0.094	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.2195E-01								
184	0.33	0.000	0.124	0.1693	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1949E-01								
185	0.00	0.000	0.104	0.1519	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1747E-01								
186	0.00	0.000	0.092	0.1366	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1580E-01								
187	0.00	0.000	0.007	0.1354	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1441E-01								
188	0.00	0.000	0.002	0.1351	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1324E-01								
189	0.25	0.000	0.089	0.1620	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1226E-01								
190	0.00	0.000	0.069	0.1505	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1143E-01								
191	0.00	0.000	0.070	0.1388	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1074E-01								
192	0.00	0.000	0.017	0.1359	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1015E-01								
193	0.00	0.000	0.004	0.1352	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.9656E-02								
194	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.9244E-02								
195	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8904E-02								
196	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8626E-02								
197	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8402E-02								
198	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8227E-02								
199	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8094E-02								
200	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7998E-02								
201	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7935E-02								
202	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7902E-02								
203	0.40	0.000	0.133	0.1795	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7893E-02								
204	0.00	0.000	0.083	0.1657	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7908E-02								
205	0.00	0.000	0.121	0.1456	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7941E-02								
206	0.00	0.000	0.054	0.1367	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7992E-02								
207	0.00	0.000	0.008	0.1353	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8058E-02								
208	0.05	0.000	0.033	0.1381	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8136E-02								
209	0.00	0.000	0.008	0.1368	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8225E-02								
210	0.68	0.000	0.156	0.2241	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8323E-02								
211	0.00	0.000	0.232	0.1853	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8429E-02								

212	0.00	0.000	0.221	0.1485	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8540E-02							
213	0.57	0.000	0.216	0.2075	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8657E-02							
214	0.00	0.000	0.264	0.1636	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8776E-02							
215	0.00	0.000	0.159	0.1371	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8899E-02							
216	0.00	0.000	0.009	0.1355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9022E-02							
217	0.00	0.000	0.003	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9147E-02							
218	0.21	0.000	0.104	0.1526	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9271E-02							
219	0.04	0.000	0.085	0.1451	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9395E-02							
220	0.00	0.000	0.041	0.1383	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9518E-02							
221	0.00	0.000	0.014	0.1359	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9639E-02							
222	0.00	0.000	0.004	0.1352	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7315E-02							
223	0.00	0.000	0.001	0.1351	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6882E-02							
224	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7697E-02							
225	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8452E-02							
226	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9147E-02							
227	0.75	0.000	0.147	0.2355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9783E-02							
228	0.01	0.000	0.161	0.2103	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1036E-01							
229	0.00	0.000	0.230	0.1720	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1088E-01							
230	0.00	0.000	0.117	0.1525	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1135E-01							
231	0.00	0.000	0.084	0.1385	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1177E-01							
232	0.00	0.000	0.021	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1215E-01							
233	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1248E-01							
234	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1277E-01							
235	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1303E-01							
236	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1326E-01							
237	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1345E-01							
238	0.26	0.000	0.098	0.1619	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1362E-01							
239	0.00	0.000	0.068	0.1505	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1376E-01							
240	0.00	0.000	0.071	0.1388	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1389E-01							
241	0.00	0.000	0.017	0.1359	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1399E-01							
242	0.00	0.000	0.004	0.1352	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1407E-01							
243	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.1414E-01							
244	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1420E-01							
245	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1425E-01							
246	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1428E-01							
247	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1430E-01							
248	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1432E-01							
249	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1433E-01							
250	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1433E-01							
251	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1432E-01							
252	0.02	0.000	0.020	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1431E-01							
253	0.26	0.000	0.059	0.1684	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1430E-01							
254	0.00	0.000	0.073	0.1563	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1428E-01							
255	0.00	0.000	0.092	0.1410	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1426E-01							
256	0.00	0.000	0.032	0.1356	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1424E-01							
257	0.00	0.000	0.003	0.1352	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1421E-01							
258	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1418E-01							
259	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1415E-01							
260	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1412E-01							
261	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1408E-01							
262	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1405E-01							
263	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1401E-01							
264	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1397E-01							
265	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1393E-01							
266	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1389E-01							
267	0.03	0.000	0.022	0.1364	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1385E-01							
268	0.00	0.000	0.003	0.1358	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1381E-01							
269	0.17	0.000	0.039	0.1576	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1377E-01							
270	0.29	0.000	0.040	0.1992	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1373E-01							
271	0.13	0.000	0.049	0.2127	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1369E-01							
272	0.00	0.000	0.027	0.2083	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1365E-01							
273	0.00	0.000	0.025	0.2040	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1360E-01							
274	0.00	0.000	0.020	0.2007	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1356E-01							

275	0.00	0.000	0.020	0.1974	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1352E-01							
276	0.00	0.000	0.020	0.1941	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1348E-01							
277	0.00	0.000	0.020	0.1908	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1344E-01							
278	0.08	0.000	0.045	0.1966	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1339E-01							
279	0.77	0.000	0.045	0.3174	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1335E-01							
280	0.00	0.000	0.079	0.3013	0.5583	.0000E+00	.1789E-01	0.0000
.0000E+00	.1331E-01							
281	0.00	0.000	0.060	0.2872	0.8513	.0000E+00	.2395E-01	0.0000
.0000E+00	.1327E-01							
282	0.00	0.000	0.071	0.2714	0.8490	.0000E+00	.2395E-01	0.0000
.0000E+00	.1323E-01							
283	0.00	0.000	0.062	0.2570	0.7381	.0000E+00	.2384E-01	0.0000
.0000E+00	.1319E-01							
284	0.00	0.000	0.061	0.2428	0.6194	.0000E+00	.2373E-01	0.0000
.0000E+00	.1314E-01							
285	0.00	0.000	0.071	0.2271	0.5006	.0000E+00	.2361E-01	0.0000
.0000E+00	.1310E-01							
286	0.00	0.000	0.073	0.2110	0.3815	.0000E+00	.2350E-01	0.0000
.0000E+00	.1306E-01							
287	0.00	0.000	0.066	0.1960	0.2630	.0000E+00	.2338E-01	0.0000
.0000E+00	.1302E-01							
288	0.00	0.000	0.056	0.1829	0.1463	.0000E+00	.2327E-01	0.0000
.0000E+00	.1298E-01							
289	0.00	0.000	0.048	0.1724	0.0343	.0000E+00	.1495E-01	0.0000
.0000E+00	.1294E-01							
290	0.00	0.000	0.043	0.1652	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2245E-01							
291	0.00	0.000	0.039	0.1586	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2008E-01							
292	0.00	0.000	0.037	0.1525	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1812E-01							
293	0.17	0.000	0.062	0.1706	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1647E-01							
294	0.01	0.000	0.041	0.1654	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1507E-01							
295	0.00	0.000	0.031	0.1601	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1388E-01							
296	0.00	0.000	0.030	0.1551	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1285E-01							
297	1.38	0.009	0.056	0.3743	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1195E-01							
298	0.12	0.000	0.063	0.3795	2.1500	.0000E+00	.2520E-01	0.0000
.0000E+00	.4043E-02							
299	0.00	0.000	0.055	0.3660	2.6664	.0000E+00	.2570E-01	0.0000
.0000E+00	.4643E-02							
300	0.00	0.000	0.049	0.3536	2.5047	.0000E+00	.2554E-01	0.0000
.0000E+00	.5215E-02							
301	0.00	0.000	0.046	0.3416	2.3478	.0000E+00	.2539E-01	0.0000
.0000E+00	.5757E-02							
302	0.00	0.000	0.057	0.3278	2.1897	.0000E+00	.2524E-01	0.0000
.0000E+00	.6268E-02							
303	0.06	0.000	0.056	0.3244	2.0271	.0000E+00	.2508E-01	0.0000
.0000E+00	.6747E-02							
304	0.78	0.000	0.055	0.4410	2.1738	.0000E+00	.2523E-01	0.0000
.0000E+00	.7195E-02							
305	0.00	0.000	0.056	0.4271	4.1256	.0000E+00	.2711E-01	0.0000
.0000E+00	.7612E-02							
306	0.00	0.000	0.045	0.4150	3.9748	.0000E+00	.2696E-01	0.0000

.0000E+00	.7998E-02								
307	0.00	0.000	0.046	0.4029	3.7784	.0000E+00	.2677E-01	0.0000	
.0000E+00	.8356E-02								
308	0.00	0.000	0.066	0.3875	3.5744	.0000E+00	.2658E-01	0.0000	
.0000E+00	.8684E-02								
309	0.00	0.000	0.054	0.3740	3.3593	.0000E+00	.2637E-01	0.0000	
.0000E+00	.1064E-01								
310	0.00	0.000	0.053	0.3608	3.1568	.0000E+00	.2617E-01	0.0000	
.0000E+00	.1331E-01								
311	0.00	0.000	0.058	0.3468	2.9610	.0000E+00	.2598E-01	0.0000	
.0000E+00	.1536E-01								
312	0.00	0.000	0.064	0.3318	2.7894	.0000E+00	.2582E-01	0.0000	
.0000E+00	.1683E-01								
313	0.00	0.000	0.034	0.3218	2.6273	.0000E+00	.2566E-01	0.0000	
.0000E+00	.1733E-01								
314	0.00	0.000	0.048	0.3095	2.5201	.0000E+00	.2556E-01	0.0000	
.0000E+00	.1621E-01								
315	0.00	0.000	0.056	0.2960	2.3750	.0000E+00	.2542E-01	0.0000	
.0000E+00	.1516E-01								
316	0.00	0.000	0.048	0.2838	2.1911	.0000E+00	.2524E-01	0.0000	
.0000E+00	.1423E-01								
317	0.00	0.000	0.037	0.2734	1.9761	.0000E+00	.2503E-01	0.0000	
.0000E+00	.1340E-01								
318	0.00	0.000	0.042	0.2622	1.8353	.0000E+00	.2490E-01	0.0000	
.0000E+00	.1266E-01								
319	0.00	0.000	0.050	0.2498	1.7025	.0000E+00	.2477E-01	0.0000	
.0000E+00	.1200E-01								
320	0.00	0.000	0.050	0.2374	1.5587	.0000E+00	.2463E-01	0.0000	
.0000E+00	.1139E-01								
321	0.00	0.000	0.047	0.2255	1.3355	.0000E+00	.2442E-01	0.0000	
.0000E+00	.1085E-01								
322	0.00	0.000	0.048	0.2134	1.0219	.0000E+00	.2412E-01	0.0000	
.0000E+00	.1035E-01								
323	0.00	0.000	0.053	0.2006	0.8671	.0000E+00	.2397E-01	0.0000	
.0000E+00	.9893E-02								
324	0.00	0.000	0.053	0.1878	0.7490	.0000E+00	.2385E-01	0.0000	
.0000E+00	.9473E-02								
325	0.00	0.000	0.050	0.1755	0.5850	.0000E+00	.2369E-01	0.0000	
.0000E+00	.9087E-02								
326	0.00	0.000	0.048	0.1636	0.3101	.0000E+00	.2343E-01	0.0000	
.0000E+00	.8729E-02								
327	0.00	0.000	0.032	0.1572	0.0357	.0000E+00	.6511E-02	0.0000	
.0000E+00	.8398E-02								
328 *	0.03	0.000	0.032	0.1569	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8089E-02								
329	0.00	0.000	0.044	0.1495	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7802E-02								
330	0.02	0.000	0.045	0.1454	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7533E-02								
331	0.66	0.000	0.056	0.2460	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7282E-02								
332	0.02	0.000	0.061	0.2391	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7046E-02								
333	0.00	0.000	0.060	0.2291	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.6824E-02								
334	0.00	0.000	0.055	0.2199	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.6616E-02								
335	0.00	0.000	0.052	0.2112	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.6419E-02								
336	0.00	0.000	0.051	0.2028	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.6233E-02								
337	0.00	0.000	0.064	0.1921	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.6057E-02								

338		0.00	0.000	0.043	0.1849	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5890E-02								
339		0.00	0.000	0.035	0.1791	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5662E-02								
340		0.00	0.000	0.039	0.1726	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4841E-02								
341		0.89	0.000	0.051	0.3124	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4001E-02								
342	*	0.01	0.000	0.034	0.3054	0.3950	.0000E+00	.1773E-01	0.0000
.0000E+00	.0000E+00								
343	*	0.02	0.000	0.020	0.3014	0.6945	.0000E+00	.2380E-01	0.0000
.0000E+00	.0000E+00								
344	*	0.00	0.000	0.000	0.2974	0.7515	.0000E+00	.2385E-01	0.0000
.0000E+00	.0000E+00								
345	*	0.05	0.000	0.024	0.2967	0.7782	.0000E+00	.2388E-01	0.0000
.0000E+00	.0000E+00								
346	*	0.00	0.000	0.006	0.2928	0.7442	.0000E+00	.2385E-01	0.0000
.0000E+00	.0000E+00								
347	*	0.00	0.000	0.000	0.2888	0.6595	.0000E+00	.2377E-01	0.0000
.0000E+00	.0000E+00								
348	*	0.00	0.000	0.000	0.2849	0.5811	.0000E+00	.2369E-01	0.0000
.0000E+00	.0000E+00								
349	*	0.00	0.000	0.000	0.2809	0.5083	.0000E+00	.2362E-01	0.0000
.0000E+00	.0000E+00								
350	*	0.00	0.000	0.000	0.2770	0.4344	.0000E+00	.2355E-01	0.0000
.0000E+00	.1161E-03								
351		0.00	0.000	0.033	0.2676	0.3559	.0000E+00	.2347E-01	0.0000
.0000E+00	.2048E-02								
352	*	0.00	0.000	0.025	0.2595	0.2484	.0000E+00	.2337E-01	0.0000
.0000E+00	.4305E-02								
353	*	0.00	0.000	0.000	0.2557	0.1386	.0000E+00	.2326E-01	0.0000
.0000E+00	.6209E-02								
354	*	0.00	0.000	0.025	0.2491	0.0330	.0000E+00	.1496E-01	0.0000
.0000E+00	.9410E-02								
355	*	0.00	0.000	0.027	0.2446	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9028E-02								
356		0.00	0.000	0.032	0.2391	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8675E-02								
357		0.00	0.000	0.037	0.2330	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8347E-02								
358		0.00	0.000	0.034	0.2273	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8042E-02								
359	*	0.00	0.000	0.031	0.2222	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7758E-02								
360	*	0.00	0.000	0.025	0.2180	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7492E-02								
361	*	0.00	0.000	0.000	0.2180	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7244E-02								
362	*	* 0.00	0.000	0.000	0.2180	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7010E-02								
363	*	* 0.16	0.000	0.025	0.2180	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6791E-02								
364		* 0.00	0.003	0.027	0.2355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6476E-02								
365		* 0.00	0.000	0.000	0.2355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5541E-02								
366		* 0.00	0.000	0.000	0.2355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4628E-02								

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MONTHLY TOTALS (IN INCHES) FOR YEAR 2008

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.83	1.08	4.28	1.37	3.90	2.32
	2.28	1.27	0.90	3.37	0.73	1.13
RUNOFF	0.000	0.557	2.487	0.000	0.077	0.023
	0.000	0.000	0.000	0.009	0.000	0.003
EVAPOTRANSPIRATION	0.469	0.289	1.744	2.239	1.935	4.027
	1.939	1.705	0.506	1.576	1.489	0.689
PERCOLATION/LEAKAGE THROUGH	0.6160	0.0000	0.4766	0.1735	0.0268	0.3674
LAYER 2	0.0000	0.0000	0.0000	0.4266	0.5359	0.2928
PERCOLATION/LEAKAGE THROUGH	0.2152	0.0160	0.2330	0.3199	0.1949	0.3601
LAYER 3	0.3220	0.3421	0.4218	0.3768	0.3180	0.1418

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON	1.909	0.000	2.209	0.400	0.124	1.313
TOP OF LAYER 2	0.000	0.000	0.000	0.811	1.509	0.204
STD. DEVIATION OF DAILY	1.725	0.000	2.025	0.848	0.689	1.682
HEAD ON TOP OF LAYER 2	0.000	0.000	0.000	1.110	1.354	0.289

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ANNUAL TOTALS FOR YEAR 2008

	INCHES	CU. FEET	PERCENT
PRECIPITATION	23.46	85159.820	100.00
RUNOFF	3.155	11451.533	13.45
EVAPOTRANSPIRATION	18.607	67544.906	79.32
PERC./LEAKAGE THROUGH LAYER 2	2.915465	10583.139	12.43
AVG. HEAD ON TOP OF LAYER 2	0.7065		
PERC./LEAKAGE THROUGH LAYER 3	3.261537	11839.378	13.90
CHANGE IN WATER STORAGE	-1.564	-5676.001	-6.67
SOIL WATER AT START OF YEAR	71.190	258421.453	

SOIL WATER AT END OF YEAR	69.627	252745.453	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.001	0.00

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HEAD #1: AVERAGE HEAD ON TOP OF LAYER 2
DRAIN #1: LATERAL DRAINAGE FROM LAYER 1 (RECIRCULATION AND COLLECTION)
LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 2
LEAK #2: PERCOLATION OR LEAKAGE THROUGH LAYER 3

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DAILY OUTPUT FOR YEAR 2009

DAY	A I R	S O I L	RAIN IN.	RUNOFF IN.	ET IN.	E. ZONE WATER IN./IN.	HEAD #1 IN.	DRAIN #1 IN.	LEAK #1 IN.	HEAD #2 IN.	DRAIN #2 IN.	LEAK #2 IN.
1		*	0.01	0.000	0.006	0.2361	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.3847E-02
2		*	0.00	0.000	0.000	0.2361	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.3176E-02
3		*	0.00	0.000	0.000	0.2361	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.2603E-02
4	*	*	0.00	0.000	0.000	0.2361	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.2116E-02
5		*	0.00	0.000	0.000	0.2361	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.1703E-02
6		*	0.00	0.000	0.000	0.2361	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.1358E-02
7	*	*	0.28	0.000	0.024	0.2361	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.1073E-02
8	*	*	0.00	0.000	0.017	0.2361	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.8431E-03
9	*	*	0.00	0.000	0.023	0.2361	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.6633E-03
10		*	0.00	0.007	0.025	0.2553	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.5294E-03
11		*	0.00	0.000	0.037	0.2606	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.4378E-03
12	*	*	0.00	0.000	0.000	0.2606	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.3853E-03

13	*	0.08	0.000	0.009	0.2725	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3690E-03								
14	*	0.00	0.000	0.000	0.2725	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3862E-03								
15	*	0.00	0.000	0.000	0.2725	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4346E-03								
16	*	0.00	0.000	0.000	0.2725	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5119E-03								
17		0.00	0.000	0.039	0.2660	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6161E-03								
18	*	0.00	0.000	0.038	0.2577	0.0264	.0000E+00	.1159E-01	0.0000
.0000E+00	.0000E+00								
19		0.06	0.000	0.053	0.2550	0.0879	.0000E+00	.2322E-01	0.0000
.0000E+00	.0000E+00								
20		0.00	0.000	0.042	0.2442	0.1010	.0000E+00	.2323E-01	0.0000
.0000E+00	.0000E+00								
21		0.00	0.000	0.049	0.2324	0.0432	.0000E+00	.2155E-01	0.0000
.0000E+00	.0000E+00								
22	*	0.00	0.000	0.036	0.2264	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6141E-02								
23		0.00	0.000	0.049	0.2181	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5767E-02								
24	*	0.00	0.000	0.035	0.2123	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5456E-02								
25	*	0.38	0.000	0.024	0.2156	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5200E-02								
26	*	0.00	0.000	0.023	0.2188	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4995E-02								
27		0.00	0.000	0.032	0.2221	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4835E-02								
28	*	0.00	0.000	0.027	0.2254	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4714E-02								
29		0.00	0.000	0.040	0.2511	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4630E-02								
30		0.00	0.000	0.062	0.2408	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4579E-02								
31		0.02	0.000	0.060	0.2341	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4557E-02								
32		0.00	0.000	0.059	0.2243	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4561E-02								
33		0.27	0.000	0.047	0.2614	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4589E-02								
34		0.00	0.000	0.048	0.2533	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4639E-02								
35		0.00	0.000	0.054	0.2443	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4709E-02								
36		0.44	0.000	0.063	0.3071	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4795E-02								
37		0.00	0.000	0.053	0.2954	0.4399	.0000E+00	.1777E-01	0.0000
.0000E+00	.1254E-04								
38		0.00	0.000	0.058	0.2817	0.6810	.0000E+00	.2379E-01	0.0000
.0000E+00	.6400E-03								
39	*	0.00	0.000	0.045	0.2702	0.6632	.0000E+00	.2377E-01	0.0000
.0000E+00	.1570E-02								
40		0.00	0.000	0.060	0.2562	0.5508	.0000E+00	.2366E-01	0.0000
.0000E+00	.2477E-02								
41		0.00	0.000	0.053	0.2434	0.4335	.0000E+00	.2355E-01	0.0000
.0000E+00	.3355E-02								
42		0.00	0.000	0.065	0.2287	0.3167	.0000E+00	.2344E-01	0.0000
.0000E+00	.4198E-02								
43		0.00	0.000	0.084	0.2109	0.1983	.0000E+00	.2332E-01	0.0000
.0000E+00	.5003E-02								
44		0.00	0.000	0.056	0.1976	0.0802	.0000E+00	.2321E-01	0.0000

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.0000E+00 .5766E-02
   45         0.00  0.000  0.064  0.1867    0.0021 .0000E+00 .1279E-02    0.0000
.0000E+00 .1678E-01
   46         0.00  0.000  0.047  0.1789    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1631E-01
   47  *      0.01  0.000  0.054  0.1715    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1468E-01
   48         0.00  0.000  0.068  0.1602    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1332E-01
   49  *      0.00  0.000  0.053  0.1515    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1216E-01
   50  *      0.00  0.000  0.053  0.1426    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1118E-01
   51  *      0.15  0.000  0.045  0.1459    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1033E-01
   52         0.21  0.000  0.036  0.1892    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9612E-02
   53  *      0.00  0.000  0.062  0.1788    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8995E-02
   54  *      0.00  0.000  0.060  0.1687    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8467E-02
   55  *      0.00  0.000  0.057  0.1592    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8016E-02
   56         0.00  0.000  0.062  0.1488    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .7634E-02
   57         0.00  0.000  0.066  0.1377    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .7311E-02
   58         0.00  0.000  0.015  0.1353    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .7041E-02
   59         0.00  0.000  0.002  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6818E-02
   60         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6637E-02
   61  *      0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6494E-02
   62         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6384E-02
   63         1.49  0.019  0.068  0.3688    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6304E-02
   64  *      0.93  0.000  0.033  0.3679    1.9788 .0000E+00 .2504E-01    0.0000
.0000E+00 .6050E-03
   65         0.00  0.052  0.000  0.5010    3.7429 .0000E+00 .2674E-01    0.0000
.0000E+00 .1518E-02
   66         0.00  0.000  0.094  0.4806    5.7903 .0000E+00 .2871E-01    0.0000
.0000E+00 .2408E-02
   67         0.00  0.000  0.075  0.4634    5.2864 .0000E+00 .2823E-01    0.0000
.0000E+00 .3270E-02
   68         0.00  0.000  0.091  0.4436    4.8621 .0000E+00 .2782E-01    0.0000
.0000E+00 .4099E-02
   69         0.00  0.000  0.063  0.4285    4.5164 .0000E+00 .2748E-01    0.0000
.0000E+00 .4891E-02
   70  *      0.01  0.000  0.053  0.4169    4.2421 .0000E+00 .2722E-01    0.0000
.0000E+00 .5643E-02
   71  *      0.26  0.000  0.021  0.4157    4.0455 .0000E+00 .2703E-01    0.0000
.0000E+00 .6352E-02
   72         0.00  0.000  0.058  0.4243    3.9211 .0000E+00 .2691E-01    0.0000
.0000E+00 .7016E-02
   73  *      0.00  0.000  0.069  0.4221    3.8995 .0000E+00 .2689E-01    0.0000
.0000E+00 .7635E-02
   74         0.00  0.000  0.091  0.4026    3.8346 .0000E+00 .2683E-01    0.0000
.0000E+00 .8210E-02
   75  *      0.28  0.000  0.036  0.4014    3.6321 .0000E+00 .2663E-01    0.0000
.0000E+00 .8739E-02
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76	0.20	0.000	0.000	0.4676	3.9873	.0000E+00	.2697E-01	0.0000
.0000E+00	.9544E-02							
77	0.00	0.000	0.087	0.4485	4.9280	.0000E+00	.2788E-01	0.0000
.0000E+00	.1152E-01							
78	0.00	0.000	0.080	0.4305	4.5657	.0000E+00	.2753E-01	0.0000
.0000E+00	.1461E-01							
79	0.00	0.000	0.098	0.4096	4.2059	.0000E+00	.2718E-01	0.0000
.0000E+00	.1689E-01							
80	0.01	0.000	0.075	0.3942	3.9339	.0000E+00	.2692E-01	0.0000
.0000E+00	.1839E-01							
81	0.00	0.000	0.096	0.3737	3.7193	.0000E+00	.2671E-01	0.0000
.0000E+00	.1896E-01							
82	0.01	0.000	0.089	0.3561	3.4579	.0000E+00	.2646E-01	0.0000
.0000E+00	.1770E-01							
83	0.00	0.000	0.104	0.3345	3.1140	.0000E+00	.2613E-01	0.0000
.0000E+00	.1646E-01							
84	0.05	0.000	0.093	0.3230	2.8261	.0000E+00	.2585E-01	0.0000
.0000E+00	.1538E-01							
85	0.00	0.000	0.091	0.3036	2.6315	.0000E+00	.2567E-01	0.0000
.0000E+00	.1442E-01							
86	0.51	0.000	0.094	0.3686	2.4139	.0000E+00	.2546E-01	0.0000
.0000E+00	.1357E-01							
87 *	0.16	0.000	0.052	0.3677	2.3481	.0000E+00	.2539E-01	0.0000
.0000E+00	.1282E-01							
88	0.01	0.000	0.063	0.3693	2.4293	.0000E+00	.2547E-01	0.0000
.0000E+00	.1214E-01							
89	0.36	0.000	0.067	0.4139	2.7569	.0000E+00	.2579E-01	0.0000
.0000E+00	.1152E-01							
90	0.00	0.000	0.094	0.3938	3.5714	.0000E+00	.2657E-01	0.0000
.0000E+00	.1096E-01							
91	0.00	0.000	0.099	0.3730	3.3087	.0000E+00	.2632E-01	0.0000
.0000E+00	.1045E-01							
92	0.00	0.000	0.117	0.3492	3.0334	.0000E+00	.2605E-01	0.0000
.0000E+00	.9989E-02							
93	0.00	0.000	0.125	0.3241	2.8005	.0000E+00	.2583E-01	0.0000
.0000E+00	.9562E-02							
94	0.00	0.000	0.106	0.3022	2.6714	.0000E+00	.2571E-01	0.0000
.0000E+00	.9169E-02							
95	0.00	0.000	0.106	0.2802	2.3349	.0000E+00	.2538E-01	0.0000
.0000E+00	.8805E-02							
96	0.00	0.000	0.138	0.2530	1.8960	.0000E+00	.2496E-01	0.0000
.0000E+00	.8468E-02							
97	0.00	0.000	0.117	0.2294	1.5816	.0000E+00	.2465E-01	0.0000
.0000E+00	.8155E-02							
98	0.00	0.000	0.133	0.2032	1.0484	.0000E+00	.2414E-01	0.0000
.0000E+00	.7863E-02							
99	0.00	0.000	0.148	0.1745	0.7159	.0000E+00	.2382E-01	0.0000
.0000E+00	.7591E-02							
100	0.00	0.000	0.169	0.1453	0.1474	.0000E+00	.5880E-02	0.0000
.0000E+00	.7336E-02							
101	0.00	0.000	0.062	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7096E-02							
102	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6872E-02							
103	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6660E-02							
104	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6461E-02							
105	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6273E-02							
106	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6095E-02							
107	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000

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.0000E+00 .5926E-02
  108         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .5766E-02
  109         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .5614E-02
  110         0.71  0.000  0.028  0.2487    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .5171E-02
  111         0.29  0.000  0.035  0.2912    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4024E-02
  112         0.00  0.000  0.175  0.2601    0.0435 .0000E+00 .1161E-01    0.0000
.0000E+00 .0000E+00
  113         0.00  0.000  0.229  0.2179    0.1242 .0000E+00 .2325E-01    0.0000
.0000E+00 .0000E+00
  114         0.00  0.000  0.203  0.1825    0.0196 .0000E+00 .8961E-02    0.0000
.0000E+00 .0000E+00
  115         0.18  0.000  0.091  0.1974    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6076E-02
  116         0.13  0.000  0.073  0.2065    0.0033 .0000E+00 .2305E-02    0.0000
.0000E+00 .2814E-02
  117         0.00  0.000  0.058  0.1968    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4242E-02
  118         0.06  0.000  0.058  0.1971    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3301E-02
  119         0.00  0.000  0.048  0.1891    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2508E-02
  120         0.00  0.000  0.047  0.1813    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1841E-02
  121         0.00  0.000  0.044  0.1740    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1285E-02
  122         0.01  0.000  0.046  0.1679    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8266E-03
  123         0.00  0.000  0.041  0.1611    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4541E-03
  124         0.00  0.000  0.041  0.1544    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1591E-03
  125         0.00  0.000  0.039  0.1479    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2072E-05
  126         0.03  0.000  0.046  0.1453    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  127         0.20  0.000  0.047  0.1708    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  128         0.00  0.000  0.043  0.1637    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  129         0.00  0.000  0.034  0.1580    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  130         0.00  0.000  0.032  0.1526    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  131         0.00  0.000  0.029  0.1477    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  132         0.00  0.000  0.032  0.1424    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  133         0.00  0.000  0.037  0.1363    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1284E-04
  134         0.60  0.000  0.046  0.2287    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1814E-03
  135         0.06  0.000  0.232  0.2000    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4147E-03
  136         0.32  0.000  0.060  0.2434    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6762E-03
  137         0.00  0.000  0.237  0.2039    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9631E-03
  138         0.04  0.000  0.067  0.1994    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1273E-02
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139	0.00	0.000	0.071	0.1875	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1602E-02							
140	0.00	0.000	0.074	0.1752	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1949E-02							
141	0.00	0.000	0.098	0.1588	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2309E-02							
142	0.00	0.000	0.099	0.1423	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2682E-02							
143	0.00	0.000	0.044	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3063E-02							
144	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3451E-02							
145	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3843E-02							
146	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4236E-02							
147	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4628E-02							
148	0.04	0.000	0.020	0.1383	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5018E-02							
149	0.11	0.000	0.052	0.1479	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5403E-02							
150	0.02	0.000	0.056	0.1418	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5782E-02							
151	1.78	0.064	0.130	0.4063	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6153E-02							
152	0.69	0.007	0.288	0.4677	3.2310	.0000E+00	.2624E-01	0.0000
.0000E+00	.2522E-02							
153	0.00	0.000	0.326	0.4089	4.5814	.0000E+00	.2755E-01	0.0000
.0000E+00	.3648E-02							
154	0.00	0.000	0.322	0.3508	3.6816	.0000E+00	.2668E-01	0.0000
.0000E+00	.4727E-02							
155	0.00	0.000	0.287	0.2986	2.9208	.0000E+00	.2595E-01	0.0000
.0000E+00	.5751E-02							
156	0.04	0.000	0.249	0.2595	2.1219	.0000E+00	.2518E-01	0.0000
.0000E+00	.6715E-02							
157	0.10	0.000	0.281	0.2253	1.4664	.0000E+00	.2454E-01	0.0000
.0000E+00	.7615E-02							
158	0.00	0.000	0.246	0.1803	0.7812	.0000E+00	.2388E-01	0.0000
.0000E+00	.8449E-02							
159	0.00	0.000	0.179	0.1486	0.1974	.0000E+00	.1174E-01	0.0000
.0000E+00	.9217E-02							
160	0.00	0.000	0.080	0.1352	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1923E-01							
161	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1749E-01							
162	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1604E-01							
163	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1482E-01							
164	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1379E-01							
165	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1292E-01							
166	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1219E-01							
167	0.01	0.000	0.010	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1156E-01							
168	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1103E-01							
169	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1059E-01							
170	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.1021E-01							
171	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9896E-02							
172	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9637E-02							
173	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9426E-02							
174	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9256E-02							
175	1.52	0.022	0.158	0.3583	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9123E-02							
176	0.65	0.000	0.307	0.4123	1.8819	.0000E+00	.1916E-01	0.0000
.0000E+00	.3605E-02							
177	0.00	0.000	0.288	0.3599	3.2426	.0000E+00	.2626E-01	0.0000
.0000E+00	.4626E-02							
178	0.00	0.000	0.241	0.3154	2.7953	.0000E+00	.2582E-01	0.0000
.0000E+00	.5595E-02							
179	0.00	0.000	0.256	0.2685	2.2385	.0000E+00	.2529E-01	0.0000
.0000E+00	.6509E-02							
180	0.00	0.000	0.226	0.2268	1.6182	.0000E+00	.2469E-01	0.0000
.0000E+00	.7364E-02							
181	0.00	0.000	0.247	0.1816	0.8917	.0000E+00	.2399E-01	0.0000
.0000E+00	.8158E-02							
182	0.00	0.000	0.155	0.1534	0.2966	.0000E+00	.1403E-01	0.0000
.0000E+00	.8891E-02							
183	0.00	0.000	0.110	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2034E-01							
184	0.33	0.000	0.103	0.1729	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1822E-01							
185	0.00	0.000	0.104	0.1555	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1647E-01							
186	0.00	0.000	0.106	0.1378	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1501E-01							
187	0.00	0.000	0.014	0.1355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1378E-01							
188	0.00	0.000	0.002	0.1351	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1275E-01							
189	0.25	0.000	0.089	0.1619	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1187E-01							
190	0.00	0.000	0.068	0.1505	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1112E-01							
191	0.00	0.000	0.070	0.1388	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1049E-01							
192	0.00	0.000	0.017	0.1359	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9959E-02							
193	0.00	0.000	0.004	0.1352	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9508E-02							
194	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9130E-02							
195	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8815E-02							
196	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8556E-02							
197	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8345E-02							
198	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8178E-02							
199	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8050E-02							
200	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7955E-02							
201	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7890E-02							

202	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7851E-02							
203	0.40	0.000	0.109	0.1835	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7836E-02							
204	0.00	0.000	0.086	0.1691	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7841E-02							
205	0.00	0.000	0.123	0.1487	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7865E-02							
206	0.00	0.000	0.074	0.1364	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7904E-02							
207	0.00	0.000	0.005	0.1355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7957E-02							
208	0.05	0.000	0.034	0.1381	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8022E-02							
209	0.00	0.000	0.008	0.1368	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8097E-02							
210	0.68	0.000	0.100	0.2335	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8181E-02							
211	0.00	0.000	0.231	0.1950	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8272E-02							
212	0.00	0.000	0.272	0.1497	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8369E-02							
213	0.57	0.000	0.203	0.2109	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8471E-02							
214	0.00	0.000	0.245	0.1701	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8576E-02							
215	0.00	0.000	0.191	0.1383	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8684E-02							
216	0.00	0.000	0.014	0.1359	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8794E-02							
217	0.00	0.000	0.006	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8905E-02							
218	0.21	0.000	0.084	0.1560	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9016E-02							
219	0.04	0.000	0.098	0.1463	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9128E-02							
220	0.00	0.000	0.048	0.1382	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8664E-02							
221	0.00	0.000	0.014	0.1358	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5949E-02							
222	0.00	0.000	0.004	0.1352	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6766E-02							
223	0.00	0.000	0.001	0.1351	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7528E-02							
224	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8235E-02							
225	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8888E-02							
226	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9486E-02							
227	0.75	0.000	0.094	0.2443	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1003E-01							
228	0.01	0.000	0.160	0.2193	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1053E-01							
229	0.00	0.000	0.215	0.1834	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1097E-01							
230	0.00	0.000	0.214	0.1478	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1137E-01							
231	0.00	0.000	0.077	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1173E-01							
232	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1205E-01							
233	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000

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.0000E+00 .1233E-01
  234         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1258E-01
  235         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1280E-01
  236         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1299E-01
  237         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1316E-01
  238         0.26  0.000  0.063  0.1678    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1330E-01
  239         0.00  0.000  0.101  0.1509    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1342E-01
  240         0.00  0.000  0.087  0.1365    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1353E-01
  241         0.00  0.000  0.007  0.1353    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1361E-01
  242         0.00  0.000  0.001  0.1351    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1368E-01
  243         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1374E-01
  244         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1379E-01
  245         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1383E-01
  246         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1385E-01
  247         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1387E-01
  248         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1389E-01
  249         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1389E-01
  250         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1389E-01
  251         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1388E-01
  252         0.02  0.000  0.020  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1387E-01
  253         0.26  0.000  0.098  0.1619    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1386E-01
  254         0.00  0.000  0.065  0.1510    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1384E-01
  255         0.00  0.000  0.075  0.1385    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1382E-01
  256         0.00  0.000  0.016  0.1358    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1380E-01
  257         0.00  0.000  0.004  0.1352    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1377E-01
  258         0.00  0.000  0.001  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1374E-01
  259         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1372E-01
  260         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1368E-01
  261         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1365E-01
  262         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1362E-01
  263         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1358E-01
  264         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1355E-01
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265	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1351E-01							
266	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1347E-01							
267	0.03	0.000	0.024	0.1360	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1344E-01							
268	0.00	0.000	0.003	0.1355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1340E-01							
269	0.17	0.000	0.058	0.1542	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1336E-01							
270	0.29	0.000	0.057	0.1930	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1332E-01							
271	0.13	0.000	0.075	0.2021	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1328E-01							
272	0.00	0.000	0.047	0.1943	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1324E-01							
273	0.00	0.000	0.051	0.1859	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1320E-01							
274	0.00	0.000	0.059	0.1760	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1316E-01							
275	0.00	0.000	0.051	0.1675	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1312E-01							
276	0.00	0.000	0.052	0.1588	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1308E-01							
277	0.00	0.000	0.050	0.1505	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1304E-01							
278	0.08	0.000	0.070	0.1522	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1300E-01							
279	0.77	0.000	0.065	0.2696	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1296E-01							
280	0.00	0.000	0.110	0.2513	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1292E-01							
281	0.00	0.000	0.101	0.2345	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1289E-01							
282	0.00	0.000	0.098	0.2181	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1285E-01							
283	0.00	0.000	0.077	0.2052	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1281E-01							
284	0.00	0.000	0.073	0.1931	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1277E-01							
285	0.00	0.000	0.051	0.1846	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1273E-01							
286	0.00	0.000	0.067	0.1735	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1269E-01							
287	0.00	0.000	0.062	0.1632	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1265E-01							
288	0.00	0.000	0.051	0.1548	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1261E-01							
289	0.00	0.000	0.047	0.1470	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1257E-01							
290	0.00	0.000	0.043	0.1397	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1254E-01							
291	0.00	0.000	0.028	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1250E-01							
292	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1246E-01							
293	0.17	0.000	0.045	0.1558	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1242E-01							
294 *	0.01	0.000	0.018	0.1544	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1238E-01							
295 *	0.00	0.000	0.000	0.1544	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1235E-01							
296 *	0.00	0.000	0.018	0.1513	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.1231E-01								
297	1.38	0.010	0.053	0.3708	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1227E-01								
298	0.12	0.000	0.061	0.3764	2.0788	.0000E+00	.2513E-01	0.0000	
.0000E+00	.1224E-01								
299	0.00	0.000	0.051	0.3636	2.6070	.0000E+00	.2564E-01	0.0000	
.0000E+00	.1220E-01								
300	0.00	0.000	0.054	0.3504	2.4462	.0000E+00	.2549E-01	0.0000	
.0000E+00	.1216E-01								
301	0.00	0.000	0.050	0.3379	2.2862	.0000E+00	.2533E-01	0.0000	
.0000E+00	.1213E-01								
302	0.00	0.000	0.057	0.3241	2.1267	.0000E+00	.2518E-01	0.0000	
.0000E+00	.1209E-01								
303	0.06	0.000	0.058	0.3203	1.9628	.0000E+00	.2502E-01	0.0000	
.0000E+00	.1205E-01								
304	0.78	0.000	0.072	0.4342	2.1309	.0000E+00	.2518E-01	0.0000	
.0000E+00	.1202E-01								
305	0.00	0.000	0.059	0.4198	3.9482	.0000E+00	.2694E-01	0.0000	
.0000E+00	.1198E-01								
306	0.00	0.000	0.057	0.4058	3.8142	.0000E+00	.2681E-01	0.0000	
.0000E+00	.1195E-01								
307	0.00	0.000	0.042	0.3944	3.6132	.0000E+00	.2661E-01	0.0000	
.0000E+00	.1191E-01								
308	0.00	0.000	0.054	0.3810	3.4209	.0000E+00	.2643E-01	0.0000	
.0000E+00	.1188E-01								
309	0.00	0.000	0.056	0.3673	3.2166	.0000E+00	.2623E-01	0.0000	
.0000E+00	.1184E-01								
310	0.00	0.000	0.072	0.3510	3.0059	.0000E+00	.2603E-01	0.0000	
.0000E+00	.1181E-01								
311	0.00	0.000	0.048	0.3387	2.8254	.0000E+00	.2585E-01	0.0000	
.0000E+00	.1177E-01								
312	0.00	0.000	0.038	0.3280	2.6700	.0000E+00	.2570E-01	0.0000	
.0000E+00	.1174E-01								
313	0.00	0.000	0.038	0.3175	2.5206	.0000E+00	.2556E-01	0.0000	
.0000E+00	.1171E-01								
314	0.00	0.000	0.042	0.3062	2.3708	.0000E+00	.2542E-01	0.0000	
.0000E+00	.1226E-01								
315	0.00	0.000	0.051	0.2935	2.2166	.0000E+00	.2527E-01	0.0000	
.0000E+00	.1451E-01								
316	0.00	0.000	0.058	0.2796	2.0505	.0000E+00	.2511E-01	0.0000	
.0000E+00	.1634E-01								
317	0.00	0.000	0.042	0.2684	1.8989	.0000E+00	.2496E-01	0.0000	
.0000E+00	.1764E-01								
318	0.00	0.000	0.046	0.2566	1.7664	.0000E+00	.2483E-01	0.0000	
.0000E+00	.1841E-01								
319	0.00	0.000	0.055	0.2434	1.6322	.0000E+00	.2470E-01	0.0000	
.0000E+00	.1750E-01								
320	0.00	0.000	0.067	0.2281	1.4172	.0000E+00	.2450E-01	0.0000	
.0000E+00	.1629E-01								
321	0.00	0.000	0.056	0.2147	1.0735	.0000E+00	.2416E-01	0.0000	
.0000E+00	.1522E-01								
322	0.00	0.000	0.048	0.2027	0.8962	.0000E+00	.2399E-01	0.0000	
.0000E+00	.1429E-01								
323	0.00	0.000	0.046	0.1910	0.7789	.0000E+00	.2388E-01	0.0000	
.0000E+00	.1345E-01								
324	0.00	0.000	0.045	0.1796	0.6460	.0000E+00	.2375E-01	0.0000	
.0000E+00	.1271E-01								
325 *	0.00	0.000	0.030	0.1707	0.4542	.0000E+00	.2357E-01	0.0000	
.0000E+00	.1204E-01								
326	0.00	0.000	0.038	0.1604	0.1943	.0000E+00	.2332E-01	0.0000	
.0000E+00	.1143E-01								
327	0.00	0.000	0.032	0.1552	0.0042	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1088E-01								

328		0.03	0.000	0.049	0.1520	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1038E-01								
329		0.00	0.000	0.051	0.1435	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9922E-02								
330		0.02	0.000	0.051	0.1384	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9500E-02								
331		0.66	0.000	0.041	0.2416	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9111E-02								
332	*	0.02	0.000	0.020	0.2416	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8752E-02								
333		0.00	0.000	0.029	0.2368	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8419E-02								
334	*	0.00	0.000	0.028	0.2322	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8109E-02								
335		0.00	0.000	0.032	0.2269	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7820E-02								
336		0.00	0.000	0.031	0.2218	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7551E-02								
337	*	0.00	0.000	0.026	0.2174	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7298E-02								
338	*	0.00	0.000	0.023	0.2136	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7061E-02								
339	*	0.00	0.000	0.000	0.2136	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6839E-02								
340	*	0.00	0.000	0.000	0.2136	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6629E-02								
341	*	0.89	0.000	0.017	0.2169	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6055E-02								
342	*	0.01	0.000	0.016	0.2202	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5270E-02								
343	*	0.02	0.000	0.000	0.2234	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4586E-02								
344		0.00	0.000	0.032	0.2267	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3988E-02								
345		0.05	0.000	0.000	0.2729	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3467E-02								
346	*	0.00	0.000	0.027	0.2762	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3013E-02								
347		0.00	0.000	0.027	0.2854	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2619E-02								
348	*	0.00	0.000	0.028	0.2887	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2277E-02								
349		0.00	0.000	0.012	0.3231	0.2518	.0000E+00	.1181E-01	0.0000
.0000E+00	.0000E+00								
350	*	0.00	0.000	0.030	0.3224	1.2716	.0000E+00	.2436E-01	0.0000
.0000E+00	.0000E+00								
351	* *	0.00	0.000	0.028	0.3183	1.0238	.0000E+00	.2412E-01	0.0000
.0000E+00	.0000E+00								
352	* *	0.00	0.000	0.027	0.3143	0.8474	.0000E+00	.2395E-01	0.0000
.0000E+00	.0000E+00								
353	* *	0.00	0.000	0.030	0.3104	0.7373	.0000E+00	.2384E-01	0.0000
.0000E+00	.0000E+00								
354	*	0.00	0.000	0.008	0.3064	0.6276	.0000E+00	.2374E-01	0.0000
.0000E+00	.0000E+00								
355	*	0.00	0.000	0.000	0.3025	0.5184	.0000E+00	.2363E-01	0.0000
.0000E+00	.0000E+00								
356	*	0.00	0.000	0.000	0.2986	0.4097	.0000E+00	.2353E-01	0.0000
.0000E+00	.0000E+00								
357	*	0.00	0.000	0.000	0.2947	0.3014	.0000E+00	.2342E-01	0.0000
.0000E+00	.0000E+00								
358	*	0.00	0.000	0.000	0.2908	0.1937	.0000E+00	.2332E-01	0.0000
.0000E+00	.0000E+00								
359	*	0.00	0.000	0.000	0.2869	0.0864	.0000E+00	.2321E-01	0.0000

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.0000E+00 .1545E-03
  360   *   *    0.00  0.000  0.000  0.2862    0.0049 .0000E+00 .4253E-02    0.0000
.0000E+00 .1106E-01
  361   *   *    0.00  0.000  0.000  0.2862    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1054E-01
  362   *   *    0.00  0.000  0.000  0.2862    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1007E-01
  363   *   *    0.16  0.000  0.026  0.2862    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9636E-02
  364   *   *    0.00  0.000  0.027  0.2862    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9237E-02
  365       *    0.00  0.000  0.037  0.2862    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8868E-02
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MONTHLY TOTALS (IN INCHES) FOR YEAR 2009

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.83	1.08	4.28	1.37	3.21	3.01
	1.71	1.84	0.90	3.37	0.73	1.13
RUNOFF	0.007	0.000	0.071	0.000	0.064	0.030
	0.000	0.000	0.000	0.010	0.000	0.000
EVAPOTRANSPIRATION	0.751	1.491	1.934	2.366	1.797	3.991
	1.887	1.928	0.595	1.693	1.388	0.482
PERCOLATION/LEAKAGE THROUGH	0.0796	0.1838	0.7215	0.2789	0.0000	0.3370
LAYER 2	0.0140	0.0000	0.0000	0.1770	0.5536	0.2532
PERCOLATION/LEAKAGE THROUGH	0.0719	0.2050	0.3011	0.1741	0.0564	0.2817
LAYER 3	0.3135	0.3289	0.4096	0.3900	0.3738	0.1340

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON	0.008	0.120	3.246	0.658	0.000	1.055
TOP OF LAYER 2	0.010	0.000	0.000	0.504	1.548	0.202
STD. DEVIATION OF DAILY	0.025	0.222	1.546	1.104	0.000	1.411
HEAD ON TOP OF LAYER 2	0.053	0.000	0.000	0.955	1.355	0.351

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ANNUAL TOTALS FOR YEAR 2009

	INCHES	CU. FEET	PERCENT
PRECIPITATION	23.46	85159.820	100.00
RUNOFF	0.182	659.506	0.77
EVAPOTRANSPIRATION	20.304	73704.406	86.55
PERC./LEAKAGE THROUGH LAYER 2	2.598504	9432.569	11.08
AVG. HEAD ON TOP OF LAYER 2	0.6127		
PERC./LEAKAGE THROUGH LAYER 3	3.040067	11035.444	12.96
CHANGE IN WATER STORAGE	-0.066	-239.559	-0.28
SOIL WATER AT START OF YEAR	69.627	252745.453	
SOIL WATER AT END OF YEAR	69.490	252247.500	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.071	258.392	0.30
ANNUAL WATER BUDGET BALANCE	0.0000	0.024	0.00

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WARNING: TEMPERATURE FOR YEAR 1977 USED WITH PRECIPITATION FOR YEAR 2010

WARNING: SOLAR RADIATION FOR YEAR 1977 USED WITH PRECIPITATION FOR YEAR 2010

HEAD #1: AVERAGE HEAD ON TOP OF LAYER 2
DRAIN #1: LATERAL DRAINAGE FROM LAYER 1 (RECIRCULATION AND COLLECTION)
LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 2
LEAK #2: PERCOLATION OR LEAKAGE THROUGH LAYER 3

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DAILY OUTPUT FOR YEAR 2010

DAY	A	S O I L	RAIN	RUNOFF	ET	E. ZONE WATER	HEAD #1	DRAIN #1	LEAK #1	HEAD #2	DRAIN #2	LEAK #2
	R		IN.	IN.	IN.	IN./IN.	IN.	IN.	IN.	IN.	IN.	IN.
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1	*	*	0.00	0.000	0.035	0.2862	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8527E-02									
2	*	*	0.00	0.000	0.025	0.2862	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8209E-02									
3	*	*	0.22	0.000	0.000	0.2862	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7914E-02									
4	*	*	0.01	0.000	0.026	0.2862	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7540E-02									
5		*	0.61	0.489	0.000	0.3422	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6688E-02									
6		*	0.01	0.000	0.007	0.3426	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5874E-02									
7		*	0.14	0.039	0.014	0.3572	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5168E-02									
8		*	0.00	0.000	0.000	0.3572	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4555E-02									
9		*	0.00	0.000	0.000	0.3572	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4023E-02									
10	*	*	0.39	0.000	0.031	0.3572	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3561E-02									
11	*	*	0.03	0.000	0.024	0.3572	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3163E-02									
12	*	*	0.00	0.000	0.020	0.3572	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2820E-02									
13	*	*	0.00	0.000	0.026	0.3572	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2528E-02									
14	*	*	0.33	0.000	0.023	0.3572	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2281E-02									
15	*	*	0.02	0.000	0.017	0.3572	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2076E-02									
16	*	*	0.09	0.000	0.016	0.3572	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1909E-02									
17	*	*	0.00	0.000	0.013	0.3572	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1776E-02									
18	*	*	0.00	0.000	0.019	0.3572	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1675E-02									
19	*	*	0.01	0.000	0.000	0.3572	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1603E-02									
20	*	*	0.12	0.000	0.000	0.3572	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1559E-02									
21	*	*	0.00	0.000	0.017	0.3572	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1539E-02									
22	*	*	0.00	0.000	0.021	0.3572	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1543E-02									
23	*	*	0.00	0.000	0.024	0.3572	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1569E-02									
24		*	0.32	0.493	0.000	0.3809	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1615E-02									
25		*	0.00	0.172	0.009	0.3945	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1679E-02									
26		*	0.02	0.113	0.030	0.4009	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1760E-02									
27		*	0.00	0.000	0.000	0.4009	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1857E-02									
28		*	0.03	0.004	0.012	0.4032	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1968E-02									
29		*	0.03	0.004	0.012	0.4055	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2092E-02									
30		*	0.00	0.000	0.000	0.4055	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2228E-02									
31		*	0.00	0.000	0.000	0.4055	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2375E-02									
32		*	0.00	0.000	0.000	0.4055	0.0000	.0000E+00	.0000E+00	0.0000

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.0000E+00 .2532E-02
   33         0.00  0.000  0.046  0.3945    2.4648 .0000E+00 .1972E-01    0.0000
.0000E+00 .0000E+00
   34         0.00  0.000  0.040  0.3834    3.8138 .0000E+00 .2681E-01    0.0000
.0000E+00 .0000E+00
   35         0.00  0.000  0.036  0.3729    3.6438 .0000E+00 .2664E-01    0.0000
.0000E+00 .0000E+00
   36  *      0.00  0.000  0.039  0.3621    3.4644 .0000E+00 .2647E-01    0.0000
.0000E+00 .3312E-03
   37  *      0.00  0.000  0.046  0.3500    3.2801 .0000E+00 .2629E-01    0.0000
.0000E+00 .1074E-02
   38  *      0.00  0.000  0.000  0.3457    3.1160 .0000E+00 .2613E-01    0.0000
.0000E+00 .1802E-02
   39  *  *   0.00  0.000  0.000  0.3416    1.4669 .0000E+00 .2454E-01    0.0000
.0000E+00 .2511E-02
   40  *  *   0.00  0.000  0.000  0.3376    0.8455 .0000E+00 .2395E-01    0.0000
.0000E+00 .3198E-02
   41     *   0.00  0.000  0.000  0.3336    0.7353 .0000E+00 .2384E-01    0.0000
.0000E+00 .3859E-02
   42     *   0.00  0.000  0.000  0.3297    0.6256 .0000E+00 .2373E-01    0.0000
.0000E+00 .4493E-02
   43     *   0.00  0.000  0.000  0.3257    0.5165 .0000E+00 .2363E-01    0.0000
.0000E+00 .5097E-02
   44     *   0.38  0.130  0.013  0.3613    0.4077 .0000E+00 .2352E-01    0.0000
.0000E+00 .5669E-02
   45     *   0.00  0.000  0.000  0.3574    0.2995 .0000E+00 .2342E-01    0.0000
.0000E+00 .6209E-02
   46     *   0.01  0.000  0.007  0.3540    0.1918 .0000E+00 .2332E-01    0.0000
.0000E+00 .6716E-02
   47     *   0.00  0.000  0.000  0.3502    0.0845 .0000E+00 .2321E-01    0.0000
.0000E+00 .7322E-02
   48     *   0.00  0.000  0.000  0.3495    0.0044 .0000E+00 .3841E-02    0.0000
.0000E+00 .1889E-01
   49     *   0.00  0.000  0.000  0.3495    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1749E-01
   50         0.00  0.000  0.059  0.3365    1.4785 .0000E+00 .1877E-01    0.0000
.0000E+00 .7129E-02
   51         0.11  0.000  0.060  0.3407    1.8493 .0000E+00 .2491E-01    0.0000
.0000E+00 .4968E-02
   52         0.00  0.000  0.074  0.3242    1.7114 .0000E+00 .2478E-01    0.0000
.0000E+00 .6419E-02
   53         0.00  0.000  0.051  0.3117    1.5710 .0000E+00 .2464E-01    0.0000
.0000E+00 .9215E-02
   54         0.00  0.000  0.068  0.2962    1.4345 .0000E+00 .2451E-01    0.0000
.0000E+00 .1150E-01
   55         0.74  0.000  0.064  0.4048    1.4685 .0000E+00 .2455E-01    0.0000
.0000E+00 .1314E-01
   56         0.00  0.000  0.055  0.3912    3.2115 .0000E+00 .2623E-01    0.0000
.0000E+00 .1308E-01
   57         0.00  0.000  0.053  0.3781    3.0846 .0000E+00 .2610E-01    0.0000
.0000E+00 .1470E-01
   58         1.01  0.189  0.057  0.5010    4.0636 .0000E+00 .2705E-01    0.0000
.0000E+00 .1464E-01
   59         0.05  0.000  0.058  0.4948    5.9355 .0000E+00 .2885E-01    0.0000
.0000E+00 .1389E-01
   60         0.17  0.038  0.066  0.5010    5.9161 .0000E+00 .2883E-01    0.0000
.0000E+00 .1314E-01
   61  *      0.01  0.000  0.048  0.4898    5.8838 .0000E+00 .2880E-01    0.0000
.0000E+00 .1243E-01
   62  *      0.10  0.000  0.049  0.4883    5.7009 .0000E+00 .2862E-01    0.0000
.0000E+00 .1179E-01
   63  *      0.02  0.000  0.040  0.4855    5.6437 .0000E+00 .2857E-01    0.0000
.0000E+00 .1121E-01
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64	*	0.00	0.000	0.050	0.4724	5.4644	.0000E+00	.2840E-01	0.0000
.0000E+00	.1068E-01								
65		0.00	0.000	0.066	0.4567	5.0973	.0000E+00	.2804E-01	0.0000
.0000E+00	.1019E-01								
66		0.00	0.000	0.061	0.4420	4.7584	.0000E+00	.2772E-01	0.0000
.0000E+00	.9748E-02								
67		0.00	0.000	0.062	0.4271	4.4667	.0000E+00	.2744E-01	0.0000
.0000E+00	.9340E-02								
68		0.00	0.000	0.081	0.4090	4.1553	.0000E+00	.2714E-01	0.0000
.0000E+00	.8964E-02								
69		0.00	0.000	0.062	0.3941	3.8596	.0000E+00	.2685E-01	0.0000
.0000E+00	.8615E-02								
70		0.00	0.000	0.080	0.3764	3.6319	.0000E+00	.2663E-01	0.0000
.0000E+00	.8292E-02								
71		2.26	1.412	0.072	0.5010	4.7264	.0000E+00	.2769E-01	0.0000
.0000E+00	.7991E-02								
72		0.26	0.249	0.064	0.4873	5.8590	.0000E+00	.2878E-01	0.0000
.0000E+00	.7710E-02								
73		0.00	0.000	0.078	0.4696	5.4589	.0000E+00	.2839E-01	0.0000
.0000E+00	.7447E-02								
74	*	0.00	0.000	0.054	0.4560	5.0438	.0000E+00	.2799E-01	0.0000
.0000E+00	.7201E-02								
75	*	0.00	0.000	0.065	0.4406	4.7451	.0000E+00	.2770E-01	0.0000
.0000E+00	.6970E-02								
76	*	0.00	0.000	0.065	0.4252	4.4440	.0000E+00	.2741E-01	0.0000
.0000E+00	.6753E-02								
77		0.17	0.000	0.072	0.4369	4.1639	.0000E+00	.2714E-01	0.0000
.0000E+00	.6549E-02								
78		0.02	0.000	0.068	0.4245	4.1942	.0000E+00	.2717E-01	0.0000
.0000E+00	.6356E-02								
79		0.02	0.000	0.067	0.4121	4.0383	.0000E+00	.2702E-01	0.0000
.0000E+00	.6173E-02								
80		0.00	0.000	0.121	0.3874	3.8947	.0000E+00	.2688E-01	0.0000
.0000E+00	.6000E-02								
81		0.17	0.000	0.076	0.3986	3.6344	.0000E+00	.2663E-01	0.0000
.0000E+00	.5837E-02								
82		0.00	0.000	0.101	0.3774	3.3933	.0000E+00	.2640E-01	0.0000
.0000E+00	.5681E-02								
83		0.00	0.000	0.075	0.3606	3.1446	.0000E+00	.2616E-01	0.0000
.0000E+00	.5534E-02								
84	*	0.00	0.000	0.070	0.3447	2.9364	.0000E+00	.2596E-01	0.0000
.0000E+00	.5393E-02								
85	*	0.00	0.000	0.058	0.3306	2.7600	.0000E+00	.2579E-01	0.0000
.0000E+00	.5259E-02								
86		0.00	0.000	0.094	0.3107	2.5826	.0000E+00	.2562E-01	0.0000
.0000E+00	.5132E-02								
87		0.87	0.000	0.092	0.4362	2.4688	.0000E+00	.2551E-01	0.0000
.0000E+00	.5010E-02								
88		2.38	1.861	0.101	0.5010	5.3746	.0000E+00	.2831E-01	0.0000
.0000E+00	.4893E-02								
89		0.00	0.000	0.085	0.4820	5.8049	.0000E+00	.2872E-01	0.0000
.0000E+00	.4782E-02								
90		0.00	0.000	0.070	0.4656	5.3310	.0000E+00	.2827E-01	0.0000
.0000E+00	.4675E-02								
91		0.00	0.000	0.072	0.4489	4.9224	.0000E+00	.2787E-01	0.0000
.0000E+00	.4573E-02								
92		0.20	0.000	0.073	0.4654	4.7246	.0000E+00	.2768E-01	0.0000
.0000E+00	.4475E-02								
93		0.02	0.000	0.120	0.4440	4.9733	.0000E+00	.2792E-01	0.0000
.0000E+00	.4381E-02								
94		0.00	0.000	0.088	0.4247	4.7207	.0000E+00	.2768E-01	0.0000
.0000E+00	.4291E-02								
95		0.05	0.000	0.118	0.4088	4.3451	.0000E+00	.2732E-01	0.0000

.0000E+00	.4204E-02								
96	0.01	0.000	0.083	0.3921	3.9467	.0000E+00	.2693E-01	0.0000	
.0000E+00	.4120E-02								
97	0.00	0.000	0.140	0.3643	3.6953	.0000E+00	.2669E-01	0.0000	
.0000E+00	.4040E-02								
98	0.00	0.000	0.153	0.3345	3.2166	.0000E+00	.2623E-01	0.0000	
.0000E+00	.3962E-02								
99	0.00	0.000	0.143	0.3064	2.8634	.0000E+00	.2589E-01	0.0000	
.0000E+00	.2096E-02								
100	0.00	0.000	0.154	0.2765	2.3686	.0000E+00	.2541E-01	0.0000	
.0000E+00	.0000E+00								
101	0.00	0.000	0.140	0.2490	1.8892	.0000E+00	.2495E-01	0.0000	
.0000E+00	.0000E+00								
102	0.00	0.000	0.164	0.2175	1.4525	.0000E+00	.2453E-01	0.0000	
.0000E+00	.0000E+00								
103	0.00	0.000	0.157	0.1873	0.8889	.0000E+00	.2399E-01	0.0000	
.0000E+00	.0000E+00								
104	0.00	0.000	0.085	0.1692	0.5725	.0000E+00	.2368E-01	0.0000	
.0000E+00	.0000E+00								
105	0.00	0.000	0.065	0.1564	0.1182	.0000E+00	.1167E-01	0.0000	
.0000E+00	.0000E+00								
106	0.00	0.000	0.055	0.1472	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
107	0.00	0.000	0.049	0.1390	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
108	0.00	0.000	0.024	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
109	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
110	0.30	0.000	0.025	0.1808	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
111	0.01	0.000	0.031	0.1773	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
112	0.33	0.000	0.037	0.2261	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
113	0.00	0.000	0.031	0.2208	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
114	0.00	0.000	0.033	0.2153	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.2494E-02								
115	0.00	0.000	0.032	0.2099	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.2169E-02								
116	0.00	0.000	0.031	0.2047	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1039E-02								
117	0.00	0.000	0.032	0.1993	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1525E-03								
118	0.00	0.000	0.033	0.1939	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
119	0.00	0.000	0.034	0.1883	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
120	0.00	0.000	0.032	0.1829	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
121	0.07	0.000	0.045	0.1871	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
122	0.21	0.000	0.047	0.2143	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
123	0.00	0.000	0.043	0.2071	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
124	0.01	0.000	0.050	0.2005	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
125	0.38	0.000	0.049	0.2556	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
126	0.08	0.000	0.165	0.2414	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								

127	0.69	0.000	0.193	0.3243	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
128	0.02	0.000	0.228	0.2856	0.6407	.0000E+00	.2375E-01	0.0000
.0000E+00	.0000E+00							
129	0.00	0.000	0.249	0.2402	0.6615	.0000E+00	.2377E-01	0.0000
.0000E+00	.0000E+00							
130	0.00	0.000	0.255	0.1938	0.5993	.0000E+00	.2371E-01	0.0000
.0000E+00	.0000E+00							
131	0.00	0.000	0.289	0.1437	0.1916	.0000E+00	.1175E-01	0.0000
.0000E+00	.0000E+00							
132	0.00	0.000	0.052	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1981E-02							
133	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1509E-02							
134	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1140E-02							
135	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8634E-03							
136	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6704E-03							
137	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5529E-03							
138	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5039E-03							
139	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5174E-03							
140	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5880E-03							
141	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7108E-03							
142	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8811E-03							
143	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1094E-02							
144	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1347E-02							
145	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1634E-02							
146	0.56	0.000	0.061	0.2182	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1952E-02							
147	0.00	0.000	0.057	0.2087	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2296E-02							
148	0.00	0.000	0.073	0.1966	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2664E-02							
149	0.00	0.000	0.081	0.1830	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3051E-02							
150	0.00	0.000	0.100	0.1664	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3453E-02							
151	0.18	0.000	0.108	0.1784	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3867E-02							
152	0.00	0.000	0.100	0.1617	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4290E-02							
153	0.00	0.000	0.112	0.1431	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4718E-02							
154	0.00	0.000	0.038	0.1367	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5148E-02							
155	0.00	0.000	0.010	0.1351	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5577E-02							
156	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6003E-02							
157	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6423E-02							
158	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000

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.0000E+00 .6836E-02
  159         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .7238E-02
  160         0.10  0.000  0.024  0.1476    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .7630E-02
  161         0.00  0.000  0.045  0.1401    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8009E-02
  162         0.00  0.000  0.022  0.1364    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8374E-02
  163         0.00  0.000  0.006  0.1354    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8725E-02
  164         0.00  0.000  0.002  0.1351    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9061E-02
  165         0.73  0.000  0.111  0.2382    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9382E-02
  166         0.00  0.000  0.243  0.1976    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9686E-02
  167         0.00  0.000  0.161  0.1708    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9975E-02
  168         0.00  0.000  0.157  0.1446    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1025E-01
  169         0.00  0.000  0.051  0.1360    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1051E-01
  170         0.00  0.000  0.005  0.1352    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .7501E-02
  171         0.00  0.000  0.001  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8281E-02
  172         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9244E-02
  173         1.24  0.001  0.166  0.3138    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1012E-01
  174         0.08  0.000  0.252  0.2822    0.2596 .0000E+00 .1760E-01    0.0000
.0000E+00 .1092E-01
  175         0.40  0.000  0.192  0.3130    0.5747 .0000E+00 .2368E-01    0.0000
.0000E+00 .1164E-01
  176         0.85  0.000  0.252  0.4086    1.5162 .0000E+00 .2459E-01    0.0000
.0000E+00 .1229E-01
  177         0.01  0.000  0.254  0.3636    3.2122 .0000E+00 .2623E-01    0.0000
.0000E+00 .1286E-01
  178         1.28  0.256  0.172  0.5010    4.0575 .0000E+00 .2704E-01    0.0000
.0000E+00 .1336E-01
  179         0.68  0.507  0.236  0.4858    5.8341 .0000E+00 .2875E-01    0.0000
.0000E+00 .1380E-01
  180         0.04  0.000  0.323  0.4340    5.1805 .0000E+00 .2812E-01    0.0000
.0000E+00 .1419E-01
  181         0.00  0.000  0.306  0.3785    4.2554 .0000E+00 .2723E-01    0.0000
.0000E+00 .1452E-01
  182         0.06  0.000  0.241  0.3440    3.4127 .0000E+00 .2642E-01    0.0000
.0000E+00 .1481E-01
  183         0.00  0.000  0.266  0.2953    2.7022 .0000E+00 .2573E-01    0.0000
.0000E+00 .1506E-01
  184         0.00  0.000  0.286  0.2434    1.9627 .0000E+00 .2502E-01    0.0000
.0000E+00 .1527E-01
  185         0.00  0.000  0.301  0.1891    1.1485 .0000E+00 .2424E-01    0.0000
.0000E+00 .1545E-01
  186         0.00  0.000  0.238  0.1475    0.3458 .0000E+00 .1186E-01    0.0000
.0000E+00 .1910E-01
  187         0.00  0.000  0.075  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2850E-01
  188         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2460E-01
  189         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2151E-01
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190	0.07	0.000	0.039	0.1402	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1903E-01							
191	0.00	0.000	0.022	0.1365	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1700E-01							
192	1.31	0.004	0.211	0.3189	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1533E-01							
193	0.23	0.000	0.156	0.3282	0.5163	.0000E+00	.1785E-01	0.0000
.0000E+00	.3818E-02							
194	0.11	0.000	0.213	0.3070	0.9267	.0000E+00	.2402E-01	0.0000
.0000E+00	.4920E-02							
195	0.00	0.000	0.269	0.2582	0.9668	.0000E+00	.2406E-01	0.0000
.0000E+00	.5963E-02							
196	0.00	0.000	0.258	0.2112	0.8913	.0000E+00	.2399E-01	0.0000
.0000E+00	.6943E-02							
197	0.00	0.000	0.300	0.1582	0.4602	.0000E+00	.1776E-01	0.0000
.0000E+00	.7892E-02							
198	0.00	0.000	0.139	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2318E-01							
199	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2102E-01							
200	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1845E-01							
201	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1621E-01							
202	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1437E-01							
203	1.49	0.019	0.214	0.3445	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1285E-01							
204	0.00	0.000	0.248	0.3001	0.8644	.0000E+00	.1818E-01	0.0000
.0000E+00	.4702E-03							
205	0.00	0.000	0.251	0.2542	1.3562	.0000E+00	.2444E-01	0.0000
.0000E+00	.1662E-02							
206	0.31	0.000	0.271	0.2567	1.1239	.0000E+00	.2421E-01	0.0000
.0000E+00	.2822E-02							
207	0.76	0.000	0.218	0.3431	0.9610	.0000E+00	.2406E-01	0.0000
.0000E+00	.3940E-02							
208	0.00	0.000	0.286	0.2913	0.9316	.0000E+00	.2403E-01	0.0000
.0000E+00	.5008E-02							
209	0.00	0.000	0.282	0.2402	1.0498	.0000E+00	.2414E-01	0.0000
.0000E+00	.6019E-02							
210	0.00	0.000	0.248	0.1949	0.7729	.0000E+00	.2388E-01	0.0000
.0000E+00	.7072E-02							
211	0.00	0.000	0.248	0.1517	0.2346	.0000E+00	.1176E-01	0.0000
.0000E+00	.1938E-01							
212	0.00	0.000	0.100	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2086E-01							
213	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1918E-01							
214	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1774E-01							
215	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1649E-01							
216	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1539E-01							
217	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1372E-01							
218	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1198E-01							
219	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1053E-01							
220	0.63	0.000	0.142	0.2163	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9320E-02							
221	1.20	0.020	0.152	0.3865	0.0272	.0000E+00	.5809E-02	0.0000

.0000E+00	.3143E-02							
222	0.77	0.005	0.215	0.4738	3.3381	.0000E+00	.2635E-01	0.0000
.0000E+00	.0000E+00							
223	0.60	0.166	0.242	0.5010	5.6793	.0000E+00	.2860E-01	0.0000
.0000E+00	.0000E+00							
224	0.02	0.005	0.236	0.4595	5.5852	.0000E+00	.2851E-01	0.0000
.0000E+00	.0000E+00							
225	0.00	0.000	0.267	0.4104	4.5742	.0000E+00	.2754E-01	0.0000
.0000E+00	.4498E-03							
226	0.00	0.000	0.263	0.3622	3.7386	.0000E+00	.2673E-01	0.0000
.0000E+00	.1637E-02							
227	0.00	0.000	0.271	0.3127	2.9653	.0000E+00	.2599E-01	0.0000
.0000E+00	.2793E-02							
228	0.00	0.000	0.256	0.2658	2.2057	.0000E+00	.2526E-01	0.0000
.0000E+00	.5071E-02							
229	0.00	0.000	0.227	0.2238	1.5708	.0000E+00	.2464E-01	0.0000
.0000E+00	.8761E-02							
230	0.00	0.000	0.206	0.1854	0.8621	.0000E+00	.2396E-01	0.0000
.0000E+00	.1171E-01							
231	0.00	0.000	0.191	0.1517	0.2724	.0000E+00	.1179E-01	0.0000
.0000E+00	.1950E-01							
232	0.00	0.000	0.100	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1801E-01							
233	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1673E-01							
234	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1561E-01							
235	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1463E-01							
236	1.58	0.030	0.164	0.3660	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1376E-01							
237	0.00	0.000	0.246	0.3209	1.4332	.0000E+00	.2451E-01	0.0000
.0000E+00	.0000E+00							
238	0.00	0.000	0.276	0.2707	1.8313	.0000E+00	.2490E-01	0.0000
.0000E+00	.0000E+00							
239	0.00	0.000	0.216	0.2306	1.3728	.0000E+00	.2445E-01	0.0000
.0000E+00	.2496E-03							
240	0.00	0.000	0.215	0.1909	0.8406	.0000E+00	.2394E-01	0.0000
.0000E+00	.3469E-02							
241	0.47	0.000	0.129	0.2438	0.4981	.0000E+00	.2361E-01	0.0000
.0000E+00	.6571E-02							
242	0.07	0.000	0.117	0.2320	0.3767	.0000E+00	.2349E-01	0.0000
.0000E+00	.8909E-02							
243	0.00	0.000	0.206	0.1937	0.2318	.0000E+00	.2335E-01	0.0000
.0000E+00	.1077E-01							
244	0.00	0.000	0.215	0.1569	0.0371	.0000E+00	.5811E-02	0.0000
.0000E+00	.1659E-01							
245	0.00	0.000	0.128	0.1355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1549E-01							
246	0.00	0.000	0.003	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1452E-01							
247	0.07	0.000	0.044	0.1394	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1366E-01							
248	0.01	0.000	0.024	0.1371	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1290E-01							
249	0.58	0.000	0.115	0.2146	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1221E-01							
250	0.00	0.000	0.168	0.1867	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1159E-01							
251	0.00	0.000	0.155	0.1609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1079E-01							
252	0.00	0.000	0.130	0.1394	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9214E-02							

253	0.00	0.000	0.021	0.1359	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7844E-02							
254	0.00	0.000	0.005	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6707E-02							
255	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5763E-02							
256	0.63	0.000	0.111	0.2215	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4983E-02							
257	0.14	0.000	0.137	0.2221	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4341E-02							
258	0.66	0.000	0.152	0.3067	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3820E-02							
259	0.15	0.000	0.134	0.3055	0.2706	.0000E+00	.2339E-01	0.0000
.0000E+00	.0000E+00							
260	0.00	0.000	0.180	0.2716	0.3233	.0000E+00	.2344E-01	0.0000
.0000E+00	.0000E+00							
261	0.00	0.000	0.160	0.2410	0.3126	.0000E+00	.2343E-01	0.0000
.0000E+00	.0000E+00							
262	0.90	0.000	0.124	0.3665	0.1887	.0000E+00	.2331E-01	0.0000
.0000E+00	.0000E+00							
263	0.00	0.000	0.098	0.3459	2.1780	.0000E+00	.2523E-01	0.0000
.0000E+00	.0000E+00							
264	0.00	0.000	0.088	0.3271	2.2894	.0000E+00	.2534E-01	0.0000
.0000E+00	.0000E+00							
265	0.00	0.000	0.105	0.3054	2.0897	.0000E+00	.2514E-01	0.0000
.0000E+00	.0000E+00							
266	0.00	0.000	0.083	0.2874	1.9139	.0000E+00	.2497E-01	0.0000
.0000E+00	.7949E-03							
267	0.00	0.000	0.114	0.2643	1.7609	.0000E+00	.2483E-01	0.0000
.0000E+00	.3410E-02							
268	0.32	0.000	0.091	0.2984	1.6115	.0000E+00	.2468E-01	0.0000
.0000E+00	.6785E-02							
269	0.18	0.000	0.123	0.3038	1.4754	.0000E+00	.2455E-01	0.0000
.0000E+00	.9549E-02							
270	0.00	0.000	0.073	0.2875	1.3321	.0000E+00	.2441E-01	0.0000
.0000E+00	.1173E-01							
271	0.00	0.000	0.081	0.2700	1.1890	.0000E+00	.2428E-01	0.0000
.0000E+00	.1337E-01							
272	0.00	0.000	0.064	0.2553	1.0358	.0000E+00	.2413E-01	0.0000
.0000E+00	.1453E-01							
273	0.00	0.000	0.071	0.2395	0.9181	.0000E+00	.2402E-01	0.0000
.0000E+00	.1525E-01							
274	0.00	0.000	0.051	0.2271	0.7983	.0000E+00	.2390E-01	0.0000
.0000E+00	.1564E-01							
275	0.04	0.000	0.060	0.2198	0.6819	.0000E+00	.2379E-01	0.0000
.0000E+00	.1545E-01							
276	0.00	0.000	0.036	0.2099	0.5675	.0000E+00	.2368E-01	0.0000
.0000E+00	.1450E-01							
277	0.00	0.000	0.052	0.1973	0.4523	.0000E+00	.2357E-01	0.0000
.0000E+00	.1364E-01							
278	0.13	0.000	0.068	0.2037	0.3376	.0000E+00	.2346E-01	0.0000
.0000E+00	.1288E-01							
279	0.68	0.000	0.064	0.3025	0.2267	.0000E+00	.2335E-01	0.0000
.0000E+00	.1219E-01							
280	0.00	0.000	0.032	0.2933	0.1233	.0000E+00	.2325E-01	0.0000
.0000E+00	.1157E-01							
281	1.65	0.314	0.065	0.5010	1.8904	.0000E+00	.2495E-01	0.0000
.0000E+00	.1101E-01							
282	0.00	0.000	0.045	0.4888	5.8742	.0000E+00	.2879E-01	0.0000
.0000E+00	.1035E-01							
283	0.00	0.000	0.054	0.4750	5.5352	.0000E+00	.2847E-01	0.0000
.0000E+00	.1004E-01							
284	0.04	0.000	0.066	0.4660	5.2113	.0000E+00	.2815E-01	0.0000

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.0000E+00 .9611E-02
  285         0.01  0.000  0.045  0.4555    5.0079 .0000E+00 .2796E-01    0.0000
.0000E+00 .9214E-02
  286         0.00  0.000  0.052  0.4422    4.8453 .0000E+00 .2780E-01    0.0000
.0000E+00 .8847E-02
  287         0.00  0.000  0.059  0.4277    4.5709 .0000E+00 .2754E-01    0.0000
.0000E+00 .8507E-02
  288         0.00  0.000  0.067  0.4120    4.2777 .0000E+00 .2725E-01    0.0000
.0000E+00 .8191E-02
  289         0.02  0.000  0.036  0.4049    4.0221 .0000E+00 .2701E-01    0.0000
.0000E+00 .7897E-02
  290         0.00  0.000  0.050  0.3920    3.8470 .0000E+00 .2684E-01    0.0000
.0000E+00 .7622E-02
  291         0.00  0.000  0.046  0.3798    3.6498 .0000E+00 .2665E-01    0.0000
.0000E+00 .7365E-02
  292         0.00  0.000  0.023  0.3716    3.4706 .0000E+00 .2648E-01    0.0000
.0000E+00 .7124E-02
  293         0.00  0.000  0.020  0.3639    3.3159 .0000E+00 .2633E-01    0.0000
.0000E+00 .6898E-02
  294         0.00  0.000  0.028  0.3549    3.1602 .0000E+00 .2618E-01    0.0000
.0000E+00 .6685E-02
  295         0.00  0.000  0.036  0.3446    2.9950 .0000E+00 .2602E-01    0.0000
.0000E+00 .6484E-02
  296         0.00  0.000  0.035  0.3344    2.8414 .0000E+00 .2587E-01    0.0000
.0000E+00 .6295E-02
  297         0.00  0.000  0.030  0.3252    2.6952 .0000E+00 .2573E-01    0.0000
.0000E+00 .6115E-02
  298         0.95  0.000  0.055  0.4699    2.9311 .0000E+00 .2596E-01    0.0000
.0000E+00 .5946E-02
  299         0.01  0.000  0.026  0.4626    5.1368 .0000E+00 .2808E-01    0.0000
.0000E+00 .5785E-02
  300         0.00  0.000  0.028  0.4534    4.9301 .0000E+00 .2788E-01    0.0000
.0000E+00 .5632E-02
  301         0.00  0.000  0.015  0.4462    4.7373 .0000E+00 .2770E-01    0.0000
.0000E+00 .5487E-02
  302         0.00  0.000  0.041  0.4348    4.5428 .0000E+00 .2751E-01    0.0000
.0000E+00 .5348E-02
  303         0.00  0.000  0.027  0.4257    4.3207 .0000E+00 .2729E-01    0.0000
.0000E+00 .5217E-02
  304         0.00  0.000  0.036  0.4152    4.1141 .0000E+00 .2710E-01    0.0000
.0000E+00 .5091E-02
  305         0.23  0.000  0.050  0.4407    3.9593 .0000E+00 .2695E-01    0.0000
.0000E+00 .4971E-02
  306         0.21  0.000  0.054  0.4621    4.5545 .0000E+00 .2752E-01    0.0000
.0000E+00 .4856E-02
  307         0.10  0.000  0.063  0.4637    4.9670 .0000E+00 .2792E-01    0.0000
.0000E+00 .4746E-02
  308         0.06  0.000  0.055  0.4599    4.9593 .0000E+00 .2791E-01    0.0000
.0000E+00 .4641E-02
  309         0.02  0.000  0.056  0.4493    4.8764 .0000E+00 .2783E-01    0.0000
.0000E+00 .4540E-02
  310         0.00  0.000  0.049  0.4366    4.6928 .0000E+00 .2765E-01    0.0000
.0000E+00 .4444E-02
  311         0.14  0.000  0.065  0.4445    4.4451 .0000E+00 .2741E-01    0.0000
.0000E+00 .4351E-02
  312         0.06  0.000  0.066  0.4390    4.3957 .0000E+00 .2737E-01    0.0000
.0000E+00 .4262E-02
  313         0.00  0.000  0.059  0.4247    4.2316 .0000E+00 .2721E-01    0.0000
.0000E+00 .4176E-02
  314         0.18  0.000  0.063  0.4397    4.0615 .0000E+00 .2704E-01    0.0000
.0000E+00 .4093E-02
  315         0.00  0.000  0.057  0.4256    4.1513 .0000E+00 .2713E-01    0.0000
.0000E+00 .4014E-02
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316	0.00	0.000	0.060	0.4110	3.9223	.0000E+00	.2691E-01	0.0000
.0000E+00	.3937E-02							
317	0.00	0.000	0.057	0.3971	3.7061	.0000E+00	.2670E-01	0.0000
.0000E+00	.8156E-03							
318	0.00	0.000	0.044	0.3854	3.5046	.0000E+00	.2651E-01	0.0000
.0000E+00	.0000E+00							
319	0.00	0.000	0.033	0.3754	3.3226	.0000E+00	.2633E-01	0.0000
.0000E+00	.0000E+00							
320	1.20	0.377	0.043	0.5010	4.3844	.0000E+00	.2736E-01	0.0000
.0000E+00	.0000E+00							
321 *	0.02	0.000	0.036	0.4936	5.9227	.0000E+00	.2884E-01	0.0000
.0000E+00	.0000E+00							
322	0.00	0.000	0.030	0.4837	5.6966	.0000E+00	.2862E-01	0.0000
.0000E+00	.0000E+00							
323	0.00	0.000	0.032	0.4736	5.4343	.0000E+00	.2837E-01	0.0000
.0000E+00	.0000E+00							
324	0.64	0.398	0.049	0.5010	5.7468	.0000E+00	.2867E-01	0.0000
.0000E+00	.0000E+00							
325	0.33	0.310	0.058	0.4900	5.8857	.0000E+00	.2880E-01	0.0000
.0000E+00	.0000E+00							
326	0.00	0.000	0.037	0.4790	5.5906	.0000E+00	.2852E-01	0.0000
.0000E+00	.0000E+00							
327	0.00	0.000	0.034	0.4687	5.3081	.0000E+00	.2825E-01	0.0000
.0000E+00	.0000E+00							
328	0.04	0.000	0.041	0.4639	5.0798	.0000E+00	.2803E-01	0.0000
.0000E+00	.0000E+00							
329	0.00	0.000	0.040	0.4525	4.9123	.0000E+00	.2786E-01	0.0000
.0000E+00	.0000E+00							
330	0.00	0.000	0.044	0.4406	4.6719	.0000E+00	.2763E-01	0.0000
.0000E+00	.0000E+00							
331	0.05	0.000	0.051	0.4359	4.4421	.0000E+00	.2741E-01	0.0000
.0000E+00	.0000E+00							
332	0.32	0.000	0.041	0.4778	4.5820	.0000E+00	.2755E-01	0.0000
.0000E+00	.0000E+00							
333 *	0.00	0.000	0.024	0.4690	5.3100	.0000E+00	.2825E-01	0.0000
.0000E+00	.0000E+00							
334	0.00	0.000	0.034	0.4587	5.0625	.0000E+00	.2801E-01	0.0000
.0000E+00	.0000E+00							
335	0.96	0.637	0.041	0.5010	5.6272	.0000E+00	.2855E-01	0.0000
.0000E+00	.0000E+00							
336	0.08	0.063	0.044	0.4918	5.9042	.0000E+00	.2882E-01	0.0000
.0000E+00	.0000E+00							
337	0.00	0.000	0.030	0.4820	5.6499	.0000E+00	.2858E-01	0.0000
.0000E+00	.0000E+00							
338 *	0.01	0.000	0.032	0.4736	5.4038	.0000E+00	.2834E-01	0.0000
.0000E+00	.0000E+00							
339	0.14	0.000	0.045	0.4847	5.3438	.0000E+00	.2828E-01	0.0000
.0000E+00	.0000E+00							
340 *	0.86	0.000	0.029	0.4832	5.5707	.0000E+00	.2850E-01	0.0000
.0000E+00	.0000E+00							
341	0.00	0.000	0.030	0.4817	5.5133	.0000E+00	.2844E-01	0.0000
.0000E+00	.0000E+00							
342 *	0.02	0.000	0.025	0.4803	5.4740	.0000E+00	.2841E-01	0.0000
.0000E+00	.0000E+00							
343 *	0.40	0.000	0.022	0.4789	5.4348	.0000E+00	.2837E-01	0.0000
.0000E+00	.0000E+00							
344 *	0.00	0.000	0.021	0.4775	5.3954	.0000E+00	.2833E-01	0.0000
.0000E+00	.0000E+00							
345 *	0.00	0.000	0.027	0.4761	5.3562	.0000E+00	.2829E-01	0.0000
.0000E+00	.0000E+00							
346	0.00	0.000	0.020	0.4918	5.4569	.0000E+00	.2839E-01	0.0000
.0000E+00	.0000E+00							
347 *	0.00	0.000	0.028	0.4904	5.7682	.0000E+00	.2869E-01	0.0000

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.0000E+00 .0000E+00
  348         0.70  1.424  0.000  0.5010    5.9294 .0000E+00 .2884E-01    0.0000
.0000E+00 .0000E+00
  349  *      0.01  0.000  0.033  0.4923    5.9095 .0000E+00 .2883E-01    0.0000
.0000E+00 .0000E+00
  350  *      0.00  0.000  0.000  0.4875    5.7117 .0000E+00 .2864E-01    0.0000
.0000E+00 .0000E+00
  351  *      0.03  0.000  0.027  0.4832    5.6101 .0000E+00 .2854E-01    0.0000
.0000E+00 .0000E+00
  352  *      0.03  0.000  0.028  0.4788    5.5020 .0000E+00 .2843E-01    0.0000
.0000E+00 .0000E+00
  353  *      0.00  0.000  0.000  0.4741    5.3789 .0000E+00 .2831E-01    0.0000
.0000E+00 .0000E+00
  354  *      0.00  0.000  0.000  0.4694    5.2486 .0000E+00 .2819E-01    0.0000
.0000E+00 .0000E+00
  355  *  *   0.00  0.000  0.000  0.4652    1.9968 .0000E+00 .2505E-01    0.0000
.0000E+00 .0000E+00
  356     *   0.02  0.000  0.010  0.4628    0.8431 .0000E+00 .2394E-01    0.0000
.0000E+00 .0000E+00
  357     *   0.00  0.000  0.000  0.4589    0.7330 .0000E+00 .2384E-01    0.0000
.0000E+00 .0000E+00
  358     *   0.00  0.000  0.000  0.4549    0.6233 .0000E+00 .2373E-01    0.0000
.0000E+00 .3323E-02
  359     *   0.00  0.000  0.000  0.4510    0.5141 .0000E+00 .2363E-01    0.0000
.0000E+00 .2288E-02
  360     *   0.00  0.000  0.000  0.4471    0.4054 .0000E+00 .2352E-01    0.0000
.0000E+00 .1437E-02
  361     *   0.00  0.000  0.000  0.4431    0.2972 .0000E+00 .2342E-01    0.0000
.0000E+00 .7341E-03
  362     *   0.00  0.000  0.000  0.4393    0.1895 .0000E+00 .2331E-01    0.0000
.0000E+00 .1717E-03
  363     *   0.00  0.000  0.000  0.4354    0.0822 .0000E+00 .2321E-01    0.0000
.0000E+00 .0000E+00
  364  *  *   0.00  0.000  0.000  0.4348    0.0039 .0000E+00 .3348E-02    0.0000
.0000E+00 .3994E-02
  365  *  *   0.00  0.000  0.000  0.4348    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3714E-02
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MONTHLY TOTALS (IN INCHES) FOR YEAR 2010

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	2.38	2.30	6.45	0.92	2.20	5.41
	4.34	5.34	3.64	3.53	3.60	3.26
RUNOFF	1.314	0.319	3.561	0.000	0.000	0.765
	0.023	0.226	0.000	0.314	1.084	2.123
EVAPOTRANSPIRATION	0.422	0.825	2.213	2.237	2.144	3.242
	5.382	4.338	2.994	1.347	1.424	0.493
PERCOLATION/LEAKAGE THROUGH	0.0000	0.6195	0.8506	0.3785	0.0830	0.2032
LAYER 2	0.3956	0.4234	0.3710	0.8145	0.8306	0.7868

PERCOLATION/LEAKAGE THROUGH	0.1037	0.1959	0.2357	0.0420	0.0313	0.2766
LAYER 3	0.4085	0.2761	0.2258	0.2726	0.0538	0.0157

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON	0.000	1.813	4.470	1.490	0.068	0.830
TOP OF LAYER 2	0.665	1.207	0.631	3.262	4.726	3.770
STD. DEVIATION OF DAILY	0.000	1.557	1.057	1.912	0.192	1.740
HEAD ON TOP OF LAYER 2	0.836	1.730	0.817	1.782	0.702	2.480

ANNUAL TOTALS FOR YEAR 2010

	INCHES	CU. FEET	PERCENT
PRECIPITATION	43.37	157433.109	100.00
RUNOFF	9.730	35321.402	22.44
EVAPOTRANSPIRATION	27.062	98236.062	62.40
PERC./LEAKAGE THROUGH LAYER 2	5.756604	20896.471	13.27
AVG. HEAD ON TOP OF LAYER 2	1.9109		
PERC./LEAKAGE THROUGH LAYER 3	2.137775	7760.122	4.93
CHANGE IN WATER STORAGE	4.440	16115.492	10.24
SOIL WATER AT START OF YEAR	69.490	252247.500	
SOIL WATER AT END OF YEAR	74.000	268621.375	
SNOW WATER AT START OF YEAR	0.071	258.392	0.16
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.030	0.00

WARNING: TEMPERATURE FOR YEAR 1978 USED WITH PRECIPITATION FOR YEAR 2011

WARNING: SOLAR RADIATION FOR YEAR 1978 USED WITH PRECIPITATION FOR YEAR 2011

HEAD #1: AVERAGE HEAD ON TOP OF LAYER 2
DRAIN #1: LATERAL DRAINAGE FROM LAYER 1 (RECIRCULATION AND COLLECTION)
LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 2
LEAK #2: PERCOLATION OR LEAKAGE THROUGH LAYER 3

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DAILY OUTPUT FOR YEAR 2011

DAY	A	SO	RAIN	RUNOFF	ET	E. ZONE	HEAD	DRAIN	LEAK	HEAD	DRAIN	LEAK
	I	I				WATER	#1	#1	#1	#2	#2	#2
	R	L	IN.	IN.	IN.	IN./IN.	IN.	IN.	IN.	IN.	IN.	IN.
1		*	0.04	0.001	0.012	0.4394	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
2		*	0.00	0.000	0.000	0.4394	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.2343E-02
3		*	0.00	0.000	0.000	0.4394	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.3450E-04
4	*	*	0.00	0.000	0.000	0.4394	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
5	*	*	0.00	0.000	0.000	0.4394	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
6	*	*	0.00	0.000	0.000	0.4394	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
7		*	0.00	0.000	0.000	0.4394	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
8		*	0.04	0.002	0.011	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
9		*	0.00	0.000	0.000	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
10	*	*	0.00	0.000	0.000	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
11		*	0.00	0.000	0.000	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
12	*	*	0.00	0.000	0.000	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
13	*	*	0.11	0.000	0.023	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
14	*	*	0.02	0.000	0.031	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
15	*	*	0.01	0.000	0.026	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
16	*	*	0.05	0.000	0.017	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
17	*	*	0.84	0.000	0.019	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
18	*	*	0.16	0.000	0.019	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
19	*	*	0.00	0.000	0.016	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
20	*	*	0.00	0.000	0.014	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00

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.0000E+00 .0000E+00
   21  *   *    0.01  0.000  0.017  0.4439    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   22  *   *    0.00  0.000  0.021  0.4439    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   23      *    0.00  0.000  0.000  0.4439    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   24  *   *    0.00  0.000  0.031  0.4439    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   25      *    0.23  0.202  0.000  0.4593    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2903E-03
   26      *    0.20  0.607  0.000  0.4665    0.0039 .0000E+00 .5786E-02    0.0000
.0000E+00 .0000E+00
   27      *    0.00  0.434  0.010  0.4650    0.0176 .0000E+00 .1289E-01    0.0000
.0000E+00 .6917E-04
   28      *    0.00  0.000  0.000  0.4648    0.0012 .0000E+00 .1003E-02    0.0000
.0000E+00 .8569E-02
   29      *    0.00  0.000  0.000  0.4648    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1113E-01
   30      *    0.00  0.000  0.000  0.4648    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1242E-01
   31      *    0.02  0.010  0.008  0.4648    0.0009 .0000E+00 .1599E-02    0.0000
.0000E+00 .1231E-01
   32      *    0.01  0.003  0.006  0.4648    0.0006 .0000E+00 .1082E-02    0.0000
.0000E+00 .1436E-01
   33      *    0.00  0.000  0.000  0.4648    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1653E-01
   34           0.00  0.000  0.057  0.4519    3.7234 .0000E+00 .2094E-01    0.0000
.0000E+00 .1178E-01
   35           0.00  0.000  0.041  0.4405    4.8146 .0000E+00 .2777E-01    0.0000
.0000E+00 .1463E-01
   36  *        0.08  0.000  0.038  0.4392    4.6566 .0000E+00 .2762E-01    0.0000
.0000E+00 .1711E-01
   37  *        0.00  0.000  0.050  0.4301    4.5066 .0000E+00 .2747E-01    0.0000
.0000E+00 .1923E-01
   38  *        0.00  0.000  0.047  0.4177    4.3068 .0000E+00 .2728E-01    0.0000
.0000E+00 .2101E-01
   39  *   *    0.00  0.000  0.000  0.4136    1.7432 .0000E+00 .2481E-01    0.0000
.0000E+00 .2247E-01
   40  *   *    0.00  0.000  0.000  0.4096    0.8443 .0000E+00 .2394E-01    0.0000
.0000E+00 .2366E-01
   41  *   *    0.00  0.000  0.000  0.4056    0.7341 .0000E+00 .2384E-01    0.0000
.0000E+00 .2461E-01
   42  *   *    0.00  0.000  0.000  0.4017    0.6244 .0000E+00 .2373E-01    0.0000
.0000E+00 .2536E-01
   43  *   *    0.00  0.000  0.000  0.3978    0.5152 .0000E+00 .2363E-01    0.0000
.0000E+00 .2593E-01
   44  *   *    0.24  0.000  0.021  0.3938    0.4065 .0000E+00 .2352E-01    0.0000
.0000E+00 .2636E-01
   45  *   *    0.78  0.000  0.022  0.3899    0.2983 .0000E+00 .2342E-01    0.0000
.0000E+00 .2694E-01
   46  *   *    0.01  0.000  0.022  0.3860    0.1906 .0000E+00 .2331E-01    0.0000
.0000E+00 .2874E-01
   47  *   *    0.00  0.000  0.020  0.3822    0.0833 .0000E+00 .2321E-01    0.0000
.0000E+00 .2991E-01
   48  *   *    0.00  0.000  0.031  0.3816    0.0041 .0000E+00 .3584E-02    0.0000
.0000E+00 .4442E-01
   49      *    0.00  0.087  0.000  0.4123    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3864E-01
   50      *    0.00  0.205  0.000  0.4394    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3132E-01
   51      *    0.00  0.192  0.041  0.4465    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2606E-01
```

52	*	0.01	0.000	0.006	0.4472	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2217E-01								
53	*	0.00	0.000	0.000	0.4472	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1926E-01								
54	*	0.08	0.037	0.008	0.4531	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1706E-01								
55	*	0.02	0.002	0.007	0.4549	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1541E-01								
56	*	0.00	0.000	0.000	0.4549	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1419E-01								
57	*	0.00	0.000	0.000	0.4549	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1331E-01								
58		0.00	0.000	0.074	0.4391	3.6935	.0000E+00	.2091E-01	0.0000
.0000E+00	.1379E-02								
59		0.22	0.000	0.066	0.4601	4.6999	.0000E+00	.2766E-01	0.0000
.0000E+00	.4533E-02								
60	*	0.16	0.000	0.043	0.4587	4.9579	.0000E+00	.2791E-01	0.0000
.0000E+00	.7511E-02								
61	*	0.00	0.000	0.053	0.4573	4.8856	.0000E+00	.2784E-01	0.0000
.0000E+00	.1026E-01								
62		0.34	0.068	0.007	0.5010	5.3644	.0000E+00	.2830E-01	0.0000
.0000E+00	.1275E-01								
63		0.02	0.000	0.060	0.4895	5.8968	.0000E+00	.2881E-01	0.0000
.0000E+00	.1495E-01								
64		0.00	0.000	0.080	0.4714	5.5602	.0000E+00	.2849E-01	0.0000
.0000E+00	.1696E-01								
65	*	0.00	0.000	0.053	0.4579	5.1345	.0000E+00	.2808E-01	0.0000
.0000E+00	.2088E-01								
66		0.02	0.000	0.052	0.4480	4.8391	.0000E+00	.2779E-01	0.0000
.0000E+00	.2415E-01								
67		1.80	1.391	0.063	0.5010	5.6247	.0000E+00	.2855E-01	0.0000
.0000E+00	.2539E-01								
68		0.50	0.493	0.100	0.4807	5.7920	.0000E+00	.2871E-01	0.0000
.0000E+00	.2652E-01								
69		0.00	0.000	0.154	0.4504	5.1655	.0000E+00	.2811E-01	0.0000
.0000E+00	.2748E-01								
70		0.00	0.000	0.156	0.4198	4.5335	.0000E+00	.2750E-01	0.0000
.0000E+00	.2754E-01								
71		0.06	0.000	0.091	0.4102	4.0632	.0000E+00	.2705E-01	0.0000
.0000E+00	.2686E-01								
72		0.01	0.000	0.075	0.3950	3.8453	.0000E+00	.2684E-01	0.0000
.0000E+00	.2567E-01								
73		0.75	0.007	0.079	0.5010	4.2894	.0000E+00	.2726E-01	0.0000
.0000E+00	.2392E-01								
74		0.00	0.000	0.121	0.4761	5.7504	.0000E+00	.2867E-01	0.0000
.0000E+00	.2170E-01								
75		0.00	0.000	0.133	0.4493	5.1000	.0000E+00	.2805E-01	0.0000
.0000E+00	.2158E-01								
76		0.00	0.000	0.189	0.4131	4.5191	.0000E+00	.2749E-01	0.0000
.0000E+00	.2098E-01								
77		0.08	0.000	0.078	0.4089	4.0089	.0000E+00	.2699E-01	0.0000
.0000E+00	.2006E-01								
78		0.00	0.000	0.117	0.3850	3.7779	.0000E+00	.2677E-01	0.0000
.0000E+00	.1881E-01								
79		0.00	0.000	0.086	0.3662	3.5259	.0000E+00	.2653E-01	0.0000
.0000E+00	.1762E-01								
80		0.28	0.000	0.103	0.3913	3.2676	.0000E+00	.2628E-01	0.0000
.0000E+00	.1649E-01								
81		0.00	0.000	0.090	0.3719	3.0082	.0000E+00	.2603E-01	0.0000
.0000E+00	.1540E-01								
82		0.00	0.000	0.083	0.3538	2.8052	.0000E+00	.2583E-01	0.0000
.0000E+00	.1434E-01								
83		0.50	0.000	0.058	0.4231	2.8325	.0000E+00	.2586E-01	0.0000

.0000E+00	.1318E-01								
84	1.90	1.345	0.059	0.5010	5.2506	.0000E+00	.2819E-01	0.0000	
.0000E+00	.1045E-01								
85	0.35	0.344	0.067	0.4860	5.8457	.0000E+00	.2876E-01	0.0000	
.0000E+00	.1012E-01								
86	0.05	0.000	0.064	0.4789	5.5481	.0000E+00	.2848E-01	0.0000	
.0000E+00	.1053E-01								
87	0.00	0.000	0.115	0.4550	5.1554	.0000E+00	.2810E-01	0.0000	
.0000E+00	.1072E-01								
88	0.00	0.000	0.082	0.4367	4.6844	.0000E+00	.2765E-01	0.0000	
.0000E+00	.1071E-01								
89	0.01	0.000	0.108	0.4158	4.3737	.0000E+00	.2735E-01	0.0000	
.0000E+00	.1037E-01								
90	0.00	0.000	0.104	0.3939	4.0434	.0000E+00	.2703E-01	0.0000	
.0000E+00	.9960E-02								
91	0.00	0.000	0.119	0.3696	3.7149	.0000E+00	.2671E-01	0.0000	
.0000E+00	.9478E-02								
92	0.00	0.000	0.098	0.3489	3.3913	.0000E+00	.2640E-01	0.0000	
.0000E+00	.8953E-02								
93 *	0.07	0.000	0.073	0.3441	3.1176	.0000E+00	.2613E-01	0.0000	
.0000E+00	.8371E-02								
94	0.00	0.000	0.134	0.3174	2.9223	.0000E+00	.2595E-01	0.0000	
.0000E+00	.7745E-02								
95	0.03	0.000	0.089	0.3033	2.6747	.0000E+00	.2571E-01	0.0000	
.0000E+00	.7206E-02								
96	0.00	0.000	0.104	0.2817	2.3059	.0000E+00	.2535E-01	0.0000	
.0000E+00	.6780E-02								
97	0.31	0.000	0.094	0.3135	1.9038	.0000E+00	.2497E-01	0.0000	
.0000E+00	.6359E-02								
98	0.00	0.000	0.133	0.2873	1.7464	.0000E+00	.2481E-01	0.0000	
.0000E+00	.5736E-02								
99	0.00	0.000	0.108	0.2651	1.5822	.0000E+00	.2466E-01	0.0000	
.0000E+00	.5202E-02								
100	0.00	0.000	0.150	0.2360	1.4185	.0000E+00	.2450E-01	0.0000	
.0000E+00	.4736E-02								
101	0.39	0.000	0.081	0.2834	1.2329	.0000E+00	.2432E-01	0.0000	
.0000E+00	.4345E-02								
102	0.00	0.000	0.099	0.2629	1.0152	.0000E+00	.2411E-01	0.0000	
.0000E+00	.4021E-02								
103	0.00	0.000	0.123	0.2384	0.8631	.0000E+00	.2396E-01	0.0000	
.0000E+00	.3676E-02								
104	0.00	0.000	0.129	0.2129	0.7345	.0000E+00	.2384E-01	0.0000	
.0000E+00	.3364E-02								
105	0.00	0.000	0.142	0.1852	0.6149	.0000E+00	.2372E-01	0.0000	
.0000E+00	.3099E-02								
106	0.29	0.000	0.127	0.2084	0.4560	.0000E+00	.2357E-01	0.0000	
.0000E+00	.2914E-02								
107	0.33	0.000	0.103	0.2423	0.1890	.0000E+00	.2331E-01	0.0000	
.0000E+00	.2841E-02								
108	0.98	0.001	0.100	0.3871	0.1576	.0000E+00	.1029E-01	0.0000	
.0000E+00	.9289E-02								
109	0.14	0.000	0.095	0.3902	2.7519	.0000E+00	.2578E-01	0.0000	
.0000E+00	.0000E+00								
110	0.14	0.000	0.165	0.3818	2.8415	.0000E+00	.2587E-01	0.0000	
.0000E+00	.0000E+00								
111	0.00	0.000	0.164	0.3503	2.6863	.0000E+00	.2572E-01	0.0000	
.0000E+00	.0000E+00								
112	0.00	0.000	0.192	0.3140	2.4640	.0000E+00	.2551E-01	0.0000	
.0000E+00	.5320E-03								
113	0.21	0.000	0.146	0.3204	2.2033	.0000E+00	.2525E-01	0.0000	
.0000E+00	.1710E-02								
114	0.08	0.000	0.174	0.3006	1.9742	.0000E+00	.2503E-01	0.0000	
.0000E+00	.2602E-02								

115	0.08	0.000	0.116	0.2903	1.7941	.0000E+00	.2486E-01	0.0000
.0000E+00	.3252E-02							
116	0.02	0.000	0.140	0.2663	1.6307	.0000E+00	.2470E-01	0.0000
.0000E+00	.3741E-02							
117	0.00	0.000	0.174	0.2332	1.4298	.0000E+00	.2451E-01	0.0000
.0000E+00	.4144E-02							
118	0.00	0.000	0.161	0.2024	1.0598	.0000E+00	.2415E-01	0.0000
.0000E+00	.4567E-02							
119	0.00	0.000	0.235	0.1598	0.5564	.0000E+00	.2083E-01	0.0000
.0000E+00	.7119E-02							
120	0.01	0.000	0.159	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1257E-01							
121	0.13	0.000	0.063	0.1462	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1192E-01							
122	0.00	0.000	0.036	0.1402	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9714E-02							
123	0.00	0.000	0.024	0.1361	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5572E-02							
124	0.09	0.000	0.016	0.1484	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2575E-02							
125	0.42	0.000	0.028	0.2138	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4969E-03							
126	0.00	0.000	0.144	0.1897	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
127	0.06	0.000	0.048	0.1917	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
128	0.59	0.000	0.047	0.2822	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
129	0.01	0.000	0.261	0.2404	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
130	0.00	0.000	0.219	0.2039	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
131	0.00	0.000	0.141	0.1804	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
132	0.65	0.000	0.097	0.2726	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
133	0.54	0.000	0.200	0.3282	0.0987	.0000E+00	.5878E-02	0.0000
.0000E+00	.0000E+00							
134	0.31	0.000	0.267	0.3313	1.0662	.0000E+00	.2416E-01	0.0000
.0000E+00	.0000E+00							
135	0.00	0.000	0.241	0.2871	1.4040	.0000E+00	.2448E-01	0.0000
.0000E+00	.0000E+00							
136	0.00	0.000	0.249	0.2415	1.1952	.0000E+00	.2428E-01	0.0000
.0000E+00	.1445E-03							
137	0.00	0.000	0.220	0.2008	0.9888	.0000E+00	.2408E-01	0.0000
.0000E+00	.3520E-02							
138	0.00	0.000	0.210	0.1619	0.5771	.0000E+00	.2369E-01	0.0000
.0000E+00	.8022E-02							
139	0.00	0.000	0.161	0.1350	0.0143	.0000E+00	.0000E+00	0.0000
.0000E+00	.2969E-01							
140	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2556E-01							
141	0.04	0.000	0.014	0.1394	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2259E-01							
142	0.00	0.000	0.012	0.1375	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2046E-01							
143	0.44	0.000	0.035	0.2050	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1897E-01							
144	0.10	0.000	0.064	0.2110	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1796E-01							
145	0.00	0.000	0.288	0.1630	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1733E-01							
146	0.07	0.000	0.070	0.1629	0.0000	.0000E+00	.0000E+00	0.0000

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.0000E+00 .1698E-01
  147         0.00  0.000  0.072  0.1509    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1686E-01
  148         0.00  0.000  0.066  0.1399    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1693E-01
  149         0.37  0.000  0.063  0.1910    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1712E-01
  150         0.00  0.000  0.162  0.1640    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1742E-01
  151         0.00  0.000  0.082  0.1503    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1780E-01
  152         0.00  0.000  0.075  0.1379    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1822E-01
  153         0.16  0.000  0.069  0.1530    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1868E-01
  154         0.00  0.000  0.052  0.1444    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1915E-01
  155         0.00  0.000  0.043  0.1372    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1962E-01
  156         0.00  0.000  0.010  0.1355    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2009E-01
  157         0.00  0.000  0.002  0.1351    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2055E-01
  158         0.14  0.000  0.053  0.1497    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2098E-01
  159         0.09  0.000  0.058  0.1549    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2140E-01
  160         0.00  0.000  0.047  0.1471    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2178E-01
  161         0.00  0.000  0.058  0.1376    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2214E-01
  162         0.00  0.000  0.011  0.1356    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2248E-01
  163         0.00  0.000  0.003  0.1352    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2278E-01
  164         0.00  0.000  0.001  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2305E-01
  165         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2330E-01
  166         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2353E-01
  167         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2373E-01
  168         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2390E-01
  169         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2406E-01
  170         0.95  0.000  0.111  0.2749    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2420E-01
  171         0.00  0.000  0.236  0.2355    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2432E-01
  172         0.00  0.000  0.253  0.1934    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2442E-01
  173         0.00  0.000  0.279  0.1469    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2450E-01
  174         0.06  0.000  0.103  0.1397    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2457E-01
  175         0.45  0.000  0.083  0.2009    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2463E-01
  176         0.54  0.000  0.120  0.2710    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2468E-01
  177         0.00  0.000  0.246  0.2299    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2471E-01
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178	0.00	0.000	0.306	0.1789	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2474E-01
179	0.00	0.000	0.214	0.1432	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2476E-01
180	0.00	0.000	0.049	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2476E-01
181	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2476E-01
182	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2476E-01
183	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2474E-01
184	1.14	0.000	0.127	0.3038	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2472E-01
185	0.00	0.000	0.246	0.2609	0.0437	.0000E+00	.1161E-01	0.0000	.0000E+00 .2155E-01
186	0.00	0.000	0.272	0.2116	0.1998	.0000E+00	.2332E-01	0.0000	.0000E+00 .2286E-01
187	0.00	0.000	0.268	0.1641	0.1017	.0000E+00	.1744E-01	0.0000	.0000E+00 .2391E-01
188	0.00	0.000	0.175	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2874E-01
189	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2764E-01
190	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2675E-01
191	0.21	0.000	0.090	0.1550	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2603E-01
192	0.24	0.000	0.123	0.1746	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2545E-01
193	0.00	0.000	0.125	0.1537	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2497E-01
194	0.10	0.000	0.139	0.1472	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2457E-01
195	0.02	0.000	0.060	0.1405	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2425E-01
196	2.50	0.257	0.262	0.4707	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2397E-01
197	0.00	0.000	0.328	0.4115	4.6106	.0000E+00	.2757E-01	0.0000	.0000E+00 .2038E-01
198	0.00	0.000	0.319	0.3538	3.7442	.0000E+00	.2674E-01	0.0000	.0000E+00 .2154E-01
199	0.00	0.000	0.320	0.2963	2.8714	.0000E+00	.2590E-01	0.0000	.0000E+00 .2249E-01
200	0.00	0.000	0.309	0.2406	1.9769	.0000E+00	.2504E-01	0.0000	.0000E+00 .2325E-01
201	0.00	0.000	0.285	0.1891	1.1210	.0000E+00	.2421E-01	0.0000	.0000E+00 .2385E-01
202	0.00	0.000	0.222	0.1501	0.3601	.0000E+00	.1186E-01	0.0000	.0000E+00 .2432E-01
203	0.00	0.000	0.090	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .3108E-01
204	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2863E-01
205	0.36	0.000	0.100	0.1784	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2671E-01
206	0.59	0.000	0.181	0.2466	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2518E-01
207	0.00	0.000	0.294	0.1976	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2397E-01
208	0.87	0.000	0.242	0.3023	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00 .2300E-01
209	0.00	0.000	0.274	0.2566	0.0000	.0000E+00	.0000E+00	0.0000	

.0000E+00	.2222E-01								
210	0.00	0.000	0.248	0.2133	0.0231	.0000E+00	.1169E-01	0.0000	
.0000E+00	.1632E-01								
211	0.00	0.000	0.253	0.1711	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.2330E-01								
212	0.00	0.000	0.217	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.2244E-01								
213	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.2174E-01								
214	0.09	0.000	0.035	0.1441	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.2118E-01								
215	0.06	0.000	0.065	0.1433	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.2073E-01								
216	0.00	0.000	0.037	0.1371	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.2036E-01								
217	0.00	0.000	0.009	0.1356	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.2007E-01								
218	0.00	0.000	0.002	0.1352	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1984E-01								
219	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1966E-01								
220	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1952E-01								
221	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1941E-01								
222	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1933E-01								
223	0.16	0.000	0.086	0.1473	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1927E-01								
224	0.05	0.000	0.078	0.1427	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1922E-01								
225	0.00	0.000	0.034	0.1369	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1919E-01								
226	0.00	0.000	0.008	0.1356	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1917E-01								
227	0.00	0.000	0.003	0.1352	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1916E-01								
228	0.02	0.000	0.021	0.1351	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1916E-01								
229	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1916E-01								
230	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1916E-01								
231	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1917E-01								
232	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1918E-01								
233	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1870E-01								
234	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1608E-01								
235	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1719E-01								
236	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1813E-01								
237	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1892E-01								
238	0.02	0.000	0.020	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1958E-01								
239	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.2012E-01								
240	0.14	0.000	0.067	0.1472	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.2057E-01								

241	0.02	0.000	0.064	0.1399	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2092E-01							
242	0.00	0.000	0.021	0.1364	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2120E-01							
243	0.20	0.000	0.082	0.1561	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2142E-01							
244	0.00	0.000	0.046	0.1484	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2158E-01							
245	0.00	0.000	0.066	0.1374	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2170E-01							
246	0.00	0.000	0.011	0.1356	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2178E-01							
247	0.00	0.000	0.003	0.1351	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2183E-01							
248	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2186E-01							
249	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2186E-01							
250	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2184E-01							
251	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2181E-01							
252	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2176E-01							
253	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2171E-01							
254	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2165E-01							
255	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2158E-01							
256	0.15	0.000	0.078	0.1471	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2150E-01							
257	0.00	0.000	0.045	0.1396	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2142E-01							
258	0.04	0.000	0.049	0.1382	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2134E-01							
259	0.00	0.000	0.012	0.1363	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2125E-01							
260	2.58	0.285	0.133	0.4965	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2116E-01							
261	0.00	0.000	0.163	0.4646	5.5565	.0000E+00	.2849E-01	0.0000
.0000E+00	.2107E-01							
262	0.00	0.000	0.142	0.4363	4.8196	.0000E+00	.2778E-01	0.0000
.0000E+00	.2098E-01							
263	0.00	0.000	0.157	0.4057	4.2876	.0000E+00	.2726E-01	0.0000
.0000E+00	.2088E-01							
264	0.00	0.000	0.141	0.3778	3.8070	.0000E+00	.2680E-01	0.0000
.0000E+00	.2079E-01							
265	0.13	0.000	0.153	0.3695	3.4591	.0000E+00	.2646E-01	0.0000
.0000E+00	.2070E-01							
266	0.00	0.000	0.117	0.3456	3.1621	.0000E+00	.2618E-01	0.0000
.0000E+00	.2060E-01							
267	0.00	0.000	0.135	0.3188	2.8923	.0000E+00	.2592E-01	0.0000
.0000E+00	.2051E-01							
268	0.00	0.000	0.167	0.2868	2.4963	.0000E+00	.2554E-01	0.0000
.0000E+00	.2041E-01							
269	0.00	0.000	0.153	0.2571	1.9298	.0000E+00	.2499E-01	0.0000
.0000E+00	.2032E-01							
270	0.00	0.000	0.136	0.2303	1.5496	.0000E+00	.2462E-01	0.0000
.0000E+00	.2023E-01							
271	0.00	0.000	0.142	0.2026	1.0409	.0000E+00	.2413E-01	0.0000
.0000E+00	.2013E-01							
272	0.00	0.000	0.154	0.1729	0.6555	.0000E+00	.2376E-01	0.0000

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.0000E+00 .2004E-01
  273         0.00  0.000  0.125  0.1500    0.1420 .0000E+00 .1170E-01    0.0000
.0000E+00 .2390E-01
  274         0.20  0.000  0.137  0.1606    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3235E-01
  275         0.00  0.000  0.105  0.1430    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2770E-01
  276         0.16  0.000  0.111  0.1512    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2410E-01
  277         0.14  0.000  0.084  0.1605    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2127E-01
  278         0.00  0.000  0.050  0.1522    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1901E-01
  279         0.02  0.000  0.070  0.1438    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1717E-01
  280         0.00  0.000  0.039  0.1373    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1568E-01
  281         0.00  0.000  0.011  0.1355    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1445E-01
  282         0.00  0.000  0.002  0.1351    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1345E-01
  283         0.17  0.000  0.057  0.1540    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1263E-01
  284         0.09  0.000  0.057  0.1594    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1196E-01
  285         0.00  0.000  0.039  0.1530    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1141E-01
  286         1.32  0.006  0.068  0.3606    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1098E-01
  287         0.12  0.000  0.080  0.3632    1.6708 .0000E+00 .2474E-01    0.0000
.0000E+00 .3077E-02
  288         0.01  0.000  0.046  0.3530    2.2624 .0000E+00 .2531E-01    0.0000
.0000E+00 .4596E-02
  289         0.00  0.000  0.030  0.3438    2.1818 .0000E+00 .2523E-01    0.0000
.0000E+00 .6036E-02
  290         0.00  0.000  0.052  0.3309    2.0290 .0000E+00 .2509E-01    0.0000
.0000E+00 .7387E-02
  291         0.00  0.000  0.039  0.3202    1.8916 .0000E+00 .2495E-01    0.0000
.0000E+00 .8641E-02
  292         0.00  0.000  0.042  0.3091    1.7606 .0000E+00 .2483E-01    0.0000
.0000E+00 .9791E-02
  293         0.00  0.000  0.047  0.2972    1.6287 .0000E+00 .2470E-01    0.0000
.0000E+00 .1084E-01
  294         0.00  0.000  0.036  0.2871    1.4977 .0000E+00 .2457E-01    0.0000
.0000E+00 .1178E-01
  295  *      0.00  0.000  0.028  0.2784    1.3713 .0000E+00 .2445E-01    0.0000
.0000E+00 .1262E-01
  296         0.00  0.000  0.026  0.2700    1.2479 .0000E+00 .2433E-01    0.0000
.0000E+00 .1341E-01
  297         0.07  0.000  0.053  0.2688    1.1259 .0000E+00 .2422E-01    0.0000
.0000E+00 .1562E-01
  298         0.00  0.000  0.033  0.2593    0.9996 .0000E+00 .2409E-01    0.0000
.0000E+00 .1792E-01
  299         0.18  0.000  0.060  0.2753    0.9121 .0000E+00 .2401E-01    0.0000
.0000E+00 .1949E-01
  300         0.00  0.000  0.038  0.2649    0.7972 .0000E+00 .2390E-01    0.0000
.0000E+00 .2050E-01
  301         0.00  0.000  0.031  0.2559    0.6821 .0000E+00 .2379E-01    0.0000
.0000E+00 .2103E-01
  302         0.00  0.000  0.034  0.2463    0.5680 .0000E+00 .2368E-01    0.0000
.0000E+00 .2116E-01
  303         0.00  0.000  0.038  0.2361    0.4539 .0000E+00 .2357E-01    0.0000
.0000E+00 .2100E-01
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304	0.00	0.000	0.039	0.2257	0.3398	.0000E+00	.2346E-01	0.0000
.0000E+00	.2062E-01							
305	0.00	0.000	0.053	0.2130	0.2327	.0000E+00	.2335E-01	0.0000
.0000E+00	.2008E-01							
306	0.00	0.000	0.046	0.2014	0.1178	.0000E+00	.2324E-01	0.0000
.0000E+00	.1943E-01							
307	0.00	0.000	0.057	0.1904	0.0161	.0000E+00	.9172E-02	0.0000
.0000E+00	.1832E-01							
308	0.00	0.000	0.065	0.1796	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1700E-01							
309	0.00	0.000	0.059	0.1698	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1585E-01							
310	0.00	0.000	0.035	0.1640	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1484E-01							
311	0.16	0.000	0.050	0.1824	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1394E-01							
312	0.00	0.000	0.038	0.1761	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1315E-01							
313	0.00	0.000	0.044	0.1688	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1243E-01							
314	0.00	0.000	0.040	0.1622	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1136E-01							
315	0.00	0.000	0.032	0.1569	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9461E-02							
316	0.00	0.000	0.033	0.1513	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7872E-02							
317	0.00	0.000	0.044	0.1439	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6581E-02							
318	0.64	0.000	0.062	0.2403	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5533E-02							
319	0.18	0.000	0.060	0.2602	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4688E-02							
320	0.45	0.000	0.060	0.3242	0.0923	.0000E+00	.5872E-02	0.0000
.0000E+00	.0000E+00							
321	0.80	0.000	0.062	0.4431	1.8799	.0000E+00	.2494E-01	0.0000
.0000E+00	.0000E+00							
322	0.22	0.000	0.069	0.4637	4.5037	.0000E+00	.2747E-01	0.0000
.0000E+00	.0000E+00							
323	0.00	0.000	0.052	0.4504	4.8484	.0000E+00	.2780E-01	0.0000
.0000E+00	.0000E+00							
324	0.00	0.000	0.056	0.4364	4.5824	.0000E+00	.2755E-01	0.0000
.0000E+00	.0000E+00							
325	0.00	0.000	0.060	0.4218	4.3009	.0000E+00	.2728E-01	0.0000
.0000E+00	.0000E+00							
326	0.00	0.000	0.047	0.4095	4.0309	.0000E+00	.2702E-01	0.0000
.0000E+00	.0000E+00							
327	0.24	0.000	0.058	0.4354	3.8282	.0000E+00	.2682E-01	0.0000
.0000E+00	.1271E-02							
328	0.01	0.000	0.055	0.4233	4.3040	.0000E+00	.2728E-01	0.0000
.0000E+00	.4885E-02							
329	0.00	0.000	0.060	0.4088	4.0967	.0000E+00	.2708E-01	0.0000
.0000E+00	.8692E-02							
330	0.74	0.096	0.063	0.5010	4.5826	.0000E+00	.2755E-01	0.0000
.0000E+00	.1118E-01							
331	1.01	0.917	0.064	0.5010	6.0000	.0000E+00	.2891E-01	0.0000
.0000E+00	.1247E-01							
332	0.00	0.000	0.049	0.4880	5.8664	.0000E+00	.2878E-01	0.0000
.0000E+00	.1482E-01							
333	0.00	0.000	0.067	0.4721	5.4950	.0000E+00	.2843E-01	0.0000
.0000E+00	.1662E-01							
334	0.02	0.000	0.066	0.4597	5.1112	.0000E+00	.2806E-01	0.0000
.0000E+00	.1772E-01							
335	0.00	0.000	0.038	0.4488	4.8970	.0000E+00	.2785E-01	0.0000

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.0000E+00 .1745E-01
  336         0.00  0.000  0.033  0.4387    4.6730 .0000E+00 .2763E-01    0.0000
.0000E+00 .1624E-01
  337         0.07  0.000  0.042  0.4388    4.4684 .0000E+00 .2744E-01    0.0000
.0000E+00 .1518E-01
  338  *      0.31  0.000  0.027  0.4375    4.3329 .0000E+00 .2731E-01    0.0000
.0000E+00 .1425E-01
  339         0.00  0.000  0.015  0.4744    4.5860 .0000E+00 .2755E-01    0.0000
.0000E+00 .1342E-01
  340         0.00  0.000  0.035  0.4638    5.1710 .0000E+00 .2811E-01    0.0000
.0000E+00 .1268E-01
  341         0.02  0.000  0.051  0.4540    4.9746 .0000E+00 .2792E-01    0.0000
.0000E+00 .1201E-01
  342         0.19  0.000  0.044  0.4736    4.8936 .0000E+00 .2785E-01    0.0000
.0000E+00 .1141E-01
  343         0.07  0.000  0.048  0.4725    5.2609 .0000E+00 .2820E-01    0.0000
.0000E+00 .1086E-01
  344         0.00  0.000  0.038  0.4614    5.0974 .0000E+00 .2804E-01    0.0000
.0000E+00 .1036E-01
  345         0.00  0.000  0.045  0.4494    4.8391 .0000E+00 .2779E-01    0.0000
.0000E+00 .9903E-02
  346         0.00  0.000  0.033  0.4393    4.6034 .0000E+00 .2757E-01    0.0000
.0000E+00 .9483E-02
  347         0.00  0.000  0.046  0.4271    4.3755 .0000E+00 .2735E-01    0.0000
.0000E+00 .9096E-02
  348         0.00  0.000  0.059  0.4127    4.1135 .0000E+00 .2709E-01    0.0000
.0000E+00 .8737E-02
  349         0.00  0.000  0.049  0.4001    3.8724 .0000E+00 .2686E-01    0.0000
.0000E+00 .8405E-02
  350         0.00  0.000  0.034  0.3899    3.6833 .0000E+00 .2668E-01    0.0000
.0000E+00 .8096E-02
  351         0.00  0.000  0.031  0.3804    3.5108 .0000E+00 .2651E-01    0.0000
.0000E+00 .7808E-02
  352         0.00  0.000  0.041  0.3691    3.3364 .0000E+00 .2635E-01    0.0000
.0000E+00 .7540E-02
  353         0.00  0.000  0.033  0.3592    3.1575 .0000E+00 .2617E-01    0.0000
.0000E+00 .7288E-02
  354  *      0.00  0.000  0.029  0.3501    2.9909 .0000E+00 .2601E-01    0.0000
.0000E+00 .7052E-02
  355  *      0.00  0.000  0.029  0.3409    2.8438 .0000E+00 .2587E-01    0.0000
.0000E+00 .6830E-02
  356  *      0.00  0.000  0.000  0.3366    2.7098 .0000E+00 .2574E-01    0.0000
.0000E+00 .6621E-02
  357  *      0.00  0.000  0.024  0.3283    2.5839 .0000E+00 .2562E-01    0.0000
.0000E+00 .6424E-02
  358  *      0.00  0.000  0.027  0.3195    2.4453 .0000E+00 .2549E-01    0.0000
.0000E+00 .6237E-02
  359  *      0.00  0.000  0.027  0.3108    2.3057 .0000E+00 .2535E-01    0.0000
.0000E+00 .6061E-02
  360         0.00  0.000  0.032  0.3012    2.1654 .0000E+00 .2522E-01    0.0000
.0000E+00 .5894E-02
  361  *      0.00  0.000  0.027  0.2925    2.0095 .0000E+00 .2507E-01    0.0000
.0000E+00 .5736E-02
  362  *      0.00  0.000  0.031  0.2833    1.8936 .0000E+00 .2496E-01    0.0000
.0000E+00 .5586E-02
  363         0.02  0.000  0.050  0.2741    1.7648 .0000E+00 .2483E-01    0.0000
.0000E+00 .5443E-02
  364         0.41  0.000  0.042  0.3313    1.6353 .0000E+00 .2471E-01    0.0000
.0000E+00 .5306E-02
  365         0.10  0.000  0.049  0.3356    1.5076 .0000E+00 .2458E-01    0.0000
.0000E+00 .5177E-02
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MONTHLY TOTALS (IN INCHES) FOR YEAR 2011

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	1.73	1.45	6.83	3.08	3.82	2.39
	6.03	0.76	2.90	2.48	4.47	1.19
RUNOFF	1.255	0.526	3.648	0.001	0.000	0.000
	0.257	0.000	0.285	0.006	1.013	0.000
EVAPOTRANSPIRATION	0.273	0.555	2.724	3.928	3.601	2.482
	5.568	0.634	2.327	1.581	1.606	1.111
PERCOLATION/LEAKAGE THROUGH	0.0213	0.3977	0.8553	0.7045	0.1266	0.0000
LAYER 2	0.2054	0.0000	0.3236	0.4389	0.4466	0.8237
PERCOLATION/LEAKAGE THROUGH	0.0472	0.5964	0.5439	0.1444	0.2976	0.6845
LAYER 3	0.7536	0.6065	0.6382	0.4777	0.2782	0.2826

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON	0.001	1.280	4.627	1.714	0.172	0.000
TOP OF LAYER 2	0.486	0.000	1.193	0.755	2.130	3.571
STD. DEVIATION OF DAILY	0.003	1.853	0.921	1.027	0.406	0.000
HEAD ON TOP OF LAYER 2	1.177	0.000	1.747	0.795	2.384	1.221

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ANNUAL TOTALS FOR YEAR 2011

	INCHES	CU. FEET	PERCENT
PRECIPITATION	37.13	134781.937	100.00
RUNOFF	6.992	25382.748	18.83
EVAPOTRANSPIRATION	26.389	95793.289	71.07
PERC./LEAKAGE THROUGH LAYER 2	4.343642	15767.420	11.70
AVG. HEAD ON TOP OF LAYER 2	1.3275		
PERC./LEAKAGE THROUGH LAYER 3	5.350656	19422.879	14.41
CHANGE IN WATER STORAGE	-1.602	-5816.968	-4.32

SOIL WATER AT START OF YEAR	74.000	268621.375	
SOIL WATER AT END OF YEAR	72.398	262804.406	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.017	0.00

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AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 2007 THROUGH 2011

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION						
TOTALS	2.23	1.90	5.18	2.26	3.27	3.38
	3.38	2.93	2.16	2.59	2.43	1.80
STD. DEVIATIONS	1.88	1.07	1.34	1.53	0.68	1.28
	1.78	2.28	1.23	1.39	1.68	0.95
RUNOFF						
TOTALS	1.134	0.583	2.178	0.153	0.028	0.164
	0.056	0.068	0.057	0.068	0.420	0.425
STD. DEVIATIONS	1.268	0.566	1.559	0.341	0.039	0.336
	0.113	0.101	0.128	0.138	0.575	0.949
EVAPOTRANSPIRATION						
TOTALS	0.610	0.951	2.175	2.888	2.721	3.495
	3.451	2.423	2.052	1.286	1.453	0.733
STD. DEVIATIONS	0.341	0.574	0.372	0.838	1.068	0.647
	1.863	1.484	1.471	0.602	0.098	0.269
PERCOLATION/LEAKAGE THROUGH LAYER 2						
TOTALS	0.3144	0.3937	0.7509	0.4160	0.1017	0.2088
	0.1273	0.1145	0.1973	0.3714	0.5071	0.5743
STD. DEVIATIONS	0.3947	0.3122	0.1634	0.2114	0.1073	0.1504
	0.1720	0.1844	0.1823	0.3081	0.2374	0.2782
PERCOLATION/LEAKAGE THROUGH LAYER 3						
TOTALS	0.1122	0.2026	0.2627	0.1361	0.1355	0.3419
	0.4312	0.4035	0.4242	0.3449	0.2679	0.1975
STD. DEVIATIONS	0.0645	0.2403	0.1944	0.1252	0.1100	0.2127

	0.1841	0.1327	0.1461	0.1059	0.1244	0.1533

AVERAGES OF MONTHLY AVERAGED DAILY HEADS (INCHES)

DAILY AVERAGE HEAD ON TOP OF LAYER 2

AVERAGES	1.3080	1.5307	3.8032	1.2219	0.1556	0.7030
	0.2324	0.3501	0.4794	1.0664	2.0016	1.9797
STD. DEVIATIONS	2.0282	1.7986	1.0501	0.6519	0.1583	0.5373
	0.3196	0.5336	0.5002	1.2683	1.6972	1.7378

AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 2007 THROUGH 2011

	INCHES	CU. FEET	PERCENT
PRECIPITATION	33.53 (9.450)	121699.4	100.00
RUNOFF	5.334 (3.7084)	19363.97	15.911
EVAPOTRANSPIRATION	24.239 (4.4967)	87987.27	72.299
PERCOLATION/LEAKAGE THROUGH LAYER 2	4.07743 (1.31450)	14801.066	12.16199
AVERAGE HEAD ON TOP OF LAYER 2	1.236 (0.566)		
PERCOLATION/LEAKAGE THROUGH LAYER 3	3.26028 (1.24890)	11834.818	9.72463
CHANGE IN WATER STORAGE	0.692 (2.6178)	2513.34	2.065

PEAK DAILY VALUES FOR YEARS 2007 THROUGH 2011

	(INCHES)	(CU. FT.)
PRECIPITATION	2.58	9365.399
RUNOFF	1.861	6756.7979
PERCOLATION/LEAKAGE THROUGH LAYER 2	0.028913	104.95408
AVERAGE HEAD ON TOP OF LAYER 2	6.000	
PERCOLATION/LEAKAGE THROUGH LAYER 3	0.044421	161.24663

SNOW WATER 2.42 8784.6006

MAXIMUM VEG. SOIL WATER (VOL/VOL) 0.5010

MINIMUM VEG. SOIL WATER (VOL/VOL) 0.1350

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FINAL WATER STORAGE AT END OF YEAR 2011

LAYER	(INCHES)	(VOL/VOL)
1	2.0136	0.3356
2	10.8240	0.4510
3	59.5604	0.2647
SNOW WATER	0.000	

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** HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE **
** HELP MODEL VERSION 3.07 (1 NOVEMBER 1997) **
** DEVELOPED BY ENVIRONMENTAL LABORATORY **
** USAE WATERWAYS EXPERIMENT STATION **
** FOR USEPA RISK REDUCTION ENGINEERING LABORATORY **
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PRECIPITATION DATA FILE: C:\HELP3\EZFSP.D4
TEMPERATURE DATA FILE: C:\HELP3\EZFST.D7
SOLAR RADIATION DATA FILE: C:\HELP3\EZFSS.D13
EVAPOTRANSPIRATION DATA: C:\HELP3\EZFSE.D11
SOIL AND DESIGN DATA FILE: C:\HELP3\EZALT3.D10
OUTPUT DATA FILE: C:\HELP3\EZALT3.OUT

TIME: 9:16 DATE: 2/ 7/2012

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TITLE: Eagle Zinc Alternative 3

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NOTE: INITIAL MOISTURE CONTENT OF THE LAYERS AND SNOW WATER WERE
COMPUTED AS NEARLY STEADY-STATE VALUES BY THE PROGRAM.

LAYER 1

TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 9

THICKNESS	=	6.00	INCHES
POROSITY	=	0.5010	VOL/VOL
FIELD CAPACITY	=	0.2840	VOL/VOL
WILTING POINT	=	0.1350	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.4383	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.190000006000E-03	CM/SEC

NOTE: SATURATED HYDRAULIC CONDUCTIVITY IS MULTIPLIED BY 4.63
FOR ROOT CHANNELS IN TOP HALF OF EVAPORATIVE ZONE.

LAYER 2

TYPE 3 - BARRIER SOIL LINER
MATERIAL TEXTURE NUMBER 29

THICKNESS	=	24.00	INCHES
POROSITY	=	0.4510	VOL/VOL
FIELD CAPACITY	=	0.4190	VOL/VOL
WILTING POINT	=	0.3320	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.4510	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.680000028000E-06	CM/SEC

LAYER 3

TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 8

THICKNESS	=	156.00	INCHES
POROSITY	=	0.4630	VOL/VOL
FIELD CAPACITY	=	0.2320	VOL/VOL
WILTING POINT	=	0.1160	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.2508	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.369999994000E-03	CM/SEC

GENERAL DESIGN AND EVAPORATIVE ZONE DATA

NOTE: SCS RUNOFF CURVE NUMBER WAS COMPUTED FROM DEFAULT SOIL DATA BASE USING SOIL TEXTURE # 9 WITH A FAIR STAND OF GRASS, A SURFACE SLOPE OF 7.% AND A SLOPE LENGTH OF 350. FEET.

SCS RUNOFF CURVE NUMBER	=	82.10	
FRACTION OF AREA ALLOWING RUNOFF	=	100.0	PERCENT
AREA PROJECTED ON HORIZONTAL PLANE	=	1.000	ACRES
EVAPORATIVE ZONE DEPTH	=	6.0	INCHES
INITIAL WATER IN EVAPORATIVE ZONE	=	2.630	INCHES
UPPER LIMIT OF EVAPORATIVE STORAGE	=	3.006	INCHES
LOWER LIMIT OF EVAPORATIVE STORAGE	=	0.810	INCHES
INITIAL SNOW WATER	=	0.000	INCHES
INITIAL WATER IN LAYER MATERIALS	=	52.577	INCHES
TOTAL INITIAL WATER	=	52.577	INCHES
TOTAL SUBSURFACE INFLOW	=	0.00	INCHES/YEAR

EVAPOTRANSPIRATION AND WEATHER DATA

NOTE: EVAPOTRANSPIRATION DATA WAS OBTAINED FROM
East St. Louis Illinois

STATION LATITUDE	=	38.80	DEGREES
MAXIMUM LEAF AREA INDEX	=	3.50	
START OF GROWING SEASON (JULIAN DATE)	=	97	
END OF GROWING SEASON (JULIAN DATE)	=	300	
EVAPORATIVE ZONE DEPTH	=	6.0	INCHES

AVERAGE ANNUAL WIND SPEED = 10.40 MPH
AVERAGE 1ST QUARTER RELATIVE HUMIDITY = 73.00 %
AVERAGE 2ND QUARTER RELATIVE HUMIDITY = 67.00 %
AVERAGE 3RD QUARTER RELATIVE HUMIDITY = 71.00 %
AVERAGE 4TH QUARTER RELATIVE HUMIDITY = 74.00 %

NOTE: PRECIPITATION DATA FOR E. ST. LOUIS ILLINOIS
WAS ENTERED FROM THE DEFAULT DATA FILE.

NOTE: TEMPERATURE DATA WAS SYNTHETICALLY GENERATED USING
COEFFICIENTS FOR EAST ST. LOUIS ILLINOIS

NORMAL MEAN MONTHLY TEMPERATURE (DEGREES FAHRENHEIT)

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
29.80	34.60	43.80	56.20	65.20	74.10
77.70	75.70	69.00	57.60	44.90	35.00

NOTE: SOLAR RADIATION DATA WAS SYNTHETICALLY GENERATED USING
COEFFICIENTS FOR EAST ST. LOUIS ILLINOIS
AND STATION LATITUDE = 38.80 DEGREES

HEAD #1: AVERAGE HEAD ON TOP OF LAYER 2
DRAIN #1: LATERAL DRAINAGE FROM LAYER 1 (RECIRCULATION AND COLLECTION)
LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 2
LEAK #2: PERCOLATION OR LEAKAGE THROUGH LAYER 3

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DAILY OUTPUT FOR YEAR 2007

DAY	A	S O I L	RAIN	RUNOFF	ET	E. ZONE WATER	HEAD #1	DRAIN #1	LEAK #1	HEAD #2	LEAK #2
			IN.	IN.	IN.	IN./IN.	IN.	IN.	IN.	IN.	IN.
1	*		0.00	0.000	0.029	0.4289	4.4485	.0000E+00	.2742E-01	0.0000	.0000E+00
2	*		0.16	0.000	0.031	0.4277	4.2745	.0000E+00	.2725E-01	0.0000	.0000E+00
3	*		0.00	0.000	0.032	0.4264	4.1491	.0000E+00	.2713E-01	0.0000	

.0000E+00	.7654E-02								
4	*	0.00	0.000	0.025	0.4252	4.0414	.0000E+00	.2703E-01	0.0000
.0000E+00	.7395E-02								
5	*	0.00	0.000	0.037	0.4166	3.9976	.0000E+00	.2698E-01	0.0000
.0000E+00	.7152E-02								
6		0.02	0.000	0.044	0.4080	3.9410	.0000E+00	.2693E-01	0.0000
.0000E+00	.6924E-02								
7	*	0.01	0.000	0.037	0.3990	3.8345	.0000E+00	.2683E-01	0.0000
.0000E+00	.6710E-02								
8	*	0.08	0.000	0.035	0.3979	3.7038	.0000E+00	.2670E-01	0.0000
.0000E+00	.6508E-02								
9		0.34	0.000	0.000	0.4531	3.8053	.0000E+00	.2680E-01	0.0000
.0000E+00	.6317E-02								
10	*	2.09	0.000	0.000	0.4518	4.7265	.0000E+00	.2769E-01	0.0000
.0000E+00	.6136E-02								
11	*	0.00	0.000	0.029	0.4505	4.6905	.0000E+00	.2765E-01	0.0000
.0000E+00	.5966E-02								
12	*	0.00	0.000	0.023	0.4491	4.6539	.0000E+00	.2762E-01	0.0000
.0000E+00	.5804E-02								
13	*	0.00	0.000	0.023	0.4478	4.6175	.0000E+00	.2758E-01	0.0000
.0000E+00	.5650E-02								
14	*	0.06	0.000	0.021	0.4465	4.5811	.0000E+00	.2755E-01	0.0000
.0000E+00	.5504E-02								
15	*	0.00	0.000	0.016	0.4452	4.5450	.0000E+00	.2751E-01	0.0000
.0000E+00	.5365E-02								
16	*	0.00	0.000	0.020	0.4439	4.5090	.0000E+00	.2748E-01	0.0000
.0000E+00	.5232E-02								
17	*	0.00	0.000	0.026	0.4426	4.4731	.0000E+00	.2744E-01	0.0000
.0000E+00	.5106E-02								
18	*	0.00	0.000	0.029	0.4413	4.4375	.0000E+00	.2741E-01	0.0000
.0000E+00	.4985E-02								
19		0.43	1.837	0.000	0.5010	5.6062	.0000E+00	.2853E-01	0.0000
.0000E+00	.4870E-02								
20		0.00	0.000	0.059	0.4864	5.8499	.0000E+00	.2877E-01	0.0000
.0000E+00	.4759E-02								
21		0.00	0.000	0.067	0.4706	5.4533	.0000E+00	.2839E-01	0.0000
.0000E+00	.4654E-02								
22		0.00	0.000	0.050	0.4576	5.0690	.0000E+00	.2802E-01	0.0000
.0000E+00	.4552E-02								
23		0.00	0.000	0.064	0.4423	4.7640	.0000E+00	.2772E-01	0.0000
.0000E+00	.4455E-02								
24		0.21	0.000	0.067	0.4615	4.5862	.0000E+00	.2755E-01	0.0000
.0000E+00	.4362E-02								
25		0.09	0.000	0.057	0.4623	4.9475	.0000E+00	.2790E-01	0.0000
.0000E+00	.4272E-02								
26		0.00	0.000	0.049	0.4495	4.8376	.0000E+00	.2779E-01	0.0000
.0000E+00	.4186E-02								
27		0.00	0.000	0.053	0.4361	4.5786	.0000E+00	.2754E-01	0.0000
.0000E+00	.4103E-02								
28		0.08	0.000	0.054	0.4360	4.3204	.0000E+00	.2729E-01	0.0000
.0000E+00	.4023E-02								
29		0.03	0.000	0.049	0.4282	4.1704	.0000E+00	.2715E-01	0.0000
.0000E+00	.3946E-02								
30		1.41	0.887	0.058	0.5010	5.2383	.0000E+00	.2818E-01	0.0000
.0000E+00	.1282E-02								
31		0.37	0.360	0.053	0.4891	5.8768	.0000E+00	.2879E-01	0.0000
.0000E+00	.0000E+00								
32		0.08	0.000	0.045	0.4901	5.7103	.0000E+00	.2863E-01	0.0000
.0000E+00	.0000E+00								
33	*	0.00	0.000	0.040	0.4786	5.6227	.0000E+00	.2855E-01	0.0000
.0000E+00	.0000E+00								
34		0.00	0.000	0.048	0.4659	5.3092	.0000E+00	.2825E-01	0.0000
.0000E+00	.0000E+00								

35	*	0.04	0.000	0.035	0.4621	5.0529	.0000E+00	.2800E-01	0.0000
.0000E+00	.0000E+00								
36	*	0.11	0.000	0.033	0.4608	4.9546	.0000E+00	.2791E-01	0.0000
.0000E+00	.0000E+00								
37	*	0.00	0.000	0.051	0.4571	4.9391	.0000E+00	.2789E-01	0.0000
.0000E+00	.0000E+00								
38		0.00	0.000	0.069	0.4409	4.7928	.0000E+00	.2775E-01	0.0000
.0000E+00	.0000E+00								
39		0.01	0.000	0.058	0.4283	4.5282	.0000E+00	.2749E-01	0.0000
.0000E+00	.0000E+00								
40		0.01	0.000	0.053	0.4165	4.3431	.0000E+00	.2732E-01	0.0000
.0000E+00	.0000E+00								
41		0.00	0.000	0.071	0.4002	4.1114	.0000E+00	.2709E-01	0.0000
.0000E+00	.0000E+00								
42		0.23	0.000	0.074	0.4217	3.8676	.0000E+00	.2686E-01	0.0000
.0000E+00	.0000E+00								
43		0.00	0.000	0.077	0.4044	3.7138	.0000E+00	.2671E-01	0.0000
.0000E+00	.0000E+00								
44		0.00	0.000	0.080	0.3867	3.4875	.0000E+00	.2649E-01	0.0000
.0000E+00	.0000E+00								
45		0.03	0.000	0.071	0.3755	3.2550	.0000E+00	.2627E-01	0.0000
.0000E+00	.0000E+00								
46		0.03	0.000	0.068	0.3649	3.0548	.0000E+00	.2607E-01	0.0000
.0000E+00	.0000E+00								
47		0.43	0.000	0.060	0.4222	3.1177	.0000E+00	.2614E-01	0.0000
.0000E+00	.0000E+00								
48		0.00	0.000	0.068	0.4064	3.7073	.0000E+00	.2670E-01	0.0000
.0000E+00	.0000E+00								
49		0.02	0.000	0.063	0.3949	3.5565	.0000E+00	.2656E-01	0.0000
.0000E+00	.0000E+00								
50		0.00	0.000	0.064	0.3799	3.4203	.0000E+00	.2643E-01	0.0000
.0000E+00	.0000E+00								
51		0.00	0.000	0.064	0.3649	3.2373	.0000E+00	.2625E-01	0.0000
.0000E+00	.0000E+00								
52		0.00	0.000	0.076	0.3478	3.0418	.0000E+00	.2606E-01	0.0000
.0000E+00	.0000E+00								
53		1.62	0.624	0.050	0.5010	4.2446	.0000E+00	.2722E-01	0.0000
.0000E+00	.0000E+00								
54	*	0.48	0.000	0.032	0.4995	5.9841	.0000E+00	.2890E-01	0.0000
.0000E+00	.0000E+00								
55		0.50	0.890	0.000	0.5010	5.9894	.0000E+00	.2890E-01	0.0000
.0000E+00	.0000E+00								
56	*	0.00	0.000	0.047	0.4884	5.8705	.0000E+00	.2879E-01	0.0000
.0000E+00	.0000E+00								
57		0.00	0.000	0.056	0.4743	5.5227	.0000E+00	.2845E-01	0.0000
.0000E+00	.0000E+00								
58		0.00	0.000	0.074	0.4573	5.1269	.0000E+00	.2807E-01	0.0000
.0000E+00	.0000E+00								
59		0.00	0.000	0.069	0.4411	4.7620	.0000E+00	.2772E-01	0.0000
.0000E+00	.0000E+00								
60		0.02	0.000	0.061	0.4298	4.4651	.0000E+00	.2743E-01	0.0000
.0000E+00	.0000E+00								
61	*	0.00	0.000	0.052	0.4166	4.1979	.0000E+00	.2718E-01	0.0000
.0000E+00	.0000E+00								
62	*	0.00	0.000	0.000	0.4121	3.9865	.0000E+00	.2697E-01	0.0000
.0000E+00	.0000E+00								
63		0.00	0.000	0.063	0.3972	3.8267	.0000E+00	.2682E-01	0.0000
.0000E+00	.0000E+00								
64		0.00	0.000	0.086	0.3783	3.5950	.0000E+00	.2660E-01	0.0000
.0000E+00	.0000E+00								
65		0.03	0.000	0.050	0.3706	3.3672	.0000E+00	.2638E-01	0.0000
.0000E+00	.0000E+00								
66	*	0.36	0.000	0.032	0.3695	3.2060	.0000E+00	.2622E-01	0.0000

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.0000E+00 .0000E+00
   67          0.00  0.000  0.071  0.4046    3.0853 .0000E+00 .2610E-01    0.0000
.0000E+00 .0000E+00
   68  *       0.37  0.000  0.034  0.4035    3.5441 .0000E+00 .2655E-01    0.0000
.0000E+00 .0000E+00
   69          0.13  0.000  0.000  0.4601    3.8608 .0000E+00 .2685E-01    0.0000
.0000E+00 .0000E+00
   70  *       0.95  0.000  0.033  0.4588    4.9265 .0000E+00 .2788E-01    0.0000
.0000E+00 .0000E+00
   71  *       0.00  0.000  0.031  0.4574    4.8836 .0000E+00 .2784E-01    0.0000
.0000E+00 .0000E+00
   72  *       0.00  0.000  0.028  0.4561    4.8457 .0000E+00 .2780E-01    0.0000
.0000E+00 .0000E+00
   73  *       0.00  0.000  0.036  0.4547    4.8084 .0000E+00 .2776E-01    0.0000
.0000E+00 .0000E+00
   74          0.00  0.249  0.000  0.5010    5.4842 .0000E+00 .2842E-01    0.0000
.0000E+00 .0000E+00
   75          0.00  0.196  0.070  0.4962    5.9501 .0000E+00 .2886E-01    0.0000
.0000E+00 .0000E+00
   76          0.00  0.000  0.057  0.4819    5.7225 .0000E+00 .2865E-01    0.0000
.0000E+00 .0000E+00
   77          0.34  0.141  0.055  0.5010    5.7893 .0000E+00 .2871E-01    0.0000
.0000E+00 .0000E+00
   78          0.00  0.000  0.116  0.4769    5.7580 .0000E+00 .2868E-01    0.0000
.0000E+00 .0000E+00
   79          0.00  0.000  0.119  0.4523    5.1290 .0000E+00 .2807E-01    0.0000
.0000E+00 .0000E+00
   80          0.01  0.000  0.072  0.4373    4.7266 .0000E+00 .2769E-01    0.0000
.0000E+00 .0000E+00
   81          0.00  0.000  0.112  0.4140    4.4526 .0000E+00 .2742E-01    0.0000
.0000E+00 .0000E+00
   82          0.02  0.000  0.114  0.3939    4.0176 .0000E+00 .2700E-01    0.0000
.0000E+00 .0000E+00
   83          0.00  0.000  0.111  0.3709    3.6917 .0000E+00 .2669E-01    0.0000
.0000E+00 .0000E+00
   84          0.00  0.000  0.122  0.3463    3.3530 .0000E+00 .2636E-01    0.0000
.0000E+00 .0000E+00
   85          0.03  0.000  0.113  0.3281    2.9492 .0000E+00 .2597E-01    0.0000
.0000E+00 .0000E+00
   86          1.44  0.284  0.092  0.5010    3.5839 .0000E+00 .2658E-01    0.0000
.0000E+00 .0000E+00
   87          0.38  0.254  0.097  0.5010    6.0000 .0000E+00 .2891E-01    0.0000
.0000E+00 .0000E+00
   88          0.00  0.000  0.142  0.4725    5.7147 .0000E+00 .2864E-01    0.0000
.0000E+00 .0000E+00
   89          0.00  0.000  0.146  0.4434    4.9874 .0000E+00 .2794E-01    0.0000
.0000E+00 .0000E+00
   90          0.00  0.000  0.139  0.4157    4.4323 .0000E+00 .2740E-01    0.0000
.0000E+00 .0000E+00
   91          0.00  0.000  0.108  0.3932    3.9803 .0000E+00 .2697E-01    0.0000
.0000E+00 .0000E+00
   92          0.04  0.000  0.123  0.3748    3.6715 .0000E+00 .2667E-01    0.0000
.0000E+00 .0000E+00
   93          0.00  0.000  0.160  0.3437    3.2929 .0000E+00 .2630E-01    0.0000
.0000E+00 .0000E+00
   94          0.00  0.000  0.126  0.3183    2.8897 .0000E+00 .2592E-01    0.0000
.0000E+00 .0000E+00
   95          0.00  0.000  0.129  0.2925    2.5784 .0000E+00 .2562E-01    0.0000
.0000E+00 .0000E+00
   96          0.00  0.000  0.079  0.2751    2.1215 .0000E+00 .2517E-01    0.0000
.0000E+00 .0000E+00
   97          0.00  0.000  0.092  0.2556    1.8690 .0000E+00 .2493E-01    0.0000
.0000E+00 .0000E+00
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98	0.03	0.000	0.078	0.2434	1.6873	.0000E+00	.2476E-01	0.0000
.0000E+00	.1841E-02							
99 *	0.00	0.000	0.081	0.2259	1.3728	.0000E+00	.2445E-01	0.0000
.0000E+00	.3356E-02							
100	0.00	0.000	0.080	0.2086	0.9832	.0000E+00	.2408E-01	0.0000
.0000E+00	.2885E-02							
101	0.00	0.000	0.063	0.1941	0.8413	.0000E+00	.2394E-01	0.0000
.0000E+00	.2213E-02							
102	0.00	0.000	0.054	0.1812	0.6998	.0000E+00	.2380E-01	0.0000
.0000E+00	.1619E-02							
103	0.00	0.000	0.048	0.1693	0.4660	.0000E+00	.2358E-01	0.0000
.0000E+00	.1164E-02							
104	0.31	0.000	0.049	0.2089	0.1782	.0000E+00	.2330E-01	0.0000
.0000E+00	.7751E-03							
105	0.00	0.000	0.040	0.2014	0.0098	.0000E+00	.5223E-02	0.0000
.0000E+00	.0000E+00							
106	0.19	0.000	0.043	0.2259	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
107	0.00	0.000	0.215	0.1900	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
108	0.48	0.000	0.041	0.2631	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1217E-02							
109	0.00	0.000	0.227	0.2254	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3406E-03							
110	0.00	0.000	0.244	0.1847	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
111	0.00	0.000	0.204	0.1507	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
112	0.00	0.000	0.078	0.1378	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
113	1.76	0.061	0.072	0.4091	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
114	1.44	0.694	0.167	0.5010	4.2277	.0000E+00	.2720E-01	0.0000
.0000E+00	.0000E+00							
115	0.00	0.000	0.162	0.4693	5.6828	.0000E+00	.2861E-01	0.0000
.0000E+00	.0000E+00							
116	0.00	0.000	0.190	0.4330	4.8753	.0000E+00	.2783E-01	0.0000
.0000E+00	.0000E+00							
117	0.00	0.000	0.203	0.3946	4.1903	.0000E+00	.2717E-01	0.0000
.0000E+00	.0000E+00							
118	0.00	0.000	0.176	0.3607	3.6685	.0000E+00	.2667E-01	0.0000
.0000E+00	.0000E+00							
119	0.31	0.000	0.181	0.3779	3.2298	.0000E+00	.2624E-01	0.0000
.0000E+00	.0000E+00							
120	0.00	0.000	0.165	0.3462	2.8758	.0000E+00	.2590E-01	0.0000
.0000E+00	.0000E+00							
121	0.00	0.000	0.134	0.3196	2.6438	.0000E+00	.2568E-01	0.0000
.0000E+00	.0000E+00							
122	0.00	0.000	0.167	0.2875	2.3722	.0000E+00	.2542E-01	0.0000
.0000E+00	.0000E+00							
123	0.10	0.000	0.133	0.2778	2.0095	.0000E+00	.2507E-01	0.0000
.0000E+00	.2854E-03							
124	0.00	0.000	0.205	0.2395	1.7055	.0000E+00	.2477E-01	0.0000
.0000E+00	.2323E-02							
125	0.00	0.000	0.173	0.2066	1.1514	.0000E+00	.2424E-01	0.0000
.0000E+00	.4341E-02							
126	0.46	0.000	0.104	0.2619	0.8845	.0000E+00	.2398E-01	0.0000
.0000E+00	.5610E-02							
127	0.11	0.000	0.227	0.2384	0.7416	.0000E+00	.2385E-01	0.0000
.0000E+00	.6448E-02							
128	0.57	0.000	0.172	0.3008	0.5656	.0000E+00	.2368E-01	0.0000
.0000E+00	.7076E-02							
129	0.00	0.000	0.273	0.2515	0.3961	.0000E+00	.2351E-01	0.0000

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.0000E+00 .7496E-02
  130         0.00  0.000  0.227  0.2098    0.2503 .0000E+00 .2337E-01    0.0000
.0000E+00 .7738E-02
  131         0.49  0.000  0.155  0.2617    0.1137 .0000E+00 .2324E-01    0.0000
.0000E+00 .7857E-02
  132         0.00  0.000  0.260  0.2176    0.0086 .0000E+00 .5106E-02    0.0000
.0000E+00 .1493E-01
  133         0.00  0.000  0.272  0.1723    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1403E-01
  134         0.00  0.000  0.193  0.1402    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1312E-01
  135         0.00  0.000  0.031  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9790E-02
  136         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6318E-02
  137         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3792E-02
  138         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1995E-02
  139         0.47  0.000  0.048  0.2053    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .7787E-03
  140         0.03  0.000  0.071  0.1985    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8649E-04
  141         0.00  0.000  0.080  0.1853    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  142         0.00  0.000  0.098  0.1689    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  143         0.00  0.000  0.110  0.1506    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .5069E-04
  144         0.08  0.000  0.092  0.1486    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .5588E-03
  145         0.12  0.000  0.068  0.1572    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1347E-02
  146         0.00  0.000  0.048  0.1491    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2316E-02
  147         0.00  0.000  0.067  0.1379    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3432E-02
  148         0.48  0.000  0.071  0.2061    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4659E-02
  149         0.15  0.000  0.165  0.2036    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .5962E-02
  150         0.17  0.000  0.293  0.1831    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .7310E-02
  151         0.00  0.000  0.193  0.1509    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8673E-02
  152         0.19  0.000  0.183  0.1521    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1002E-01
  153         0.00  0.000  0.073  0.1398    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1134E-01
  154         0.00  0.000  0.021  0.1363    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1260E-01
  155         0.00  0.000  0.005  0.1354    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1380E-01
  156         0.00  0.000  0.002  0.1351    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1491E-01
  157         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1594E-01
  158         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1688E-01
  159         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1773E-01
  160         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1850E-01
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161	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1918E-01							
162	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1979E-01							
163	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2031E-01							
164	0.02	0.000	0.018	0.1353	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2078E-01							
165	0.35	0.000	0.084	0.1796	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2118E-01							
166	0.25	0.000	0.139	0.1981	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2152E-01							
167	1.08	0.005	0.154	0.3517	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2181E-01							
168	0.41	0.000	0.238	0.3764	1.4834	.0000E+00	.2456E-01	0.0000
.0000E+00	.1755E-01							
169	0.00	0.000	0.280	0.3254	2.6163	.0000E+00	.2565E-01	0.0000
.0000E+00	.1964E-01							
170	0.00	0.000	0.256	0.2785	2.2142	.0000E+00	.2526E-01	0.0000
.0000E+00	.2136E-01							
171	0.00	0.000	0.212	0.2389	1.8395	.0000E+00	.2490E-01	0.0000
.0000E+00	.2276E-01							
172	0.00	0.000	0.304	0.1843	1.0679	.0000E+00	.2416E-01	0.0000
.0000E+00	.2387E-01							
173	0.47	0.000	0.337	0.2044	0.3249	.0000E+00	.1183E-01	0.0000
.0000E+00	.2473E-01							
174	0.22	0.000	0.240	0.2011	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3356E-01							
175	0.00	0.000	0.302	0.1508	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3035E-01							
176	0.79	0.000	0.245	0.2416	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2788E-01							
177	0.00	0.000	0.300	0.1915	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2598E-01							
178	0.00	0.000	0.292	0.1429	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2448E-01							
179	0.00	0.000	0.043	0.1358	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2331E-01							
180	0.00	0.000	0.005	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2238E-01							
181	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2165E-01							
182	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2108E-01							
183	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2064E-01							
184	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2029E-01							
185	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2003E-01							
186	0.85	0.000	0.119	0.2568	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1983E-01							
187	0.54	0.000	0.260	0.3036	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1968E-01							
188	0.00	0.000	0.282	0.2546	0.0247	.0000E+00	.1159E-01	0.0000
.0000E+00	.1439E-01							
189	0.00	0.000	0.257	0.2102	0.0235	.0000E+00	.9987E-02	0.0000
.0000E+00	.1623E-01							
190	0.00	0.000	0.273	0.1647	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2347E-01							
191	0.00	0.000	0.159	0.1382	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2260E-01							
192	0.00	0.000	0.019	0.1350	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.2189E-01							
193	0.20	0.000	0.099	0.1519	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2132E-01							
194	0.10	0.000	0.094	0.1530	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2086E-01							
195	0.00	0.000	0.079	0.1397	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2049E-01							
196	0.00	0.000	0.022	0.1360	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2018E-01							
197	0.00	0.000	0.005	0.1352	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1994E-01							
198	0.06	0.000	0.042	0.1381	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1974E-01							
199	0.30	0.000	0.075	0.1756	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1958E-01							
200	0.09	0.000	0.126	0.1696	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1945E-01							
201	0.00	0.000	0.121	0.1493	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1935E-01							
202	0.00	0.000	0.064	0.1387	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1927E-01							
203	0.00	0.000	0.016	0.1361	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1920E-01							
204	0.20	0.000	0.087	0.1549	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1914E-01							
205	0.00	0.000	0.049	0.1467	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1910E-01							
206	0.00	0.000	0.057	0.1373	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1906E-01							
207	0.00	0.000	0.010	0.1356	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1903E-01							
208	0.00	0.000	0.003	0.1351	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1900E-01							
209	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1897E-01							
210	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1895E-01							
211	0.16	0.000	0.078	0.1487	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1893E-01							
212	0.06	0.000	0.081	0.1452	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1890E-01							
213	0.12	0.000	0.101	0.1483	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1793E-01							
214	0.10	0.000	0.084	0.1509	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1588E-01							
215	0.00	0.000	0.065	0.1401	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1692E-01							
216	0.00	0.000	0.024	0.1362	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1780E-01							
217	0.36	0.000	0.093	0.1806	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1853E-01							
218	0.00	0.000	0.140	0.1574	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1913E-01							
219	0.00	0.000	0.122	0.1370	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1961E-01							
220	0.00	0.000	0.009	0.1355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2000E-01							
221	0.00	0.000	0.002	0.1351	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2030E-01							
222	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2053E-01							
223	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2070E-01							

224	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2081E-01							
225	0.17	0.000	0.075	0.1508	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2089E-01							
226	0.37	0.000	0.073	0.2003	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2092E-01							
227	0.56	0.000	0.170	0.2653	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2093E-01							
228	0.00	0.000	0.200	0.2320	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2091E-01							
229	0.48	0.000	0.224	0.2747	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2087E-01							
230	0.00	0.000	0.275	0.2289	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2082E-01							
231	0.00	0.000	0.232	0.1902	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2075E-01							
232	0.00	0.000	0.185	0.1593	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2066E-01							
233	0.00	0.000	0.131	0.1375	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2057E-01							
234	0.00	0.000	0.015	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2047E-01							
235	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2037E-01							
236	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2026E-01							
237	1.15	0.000	0.116	0.3073	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2015E-01							
238	0.58	0.000	0.206	0.3666	0.6450	.0000E+00	.1797E-01	0.0000
.0000E+00	.2003E-01							
239	0.00	0.000	0.228	0.3244	1.8010	.0000E+00	.2487E-01	0.0000
.0000E+00	.1991E-01							
240	0.02	0.000	0.141	0.3001	1.7901	.0000E+00	.2486E-01	0.0000
.0000E+00	.1979E-01							
241	1.53	0.115	0.184	0.5010	2.3648	.0000E+00	.2541E-01	0.0000
.0000E+00	.1967E-01							
242	0.00	0.000	0.219	0.4597	5.5878	.0000E+00	.2852E-01	0.0000
.0000E+00	.1955E-01							
243	0.00	0.000	0.195	0.4227	4.6736	.0000E+00	.2763E-01	0.0000
.0000E+00	.1943E-01							
244	0.00	0.000	0.180	0.3883	4.0181	.0000E+00	.2700E-01	0.0000
.0000E+00	.1931E-01							
245	0.00	0.000	0.200	0.3505	3.5141	.0000E+00	.2652E-01	0.0000
.0000E+00	.1918E-01							
246	0.00	0.000	0.197	0.3133	2.9057	.0000E+00	.2593E-01	0.0000
.0000E+00	.1906E-01							
247	0.00	0.000	0.225	0.2717	2.2631	.0000E+00	.2531E-01	0.0000
.0000E+00	.1894E-01							
248	0.00	0.000	0.187	0.2365	1.7223	.0000E+00	.2479E-01	0.0000
.0000E+00	.1882E-01							
249	0.00	0.000	0.178	0.2028	1.1206	.0000E+00	.2421E-01	0.0000
.0000E+00	.1870E-01							
250	0.00	0.000	0.170	0.1705	0.6131	.0000E+00	.2372E-01	0.0000
.0000E+00	.1858E-01							
251	0.00	0.000	0.103	0.1514	0.1124	.0000E+00	.1167E-01	0.0000
.0000E+00	.2336E-01							
252	0.00	0.000	0.098	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3150E-01							
253	0.26	0.000	0.080	0.1650	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2695E-01							
254	0.85	0.000	0.099	0.2901	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2330E-01							
255	0.00	0.000	0.164	0.2629	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.2040E-01								
256	0.00	0.000	0.150	0.2339	0.0699	.0000E+00	.2320E-01	0.0000	
.0000E+00	.6252E-02								
257	0.00	0.000	0.124	0.2123	0.0084	.0000E+00	.5790E-02	0.0000	
.0000E+00	.1548E-01								
258	0.00	0.000	0.188	0.1810	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1952E-01								
259	0.02	0.000	0.109	0.1662	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1726E-01								
260	0.26	0.000	0.116	0.1902	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1542E-01								
261	0.00	0.000	0.149	0.1655	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1390E-01								
262	0.95	0.000	0.147	0.2993	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1265E-01								
263	0.00	0.000	0.129	0.2749	0.1410	.0000E+00	.1748E-01	0.0000	
.0000E+00	.1655E-02								
264	0.00	0.000	0.150	0.2460	0.2644	.0000E+00	.2339E-01	0.0000	
.0000E+00	.3003E-02								
265	0.00	0.000	0.142	0.2185	0.1915	.0000E+00	.2331E-01	0.0000	
.0000E+00	.4294E-02								
266	0.00	0.000	0.121	0.1949	0.0643	.0000E+00	.2020E-01	0.0000	
.0000E+00	.5517E-02								
267	0.00	0.000	0.116	0.1756	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.2067E-01								
268	0.00	0.000	0.132	0.1536	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1807E-01								
269	0.00	0.000	0.111	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1595E-01								
270	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1422E-01								
271	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1280E-01								
272	0.01	0.000	0.010	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1162E-01								
273	0.13	0.000	0.051	0.1481	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1065E-01								
274	0.00	0.000	0.023	0.1443	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.9843E-02								
275	0.00	0.000	0.037	0.1381	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.9179E-02								
276	0.00	0.000	0.014	0.1358	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8637E-02								
277	0.00	0.000	0.004	0.1352	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8200E-02								
278	0.00	0.000	0.001	0.1351	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7853E-02								
279	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7584E-02								
280	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7384E-02								
281	0.03	0.000	0.027	0.1356	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7244E-02								
282	0.00	0.000	0.002	0.1353	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7157E-02								
283	0.00	0.000	0.001	0.1351	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7115E-02								
284	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7114E-02								
285	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7147E-02								
286	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7211E-02								

287	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7301E-02							
288	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7413E-02							
289	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7544E-02							
290	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7690E-02							
291	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7849E-02							
292	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8019E-02							
293	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8196E-02							
294	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8379E-02							
295	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8566E-02							
296	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8755E-02							
297	0.04	0.000	0.028	0.1370	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8944E-02							
298	0.00	0.000	0.002	0.1367	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9132E-02							
299	0.00	0.000	0.004	0.1359	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9319E-02							
300	0.00	0.000	0.004	0.1353	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9503E-02							
301	0.05	0.000	0.033	0.1382	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9683E-02							
302	0.09	0.000	0.031	0.1480	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9858E-02							
303	0.00	0.000	0.010	0.1464	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1003E-01							
304	0.00	0.000	0.013	0.1442	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1019E-01							
305	0.10	0.000	0.044	0.1536	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1035E-01							
306	0.11	0.000	0.041	0.1651	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1050E-01							
307	0.66	0.000	0.045	0.2676	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1065E-01							
308	0.01	0.000	0.040	0.2625	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1079E-01							
309	0.00	0.000	0.046	0.2548	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8244E-02							
310	0.18	0.000	0.070	0.2732	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8193E-02							
311	0.00	0.000	0.049	0.2650	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9060E-02							
312	0.00	0.000	0.053	0.2561	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9850E-02							
313	0.25	0.000	0.063	0.2873	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1056E-01							
314	0.00	0.000	0.061	0.2742	0.1250	.0000E+00	.1747E-01	0.0000
.0000E+00	.1120E-01							
315	0.00	0.000	0.056	0.2610	0.2481	.0000E+00	.2337E-01	0.0000
.0000E+00	.1177E-01							
316	0.00	0.000	0.058	0.2474	0.1513	.0000E+00	.2328E-01	0.0000
.0000E+00	.1228E-01							
317	0.00	0.000	0.054	0.2357	0.0377	.0000E+00	.1583E-01	0.0000
.0000E+00	.1272E-01							
318	0.00	0.000	0.046	0.2280	0.0000	.0000E+00	.0000E+00	0.0000

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.0000E+00 .1807E-01
  319         0.00  0.000  0.055  0.2188    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1709E-01
  320         0.00  0.000  0.057  0.2093    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1625E-01
  321         0.00  0.000  0.042  0.2023    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1553E-01
  322         0.00  0.000  0.034  0.1966    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1492E-01
  323         0.00  0.000  0.034  0.1910    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1438E-01
  324         0.15  0.000  0.057  0.2066    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1392E-01
  325         0.00  0.000  0.028  0.2019    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1352E-01
  326         0.00  0.000  0.031  0.1967    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1317E-01
  327         0.00  0.000  0.027  0.1923    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1287E-01
  328         0.00  0.000  0.026  0.1879    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1261E-01
  329         0.00  0.000  0.030  0.1828    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1239E-01
  330         0.76  0.000  0.052  0.3008    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1219E-01
  331         0.00  0.000  0.028  0.2931    0.3462 .0000E+00 .1768E-01    0.0000
.0000E+00 .8269E-02
  332         0.00  0.000  0.029  0.2843    0.5984 .0000E+00 .2371E-01    0.0000
.0000E+00 .8973E-02
  333         0.34  0.000  0.057  0.3275    0.4915 .0000E+00 .2360E-01    0.0000
.0000E+00 .9614E-02
  334         0.06  0.000  0.046  0.3258    1.0186 .0000E+00 .2411E-01    0.0000
.0000E+00 .1020E-01
  335         0.00  0.000  0.035  0.3158    1.1784 .0000E+00 .2427E-01    0.0000
.0000E+00 .1072E-01
  336         0.00  0.000  0.028  0.3072    1.1375 .0000E+00 .2423E-01    0.0000
.0000E+00 .1118E-01
  337         0.00  0.000  0.031  0.2980    1.0255 .0000E+00 .2412E-01    0.0000
.0000E+00 .1160E-01
  338         0.00  0.000  0.026  0.2897    0.9124 .0000E+00 .2401E-01    0.0000
.0000E+00 .1197E-01
  339         0.08  0.000  0.043  0.2918    0.7981 .0000E+00 .2390E-01    0.0000
.0000E+00 .1229E-01
  340         0.02  0.000  0.044  0.2839    0.6872 .0000E+00 .2379E-01    0.0000
.0000E+00 .1257E-01
  341         0.00  0.000  0.028  0.2752    0.5956 .0000E+00 .2370E-01    0.0000
.0000E+00 .1282E-01
  342         0.13  0.000  0.047  0.2851    0.4973 .0000E+00 .2361E-01    0.0000
.0000E+00 .1303E-01
  343         0.00  0.000  0.036  0.2752    0.3862 .0000E+00 .2350E-01    0.0000
.0000E+00 .1321E-01
  344         0.00  0.000  0.026  0.2669    0.2806 .0000E+00 .2340E-01    0.0000
.0000E+00 .1336E-01
  345  *      0.00  0.000  0.000  0.2631    0.1799 .0000E+00 .2330E-01    0.0000
.0000E+00 .1349E-01
  346  *      0.04  0.000  0.023  0.2620    0.0727 .0000E+00 .2320E-01    0.0000
.0000E+00 .1359E-01
  347  *      0.00  0.000  0.000  0.2618    0.0015 .0000E+00 .1292E-02    0.0000
.0000E+00 .2595E-01
  348  *      0.89  0.000  0.013  0.2651    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2344E-01
  349  *      0.30  0.000  0.000  0.2683    0.0008 .0000E+00 .7247E-03    0.0000
.0000E+00 .2136E-01
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350	0.00	0.000	0.000	0.3172	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1960E-01							
351	0.00	0.000	0.000	0.4489	1.9817	.0000E+00	.2504E-01	0.0000
.0000E+00	.5071E-02							
352	0.00	0.000	0.040	0.4424	4.4990	.0000E+00	.2747E-01	0.0000
.0000E+00	.5856E-02							
353 *	0.00	0.000	0.023	0.4341	4.3393	.0000E+00	.2731E-01	0.0000
.0000E+00	.6592E-02							
354 *	0.00	0.000	0.000	0.4296	4.1759	.0000E+00	.2715E-01	0.0000
.0000E+00	.7277E-02							
355 *	0.00	0.000	0.000	0.4250	4.0510	.0000E+00	.2703E-01	0.0000
.0000E+00	.8383E-02							
356	0.00	0.000	0.027	0.4161	3.9116	.0000E+00	.2690E-01	0.0000
.0000E+00	.1145E-01							
357	0.00	0.000	0.036	0.4058	3.7426	.0000E+00	.2674E-01	0.0000
.0000E+00	.1409E-01							
358	0.00	0.000	0.045	0.3939	3.5607	.0000E+00	.2656E-01	0.0000
.0000E+00	.1606E-01							
359	0.25	0.000	0.055	0.4219	3.3954	.0000E+00	.2640E-01	0.0000
.0000E+00	.1742E-01							
360	0.00	0.000	0.041	0.4106	3.9302	.0000E+00	.2692E-01	0.0000
.0000E+00	.1770E-01							
361	0.00	0.000	0.040	0.3994	3.7448	.0000E+00	.2674E-01	0.0000
.0000E+00	.1701E-01							
362	0.15	0.000	0.062	0.4096	3.5740	.0000E+00	.2657E-01	0.0000
.0000E+00	.1586E-01							
363	0.42	0.000	0.057	0.4655	4.1211	.0000E+00	.2710E-01	0.0000
.0000E+00	.1485E-01							
364	0.00	0.000	0.049	0.4527	4.9749	.0000E+00	.2793E-01	0.0000
.0000E+00	.1395E-01							
365	0.00	0.000	0.037	0.4419	4.8246	.0000E+00	.2778E-01	0.0000
.0000E+00	.1316E-01							

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MONTHLY TOTALS (IN INCHES) FOR YEAR 2007

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	5.38	3.59	4.08	4.56	3.23	3.78
	2.56	5.44	2.48	0.21	2.62	2.28
RUNOFF	3.084	1.514	1.124	0.755	0.000	0.005
	0.000	0.116	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	1.136	1.596	2.258	3.678	4.130	3.734
	2.477	3.510	3.825	0.233	1.362	0.892
PERCOLATION/LEAKAGE THROUGH	0.8546	0.7675	0.8504	0.5443	0.2719	0.1364
LAYER 2	0.0216	0.1493	0.3025	0.0000	0.1690	0.6907
PERCOLATION/LEAKAGE THROUGH	0.1640	0.0000	0.0000	0.0154	0.1483	0.6158
LAYER 3	0.6106	0.6151	0.4771	0.2580	0.3601	0.4249

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON	4.604	4.440	4.463	1.846	0.414	0.318
TOP OF LAYER 2	0.002	0.544	0.567	0.000	0.101	2.148
STD. DEVIATION OF DAILY	0.565	0.984	0.932	1.778	0.763	0.732
HEAD ON TOP OF LAYER 2	0.006	1.371	1.132	0.000	0.232	1.836

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ANNUAL TOTALS FOR YEAR 2007

	INCHES	CU. FEET	PERCENT
PRECIPITATION	40.21	145962.297	100.00
RUNOFF	6.597	23947.766	16.41
EVAPOTRANSPIRATION	28.833	104662.766	71.71
PERC./LEAKAGE THROUGH LAYER 2	4.758162	17272.129	11.83
AVG. HEAD ON TOP OF LAYER 2	1.6205		
PERC./LEAKAGE THROUGH LAYER 3	3.689371	13392.415	9.18
CHANGE IN WATER STORAGE	1.091	3959.359	2.71
SOIL WATER AT START OF YEAR	52.577	190854.453	
SOIL WATER AT END OF YEAR	53.668	194813.812	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.010	0.00

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WARNING: TEMPERATURE FOR YEAR 1976 USED WITH PRECIPITATION FOR YEAR 2008

WARNING: SOLAR RADIATION FOR YEAR 1976 USED WITH PRECIPITATION FOR YEAR 2008

HEAD #1: AVERAGE HEAD ON TOP OF LAYER 2
DRAIN #1: LATERAL DRAINAGE FROM LAYER 1 (RECIRCULATION AND COLLECTION)
LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 2
LEAK #2: PERCOLATION OR LEAKAGE THROUGH LAYER 3

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DAILY OUTPUT FOR YEAR 2008

DAY	A	S O L I	RAIN	RUNOFF	ET	E. ZONE WATER	HEAD #1	DRAIN #1	LEAK #1	HEAD #2	DRAIN #2	LEAK #2
	I	I										
	R	L	IN.	IN.	IN.	IN./IN.	IN.	IN.	IN.	IN.	IN.	IN.
1			0.01	0.000	0.042	0.4320	4.6548	.0000E+00	.2762E-01	0.0000	.0000E+00	.1244E-01
2	*		0.00	0.000	0.029	0.4225	4.4831	.0000E+00	.2745E-01	0.0000	.0000E+00	.1180E-01
3	*		0.00	0.000	0.029	0.4132	4.3123	.0000E+00	.2729E-01	0.0000	.0000E+00	.1121E-01
4	*		0.00	0.000	0.025	0.4045	4.1421	.0000E+00	.2712E-01	0.0000	.0000E+00	.1068E-01
5			0.00	0.000	0.032	0.3947	3.9402	.0000E+00	.2693E-01	0.0000	.0000E+00	.1020E-01
6			0.00	0.000	0.036	0.3842	3.7608	.0000E+00	.2675E-01	0.0000	.0000E+00	.9756E-02
7			0.28	0.000	0.049	0.4182	3.5828	.0000E+00	.2658E-01	0.0000	.0000E+00	.9347E-02
8	*		0.00	0.000	0.029	0.4090	3.7093	.0000E+00	.2671E-01	0.0000	.0000E+00	.8970E-02
9	*		0.00	0.000	0.000	0.4045	3.6057	.0000E+00	.2661E-01	0.0000	.0000E+00	.8621E-02
10	*		0.00	0.000	0.000	0.4001	3.4833	.0000E+00	.2649E-01	0.0000	.0000E+00	.8297E-02
11	*		0.00	0.000	0.000	0.3957	3.3615	.0000E+00	.2637E-01	0.0000	.0000E+00	.7996E-02
12	*		0.00	0.000	0.000	0.3913	3.2402	.0000E+00	.2625E-01	0.0000	.0000E+00	.7714E-02
13	*		0.08	0.000	0.016	0.3903	3.1194	.0000E+00	.2614E-01	0.0000	.0000E+00	.7452E-02
14	*		0.00	0.000	0.018	0.3892	3.0461	.0000E+00	.2607E-01	0.0000	.0000E+00	.7205E-02
15	*		0.00	0.000	0.007	0.3849	3.0023	.0000E+00	.2602E-01	0.0000	.0000E+00	.6974E-02
16	*	*	0.00	0.000	0.000	0.3808	1.4393	.0000E+00	.2452E-01	0.0000	.0000E+00	.6757E-02
17	*	*	0.00	0.000	0.000	0.3768	0.8456	.0000E+00	.2395E-01	0.0000	.0000E+00	.6552E-02
18	*	*	0.00	0.000	0.000	0.3728	0.7354	.0000E+00	.2384E-01	0.0000	.0000E+00	.6359E-02
19		*	0.06	0.000	0.012	0.3769	0.6258	.0000E+00	.2373E-01	0.0000	.0000E+00	.6176E-02
20	*	*	0.00	0.000	0.000	0.3730	0.5166	.0000E+00	.2363E-01	0.0000	.0000E+00	.6003E-02
21		*	0.00	0.000	0.000	0.3690	0.4079	.0000E+00	.2352E-01	0.0000	.0000E+00	.5839E-02
22	*	*	0.00	0.000	0.000	0.3651	0.2996	.0000E+00	.2342E-01	0.0000	.0000E+00	.5684E-02

23	*	*	0.00	0.000	0.000	0.3613	0.1919	.0000E+00	.2332E-01	0.0000 .0000E+00 .5536E-02
24	*	*	0.00	0.000	0.000	0.3574	0.0846	.0000E+00	.2321E-01	0.0000 .0000E+00 .5395E-02
25	*	*	0.38	0.000	0.023	0.3567	0.0045	.0000E+00	.3867E-02	0.0000 .0000E+00 .5261E-02
26	*	*	0.00	0.000	0.017	0.3567	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .5134E-02
27	*	*	0.00	0.000	0.028	0.3567	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .5012E-02
28	*	*	0.00	0.000	0.030	0.3567	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .4895E-02
29	*	*	0.00	0.000	0.024	0.3567	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .4784E-02
30	*	*	0.00	0.000	0.022	0.3567	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .4677E-02
31	*	*	0.02	0.000	0.000	0.3567	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .4575E-02
32		*	0.00	0.031	0.029	0.3755	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .4182E-02
33	*	*	0.27	0.000	0.029	0.3755	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .2624E-02
34	*	*	0.00	0.000	0.025	0.3755	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1211E-02
35	*	*	0.00	0.000	0.030	0.3755	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1541E-03
36	*	*	0.44	0.000	0.028	0.3755	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
37	*	*	0.00	0.000	0.029	0.3755	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
38		*	0.00	0.036	0.015	0.3925	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
39		*	0.00	0.253	0.009	0.4153	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
40		*	0.00	0.033	0.070	0.4153	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
41		*	0.00	0.000	0.000	0.4153	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
42		*	0.00	0.000	0.000	0.4153	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
43		*	0.00	0.000	0.000	0.4153	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
44	*	*	0.00	0.000	0.000	0.4153	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
45	*	*	0.00	0.000	0.000	0.4153	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
46	*	*	0.00	0.000	0.000	0.4153	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
47		*	0.01	0.000	0.006	0.4159	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
48	*	*	0.00	0.000	0.000	0.4159	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
49	*	*	0.00	0.000	0.000	0.4159	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
50	*	*	0.00	0.000	0.000	0.4159	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
51		*	0.15	0.075	0.010	0.4269	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
52		*	0.21	0.142	0.010	0.4365	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
53	*	*	0.00	0.000	0.000	0.4365	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
54	*	*	0.00	0.000	0.000	0.4365	0.0000	.0000E+00	.0000E+00	0.0000

```
.0000E+00 .0000E+00
   55     *   0.00  0.000  0.000  0.4365    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   56  *  *   0.00  0.000  0.000  0.4365    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   57  *  *   0.00  0.000  0.000  0.4365    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   58     *   0.00  0.000  0.000  0.4365    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2199E-03
   59  *  *   0.00  0.000  0.000  0.4365    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9483E-03
   60  *  *   0.00  0.000  0.000  0.4365    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1707E-02
   61  *  *   0.00  0.000  0.000  0.4365    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2470E-02
   62  *  *   0.00  0.000  0.000  0.4365    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3232E-02
   63  *  *   1.49  0.000  0.000  0.4365    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3986E-02
   64  *  *   0.93  0.000  0.024  0.4365    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4727E-02
   65     *   0.00  0.309  0.000  0.4463    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .5450E-02
   66     *   0.00  1.389  0.000  0.4544    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6149E-02
   67     *   0.00  0.557  0.007  0.4587    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6822E-02
   68     *   0.00  0.000  0.000  0.4587    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .7466E-02
   69     *   0.00  0.000  0.000  0.4587    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8078E-02
   70     *   0.01  0.001  0.006  0.4592    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8657E-02
   71     *   0.26  0.238  0.008  0.4615    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9201E-02
   72     *   0.00  0.000  0.000  0.4615    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9711E-02
   73     *   0.00  0.000  0.000  0.4615    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1019E-01
   74         0.00  0.000  0.099  0.4414    3.6810 .0000E+00 .2090E-01    0.0000
.0000E+00 .6958E-02
   75         0.28  0.000  0.071  0.4717    4.7454 .0000E+00 .2770E-01    0.0000
.0000E+00 .8294E-02
   76         0.20  0.000  0.080  0.4870    5.3249 .0000E+00 .2826E-01    0.0000
.0000E+00 .9518E-02
   77         0.00  0.000  0.111  0.4637    5.4347 .0000E+00 .2837E-01    0.0000
.0000E+00 .1063E-01
   78         0.00  0.000  0.057  0.4496    4.9382 .0000E+00 .2789E-01    0.0000
.0000E+00 .1162E-01
   79  *      0.00  0.000  0.076  0.4323    4.6322 .0000E+00 .2759E-01    0.0000
.0000E+00 .1250E-01
   80  *      0.01  0.000  0.061  0.4192    4.3267 .0000E+00 .2730E-01    0.0000
.0000E+00 .1328E-01
   81         0.00  0.000  0.099  0.3982    4.0239 .0000E+00 .2701E-01    0.0000
.0000E+00 .1396E-01
   82         0.01  0.000  0.057  0.3859    3.7798 .0000E+00 .2677E-01    0.0000
.0000E+00 .1455E-01
   83         0.00  0.000  0.092  0.3661    3.5610 .0000E+00 .2656E-01    0.0000
.0000E+00 .1505E-01
   84         0.05  0.000  0.097  0.3539    3.3012 .0000E+00 .2631E-01    0.0000
.0000E+00 .1548E-01
   85         0.00  0.000  0.134  0.3273    2.9798 .0000E+00 .2600E-01    0.0000
.0000E+00 .1584E-01
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86	0.51	0.000	0.136	0.3853	2.7233	.0000E+00	.2575E-01	0.0000
.0000E+00	.1614E-01							
87	0.16	0.000	0.099	0.3912	2.7161	.0000E+00	.2575E-01	0.0000
.0000E+00	.1639E-01							
88	0.01	0.000	0.086	0.3743	2.8149	.0000E+00	.2584E-01	0.0000
.0000E+00	.1659E-01							
89	0.36	0.000	0.090	0.4150	3.0534	.0000E+00	.2607E-01	0.0000
.0000E+00	.1697E-01							
90	0.00	0.000	0.143	0.3867	3.5873	.0000E+00	.2659E-01	0.0000
.0000E+00	.1867E-01							
91	0.00	0.000	0.105	0.3649	3.2711	.0000E+00	.2628E-01	0.0000
.0000E+00	.2093E-01							
92	0.00	0.000	0.158	0.3343	2.9791	.0000E+00	.2600E-01	0.0000
.0000E+00	.2233E-01							
93	0.00	0.000	0.190	0.2983	2.6794	.0000E+00	.2571E-01	0.0000
.0000E+00	.2307E-01							
94	0.00	0.000	0.171	0.2657	2.1613	.0000E+00	.2521E-01	0.0000
.0000E+00	.2343E-01							
95	0.00	0.000	0.135	0.2391	1.7567	.0000E+00	.2482E-01	0.0000
.0000E+00	.2322E-01							
96	0.00	0.000	0.148	0.2104	1.2217	.0000E+00	.2431E-01	0.0000
.0000E+00	.2265E-01							
97	0.00	0.000	0.116	0.1871	0.8657	.0000E+00	.2396E-01	0.0000
.0000E+00	.2080E-01							
98	0.00	0.000	0.119	0.1633	0.5060	.0000E+00	.2362E-01	0.0000
.0000E+00	.1913E-01							
99	0.00	0.000	0.083	0.1494	0.0238	.0000E+00	.0000E+00	0.0000
.0000E+00	.1769E-01							
100	0.00	0.000	0.064	0.1387	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1645E-01							
101	0.00	0.000	0.022	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1537E-01							
102	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1442E-01							
103	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1357E-01							
104	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1281E-01							
105	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1213E-01							
106	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1125E-01							
107	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9426E-02							
108	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7830E-02							
109	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6529E-02							
110	0.71	0.000	0.026	0.2490	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5471E-02							
111	0.29	0.000	0.151	0.2722	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4615E-02							
112	0.00	0.000	0.212	0.2368	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3931E-02							
113	0.00	0.000	0.203	0.2030	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3396E-02							
114	0.00	0.000	0.086	0.1887	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2990E-02							
115	0.18	0.000	0.072	0.2066	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2698E-02							
116	0.13	0.000	0.063	0.2178	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2506E-02							
117	0.00	0.000	0.050	0.2094	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.2403E-02							
118	0.06	0.000	0.053	0.2106	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2380E-02							
119	0.00	0.000	0.043	0.2034	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2429E-02							
120	0.00	0.000	0.041	0.1965	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2540E-02							
121	0.00	0.000	0.040	0.1898	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2708E-02							
122	0.01	0.000	0.043	0.1843	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2926E-02							
123	0.00	0.000	0.036	0.1783	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3187E-02							
124	0.00	0.000	0.037	0.1722	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3486E-02							
125	0.00	0.000	0.039	0.1657	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3818E-02							
126	0.03	0.000	0.044	0.1634	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4176E-02							
127	0.20	0.000	0.043	0.1895	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4556E-02							
128	0.00	0.000	0.041	0.1826	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4953E-02							
129	0.00	0.000	0.040	0.1759	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5363E-02							
130	0.00	0.000	0.041	0.1691	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5781E-02							
131	0.00	0.000	0.044	0.1618	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6203E-02							
132	0.00	0.000	0.043	0.1547	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6627E-02							
133	0.00	0.000	0.046	0.1471	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7047E-02							
134	0.60	0.000	0.048	0.2391	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7463E-02							
135	0.06	0.000	0.095	0.2332	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7870E-02							
136	0.32	0.000	0.089	0.2717	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8268E-02							
137	0.00	0.000	0.178	0.2420	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8653E-02							
138	0.04	0.000	0.177	0.2191	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9025E-02							
139	0.00	0.000	0.209	0.1842	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9383E-02							
140	0.00	0.000	0.235	0.1450	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9724E-02							
141	0.00	0.000	0.060	0.1351	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1005E-01							
142	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1036E-01							
143	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1065E-01							
144	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1093E-01							
145	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1118E-01							
146	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1142E-01							
147	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1165E-01							
148	0.04	0.000	0.015	0.1392	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1186E-01							

149	0.11	0.000	0.038	0.1512	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1205E-01							
150	0.02	0.000	0.037	0.1483	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1135E-01							
151	1.78	0.067	0.066	0.4228	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9196E-02							
152	0.69	0.012	0.190	0.4997	3.8252	.0000E+00	.2682E-01	0.0000
.0000E+00	.1020E-01							
153	0.00	0.000	0.231	0.4565	5.5335	.0000E+00	.2846E-01	0.0000
.0000E+00	.1111E-01							
154	0.00	0.000	0.224	0.4146	4.5651	.0000E+00	.2753E-01	0.0000
.0000E+00	.1192E-01							
155	0.00	0.000	0.237	0.3706	3.8465	.0000E+00	.2684E-01	0.0000
.0000E+00	.1263E-01							
156	0.04	0.000	0.252	0.3309	3.1999	.0000E+00	.2621E-01	0.0000
.0000E+00	.1326E-01							
157	0.10	0.000	0.261	0.2998	2.6037	.0000E+00	.2564E-01	0.0000
.0000E+00	.1381E-01							
158	0.00	0.000	0.250	0.2539	1.9682	.0000E+00	.2503E-01	0.0000
.0000E+00	.1428E-01							
159	0.00	0.000	0.274	0.2042	1.3352	.0000E+00	.2442E-01	0.0000
.0000E+00	.1469E-01							
160	0.00	0.000	0.302	0.1508	0.5193	.0000E+00	.1784E-01	0.0000
.0000E+00	.1504E-01							
161	0.00	0.000	0.095	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2487E-01							
162	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2223E-01							
163	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2009E-01							
164	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1833E-01							
165	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1688E-01							
166	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1567E-01							
167	0.01	0.000	0.010	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1465E-01							
168	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1380E-01							
169	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1308E-01							
170	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1247E-01							
171	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1197E-01							
172	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1154E-01							
173	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1119E-01							
174	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1090E-01							
175	1.52	0.024	0.140	0.3611	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1067E-01							
176	0.65	0.000	0.195	0.4338	2.0451	.0000E+00	.1932E-01	0.0000
.0000E+00	.4795E-02							
177	0.00	0.000	0.229	0.3911	3.8422	.0000E+00	.2683E-01	0.0000
.0000E+00	.5916E-02							
178	0.00	0.000	0.227	0.3488	3.3798	.0000E+00	.2639E-01	0.0000
.0000E+00	.6965E-02							
179	0.00	0.000	0.279	0.2981	2.8154	.0000E+00	.2584E-01	0.0000
.0000E+00	.7937E-02							
180	0.00	0.000	0.299	0.2440	2.0332	.0000E+00	.2509E-01	0.0000

.0000E+00	.8831E-02								
181	0.00	0.000	0.274	0.1943	1.1953	.0000E+00	.2428E-01	0.0000	
.0000E+00	.9647E-02								
182	0.00	0.000	0.244	0.1507	0.4162	.0000E+00	.1730E-01	0.0000	
.0000E+00	.1038E-01								
183	0.00	0.000	0.094	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.2259E-01								
184	0.33	0.000	0.124	0.1693	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.2002E-01								
185	0.00	0.000	0.104	0.1519	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1792E-01								
186	0.00	0.000	0.092	0.1365	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1619E-01								
187	0.00	0.000	0.007	0.1354	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1475E-01								
188	0.00	0.000	0.002	0.1351	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1355E-01								
189	0.25	0.000	0.089	0.1620	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1255E-01								
190	0.00	0.000	0.069	0.1505	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1170E-01								
191	0.00	0.000	0.070	0.1388	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1099E-01								
192	0.00	0.000	0.017	0.1359	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1040E-01								
193	0.00	0.000	0.004	0.1352	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.9900E-02								
194	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.9487E-02								
195	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.9148E-02								
196	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8873E-02								
197	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8654E-02								
198	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8483E-02								
199	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8356E-02								
200	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8267E-02								
201	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8210E-02								
202	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8183E-02								
203	0.40	0.000	0.133	0.1795	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8180E-02								
204	0.00	0.000	0.083	0.1657	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8200E-02								
205	0.00	0.000	0.121	0.1456	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8239E-02								
206	0.00	0.000	0.054	0.1367	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8294E-02								
207	0.00	0.000	0.008	0.1353	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8363E-02								
208	0.05	0.000	0.033	0.1381	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8444E-02								
209	0.00	0.000	0.008	0.1368	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8534E-02								
210	0.68	0.000	0.156	0.2241	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8633E-02								
211	0.00	0.000	0.232	0.1853	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.8738E-02								

212	0.00	0.000	0.221	0.1485	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8847E-02							
213	0.57	0.000	0.216	0.2075	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8961E-02							
214	0.00	0.000	0.264	0.1636	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9077E-02							
215	0.00	0.000	0.159	0.1371	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9194E-02							
216	0.00	0.000	0.009	0.1355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9312E-02							
217	0.00	0.000	0.003	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9430E-02							
218	0.21	0.000	0.104	0.1526	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9547E-02							
219	0.04	0.000	0.085	0.1451	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9662E-02							
220	0.00	0.000	0.041	0.1383	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9775E-02							
221	0.00	0.000	0.014	0.1359	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9886E-02							
222	0.00	0.000	0.004	0.1352	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7470E-02							
223	0.00	0.000	0.001	0.1351	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7146E-02							
224	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7959E-02							
225	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8706E-02							
226	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9389E-02							
227	0.75	0.000	0.147	0.2355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1001E-01							
228	0.01	0.000	0.161	0.2103	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1057E-01							
229	0.00	0.000	0.230	0.1720	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1107E-01							
230	0.00	0.000	0.117	0.1525	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1151E-01							
231	0.00	0.000	0.084	0.1385	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1191E-01							
232	0.00	0.000	0.021	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1226E-01							
233	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1256E-01							
234	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1282E-01							
235	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1305E-01							
236	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1325E-01							
237	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1341E-01							
238	0.26	0.000	0.098	0.1619	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1355E-01							
239	0.00	0.000	0.068	0.1505	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1367E-01							
240	0.00	0.000	0.071	0.1388	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1376E-01							
241	0.00	0.000	0.017	0.1359	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1384E-01							
242	0.00	0.000	0.004	0.1352	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1390E-01							
243	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000

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.0000E+00 .1394E-01
  244         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1397E-01
  245         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1399E-01
  246         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1400E-01
  247         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1400E-01
  248         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1399E-01
  249         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1398E-01
  250         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1396E-01
  251         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1393E-01
  252         0.02  0.000  0.020  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1390E-01
  253         0.26  0.000  0.059  0.1684    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1387E-01
  254         0.00  0.000  0.073  0.1563    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1383E-01
  255         0.00  0.000  0.092  0.1410    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1379E-01
  256         0.00  0.000  0.032  0.1357    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1374E-01
  257         0.00  0.000  0.003  0.1351    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1370E-01
  258         0.00  0.000  0.001  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1365E-01
  259         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1360E-01
  260         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1355E-01
  261         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1350E-01
  262         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1344E-01
  263         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1339E-01
  264         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1333E-01
  265         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1328E-01
  266         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1322E-01
  267         0.03  0.000  0.022  0.1364    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1317E-01
  268         0.00  0.000  0.003  0.1358    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1311E-01
  269         0.17  0.000  0.039  0.1576    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1305E-01
  270         0.29  0.000  0.040  0.1992    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1300E-01
  271         0.13  0.000  0.049  0.2127    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1294E-01
  272         0.00  0.000  0.027  0.2082    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1288E-01
  273         0.00  0.000  0.025  0.2040    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1283E-01
  274         0.00  0.000  0.020  0.2007    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1277E-01
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275	0.00	0.000	0.020	0.1974	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1271E-01							
276	0.00	0.000	0.020	0.1941	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1266E-01							
277	0.00	0.000	0.020	0.1908	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1260E-01							
278	0.08	0.000	0.045	0.1966	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1255E-01							
279	0.77	0.000	0.045	0.3174	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1249E-01							
280	0.00	0.000	0.079	0.3013	0.5581	.0000E+00	.1789E-01	0.0000
.0000E+00	.1244E-01							
281	0.00	0.000	0.060	0.2872	0.8510	.0000E+00	.2395E-01	0.0000
.0000E+00	.1238E-01							
282	0.00	0.000	0.071	0.2714	0.8488	.0000E+00	.2395E-01	0.0000
.0000E+00	.1233E-01							
283	0.00	0.000	0.062	0.2570	0.7379	.0000E+00	.2384E-01	0.0000
.0000E+00	.1227E-01							
284	0.00	0.000	0.061	0.2428	0.6191	.0000E+00	.2373E-01	0.0000
.0000E+00	.1222E-01							
285	0.00	0.000	0.071	0.2271	0.5004	.0000E+00	.2361E-01	0.0000
.0000E+00	.1217E-01							
286	0.00	0.000	0.073	0.2110	0.3812	.0000E+00	.2350E-01	0.0000
.0000E+00	.1211E-01							
287	0.00	0.000	0.066	0.1960	0.2628	.0000E+00	.2338E-01	0.0000
.0000E+00	.1206E-01							
288	0.00	0.000	0.056	0.1829	0.1461	.0000E+00	.2327E-01	0.0000
.0000E+00	.1201E-01							
289	0.00	0.000	0.048	0.1724	0.0341	.0000E+00	.1490E-01	0.0000
.0000E+00	.1196E-01							
290	0.00	0.000	0.043	0.1652	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2152E-01							
291	0.00	0.000	0.039	0.1586	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1927E-01							
292	0.00	0.000	0.037	0.1525	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1738E-01							
293	0.17	0.000	0.062	0.1706	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1579E-01							
294	0.01	0.000	0.041	0.1654	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1443E-01							
295	0.00	0.000	0.031	0.1601	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1326E-01							
296	0.00	0.000	0.030	0.1551	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1225E-01							
297	1.38	0.010	0.056	0.3742	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1136E-01							
298	0.12	0.000	0.063	0.3794	2.1476	.0000E+00	.2520E-01	0.0000
.0000E+00	.3415E-02							
299	0.00	0.000	0.055	0.3659	2.6632	.0000E+00	.2570E-01	0.0000
.0000E+00	.3936E-02							
300	0.00	0.000	0.049	0.3535	2.5016	.0000E+00	.2554E-01	0.0000
.0000E+00	.4434E-02							
301	0.00	0.000	0.046	0.3415	2.3447	.0000E+00	.2539E-01	0.0000
.0000E+00	.4907E-02							
302	0.00	0.000	0.057	0.3277	2.1866	.0000E+00	.2524E-01	0.0000
.0000E+00	.5355E-02							
303	0.06	0.000	0.056	0.3243	2.0247	.0000E+00	.2508E-01	0.0000
.0000E+00	.5778E-02							
304	0.78	0.000	0.055	0.4409	2.1710	.0000E+00	.2522E-01	0.0000
.0000E+00	.6175E-02							
305	0.00	0.000	0.056	0.4270	4.1231	.0000E+00	.2710E-01	0.0000
.0000E+00	.6546E-02							
306	0.00	0.000	0.045	0.4150	3.9723	.0000E+00	.2696E-01	0.0000

.0000E+00	.6892E-02								
307	0.00	0.000	0.046	0.4028	3.7760	.0000E+00	.2677E-01	0.0000	
.0000E+00	.7214E-02								
308	0.00	0.000	0.066	0.3874	3.5719	.0000E+00	.2657E-01	0.0000	
.0000E+00	.7512E-02								
309	0.00	0.000	0.054	0.3740	3.3569	.0000E+00	.2637E-01	0.0000	
.0000E+00	.9449E-02								
310	0.00	0.000	0.053	0.3608	3.1544	.0000E+00	.2617E-01	0.0000	
.0000E+00	.1215E-01								
311	0.00	0.000	0.058	0.3467	2.9586	.0000E+00	.2598E-01	0.0000	
.0000E+00	.1426E-01								
312	0.00	0.000	0.064	0.3317	2.7870	.0000E+00	.2582E-01	0.0000	
.0000E+00	.1576E-01								
313	0.00	0.000	0.034	0.3217	2.6249	.0000E+00	.2566E-01	0.0000	
.0000E+00	.1535E-01								
314	0.00	0.000	0.048	0.3094	2.4746	.0000E+00	.2552E-01	0.0000	
.0000E+00	.1440E-01								
315	0.00	0.000	0.056	0.2959	2.3154	.0000E+00	.2536E-01	0.0000	
.0000E+00	.1355E-01								
316	0.00	0.000	0.048	0.2837	2.1535	.0000E+00	.2521E-01	0.0000	
.0000E+00	.1280E-01								
317	0.00	0.000	0.037	0.2734	1.9745	.0000E+00	.2503E-01	0.0000	
.0000E+00	.1212E-01								
318	0.00	0.000	0.042	0.2622	1.8338	.0000E+00	.2490E-01	0.0000	
.0000E+00	.1151E-01								
319	0.00	0.000	0.050	0.2497	1.7010	.0000E+00	.2477E-01	0.0000	
.0000E+00	.1095E-01								
320	0.00	0.000	0.050	0.2374	1.5572	.0000E+00	.2463E-01	0.0000	
.0000E+00	.1044E-01								
321	0.00	0.000	0.047	0.2255	1.3340	.0000E+00	.2442E-01	0.0000	
.0000E+00	.9978E-02								
322	0.00	0.000	0.048	0.2134	1.0212	.0000E+00	.2411E-01	0.0000	
.0000E+00	.9552E-02								
323	0.00	0.000	0.053	0.2006	0.8671	.0000E+00	.2397E-01	0.0000	
.0000E+00	.9159E-02								
324	0.00	0.000	0.053	0.1878	0.7490	.0000E+00	.2385E-01	0.0000	
.0000E+00	.8796E-02								
325	0.00	0.000	0.050	0.1755	0.5845	.0000E+00	.2369E-01	0.0000	
.0000E+00	.8460E-02								
326	0.00	0.000	0.048	0.1635	0.3088	.0000E+00	.2343E-01	0.0000	
.0000E+00	.8147E-02								
327	0.00	0.000	0.032	0.1572	0.0351	.0000E+00	.6221E-02	0.0000	
.0000E+00	.7856E-02								
328 *	0.03	0.000	0.032	0.1569	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7584E-02								
329	0.00	0.000	0.044	0.1495	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7329E-02								
330	0.02	0.000	0.045	0.1454	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.7091E-02								
331	0.66	0.000	0.056	0.2460	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.6866E-02								
332	0.02	0.000	0.061	0.2391	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.6655E-02								
333	0.00	0.000	0.060	0.2291	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.6456E-02								
334	0.00	0.000	0.055	0.2199	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.6268E-02								
335	0.00	0.000	0.052	0.2112	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.6090E-02								
336	0.00	0.000	0.051	0.2028	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.5922E-02								
337	0.00	0.000	0.064	0.1921	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.5762E-02								

338		0.00	0.000	0.043	0.1849	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5611E-02								
339		0.00	0.000	0.035	0.1791	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5466E-02								
340		0.00	0.000	0.039	0.1726	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4946E-02								
341		0.89	0.000	0.051	0.3124	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4078E-02								
342	*	0.01	0.000	0.034	0.3054	0.3951	.0000E+00	.1773E-01	0.0000
.0000E+00	.0000E+00								
343	*	0.02	0.000	0.020	0.3014	0.6946	.0000E+00	.2380E-01	0.0000
.0000E+00	.0000E+00								
344	*	0.00	0.000	0.000	0.2975	0.7516	.0000E+00	.2385E-01	0.0000
.0000E+00	.0000E+00								
345	*	0.05	0.000	0.024	0.2968	0.7783	.0000E+00	.2388E-01	0.0000
.0000E+00	.0000E+00								
346	*	0.00	0.000	0.006	0.2928	0.7443	.0000E+00	.2385E-01	0.0000
.0000E+00	.0000E+00								
347	*	0.00	0.000	0.000	0.2888	0.6596	.0000E+00	.2377E-01	0.0000
.0000E+00	.0000E+00								
348	*	0.00	0.000	0.000	0.2849	0.5813	.0000E+00	.2369E-01	0.0000
.0000E+00	.0000E+00								
349	*	0.00	0.000	0.000	0.2809	0.5085	.0000E+00	.2362E-01	0.0000
.0000E+00	.0000E+00								
350	*	0.00	0.000	0.000	0.2770	0.4345	.0000E+00	.2355E-01	0.0000
.0000E+00	.8976E-04								
351		0.00	0.000	0.033	0.2676	0.3561	.0000E+00	.2347E-01	0.0000
.0000E+00	.1924E-02								
352	*	0.00	0.000	0.025	0.2595	0.2485	.0000E+00	.2337E-01	0.0000
.0000E+00	.4155E-02								
353	*	0.00	0.000	0.000	0.2557	0.1387	.0000E+00	.2326E-01	0.0000
.0000E+00	.6039E-02								
354	*	0.00	0.000	0.025	0.2491	0.0331	.0000E+00	.1499E-01	0.0000
.0000E+00	.8768E-02								
355	*	0.00	0.000	0.027	0.2446	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8433E-02								
356		0.00	0.000	0.032	0.2391	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8123E-02								
357		0.00	0.000	0.037	0.2330	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7833E-02								
358		0.00	0.000	0.034	0.2273	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7562E-02								
359	*	0.00	0.000	0.031	0.2222	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7309E-02								
360	*	0.00	0.000	0.025	0.2180	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7072E-02								
361	*	0.00	0.000	0.000	0.2180	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6849E-02								
362	*	* 0.00	0.000	0.000	0.2180	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6638E-02								
363	*	* 0.16	0.000	0.025	0.2180	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6440E-02								
364		* 0.00	0.003	0.027	0.2355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6194E-02								
365		* 0.00	0.000	0.000	0.2355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5301E-02								
366		* 0.00	0.000	0.000	0.2355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4375E-02								

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MONTHLY TOTALS (IN INCHES) FOR YEAR 2008

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.83	1.08	4.28	1.37	3.90	2.32
	2.28	1.27	0.90	3.37	0.73	1.13
RUNOFF	0.000	0.569	2.495	0.000	0.079	0.024
	0.000	0.000	0.000	0.010	0.000	0.003
EVAPOTRANSPIRATION	0.467	0.289	1.738	2.247	1.934	4.023
	1.939	1.705	0.506	1.576	1.489	0.689
PERCOLATION/LEAKAGE THROUGH	0.6174	0.0000	0.4770	0.1736	0.0268	0.3670
LAYER 2	0.0000	0.0000	0.0000	0.4265	0.5354	0.2928
PERCOLATION/LEAKAGE THROUGH	0.2273	0.0110	0.3395	0.3302	0.2494	0.3895
LAYER 3	0.3317	0.3456	0.4054	0.3507	0.2906	0.1349

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON	1.955	0.000	2.222	0.406	0.123	1.310
TOP OF LAYER 2	0.000	0.000	0.000	0.810	1.504	0.204
STD. DEVIATION OF DAILY	1.776	0.000	2.033	0.858	0.687	1.679
HEAD ON TOP OF LAYER 2	0.000	0.000	0.000	1.109	1.350	0.289

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ANNUAL TOTALS FOR YEAR 2008

	INCHES	CU. FEET	PERCENT
PRECIPITATION	23.46	85159.820	100.00
RUNOFF	3.180	11542.167	13.55
EVAPOTRANSPIRATION	18.603	67527.695	79.30
PERC./LEAKAGE THROUGH LAYER 2	2.916559	10587.110	12.43
AVG. HEAD ON TOP OF LAYER 2	0.7112		
PERC./LEAKAGE THROUGH LAYER 3	3.405924	12363.503	14.52
CHANGE IN WATER STORAGE	-1.728	-6273.584	-7.37
SOIL WATER AT START OF YEAR	53.668	194813.812	

SOIL WATER AT END OF YEAR	51.939	188540.234	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.037	0.00

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HEAD #1: AVERAGE HEAD ON TOP OF LAYER 2
DRAIN #1: LATERAL DRAINAGE FROM LAYER 1 (RECIRCULATION AND COLLECTION)
LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 2
LEAK #2: PERCOLATION OR LEAKAGE THROUGH LAYER 3

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DAILY OUTPUT FOR YEAR 2009

DAY	A I R	S O I L	RAIN IN.	RUNOFF IN.	ET IN.	E. ZONE WATER IN./IN.	HEAD #1 IN.	DRAIN #1 IN.	LEAK #1 IN.	HEAD #2 IN.	DRAIN #2 IN.	LEAK #2 IN.
1		*	0.01	0.000	0.006	0.2361	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.3582E-02
2		*	0.00	0.000	0.000	0.2361	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.2902E-02
3		*	0.00	0.000	0.000	0.2361	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.2320E-02
4	*	*	0.00	0.000	0.000	0.2361	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.1826E-02
5		*	0.00	0.000	0.000	0.2361	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.1407E-02
6		*	0.00	0.000	0.000	0.2361	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.1058E-02
7	*	*	0.28	0.000	0.024	0.2361	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.7708E-03
8	*	*	0.00	0.000	0.017	0.2361	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.5397E-03
9	*	*	0.00	0.000	0.023	0.2361	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.3601E-03
10		*	0.00	0.007	0.025	0.2553	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.2277E-03
11		*	0.00	0.000	0.037	0.2606	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.1388E-03
12	*	*	0.00	0.000	0.000	0.2606	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.9022E-04

13	*	0.08	0.000	0.009	0.2725	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7892E-04								
14	*	0.00	0.000	0.000	0.2725	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1023E-03								
15	*	0.00	0.000	0.000	0.2725	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1578E-03								
16	*	0.00	0.000	0.000	0.2725	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2431E-03								
17		0.00	0.000	0.039	0.2660	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3561E-03								
18	*	0.00	0.000	0.038	0.2577	0.0264	.0000E+00	.1159E-01	0.0000
.0000E+00	.0000E+00								
19		0.06	0.000	0.053	0.2550	0.0879	.0000E+00	.2322E-01	0.0000
.0000E+00	.0000E+00								
20		0.00	0.000	0.042	0.2442	0.1010	.0000E+00	.2323E-01	0.0000
.0000E+00	.0000E+00								
21		0.00	0.000	0.049	0.2324	0.0432	.0000E+00	.2155E-01	0.0000
.0000E+00	.0000E+00								
22	*	0.00	0.000	0.036	0.2264	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5941E-02								
23		0.00	0.000	0.049	0.2181	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5568E-02								
24	*	0.00	0.000	0.035	0.2123	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5259E-02								
25	*	0.38	0.000	0.024	0.2156	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5007E-02								
26	*	0.00	0.000	0.023	0.2188	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4805E-02								
27		0.00	0.000	0.032	0.2221	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4648E-02								
28	*	0.00	0.000	0.027	0.2254	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4532E-02								
29		0.00	0.000	0.040	0.2511	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4453E-02								
30		0.00	0.000	0.062	0.2408	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4407E-02								
31		0.02	0.000	0.060	0.2341	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4391E-02								
32		0.00	0.000	0.059	0.2243	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4401E-02								
33		0.27	0.000	0.047	0.2614	0.0001	.0000E+00	.0000E+00	0.0000
.0000E+00	.4436E-02								
34		0.00	0.000	0.048	0.2533	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4492E-02								
35		0.00	0.000	0.054	0.2443	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4568E-02								
36		0.44	0.000	0.063	0.3071	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4660E-02								
37		0.00	0.000	0.053	0.2954	0.4395	.0000E+00	.1777E-01	0.0000
.0000E+00	.0000E+00								
38		0.00	0.000	0.058	0.2817	0.6808	.0000E+00	.2379E-01	0.0000
.0000E+00	.5269E-03								
39	*	0.00	0.000	0.045	0.2702	0.6633	.0000E+00	.2377E-01	0.0000
.0000E+00	.1470E-02								
40		0.00	0.000	0.060	0.2563	0.5509	.0000E+00	.2366E-01	0.0000
.0000E+00	.2388E-02								
41		0.00	0.000	0.053	0.2434	0.4336	.0000E+00	.2355E-01	0.0000
.0000E+00	.3273E-02								
42		0.00	0.000	0.065	0.2287	0.3168	.0000E+00	.2344E-01	0.0000
.0000E+00	.4121E-02								
43		0.00	0.000	0.084	0.2109	0.1984	.0000E+00	.2332E-01	0.0000
.0000E+00	.4928E-02								
44		0.00	0.000	0.056	0.1976	0.0803	.0000E+00	.2321E-01	0.0000

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.0000E+00 .5690E-02
   45         0.00  0.000  0.064  0.1867    0.0021 .0000E+00 .1302E-02    0.0000
.0000E+00 .1667E-01
   46         0.00  0.000  0.047  0.1789    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1621E-01
   47  *      0.01  0.000  0.054  0.1715    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1458E-01
   48         0.00  0.000  0.068  0.1602    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1321E-01
   49  *      0.00  0.000  0.053  0.1515    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1204E-01
   50  *      0.00  0.000  0.053  0.1426    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1105E-01
   51  *      0.15  0.000  0.045  0.1459    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1020E-01
   52         0.21  0.000  0.036  0.1892    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9472E-02
   53  *      0.00  0.000  0.062  0.1788    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8850E-02
   54  *      0.00  0.000  0.060  0.1687    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8318E-02
   55  *      0.00  0.000  0.057  0.1592    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .7865E-02
   56         0.00  0.000  0.062  0.1488    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .7481E-02
   57         0.00  0.000  0.066  0.1377    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .7157E-02
   58         0.00  0.000  0.015  0.1353    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6886E-02
   59         0.00  0.000  0.002  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6663E-02
   60         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6482E-02
   61  *      0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6339E-02
   62         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6230E-02
   63         1.49  0.020  0.068  0.3687    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6150E-02
   64  *      0.93  0.000  0.033  0.3678    1.9762 .0000E+00 .2503E-01    0.0000
.0000E+00 .4560E-03
   65         0.00  0.051  0.000  0.5010    3.7396 .0000E+00 .2673E-01    0.0000
.0000E+00 .1376E-02
   66         0.00  0.000  0.094  0.4806    5.7903 .0000E+00 .2871E-01    0.0000
.0000E+00 .2271E-02
   67         0.00  0.000  0.075  0.4634    5.2864 .0000E+00 .2823E-01    0.0000
.0000E+00 .3136E-02
   68         0.00  0.000  0.091  0.4436    4.8621 .0000E+00 .2782E-01    0.0000
.0000E+00 .3966E-02
   69         0.00  0.000  0.063  0.4285    4.5164 .0000E+00 .2748E-01    0.0000
.0000E+00 .4756E-02
   70  *      0.01  0.000  0.053  0.4169    4.2421 .0000E+00 .2722E-01    0.0000
.0000E+00 .5504E-02
   71  *      0.26  0.000  0.021  0.4157    4.0455 .0000E+00 .2703E-01    0.0000
.0000E+00 .6207E-02
   72         0.00  0.000  0.058  0.4243    3.9211 .0000E+00 .2691E-01    0.0000
.0000E+00 .6865E-02
   73  *      0.00  0.000  0.069  0.4221    3.8995 .0000E+00 .2689E-01    0.0000
.0000E+00 .7475E-02
   74         0.00  0.000  0.091  0.4026    3.8346 .0000E+00 .2683E-01    0.0000
.0000E+00 .8040E-02
   75  *      0.28  0.000  0.036  0.4014    3.6321 .0000E+00 .2663E-01    0.0000
.0000E+00 .8558E-02
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76	0.20	0.000	0.000	0.4676	3.9873	.0000E+00	.2697E-01	0.0000
.0000E+00	.9352E-02							
77	0.00	0.000	0.087	0.4485	4.9280	.0000E+00	.2788E-01	0.0000
.0000E+00	.1132E-01							
78	0.00	0.000	0.080	0.4305	4.5657	.0000E+00	.2753E-01	0.0000
.0000E+00	.1440E-01							
79	0.00	0.000	0.098	0.4096	4.2059	.0000E+00	.2718E-01	0.0000
.0000E+00	.1668E-01							
80	0.01	0.000	0.075	0.3942	3.9339	.0000E+00	.2692E-01	0.0000
.0000E+00	.1818E-01							
81	0.00	0.000	0.096	0.3737	3.7193	.0000E+00	.2671E-01	0.0000
.0000E+00	.1848E-01							
82	0.01	0.000	0.089	0.3561	3.4579	.0000E+00	.2646E-01	0.0000
.0000E+00	.1717E-01							
83	0.00	0.000	0.104	0.3345	3.1140	.0000E+00	.2613E-01	0.0000
.0000E+00	.1600E-01							
84	0.05	0.000	0.093	0.3230	2.8261	.0000E+00	.2585E-01	0.0000
.0000E+00	.1497E-01							
85	0.00	0.000	0.091	0.3036	2.6315	.0000E+00	.2567E-01	0.0000
.0000E+00	.1406E-01							
86	0.51	0.000	0.094	0.3686	2.4139	.0000E+00	.2546E-01	0.0000
.0000E+00	.1325E-01							
87 *	0.16	0.000	0.052	0.3677	2.3481	.0000E+00	.2539E-01	0.0000
.0000E+00	.1253E-01							
88	0.01	0.000	0.063	0.3693	2.4293	.0000E+00	.2547E-01	0.0000
.0000E+00	.1187E-01							
89	0.36	0.000	0.067	0.4139	2.7570	.0000E+00	.2579E-01	0.0000
.0000E+00	.1128E-01							
90	0.00	0.000	0.094	0.3938	3.5714	.0000E+00	.2657E-01	0.0000
.0000E+00	.1075E-01							
91	0.00	0.000	0.099	0.3730	3.3087	.0000E+00	.2632E-01	0.0000
.0000E+00	.1026E-01							
92	0.00	0.000	0.117	0.3492	3.0334	.0000E+00	.2605E-01	0.0000
.0000E+00	.9809E-02							
93	0.00	0.000	0.125	0.3241	2.8005	.0000E+00	.2583E-01	0.0000
.0000E+00	.9396E-02							
94	0.00	0.000	0.129	0.2984	2.5784	.0000E+00	.2562E-01	0.0000
.0000E+00	.9015E-02							
95	0.00	0.000	0.106	0.2765	2.2184	.0000E+00	.2527E-01	0.0000
.0000E+00	.8663E-02							
96	0.00	0.000	0.138	0.2492	1.8937	.0000E+00	.2496E-01	0.0000
.0000E+00	.8336E-02							
97	0.00	0.000	0.117	0.2256	1.5404	.0000E+00	.2461E-01	0.0000
.0000E+00	.8032E-02							
98	0.00	0.000	0.133	0.1995	0.9841	.0000E+00	.2408E-01	0.0000
.0000E+00	.7748E-02							
99	0.00	0.000	0.148	0.1708	0.6567	.0000E+00	.2376E-01	0.0000
.0000E+00	.7483E-02							
100	0.00	0.000	0.169	0.1416	0.0957	.0000E+00	.5855E-02	0.0000
.0000E+00	.7235E-02							
101	0.00	0.000	0.039	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7002E-02							
102	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6783E-02							
103	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6577E-02							
104	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6382E-02							
105	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6198E-02							
106	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6024E-02							
107	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000

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.0000E+00 .5859E-02
  108         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .5703E-02
  109         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .5372E-02
  110         0.71  0.000  0.028  0.2487    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4140E-02
  111         0.29  0.000  0.035  0.2912    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2971E-02
  112         0.00  0.000  0.175  0.2601    0.0437 .0000E+00 .1161E-01    0.0000
.0000E+00 .0000E+00
  113         0.00  0.000  0.229  0.2180    0.1246 .0000E+00 .2325E-01    0.0000
.0000E+00 .0000E+00
  114         0.00  0.000  0.203  0.1826    0.0197 .0000E+00 .9033E-02    0.0000
.0000E+00 .0000E+00
  115         0.18  0.000  0.091  0.1974    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .5324E-02
  116         0.13  0.000  0.073  0.2070    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4092E-02
  117         0.00  0.000  0.058  0.1972    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3063E-02
  118         0.06  0.000  0.058  0.1976    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2205E-02
  119         0.00  0.000  0.048  0.1896    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1493E-02
  120         0.00  0.000  0.047  0.1819    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9092E-03
  121         0.00  0.000  0.044  0.1746    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4372E-03
  122         0.01  0.000  0.046  0.1685    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .7856E-04
  123         0.00  0.000  0.041  0.1617    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  124         0.00  0.000  0.040  0.1550    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  125         0.00  0.000  0.039  0.1485    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  126         0.03  0.000  0.046  0.1458    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  127         0.20  0.000  0.047  0.1713    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  128         0.00  0.000  0.042  0.1643    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  129         0.00  0.000  0.037  0.1581    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  130         0.00  0.000  0.032  0.1527    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  131         0.00  0.000  0.029  0.1479    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  132         0.00  0.000  0.031  0.1427    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3690E-04
  133         0.00  0.000  0.038  0.1364    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2913E-03
  134         0.60  0.000  0.046  0.2288    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .6087E-03
  135         0.06  0.000  0.232  0.2000    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9558E-03
  136         0.32  0.000  0.060  0.2434    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1329E-02
  137         0.00  0.000  0.237  0.2039    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1724E-02
  138         0.04  0.000  0.067  0.1995    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2138E-02
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139	0.00	0.000	0.071	0.1877	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2566E-02							
140	0.00	0.000	0.074	0.1754	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3006E-02							
141	0.00	0.000	0.097	0.1591	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3453E-02							
142	0.00	0.000	0.100	0.1425	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3905E-02							
143	0.00	0.000	0.043	0.1354	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4358E-02							
144	0.00	0.000	0.002	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4810E-02							
145	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5257E-02							
146	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5697E-02							
147	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6128E-02							
148	0.04	0.000	0.020	0.1383	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6548E-02							
149	0.11	0.000	0.052	0.1479	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6956E-02							
150	0.02	0.000	0.056	0.1419	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7349E-02							
151	1.78	0.066	0.129	0.4060	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7728E-02							
152	0.69	0.008	0.288	0.4674	3.2243	.0000E+00	.2624E-01	0.0000
.0000E+00	.4167E-02							
153	0.00	0.000	0.326	0.4086	4.5725	.0000E+00	.2754E-01	0.0000
.0000E+00	.5362E-02							
154	0.00	0.000	0.322	0.3505	3.6725	.0000E+00	.2667E-01	0.0000
.0000E+00	.6484E-02							
155	0.00	0.000	0.326	0.2918	2.7810	.0000E+00	.2581E-01	0.0000
.0000E+00	.7529E-02							
156	0.04	0.000	0.238	0.2546	2.0548	.0000E+00	.2511E-01	0.0000
.0000E+00	.8492E-02							
157	0.10	0.000	0.281	0.2204	1.4485	.0000E+00	.2453E-01	0.0000
.0000E+00	.9374E-02							
158	0.00	0.000	0.246	0.1754	0.7303	.0000E+00	.2383E-01	0.0000
.0000E+00	.1017E-01							
159	0.00	0.000	0.179	0.1447	0.1179	.0000E+00	.5866E-02	0.0000
.0000E+00	.1462E-01							
160	0.00	0.000	0.057	0.1352	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1945E-01							
161	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1776E-01							
162	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1636E-01							
163	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1519E-01							
164	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1420E-01							
165	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1336E-01							
166	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1266E-01							
167	0.01	0.000	0.010	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1206E-01							
168	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1156E-01							
169	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1114E-01							
170	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.1079E-01							
171	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1050E-01							
172	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1026E-01							
173	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1006E-01							
174	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9910E-02							
175	1.52	0.024	0.158	0.3581	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9791E-02							
176	0.65	0.000	0.307	0.4121	1.8781	.0000E+00	.1916E-01	0.0000
.0000E+00	.4485E-02							
177	0.00	0.000	0.288	0.3597	3.2371	.0000E+00	.2625E-01	0.0000
.0000E+00	.5541E-02							
178	0.00	0.000	0.241	0.3152	2.7903	.0000E+00	.2582E-01	0.0000
.0000E+00	.6532E-02							
179	0.00	0.000	0.256	0.2683	2.2351	.0000E+00	.2528E-01	0.0000
.0000E+00	.7455E-02							
180	0.00	0.000	0.203	0.2304	1.6956	.0000E+00	.2476E-01	0.0000
.0000E+00	.8307E-02							
181	0.00	0.000	0.241	0.1862	0.9748	.0000E+00	.2407E-01	0.0000
.0000E+00	.9088E-02							
182	0.00	0.000	0.156	0.1573	0.4191	.0000E+00	.1773E-01	0.0000
.0000E+00	.9799E-02							
183	0.00	0.000	0.120	0.1372	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2102E-01							
184	0.33	0.000	0.116	0.1729	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1881E-01							
185	0.00	0.000	0.104	0.1555	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1699E-01							
186	0.00	0.000	0.106	0.1378	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1548E-01							
187	0.00	0.000	0.014	0.1355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1421E-01							
188	0.00	0.000	0.002	0.1351	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1315E-01							
189	0.25	0.000	0.089	0.1619	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1224E-01							
190	0.00	0.000	0.068	0.1505	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1148E-01							
191	0.00	0.000	0.070	0.1388	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1084E-01							
192	0.00	0.000	0.017	0.1359	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1029E-01							
193	0.00	0.000	0.004	0.1352	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9832E-02							
194	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9449E-02							
195	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9131E-02							
196	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8870E-02							
197	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8659E-02							
198	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8492E-02							
199	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8364E-02							
200	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8269E-02							
201	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8205E-02							

202	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8167E-02							
203	0.40	0.000	0.109	0.1835	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8152E-02							
204	0.00	0.000	0.086	0.1691	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8158E-02							
205	0.00	0.000	0.123	0.1487	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8181E-02							
206	0.00	0.000	0.074	0.1364	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8219E-02							
207	0.00	0.000	0.006	0.1355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8271E-02							
208	0.05	0.000	0.034	0.1381	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8333E-02							
209	0.00	0.000	0.008	0.1368	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8405E-02							
210	0.68	0.000	0.100	0.2335	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8485E-02							
211	0.00	0.000	0.231	0.1950	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8571E-02							
212	0.00	0.000	0.272	0.1497	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8663E-02							
213	0.57	0.000	0.203	0.2109	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8758E-02							
214	0.00	0.000	0.245	0.1701	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8856E-02							
215	0.00	0.000	0.190	0.1383	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8956E-02							
216	0.00	0.000	0.016	0.1357	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9058E-02							
217	0.00	0.000	0.004	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9160E-02							
218	0.21	0.000	0.084	0.1560	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9261E-02							
219	0.04	0.000	0.098	0.1463	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9362E-02							
220	0.00	0.000	0.048	0.1382	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8043E-02							
221	0.00	0.000	0.014	0.1358	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6341E-02							
222	0.00	0.000	0.004	0.1352	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7145E-02							
223	0.00	0.000	0.001	0.1351	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7889E-02							
224	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8575E-02							
225	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9201E-02							
226	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9771E-02							
227	0.75	0.000	0.094	0.2443	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1029E-01							
228	0.01	0.000	0.160	0.2193	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1075E-01							
229	0.00	0.000	0.215	0.1834	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1116E-01							
230	0.00	0.000	0.214	0.1478	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1153E-01							
231	0.00	0.000	0.067	0.1366	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1185E-01							
232	0.00	0.000	0.010	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1214E-01							
233	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.1239E-01							
234	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1260E-01							
235	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1279E-01							
236	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1295E-01							
237	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1308E-01							
238	0.26	0.000	0.063	0.1678	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1319E-01							
239	0.00	0.000	0.101	0.1509	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1329E-01							
240	0.00	0.000	0.087	0.1365	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1336E-01							
241	0.00	0.000	0.007	0.1353	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1342E-01							
242	0.00	0.000	0.001	0.1351	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1347E-01							
243	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1350E-01							
244	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1352E-01							
245	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1353E-01							
246	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1354E-01							
247	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1353E-01							
248	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1352E-01							
249	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1350E-01							
250	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1348E-01							
251	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1346E-01							
252	0.02	0.000	0.020	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1343E-01							
253	0.26	0.000	0.098	0.1619	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1339E-01							
254	0.00	0.000	0.065	0.1510	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1336E-01							
255	0.00	0.000	0.075	0.1385	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1332E-01							
256	0.00	0.000	0.016	0.1358	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1327E-01							
257	0.00	0.000	0.004	0.1352	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1323E-01							
258	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1318E-01							
259	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1314E-01							
260	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1309E-01							
261	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1304E-01							
262	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1299E-01							
263	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1294E-01							
264	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1289E-01							

265	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1284E-01							
266	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1278E-01							
267	0.03	0.000	0.024	0.1360	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1273E-01							
268	0.00	0.000	0.003	0.1355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1268E-01							
269	0.17	0.000	0.058	0.1542	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1262E-01							
270	0.29	0.000	0.057	0.1930	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1257E-01							
271	0.13	0.000	0.075	0.2021	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1252E-01							
272	0.00	0.000	0.047	0.1944	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1246E-01							
273	0.00	0.000	0.051	0.1859	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1241E-01							
274	0.00	0.000	0.059	0.1760	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1236E-01							
275	0.00	0.000	0.051	0.1675	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1231E-01							
276	0.00	0.000	0.052	0.1589	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1225E-01							
277	0.00	0.000	0.049	0.1506	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1220E-01							
278	0.08	0.000	0.070	0.1523	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1215E-01							
279	0.77	0.000	0.065	0.2697	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1210E-01							
280	0.00	0.000	0.110	0.2514	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1205E-01							
281	0.00	0.000	0.101	0.2345	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1199E-01							
282	0.00	0.000	0.098	0.2181	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1194E-01							
283	0.00	0.000	0.077	0.2053	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1189E-01							
284	0.00	0.000	0.073	0.1931	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1184E-01							
285	0.00	0.000	0.051	0.1847	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1179E-01							
286	0.00	0.000	0.067	0.1735	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1174E-01							
287	0.00	0.000	0.062	0.1632	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1169E-01							
288	0.00	0.000	0.051	0.1548	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1164E-01							
289	0.00	0.000	0.047	0.1470	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1159E-01							
290	0.00	0.000	0.043	0.1398	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1155E-01							
291	0.00	0.000	0.029	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1150E-01							
292	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1145E-01							
293	0.17	0.000	0.045	0.1558	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1140E-01							
294 *	0.01	0.000	0.018	0.1544	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1136E-01							
295 *	0.00	0.000	0.000	0.1544	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1131E-01							
296 *	0.00	0.000	0.018	0.1513	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.1126E-01								
297	1.38	0.010	0.053	0.3707	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1122E-01								
298	0.12	0.000	0.061	0.3763	2.0756	.0000E+00	.2513E-01	0.0000	
.0000E+00	.1117E-01								
299	0.00	0.000	0.051	0.3635	2.6029	.0000E+00	.2564E-01	0.0000	
.0000E+00	.1112E-01								
300	0.00	0.000	0.054	0.3503	2.4422	.0000E+00	.2548E-01	0.0000	
.0000E+00	.1108E-01								
301	0.00	0.000	0.050	0.3378	2.2821	.0000E+00	.2533E-01	0.0000	
.0000E+00	.1103E-01								
302	0.00	0.000	0.057	0.3240	2.1226	.0000E+00	.2518E-01	0.0000	
.0000E+00	.1099E-01								
303	0.06	0.000	0.058	0.3202	1.9616	.0000E+00	.2502E-01	0.0000	
.0000E+00	.1095E-01								
304	0.78	0.000	0.072	0.4340	2.1286	.0000E+00	.2518E-01	0.0000	
.0000E+00	.1090E-01								
305	0.00	0.000	0.059	0.4197	3.9454	.0000E+00	.2693E-01	0.0000	
.0000E+00	.1086E-01								
306	0.00	0.000	0.057	0.4056	3.8142	.0000E+00	.2681E-01	0.0000	
.0000E+00	.1081E-01								
307	0.00	0.000	0.042	0.3943	3.6131	.0000E+00	.2661E-01	0.0000	
.0000E+00	.1077E-01								
308	0.00	0.000	0.054	0.3808	3.4208	.0000E+00	.2643E-01	0.0000	
.0000E+00	.1073E-01								
309	0.00	0.000	0.056	0.3672	3.2165	.0000E+00	.2623E-01	0.0000	
.0000E+00	.1069E-01								
310	0.00	0.000	0.072	0.3509	3.0057	.0000E+00	.2603E-01	0.0000	
.0000E+00	.1065E-01								
311	0.00	0.000	0.048	0.3385	2.8252	.0000E+00	.2585E-01	0.0000	
.0000E+00	.1060E-01								
312	0.00	0.000	0.038	0.3278	2.6698	.0000E+00	.2570E-01	0.0000	
.0000E+00	.1056E-01								
313	0.00	0.000	0.038	0.3173	2.5204	.0000E+00	.2556E-01	0.0000	
.0000E+00	.1052E-01								
314	0.00	0.000	0.042	0.3060	2.3706	.0000E+00	.2542E-01	0.0000	
.0000E+00	.1107E-01								
315	0.00	0.000	0.051	0.2933	2.2164	.0000E+00	.2527E-01	0.0000	
.0000E+00	.1334E-01								
316	0.00	0.000	0.058	0.2794	2.0485	.0000E+00	.2510E-01	0.0000	
.0000E+00	.1523E-01								
317	0.00	0.000	0.042	0.2682	1.8952	.0000E+00	.2496E-01	0.0000	
.0000E+00	.1663E-01								
318	0.00	0.000	0.046	0.2564	1.7627	.0000E+00	.2483E-01	0.0000	
.0000E+00	.1663E-01								
319	0.00	0.000	0.055	0.2432	1.6285	.0000E+00	.2470E-01	0.0000	
.0000E+00	.1552E-01								
320	0.00	0.000	0.067	0.2279	1.4130	.0000E+00	.2449E-01	0.0000	
.0000E+00	.1455E-01								
321	0.00	0.000	0.056	0.2145	1.0697	.0000E+00	.2416E-01	0.0000	
.0000E+00	.1369E-01								
322	0.00	0.000	0.048	0.2025	0.8962	.0000E+00	.2399E-01	0.0000	
.0000E+00	.1292E-01								
323	0.00	0.000	0.046	0.1908	0.7789	.0000E+00	.2388E-01	0.0000	
.0000E+00	.1223E-01								
324	0.00	0.000	0.045	0.1794	0.6440	.0000E+00	.2375E-01	0.0000	
.0000E+00	.1160E-01								
325 *	0.00	0.000	0.030	0.1705	0.4488	.0000E+00	.2356E-01	0.0000	
.0000E+00	.1104E-01								
326	0.00	0.000	0.038	0.1602	0.1888	.0000E+00	.2331E-01	0.0000	
.0000E+00	.1052E-01								
327	0.00	0.000	0.032	0.1550	0.0029	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1005E-01								

328		0.03	0.000	0.049	0.1518	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9620E-02								
329		0.00	0.000	0.051	0.1433	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9222E-02								
330		0.02	0.000	0.051	0.1382	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8855E-02								
331		0.66	0.000	0.040	0.2416	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8514E-02								
332	*	0.02	0.000	0.020	0.2416	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8198E-02								
333		0.00	0.000	0.029	0.2368	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7903E-02								
334	*	0.00	0.000	0.028	0.2322	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7628E-02								
335		0.00	0.000	0.032	0.2269	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7371E-02								
336		0.00	0.000	0.031	0.2218	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7129E-02								
337	*	0.00	0.000	0.026	0.2174	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6903E-02								
338	*	0.00	0.000	0.023	0.2136	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6689E-02								
339	*	0.00	0.000	0.000	0.2136	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6488E-02								
340	*	0.00	0.000	0.000	0.2136	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6299E-02								
341	*	0.89	0.000	0.017	0.2169	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6119E-02								
342	*	0.01	0.000	0.016	0.2202	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5748E-02								
343	*	0.02	0.000	0.000	0.2234	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5027E-02								
344		0.00	0.000	0.032	0.2267	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4385E-02								
345		0.05	0.000	0.000	0.2729	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3821E-02								
346	*	0.00	0.000	0.027	0.2762	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3325E-02								
347		0.00	0.000	0.027	0.2854	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2889E-02								
348	*	0.00	0.000	0.028	0.2887	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2508E-02								
349		0.00	0.000	0.012	0.3231	0.2519	.0000E+00	.1181E-01	0.0000
.0000E+00	.0000E+00								
350	*	0.00	0.000	0.030	0.3224	1.2717	.0000E+00	.2436E-01	0.0000
.0000E+00	.0000E+00								
351	* *	0.00	0.000	0.028	0.3183	1.0238	.0000E+00	.2412E-01	0.0000
.0000E+00	.0000E+00								
352	* *	0.00	0.000	0.027	0.3143	0.8474	.0000E+00	.2395E-01	0.0000
.0000E+00	.0000E+00								
353	* *	0.00	0.000	0.030	0.3104	0.7373	.0000E+00	.2384E-01	0.0000
.0000E+00	.0000E+00								
354	*	0.00	0.000	0.008	0.3064	0.6276	.0000E+00	.2374E-01	0.0000
.0000E+00	.0000E+00								
355	*	0.00	0.000	0.000	0.3025	0.5184	.0000E+00	.2363E-01	0.0000
.0000E+00	.0000E+00								
356	*	0.00	0.000	0.000	0.2986	0.4097	.0000E+00	.2353E-01	0.0000
.0000E+00	.0000E+00								
357	*	0.00	0.000	0.000	0.2947	0.3014	.0000E+00	.2342E-01	0.0000
.0000E+00	.0000E+00								
358	*	0.00	0.000	0.000	0.2908	0.1937	.0000E+00	.2332E-01	0.0000
.0000E+00	.0000E+00								
359	*	0.00	0.000	0.000	0.2869	0.0864	.0000E+00	.2321E-01	0.0000

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.0000E+00 .4533E-04
  360   *   *    0.00  0.000  0.000  0.2862    0.0049 .0000E+00 .4253E-02    0.0000
.0000E+00 .9786E-02
  361   *   *    0.00  0.000  0.000  0.2862    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9375E-02
  362   *   *    0.00  0.000  0.000  0.2862    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8996E-02
  363   *   *    0.16  0.000  0.026  0.2862    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8645E-02
  364   *   *    0.00  0.000  0.027  0.2862    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8319E-02
  365       *    0.00  0.000  0.037  0.2862    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .8016E-02
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MONTHLY TOTALS (IN INCHES) FOR YEAR 2009

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.83	1.08	4.28	1.37	3.21	3.01
	1.71	1.84	0.90	3.37	0.73	1.13
RUNOFF	0.007	0.000	0.071	0.000	0.066	0.032
	0.000	0.000	0.000	0.010	0.000	0.000
EVAPOTRANSPIRATION	0.751	1.491	1.935	2.366	1.799	3.966
	1.911	1.928	0.595	1.694	1.387	0.482
PERCOLATION/LEAKAGE THROUGH	0.0796	0.1838	0.7215	0.2762	0.0000	0.3309
LAYER 2	0.0177	0.0000	0.0000	0.1770	0.5536	0.2532
PERCOLATION/LEAKAGE THROUGH	0.0652	0.2016	0.2941	0.1661	0.0754	0.3127
LAYER 3	0.3252	0.3321	0.3930	0.3598	0.3412	0.1279

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON	0.008	0.120	3.246	0.643	0.000	1.047
TOP OF LAYER 2	0.014	0.000	0.000	0.504	1.547	0.202
STD. DEVIATION OF DAILY	0.025	0.222	1.546	1.091	0.000	1.403
HEAD ON TOP OF LAYER 2	0.075	0.000	0.000	0.953	1.355	0.351

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ANNUAL TOTALS FOR YEAR 2009

	INCHES	CU. FEET	PERCENT
PRECIPITATION	23.46	85159.820	100.00
RUNOFF	0.186	674.882	0.79
EVAPOTRANSPIRATION	20.305	73707.133	86.55
PERC./LEAKAGE THROUGH LAYER 2	2.593513	9414.454	11.06
AVG. HEAD ON TOP OF LAYER 2	0.6109		
PERC./LEAKAGE THROUGH LAYER 3	2.994100	10868.584	12.76
CHANGE IN WATER STORAGE	-0.025	-90.811	-0.11
SOIL WATER AT START OF YEAR	51.939	188540.234	
SOIL WATER AT END OF YEAR	51.843	188191.031	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.071	258.392	0.30
ANNUAL WATER BUDGET BALANCE	0.0000	0.032	0.00

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WARNING: TEMPERATURE FOR YEAR 1977 USED WITH PRECIPITATION FOR YEAR 2010

WARNING: SOLAR RADIATION FOR YEAR 1977 USED WITH PRECIPITATION FOR YEAR 2010

HEAD #1: AVERAGE HEAD ON TOP OF LAYER 2
DRAIN #1: LATERAL DRAINAGE FROM LAYER 1 (RECIRCULATION AND COLLECTION)
LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 2
LEAK #2: PERCOLATION OR LEAKAGE THROUGH LAYER 3

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DAILY OUTPUT FOR YEAR 2010

DAY	A I R	S O I L	RAIN IN.	RUNOFF IN.	ET IN.	E. ZONE WATER IN./IN.	HEAD #1 IN.	DRAIN #1 IN.	LEAK #1 IN.	HEAD #2 IN.	DRAIN #2 IN.	LEAK #2 IN.
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1	*	*	0.00	0.000	0.035	0.2862	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .7734E-02
2	*	*	0.00	0.000	0.025	0.2862	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .7470E-02
3	*	*	0.22	0.000	0.000	0.2862	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .7222E-02
4	*	*	0.01	0.000	0.026	0.2862	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .6990E-02
5		*	0.61	0.489	0.000	0.3422	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .6644E-02
6		*	0.01	0.000	0.007	0.3426	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .5851E-02
7		*	0.14	0.039	0.014	0.3572	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .5121E-02
8		*	0.00	0.000	0.000	0.3572	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .4484E-02
9		*	0.00	0.000	0.000	0.3572	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .3927E-02
10	*	*	0.39	0.000	0.031	0.3572	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .3441E-02
11	*	*	0.03	0.000	0.024	0.3572	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .3018E-02
12	*	*	0.00	0.000	0.020	0.3572	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .2651E-02
13	*	*	0.00	0.000	0.026	0.3572	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .2335E-02
14	*	*	0.33	0.000	0.023	0.3572	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .2064E-02
15	*	*	0.02	0.000	0.017	0.3572	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1834E-02
16	*	*	0.09	0.000	0.016	0.3572	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1642E-02
17	*	*	0.00	0.000	0.013	0.3572	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1485E-02
18	*	*	0.00	0.000	0.019	0.3572	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1360E-02
19	*	*	0.01	0.000	0.000	0.3572	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1264E-02
20	*	*	0.12	0.000	0.000	0.3572	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1196E-02
21	*	*	0.00	0.000	0.017	0.3572	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1153E-02
22	*	*	0.00	0.000	0.021	0.3572	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1134E-02
23	*	*	0.00	0.000	0.024	0.3572	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1136E-02
24		*	0.32	0.493	0.000	0.3809	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1159E-02
25		*	0.00	0.172	0.009	0.3945	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1201E-02
26		*	0.02	0.113	0.030	0.4009	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1261E-02
27		*	0.00	0.000	0.000	0.4009	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1336E-02
28		*	0.03	0.004	0.012	0.4032	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1427E-02
29		*	0.03	0.004	0.012	0.4055	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1532E-02
30		*	0.00	0.000	0.000	0.4055	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1649E-02
31		*	0.00	0.000	0.000	0.4055	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .1778E-02
32		*	0.00	0.000	0.000	0.4055	0.0000	.0000E+00	.0000E+00	0.0000

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.0000E+00 .1917E-02
   33         0.00  0.000  0.046  0.3945    2.4648 .0000E+00 .1972E-01    0.0000
.0000E+00 .0000E+00
   34         0.00  0.000  0.040  0.3834    3.8138 .0000E+00 .2681E-01    0.0000
.0000E+00 .0000E+00
   35         0.00  0.000  0.036  0.3729    3.6438 .0000E+00 .2664E-01    0.0000
.0000E+00 .0000E+00
   36  *      0.00  0.000  0.039  0.3621    3.4645 .0000E+00 .2647E-01    0.0000
.0000E+00 .0000E+00
   37  *      0.00  0.000  0.046  0.3500    3.2801 .0000E+00 .2629E-01    0.0000
.0000E+00 .1827E-03
   38  *      0.00  0.000  0.000  0.3457    3.1160 .0000E+00 .2613E-01    0.0000
.0000E+00 .8524E-03
   39  *  *   0.00  0.000  0.000  0.3416    1.4669 .0000E+00 .2454E-01    0.0000
.0000E+00 .1535E-02
   40  *  *   0.00  0.000  0.000  0.3376    0.8455 .0000E+00 .2395E-01    0.0000
.0000E+00 .2199E-02
   41     *   0.00  0.000  0.000  0.3336    0.7353 .0000E+00 .2384E-01    0.0000
.0000E+00 .2842E-02
   42     *   0.00  0.000  0.000  0.3297    0.6256 .0000E+00 .2373E-01    0.0000
.0000E+00 .3462E-02
   43     *   0.00  0.000  0.000  0.3257    0.5165 .0000E+00 .2363E-01    0.0000
.0000E+00 .4056E-02
   44     *   0.38  0.130  0.013  0.3613    0.4077 .0000E+00 .2352E-01    0.0000
.0000E+00 .4622E-02
   45     *   0.00  0.000  0.000  0.3574    0.2995 .0000E+00 .2342E-01    0.0000
.0000E+00 .5159E-02
   46     *   0.01  0.000  0.007  0.3540    0.1918 .0000E+00 .2332E-01    0.0000
.0000E+00 .5666E-02
   47     *   0.00  0.000  0.000  0.3502    0.0845 .0000E+00 .2321E-01    0.0000
.0000E+00 .6275E-02
   48     *   0.00  0.000  0.000  0.3495    0.0044 .0000E+00 .3841E-02    0.0000
.0000E+00 .1725E-01
   49     *   0.00  0.000  0.000  0.3495    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1606E-01
   50         0.00  0.000  0.059  0.3365    1.4785 .0000E+00 .1877E-01    0.0000
.0000E+00 .6459E-02
   51         0.11  0.000  0.060  0.3407    1.8493 .0000E+00 .2491E-01    0.0000
.0000E+00 .4283E-02
   52         0.00  0.000  0.074  0.3242    1.7115 .0000E+00 .2478E-01    0.0000
.0000E+00 .5713E-02
   53         0.00  0.000  0.051  0.3117    1.5710 .0000E+00 .2464E-01    0.0000
.0000E+00 .8505E-02
   54         0.00  0.000  0.068  0.2962    1.4345 .0000E+00 .2451E-01    0.0000
.0000E+00 .1080E-01
   55         0.74  0.000  0.064  0.4048    1.4685 .0000E+00 .2455E-01    0.0000
.0000E+00 .1248E-01
   56         0.00  0.000  0.055  0.3912    3.2116 .0000E+00 .2623E-01    0.0000
.0000E+00 .1245E-01
   57         0.00  0.000  0.053  0.3781    3.0847 .0000E+00 .2610E-01    0.0000
.0000E+00 .1401E-01
   58         1.01  0.189  0.057  0.5010    4.0627 .0000E+00 .2705E-01    0.0000
.0000E+00 .1366E-01
   59         0.05  0.000  0.058  0.4948    5.9355 .0000E+00 .2885E-01    0.0000
.0000E+00 .1289E-01
   60         0.17  0.038  0.066  0.5010    5.9158 .0000E+00 .2883E-01    0.0000
.0000E+00 .1220E-01
   61  *      0.01  0.000  0.048  0.4898    5.8838 .0000E+00 .2880E-01    0.0000
.0000E+00 .1158E-01
   62  *      0.10  0.000  0.049  0.4883    5.7009 .0000E+00 .2862E-01    0.0000
.0000E+00 .1102E-01
   63  *      0.02  0.000  0.040  0.4855    5.6437 .0000E+00 .2857E-01    0.0000
.0000E+00 .1050E-01
```

64	*	0.00	0.000	0.050	0.4724	5.4644	.0000E+00	.2840E-01	0.0000
.0000E+00	.1004E-01								
65		0.00	0.000	0.066	0.4567	5.0973	.0000E+00	.2804E-01	0.0000
.0000E+00	.9604E-02								
66		0.00	0.000	0.061	0.4420	4.7584	.0000E+00	.2772E-01	0.0000
.0000E+00	.9208E-02								
67		0.00	0.000	0.062	0.4271	4.4667	.0000E+00	.2744E-01	0.0000
.0000E+00	.8841E-02								
68		0.00	0.000	0.081	0.4090	4.1554	.0000E+00	.2714E-01	0.0000
.0000E+00	.8501E-02								
69		0.00	0.000	0.062	0.3942	3.8596	.0000E+00	.2685E-01	0.0000
.0000E+00	.8186E-02								
70		0.00	0.000	0.080	0.3764	3.6319	.0000E+00	.2663E-01	0.0000
.0000E+00	.7892E-02								
71		2.26	1.412	0.072	0.5010	4.7264	.0000E+00	.2769E-01	0.0000
.0000E+00	.7618E-02								
72		0.26	0.249	0.064	0.4873	5.8590	.0000E+00	.2878E-01	0.0000
.0000E+00	.7361E-02								
73		0.00	0.000	0.078	0.4696	5.4589	.0000E+00	.2839E-01	0.0000
.0000E+00	.7120E-02								
74	*	0.00	0.000	0.054	0.4560	5.0438	.0000E+00	.2799E-01	0.0000
.0000E+00	.6894E-02								
75	*	0.00	0.000	0.065	0.4406	4.7451	.0000E+00	.2770E-01	0.0000
.0000E+00	.6682E-02								
76	*	0.00	0.000	0.065	0.4252	4.4440	.0000E+00	.2741E-01	0.0000
.0000E+00	.6481E-02								
77		0.17	0.000	0.072	0.4369	4.1640	.0000E+00	.2714E-01	0.0000
.0000E+00	.6292E-02								
78		0.02	0.000	0.068	0.4245	4.1943	.0000E+00	.2717E-01	0.0000
.0000E+00	.6113E-02								
79		0.02	0.000	0.067	0.4121	4.0383	.0000E+00	.2702E-01	0.0000
.0000E+00	.5943E-02								
80		0.00	0.000	0.121	0.3874	3.8947	.0000E+00	.2688E-01	0.0000
.0000E+00	.5782E-02								
81		0.17	0.000	0.076	0.3986	3.6345	.0000E+00	.2663E-01	0.0000
.0000E+00	.5630E-02								
82		0.00	0.000	0.101	0.3774	3.3934	.0000E+00	.2640E-01	0.0000
.0000E+00	.5484E-02								
83		0.00	0.000	0.075	0.3606	3.1447	.0000E+00	.2616E-01	0.0000
.0000E+00	.5346E-02								
84	*	0.00	0.000	0.070	0.3447	2.9364	.0000E+00	.2596E-01	0.0000
.0000E+00	.5215E-02								
85	*	0.00	0.000	0.058	0.3306	2.7600	.0000E+00	.2579E-01	0.0000
.0000E+00	.5089E-02								
86		0.00	0.000	0.094	0.3107	2.5826	.0000E+00	.2562E-01	0.0000
.0000E+00	.4969E-02								
87		0.87	0.000	0.092	0.4362	2.4689	.0000E+00	.2551E-01	0.0000
.0000E+00	.4854E-02								
88		2.38	1.861	0.101	0.5010	5.3731	.0000E+00	.2831E-01	0.0000
.0000E+00	.4745E-02								
89		0.00	0.000	0.085	0.4820	5.8049	.0000E+00	.2872E-01	0.0000
.0000E+00	.4640E-02								
90		0.00	0.000	0.070	0.4656	5.3310	.0000E+00	.2827E-01	0.0000
.0000E+00	.4539E-02								
91		0.00	0.000	0.072	0.4489	4.9225	.0000E+00	.2787E-01	0.0000
.0000E+00	.4442E-02								
92		0.20	0.000	0.073	0.4654	4.7246	.0000E+00	.2768E-01	0.0000
.0000E+00	.4349E-02								
93		0.02	0.000	0.120	0.4440	4.9733	.0000E+00	.2792E-01	0.0000
.0000E+00	.4260E-02								
94		0.00	0.000	0.088	0.4247	4.7207	.0000E+00	.2768E-01	0.0000
.0000E+00	.4175E-02								
95		0.05	0.000	0.118	0.4088	4.3451	.0000E+00	.2732E-01	0.0000

.0000E+00	.4092E-02								
96	0.01	0.000	0.083	0.3921	3.9467	.0000E+00	.2693E-01	0.0000	
.0000E+00	.4013E-02								
97	0.00	0.000	0.140	0.3643	3.6953	.0000E+00	.2669E-01	0.0000	
.0000E+00	.3936E-02								
98	0.00	0.000	0.152	0.3345	3.2167	.0000E+00	.2623E-01	0.0000	
.0000E+00	.7513E-03								
99	0.00	0.000	0.175	0.3011	2.7541	.0000E+00	.2578E-01	0.0000	
.0000E+00	.0000E+00								
100	0.00	0.000	0.154	0.2713	2.2338	.0000E+00	.2528E-01	0.0000	
.0000E+00	.0000E+00								
101	0.00	0.000	0.140	0.2438	1.8073	.0000E+00	.2487E-01	0.0000	
.0000E+00	.0000E+00								
102	0.00	0.000	0.164	0.2123	1.3083	.0000E+00	.2439E-01	0.0000	
.0000E+00	.0000E+00								
103	0.00	0.000	0.157	0.1822	0.8241	.0000E+00	.2392E-01	0.0000	
.0000E+00	.0000E+00								
104	0.00	0.000	0.085	0.1641	0.4293	.0000E+00	.2354E-01	0.0000	
.0000E+00	.0000E+00								
105	0.00	0.000	0.065	0.1522	0.0329	.0000E+00	.5811E-02	0.0000	
.0000E+00	.0000E+00								
106	0.00	0.000	0.055	0.1430	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
107	0.00	0.000	0.048	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
108	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
109	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
110	0.30	0.000	0.025	0.1808	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
111	0.01	0.000	0.031	0.1774	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
112	0.33	0.000	0.037	0.2261	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1644E-02								
113	0.00	0.000	0.031	0.2210	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1998E-02								
114	0.00	0.000	0.033	0.2155	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.5297E-03								
115	0.00	0.000	0.032	0.2102	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
116	0.00	0.000	0.031	0.2050	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
117	0.00	0.000	0.032	0.1997	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
118	0.00	0.000	0.032	0.1944	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
119	0.00	0.000	0.033	0.1889	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
120	0.00	0.000	0.032	0.1837	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
121	0.07	0.000	0.044	0.1880	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
122	0.21	0.000	0.046	0.2153	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
123	0.00	0.000	0.042	0.2084	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
124	0.01	0.000	0.048	0.2021	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
125	0.38	0.000	0.048	0.2574	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
126	0.08	0.000	0.164	0.2434	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								

127	0.69	0.000	0.193	0.3262	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
128	0.02	0.000	0.228	0.2875	0.6903	.0000E+00	.2380E-01	0.0000
.0000E+00	.0000E+00							
129	0.00	0.000	0.247	0.2424	0.7119	.0000E+00	.2382E-01	0.0000
.0000E+00	.0000E+00							
130	0.00	0.000	0.255	0.1960	0.6506	.0000E+00	.2376E-01	0.0000
.0000E+00	.0000E+00							
131	0.00	0.000	0.289	0.1458	0.2315	.0000E+00	.1177E-01	0.0000
.0000E+00	.0000E+00							
132	0.00	0.000	0.065	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1827E-02							
133	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1521E-02							
134	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1329E-02							
135	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1239E-02							
136	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1240E-02							
137	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1323E-02							
138	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1480E-02							
139	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1702E-02							
140	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1981E-02							
141	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2312E-02							
142	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2686E-02							
143	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3099E-02							
144	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3542E-02							
145	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4010E-02							
146	0.56	0.000	0.059	0.2185	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4497E-02							
147	0.00	0.000	0.055	0.2094	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4998E-02							
148	0.00	0.000	0.070	0.1977	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5508E-02							
149	0.00	0.000	0.081	0.1842	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6020E-02							
150	0.00	0.000	0.096	0.1682	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6532E-02							
151	0.18	0.000	0.104	0.1810	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7038E-02							
152	0.00	0.000	0.096	0.1649	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7536E-02							
153	0.00	0.000	0.115	0.1457	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8021E-02							
154	0.00	0.000	0.053	0.1368	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8492E-02							
155	0.00	0.000	0.010	0.1351	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8947E-02							
156	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9383E-02							
157	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9799E-02							
158	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000

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.0000E+00 .1019E-01
  159         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1057E-01
  160         0.10  0.000  0.024  0.1477    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1092E-01
  161         0.00  0.000  0.045  0.1402    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1125E-01
  162         0.00  0.000  0.023  0.1364    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1156E-01
  163         0.00  0.000  0.006  0.1354    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1185E-01
  164         0.00  0.000  0.002  0.1351    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1212E-01
  165         0.73  0.000  0.109  0.2386    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1236E-01
  166         0.00  0.000  0.243  0.1981    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1259E-01
  167         0.00  0.000  0.161  0.1712    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1280E-01
  168         0.00  0.000  0.158  0.1448    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1300E-01
  169         0.00  0.000  0.049  0.1366    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1286E-01
  170         0.00  0.000  0.009  0.1351    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1002E-01
  171         0.00  0.000  0.001  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1107E-01
  172         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1201E-01
  173         1.24  0.002  0.163  0.3141    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1284E-01
  174         0.08  0.000  0.252  0.2825    0.2651 .0000E+00 .1760E-01    0.0000
.0000E+00 .1357E-01
  175         0.40  0.000  0.192  0.3133    0.5835 .0000E+00 .2369E-01    0.0000
.0000E+00 .1420E-01
  176         0.85  0.000  0.252  0.4089    1.5254 .0000E+00 .2460E-01    0.0000
.0000E+00 .1475E-01
  177         0.01  0.000  0.254  0.3639    3.2208 .0000E+00 .2623E-01    0.0000
.0000E+00 .1522E-01
  178         1.28  0.258  0.172  0.5010    4.0631 .0000E+00 .2705E-01    0.0000
.0000E+00 .1561E-01
  179         0.68  0.510  0.236  0.4853    5.8282 .0000E+00 .2875E-01    0.0000
.0000E+00 .1595E-01
  180         0.04  0.000  0.323  0.4334    5.1735 .0000E+00 .2812E-01    0.0000
.0000E+00 .1622E-01
  181         0.00  0.000  0.306  0.3779    4.2522 .0000E+00 .2723E-01    0.0000
.0000E+00 .1645E-01
  182         0.06  0.000  0.241  0.3434    3.4065 .0000E+00 .2641E-01    0.0000
.0000E+00 .1663E-01
  183         0.00  0.000  0.266  0.2947    2.6939 .0000E+00 .2573E-01    0.0000
.0000E+00 .1677E-01
  184         0.00  0.000  0.289  0.2424    1.9435 .0000E+00 .2500E-01    0.0000
.0000E+00 .1688E-01
  185         0.00  0.000  0.301  0.1881    1.1348 .0000E+00 .2422E-01    0.0000
.0000E+00 .1697E-01
  186         0.00  0.000  0.238  0.1465    0.3413 .0000E+00 .1185E-01    0.0000
.0000E+00 .2049E-01
  187         0.00  0.000  0.069  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2967E-01
  188         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2552E-01
  189         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2227E-01
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190	0.07	0.000	0.039	0.1402	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1967E-01							
191	0.00	0.000	0.022	0.1365	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1756E-01							
192	1.31	0.005	0.211	0.3189	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1583E-01							
193	0.23	0.000	0.156	0.3282	0.5167	.0000E+00	.1785E-01	0.0000
.0000E+00	.4344E-02							
194	0.11	0.000	0.213	0.3069	0.9252	.0000E+00	.2402E-01	0.0000
.0000E+00	.5534E-02							
195	0.00	0.000	0.269	0.2582	0.9688	.0000E+00	.2406E-01	0.0000
.0000E+00	.6651E-02							
196	0.00	0.000	0.258	0.2112	0.8945	.0000E+00	.2399E-01	0.0000
.0000E+00	.7688E-02							
197	0.00	0.000	0.300	0.1582	0.4628	.0000E+00	.1776E-01	0.0000
.0000E+00	.8678E-02							
198	0.00	0.000	0.139	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2426E-01							
199	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2166E-01							
200	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1883E-01							
201	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1652E-01							
202	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1464E-01							
203	1.49	0.020	0.214	0.3443	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1309E-01							
204	0.00	0.000	0.248	0.2999	0.8614	.0000E+00	.1818E-01	0.0000
.0000E+00	.7528E-03							
205	0.00	0.000	0.251	0.2540	1.3522	.0000E+00	.2443E-01	0.0000
.0000E+00	.2048E-02							
206	0.31	0.000	0.271	0.2565	1.1210	.0000E+00	.2421E-01	0.0000
.0000E+00	.3299E-02							
207	0.76	0.000	0.218	0.3429	0.9586	.0000E+00	.2405E-01	0.0000
.0000E+00	.4494E-02							
208	0.00	0.000	0.286	0.2912	0.9274	.0000E+00	.2402E-01	0.0000
.0000E+00	.5626E-02							
209	0.00	0.000	0.282	0.2401	1.0464	.0000E+00	.2414E-01	0.0000
.0000E+00	.6687E-02							
210	0.00	0.000	0.261	0.1926	0.7648	.0000E+00	.2387E-01	0.0000
.0000E+00	.7777E-02							
211	0.00	0.000	0.234	0.1517	0.2291	.0000E+00	.1176E-01	0.0000
.0000E+00	.2004E-01							
212	0.00	0.000	0.100	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2167E-01							
213	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1987E-01							
214	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1833E-01							
215	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1701E-01							
216	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1567E-01							
217	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1365E-01							
218	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1189E-01							
219	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1044E-01							
220	0.63	0.000	0.142	0.2163	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9240E-02							
221	1.20	0.021	0.152	0.3864	0.0270	.0000E+00	.5809E-02	0.0000

.0000E+00	.3100E-02							
222	0.77	0.005	0.215	0.4736	3.3339	.0000E+00	.2634E-01	0.0000
.0000E+00	.0000E+00							
223	0.60	0.165	0.242	0.5010	5.6749	.0000E+00	.2860E-01	0.0000
.0000E+00	.0000E+00							
224	0.02	0.005	0.236	0.4595	5.5851	.0000E+00	.2851E-01	0.0000
.0000E+00	.1057E-04							
225	0.00	0.000	0.267	0.4104	4.5745	.0000E+00	.2754E-01	0.0000
.0000E+00	.8579E-03							
226	0.00	0.000	0.263	0.3622	3.7394	.0000E+00	.2673E-01	0.0000
.0000E+00	.2136E-02							
227	0.00	0.000	0.271	0.3127	2.9663	.0000E+00	.2599E-01	0.0000
.0000E+00	.3370E-02							
228	0.00	0.000	0.256	0.2658	2.2065	.0000E+00	.2526E-01	0.0000
.0000E+00	.5704E-02							
229	0.00	0.000	0.207	0.2272	1.6416	.0000E+00	.2471E-01	0.0000
.0000E+00	.9362E-02							
230	0.00	0.000	0.206	0.1888	0.8983	.0000E+00	.2400E-01	0.0000
.0000E+00	.1234E-01							
231	0.00	0.000	0.211	0.1517	0.2824	.0000E+00	.1180E-01	0.0000
.0000E+00	.2035E-01							
232	0.00	0.000	0.100	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1875E-01							
233	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1737E-01							
234	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1617E-01							
235	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1512E-01							
236	1.58	0.031	0.163	0.3659	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1419E-01							
237	0.00	0.000	0.246	0.3209	1.4331	.0000E+00	.2451E-01	0.0000
.0000E+00	.0000E+00							
238	0.00	0.000	0.276	0.2707	1.8315	.0000E+00	.2490E-01	0.0000
.0000E+00	.0000E+00							
239	0.00	0.000	0.234	0.2277	1.3708	.0000E+00	.2445E-01	0.0000
.0000E+00	.3018E-03							
240	0.00	0.000	0.215	0.1879	0.8405	.0000E+00	.2394E-01	0.0000
.0000E+00	.3636E-02							
241	0.47	0.000	0.129	0.2408	0.4993	.0000E+00	.2361E-01	0.0000
.0000E+00	.6795E-02							
242	0.07	0.000	0.117	0.2291	0.3625	.0000E+00	.2348E-01	0.0000
.0000E+00	.9176E-02							
243	0.00	0.000	0.206	0.1908	0.1765	.0000E+00	.2330E-01	0.0000
.0000E+00	.1108E-01							
244	0.00	0.000	0.213	0.1554	0.0092	.0000E+00	.0000E+00	0.0000
.0000E+00	.1724E-01							
245	0.00	0.000	0.119	0.1355	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1606E-01							
246	0.00	0.000	0.003	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1503E-01							
247	0.07	0.000	0.044	0.1394	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1411E-01							
248	0.01	0.000	0.024	0.1370	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1330E-01							
249	0.58	0.000	0.115	0.2146	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1257E-01							
250	0.00	0.000	0.168	0.1867	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1168E-01							
251	0.00	0.000	0.155	0.1609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9937E-02							
252	0.00	0.000	0.130	0.1393	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8398E-02							

253	0.00	0.000	0.021	0.1359	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7134E-02							
254	0.00	0.000	0.005	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.6096E-02							
255	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5247E-02							
256	0.63	0.000	0.111	0.2215	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4559E-02							
257	0.14	0.000	0.137	0.2221	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4010E-02							
258	0.66	0.000	0.152	0.3067	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3582E-02							
259	0.15	0.000	0.134	0.3056	0.2710	.0000E+00	.2339E-01	0.0000
.0000E+00	.0000E+00							
260	0.00	0.000	0.181	0.2716	0.3235	.0000E+00	.2344E-01	0.0000
.0000E+00	.0000E+00							
261	0.00	0.000	0.160	0.2410	0.3122	.0000E+00	.2343E-01	0.0000
.0000E+00	.0000E+00							
262	0.90	0.000	0.124	0.3664	0.1882	.0000E+00	.2331E-01	0.0000
.0000E+00	.0000E+00							
263	0.00	0.000	0.098	0.3458	2.1747	.0000E+00	.2523E-01	0.0000
.0000E+00	.0000E+00							
264	0.00	0.000	0.088	0.3269	2.2859	.0000E+00	.2533E-01	0.0000
.0000E+00	.0000E+00							
265	0.00	0.000	0.105	0.3052	2.0867	.0000E+00	.2514E-01	0.0000
.0000E+00	.7717E-03							
266	0.00	0.000	0.083	0.2871	1.9100	.0000E+00	.2497E-01	0.0000
.0000E+00	.2178E-02							
267	0.00	0.000	0.114	0.2640	1.7569	.0000E+00	.2482E-01	0.0000
.0000E+00	.4521E-02							
268	0.32	0.000	0.091	0.2981	1.6074	.0000E+00	.2468E-01	0.0000
.0000E+00	.7994E-02							
269	0.18	0.000	0.123	0.3034	1.4713	.0000E+00	.2455E-01	0.0000
.0000E+00	.1079E-01							
270	0.00	0.000	0.073	0.2871	1.3278	.0000E+00	.2441E-01	0.0000
.0000E+00	.1296E-01							
271	0.00	0.000	0.081	0.2695	1.1847	.0000E+00	.2427E-01	0.0000
.0000E+00	.1455E-01							
272	0.00	0.000	0.064	0.2548	1.0328	.0000E+00	.2413E-01	0.0000
.0000E+00	.1563E-01							
273	0.00	0.000	0.071	0.2389	0.9139	.0000E+00	.2401E-01	0.0000
.0000E+00	.1625E-01							
274	0.00	0.000	0.051	0.2265	0.7941	.0000E+00	.2390E-01	0.0000
.0000E+00	.1655E-01							
275	0.04	0.000	0.060	0.2192	0.6776	.0000E+00	.2378E-01	0.0000
.0000E+00	.1657E-01							
276	0.00	0.000	0.036	0.2092	0.5632	.0000E+00	.2367E-01	0.0000
.0000E+00	.1590E-01							
277	0.00	0.000	0.052	0.1966	0.4480	.0000E+00	.2356E-01	0.0000
.0000E+00	.1489E-01							
278	0.13	0.000	0.068	0.2030	0.3333	.0000E+00	.2345E-01	0.0000
.0000E+00	.1399E-01							
279	0.68	0.000	0.064	0.3018	0.2223	.0000E+00	.2334E-01	0.0000
.0000E+00	.1318E-01							
280	0.00	0.000	0.032	0.2926	0.1181	.0000E+00	.2324E-01	0.0000
.0000E+00	.1247E-01							
281	1.65	0.310	0.065	0.5010	1.8723	.0000E+00	.2493E-01	0.0000
.0000E+00	.1182E-01							
282	0.00	0.000	0.045	0.4887	5.8738	.0000E+00	.2879E-01	0.0000
.0000E+00	.1044E-01							
283	0.00	0.000	0.055	0.4749	5.5338	.0000E+00	.2846E-01	0.0000
.0000E+00	.1078E-01							
284	0.04	0.000	0.066	0.4659	5.2088	.0000E+00	.2815E-01	0.0000

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.0000E+00 .1029E-01
  285         0.01  0.000  0.045  0.4553    5.0069 .0000E+00 .2796E-01    0.0000
.0000E+00 .9836E-02
  286         0.00  0.000  0.052  0.4420    4.8434 .0000E+00 .2780E-01    0.0000
.0000E+00 .9421E-02
  287         0.00  0.000  0.060  0.4275    4.5684 .0000E+00 .2753E-01    0.0000
.0000E+00 .9038E-02
  288         0.00  0.000  0.067  0.4117    4.2743 .0000E+00 .2725E-01    0.0000
.0000E+00 .8684E-02
  289         0.02  0.000  0.036  0.4046    4.0181 .0000E+00 .2700E-01    0.0000
.0000E+00 .8356E-02
  290         0.00  0.000  0.051  0.3916    3.8426 .0000E+00 .2683E-01    0.0000
.0000E+00 .8051E-02
  291         0.00  0.000  0.047  0.3794    3.6451 .0000E+00 .2664E-01    0.0000
.0000E+00 .7766E-02
  292         0.00  0.000  0.023  0.3712    3.4656 .0000E+00 .2647E-01    0.0000
.0000E+00 .7500E-02
  293         0.00  0.000  0.020  0.3634    3.3107 .0000E+00 .2632E-01    0.0000
.0000E+00 .7250E-02
  294         0.00  0.000  0.028  0.3545    3.1547 .0000E+00 .2617E-01    0.0000
.0000E+00 .7016E-02
  295         0.00  0.000  0.036  0.3441    2.9893 .0000E+00 .2601E-01    0.0000
.0000E+00 .6797E-02
  296         0.00  0.000  0.036  0.3338    2.8356 .0000E+00 .2586E-01    0.0000
.0000E+00 .6589E-02
  297         0.00  0.000  0.030  0.3246    2.6892 .0000E+00 .2572E-01    0.0000
.0000E+00 .6394E-02
  298         0.95  0.000  0.055  0.4693    2.9265 .0000E+00 .2595E-01    0.0000
.0000E+00 .6210E-02
  299         0.01  0.000  0.026  0.4620    5.1206 .0000E+00 .2807E-01    0.0000
.0000E+00 .6035E-02
  300         0.00  0.000  0.028  0.4528    4.9237 .0000E+00 .2788E-01    0.0000
.0000E+00 .5869E-02
  301         0.00  0.000  0.016  0.4455    4.7332 .0000E+00 .2769E-01    0.0000
.0000E+00 .5712E-02
  302         0.00  0.000  0.041  0.4341    4.5383 .0000E+00 .2750E-01    0.0000
.0000E+00 .5563E-02
  303         0.00  0.000  0.027  0.4250    4.3159 .0000E+00 .2729E-01    0.0000
.0000E+00 .5421E-02
  304         0.00  0.000  0.036  0.4145    4.1090 .0000E+00 .2709E-01    0.0000
.0000E+00 .5286E-02
  305         0.23  0.000  0.050  0.4400    3.9542 .0000E+00 .2694E-01    0.0000
.0000E+00 .5157E-02
  306         0.21  0.000  0.054  0.4614    4.5336 .0000E+00 .2750E-01    0.0000
.0000E+00 .5034E-02
  307         0.10  0.000  0.063  0.4630    4.9544 .0000E+00 .2791E-01    0.0000
.0000E+00 .4917E-02
  308         0.06  0.000  0.055  0.4591    4.9396 .0000E+00 .2789E-01    0.0000
.0000E+00 .4804E-02
  309         0.02  0.000  0.056  0.4485    4.8566 .0000E+00 .2781E-01    0.0000
.0000E+00 .4697E-02
  310         0.00  0.000  0.049  0.4358    4.6727 .0000E+00 .2763E-01    0.0000
.0000E+00 .4594E-02
  311         0.14  0.000  0.065  0.4438    4.4249 .0000E+00 .2739E-01    0.0000
.0000E+00 .4495E-02
  312         0.06  0.000  0.066  0.4383    4.3748 .0000E+00 .2735E-01    0.0000
.0000E+00 .4400E-02
  313         0.00  0.000  0.059  0.4239    4.2103 .0000E+00 .2719E-01    0.0000
.0000E+00 .4309E-02
  314         0.18  0.000  0.063  0.4389    4.0432 .0000E+00 .2703E-01    0.0000
.0000E+00 .4221E-02
  315         0.00  0.000  0.058  0.4248    4.1295 .0000E+00 .2711E-01    0.0000
.0000E+00 .4137E-02
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316	0.00	0.000	0.061	0.4102	3.9095	.0000E+00	.2690E-01	0.0000
.0000E+00	.4056E-02							
317	0.00	0.000	0.057	0.3962	3.6963	.0000E+00	.2669E-01	0.0000
.0000E+00	.3978E-02							
318	0.00	0.000	0.044	0.3845	3.4947	.0000E+00	.2650E-01	0.0000
.0000E+00	.2899E-02							
319	0.00	0.000	0.033	0.3746	3.3126	.0000E+00	.2632E-01	0.0000
.0000E+00	.0000E+00							
320	1.20	0.371	0.043	0.5010	4.3731	.0000E+00	.2735E-01	0.0000
.0000E+00	.3517E-02							
321 *	0.02	0.000	0.036	0.4936	5.9227	.0000E+00	.2884E-01	0.0000
.0000E+00	.2194E-02							
322	0.00	0.000	0.030	0.4837	5.6965	.0000E+00	.2862E-01	0.0000
.0000E+00	.2744E-02							
323	0.00	0.000	0.032	0.4736	5.4339	.0000E+00	.2837E-01	0.0000
.0000E+00	.3097E-02							
324	0.64	0.398	0.049	0.5010	5.7462	.0000E+00	.2867E-01	0.0000
.0000E+00	.2827E-02							
325	0.33	0.310	0.058	0.4900	5.8856	.0000E+00	.2880E-01	0.0000
.0000E+00	.2747E-02							
326	0.00	0.000	0.037	0.4790	5.5901	.0000E+00	.2852E-01	0.0000
.0000E+00	.2974E-02							
327	0.00	0.000	0.034	0.4687	5.3073	.0000E+00	.2825E-01	0.0000
.0000E+00	.3017E-02							
328	0.04	0.000	0.041	0.4638	5.0789	.0000E+00	.2803E-01	0.0000
.0000E+00	.2888E-02							
329	0.00	0.000	0.040	0.4525	4.9119	.0000E+00	.2786E-01	0.0000
.0000E+00	.2634E-02							
330	0.00	0.000	0.044	0.4406	4.6716	.0000E+00	.2763E-01	0.0000
.0000E+00	.2397E-02							
331	0.05	0.000	0.051	0.4358	4.4412	.0000E+00	.2741E-01	0.0000
.0000E+00	.2099E-02							
332	0.32	0.000	0.041	0.4777	4.5802	.0000E+00	.2754E-01	0.0000
.0000E+00	.1491E-02							
333 *	0.00	0.000	0.025	0.4689	5.3052	.0000E+00	.2824E-01	0.0000
.0000E+00	.5577E-03							
334	0.00	0.000	0.034	0.4586	5.0575	.0000E+00	.2800E-01	0.0000
.0000E+00	.6584E-03							
335	0.96	0.637	0.041	0.5010	5.6258	.0000E+00	.2855E-01	0.0000
.0000E+00	.3231E-04							
336	0.08	0.063	0.044	0.4918	5.9042	.0000E+00	.2882E-01	0.0000
.0000E+00	.0000E+00							
337	0.00	0.000	0.030	0.4819	5.6497	.0000E+00	.2858E-01	0.0000
.0000E+00	.9424E-04							
338 *	0.01	0.000	0.032	0.4735	5.4033	.0000E+00	.2834E-01	0.0000
.0000E+00	.1980E-03							
339	0.14	0.000	0.045	0.4846	5.3431	.0000E+00	.2828E-01	0.0000
.0000E+00	.5700E-04							
340 *	0.86	0.000	0.029	0.4832	5.5701	.0000E+00	.2850E-01	0.0000
.0000E+00	.0000E+00							
341	0.00	0.000	0.030	0.4817	5.5127	.0000E+00	.2844E-01	0.0000
.0000E+00	.0000E+00							
342 *	0.02	0.000	0.025	0.4803	5.4734	.0000E+00	.2841E-01	0.0000
.0000E+00	.0000E+00							
343 *	0.40	0.000	0.022	0.4789	5.4342	.0000E+00	.2837E-01	0.0000
.0000E+00	.0000E+00							
344 *	0.00	0.000	0.021	0.4775	5.3948	.0000E+00	.2833E-01	0.0000
.0000E+00	.0000E+00							
345 *	0.00	0.000	0.027	0.4760	5.3556	.0000E+00	.2829E-01	0.0000
.0000E+00	.0000E+00							
346	0.00	0.000	0.020	0.4918	5.4564	.0000E+00	.2839E-01	0.0000
.0000E+00	.0000E+00							
347 *	0.00	0.000	0.028	0.4903	5.7676	.0000E+00	.2869E-01	0.0000

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.0000E+00 .0000E+00
  348         0.70  1.423  0.000  0.5010    5.9293 .0000E+00 .2884E-01    0.0000
.0000E+00 .0000E+00
  349  *      0.01  0.000  0.034  0.4923    5.9095 .0000E+00 .2883E-01    0.0000
.0000E+00 .0000E+00
  350  *      0.00  0.000  0.000  0.4875    5.7116 .0000E+00 .2863E-01    0.0000
.0000E+00 .0000E+00
  351  *      0.03  0.000  0.027  0.4832    5.6100 .0000E+00 .2854E-01    0.0000
.0000E+00 .0000E+00
  352  *      0.03  0.000  0.028  0.4788    5.5019 .0000E+00 .2843E-01    0.0000
.0000E+00 .0000E+00
  353  *      0.00  0.000  0.000  0.4741    5.3788 .0000E+00 .2831E-01    0.0000
.0000E+00 .0000E+00
  354  *      0.00  0.000  0.000  0.4694    5.2485 .0000E+00 .2819E-01    0.0000
.0000E+00 .0000E+00
  355  *  *   0.00  0.000  0.000  0.4652    1.9968 .0000E+00 .2505E-01    0.0000
.0000E+00 .5782E-03
  356     *   0.02  0.000  0.010  0.4628    0.8431 .0000E+00 .2394E-01    0.0000
.0000E+00 .2610E-03
  357     *   0.00  0.000  0.000  0.4589    0.7330 .0000E+00 .2384E-01    0.0000
.0000E+00 .0000E+00
  358     *   0.00  0.000  0.000  0.4549    0.6233 .0000E+00 .2373E-01    0.0000
.0000E+00 .0000E+00
  359     *   0.00  0.000  0.000  0.4510    0.5141 .0000E+00 .2363E-01    0.0000
.0000E+00 .0000E+00
  360     *   0.00  0.000  0.000  0.4471    0.4054 .0000E+00 .2352E-01    0.0000
.0000E+00 .0000E+00
  361     *   0.00  0.000  0.000  0.4431    0.2972 .0000E+00 .2342E-01    0.0000
.0000E+00 .0000E+00
  362     *   0.00  0.000  0.000  0.4393    0.1895 .0000E+00 .2331E-01    0.0000
.0000E+00 .0000E+00
  363     *   0.00  0.000  0.000  0.4354    0.0822 .0000E+00 .2321E-01    0.0000
.0000E+00 .0000E+00
  364  *  *   0.00  0.000  0.000  0.4348    0.0039 .0000E+00 .3348E-02    0.0000
.0000E+00 .8640E-02
  365  *  *   0.00  0.000  0.000  0.4348    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .7120E-02
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MONTHLY TOTALS (IN INCHES) FOR YEAR 2010

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	2.38	2.30	6.45	0.92	2.20	5.41
	4.34	5.34	3.64	3.53	3.60	3.26
RUNOFF	1.314	0.319	3.561	0.000	0.000	0.770
	0.025	0.228	0.000	0.310	1.079	2.123
EVAPOTRANSPIRATION	0.422	0.825	2.213	2.240	2.133	3.255
	5.377	4.354	2.986	1.352	1.426	0.493
PERCOLATION/LEAKAGE THROUGH	0.0000	0.6195	0.8506	0.3719	0.0831	0.2033
LAYER 2	0.3956	0.4235	0.3651	0.8143	0.8303	0.7868

PERCOLATION/LEAKAGE THROUGH	0.0925	0.1733	0.2244	0.0342	0.0639	0.3621
LAYER 3	0.4326	0.2859	0.2346	0.2897	0.0975	0.0170

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON	0.000	1.813	4.470	1.464	0.074	0.830
TOP OF LAYER 2	0.663	1.208	0.629	3.257	4.717	3.770
STD. DEVIATION OF DAILY	0.000	1.557	1.056	1.913	0.208	1.739
HEAD ON TOP OF LAYER 2	0.833	1.731	0.816	1.782	0.706	2.479

ANNUAL TOTALS FOR YEAR 2010

	INCHES	CU. FEET	PERCENT
PRECIPITATION	43.37	157433.109	100.00
RUNOFF	9.729	35315.773	22.43
EVAPOTRANSPIRATION	27.076	98287.562	62.43
PERC./LEAKAGE THROUGH LAYER 2	5.743984	20850.660	13.24
AVG. HEAD ON TOP OF LAYER 2	1.9079		
PERC./LEAKAGE THROUGH LAYER 3	2.307682	8376.887	5.32
CHANGE IN WATER STORAGE	4.257	15452.841	9.82
SOIL WATER AT START OF YEAR	51.843	188191.031	
SOIL WATER AT END OF YEAR	56.171	203902.266	
SNOW WATER AT START OF YEAR	0.071	258.392	0.16
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.044	0.00

WARNING: TEMPERATURE FOR YEAR 1978 USED WITH PRECIPITATION FOR YEAR 2011

WARNING: SOLAR RADIATION FOR YEAR 1978 USED WITH PRECIPITATION FOR YEAR 2011

HEAD #1: AVERAGE HEAD ON TOP OF LAYER 2
DRAIN #1: LATERAL DRAINAGE FROM LAYER 1 (RECIRCULATION AND COLLECTION)
LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 2
LEAK #2: PERCOLATION OR LEAKAGE THROUGH LAYER 3

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DAILY OUTPUT FOR YEAR 2011

DAY	A	S O I L	RAIN IN.	RUNOFF IN.	ET IN.	E. ZONE WATER IN./IN.	HEAD #1 IN.	DRAIN #1 IN.	LEAK #1 IN.	HEAD #2 IN.	DRAIN #2 IN.	LEAK #2 IN.
1		*	0.04	0.001	0.012	0.4394	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.1860E-02
2		*	0.00	0.000	0.000	0.4394	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
3		*	0.00	0.000	0.000	0.4394	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
4	*	*	0.00	0.000	0.000	0.4394	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
5	*	*	0.00	0.000	0.000	0.4394	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
6	*	*	0.00	0.000	0.000	0.4394	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
7		*	0.00	0.000	0.000	0.4394	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
8		*	0.04	0.002	0.011	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
9		*	0.00	0.000	0.000	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
10	*	*	0.00	0.000	0.000	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
11		*	0.00	0.000	0.000	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
12	*	*	0.00	0.000	0.000	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
13	*	*	0.11	0.000	0.023	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
14	*	*	0.02	0.000	0.031	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.1058E-03
15	*	*	0.01	0.000	0.026	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.2212E-02
16	*	*	0.05	0.000	0.017	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.5105E-02
17	*	*	0.84	0.000	0.019	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.7968E-02
18	*	*	0.16	0.000	0.019	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.1073E-01
19	*	*	0.00	0.000	0.016	0.4439	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.1332E-01
20	*	*	0.00	0.000	0.014	0.4439	0.0000	.0000E+00	.0000E+00	0.0000		

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.0000E+00 .1571E-01
   21  *   *    0.01  0.000  0.017  0.4439    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1786E-01
   22  *   *    0.00  0.000  0.021  0.4439    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1976E-01
   23      *    0.00  0.000  0.000  0.4439    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2141E-01
   24  *   *    0.00  0.000  0.031  0.4439    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2284E-01
   25      *    0.23  0.202  0.000  0.4593    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2404E-01
   26      *    0.20  0.607  0.000  0.4665    0.0039 .0000E+00 .5786E-02    0.0000
.0000E+00 .2063E-01
   27      *    0.00  0.434  0.010  0.4650    0.0176 .0000E+00 .1289E-01    0.0000
.0000E+00 .2247E-01
   28      *    0.00  0.000  0.000  0.4648    0.0012 .0000E+00 .1003E-02    0.0000
.0000E+00 .3084E-01
   29      *    0.00  0.000  0.000  0.4648    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3122E-01
   30      *    0.00  0.000  0.000  0.4648    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3050E-01
   31      *    0.02  0.010  0.008  0.4648    0.0009 .0000E+00 .1613E-02    0.0000
.0000E+00 .2873E-01
   32      *    0.01  0.003  0.006  0.4648    0.0006 .0000E+00 .1088E-02    0.0000
.0000E+00 .2935E-01
   33      *    0.00  0.000  0.000  0.4648    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3010E-01
   34           0.00  0.000  0.057  0.4519    3.7234 .0000E+00 .2094E-01    0.0000
.0000E+00 .2443E-01
   35           0.00  0.000  0.041  0.4405    4.8145 .0000E+00 .2777E-01    0.0000
.0000E+00 .2665E-01
   36  *        0.08  0.000  0.038  0.4391    4.6565 .0000E+00 .2762E-01    0.0000
.0000E+00 .2836E-01
   37  *        0.00  0.000  0.050  0.4301    4.5065 .0000E+00 .2747E-01    0.0000
.0000E+00 .2964E-01
   38  *        0.00  0.000  0.047  0.4177    4.3067 .0000E+00 .2728E-01    0.0000
.0000E+00 .3057E-01
   39  *   *    0.00  0.000  0.000  0.4136    1.7432 .0000E+00 .2481E-01    0.0000
.0000E+00 .3121E-01
   40  *   *    0.00  0.000  0.000  0.4096    0.8443 .0000E+00 .2394E-01    0.0000
.0000E+00 .3163E-01
   41  *   *    0.00  0.000  0.000  0.4056    0.7341 .0000E+00 .2384E-01    0.0000
.0000E+00 .3188E-01
   42  *   *    0.00  0.000  0.000  0.4017    0.6244 .0000E+00 .2373E-01    0.0000
.0000E+00 .3199E-01
   43  *   *    0.00  0.000  0.000  0.3977    0.5152 .0000E+00 .2363E-01    0.0000
.0000E+00 .3200E-01
   44  *   *    0.24  0.000  0.021  0.3938    0.4065 .0000E+00 .2352E-01    0.0000
.0000E+00 .3193E-01
   45  *   *    0.78  0.000  0.022  0.3899    0.2983 .0000E+00 .2342E-01    0.0000
.0000E+00 .3206E-01
   46  *   *    0.01  0.000  0.022  0.3860    0.1906 .0000E+00 .2331E-01    0.0000
.0000E+00 .3341E-01
   47  *   *    0.00  0.000  0.020  0.3822    0.0833 .0000E+00 .2321E-01    0.0000
.0000E+00 .3410E-01
   48  *   *    0.00  0.000  0.031  0.3816    0.0041 .0000E+00 .3584E-02    0.0000
.0000E+00 .4775E-01
   49      *    0.00  0.087  0.000  0.4123    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .4107E-01
   50      *    0.00  0.205  0.000  0.4394    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .3322E-01
   51      *    0.00  0.192  0.041  0.4465    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2767E-01
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52	*	0.01	0.000	0.006	0.4472	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2365E-01								
53	*	0.00	0.000	0.000	0.4472	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2070E-01								
54	*	0.08	0.037	0.008	0.4531	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1854E-01								
55	*	0.02	0.002	0.007	0.4549	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1697E-01								
56	*	0.00	0.000	0.000	0.4549	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1586E-01								
57	*	0.00	0.000	0.000	0.4549	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1510E-01								
58		0.00	0.000	0.074	0.4391	3.6935	.0000E+00	.2091E-01	0.0000
.0000E+00	.3571E-02								
59		0.22	0.000	0.066	0.4601	4.6998	.0000E+00	.2766E-01	0.0000
.0000E+00	.7293E-02								
60	*	0.16	0.000	0.043	0.4587	4.9579	.0000E+00	.2791E-01	0.0000
.0000E+00	.1071E-01								
61	*	0.00	0.000	0.053	0.4573	4.8855	.0000E+00	.2784E-01	0.0000
.0000E+00	.1375E-01								
62		0.34	0.068	0.007	0.5010	5.3644	.0000E+00	.2830E-01	0.0000
.0000E+00	.1640E-01								
63		0.02	0.000	0.060	0.4895	5.8968	.0000E+00	.2881E-01	0.0000
.0000E+00	.1866E-01								
64		0.00	0.000	0.080	0.4714	5.5598	.0000E+00	.2849E-01	0.0000
.0000E+00	.2063E-01								
65	*	0.00	0.000	0.053	0.4579	5.1341	.0000E+00	.2808E-01	0.0000
.0000E+00	.2440E-01								
66		0.02	0.000	0.052	0.4480	4.8391	.0000E+00	.2779E-01	0.0000
.0000E+00	.2739E-01								
67		1.80	1.391	0.063	0.5010	5.6236	.0000E+00	.2855E-01	0.0000
.0000E+00	.2829E-01								
68		0.50	0.493	0.100	0.4807	5.7920	.0000E+00	.2871E-01	0.0000
.0000E+00	.2907E-01								
69		0.00	0.000	0.154	0.4504	5.1653	.0000E+00	.2811E-01	0.0000
.0000E+00	.2968E-01								
70		0.00	0.000	0.156	0.4198	4.5331	.0000E+00	.2750E-01	0.0000
.0000E+00	.2942E-01								
71		0.06	0.000	0.091	0.4102	4.0629	.0000E+00	.2705E-01	0.0000
.0000E+00	.2845E-01								
72		0.01	0.000	0.075	0.3949	3.8451	.0000E+00	.2684E-01	0.0000
.0000E+00	.2700E-01								
73		0.75	0.007	0.079	0.5010	4.2888	.0000E+00	.2726E-01	0.0000
.0000E+00	.2505E-01								
74		0.00	0.000	0.121	0.4761	5.7503	.0000E+00	.2867E-01	0.0000
.0000E+00	.2267E-01								
75		0.00	0.000	0.133	0.4492	5.0998	.0000E+00	.2805E-01	0.0000
.0000E+00	.2242E-01								
76		0.00	0.000	0.189	0.4131	4.5190	.0000E+00	.2749E-01	0.0000
.0000E+00	.2167E-01								
77		0.08	0.000	0.078	0.4089	4.0087	.0000E+00	.2699E-01	0.0000
.0000E+00	.2062E-01								
78		0.00	0.000	0.117	0.3849	3.7777	.0000E+00	.2677E-01	0.0000
.0000E+00	.1926E-01								
79		0.00	0.000	0.086	0.3662	3.5256	.0000E+00	.2653E-01	0.0000
.0000E+00	.1797E-01								
80		0.28	0.000	0.103	0.3913	3.2673	.0000E+00	.2628E-01	0.0000
.0000E+00	.1675E-01								
81		0.00	0.000	0.090	0.3719	3.0078	.0000E+00	.2603E-01	0.0000
.0000E+00	.1559E-01								
82		0.00	0.000	0.083	0.3537	2.8048	.0000E+00	.2583E-01	0.0000
.0000E+00	.1446E-01								
83		0.50	0.000	0.058	0.4230	2.8320	.0000E+00	.2586E-01	0.0000

.0000E+00	.1326E-01								
84	1.90	1.345	0.059	0.5010	5.2491	.0000E+00	.2819E-01	0.0000	
.0000E+00	.1052E-01								
85	0.35	0.344	0.067	0.4860	5.8456	.0000E+00	.2876E-01	0.0000	
.0000E+00	.1022E-01								
86	0.05	0.000	0.064	0.4789	5.5480	.0000E+00	.2848E-01	0.0000	
.0000E+00	.1064E-01								
87	0.00	0.000	0.115	0.4550	5.1554	.0000E+00	.2810E-01	0.0000	
.0000E+00	.1082E-01								
88	0.00	0.000	0.082	0.4367	4.6843	.0000E+00	.2764E-01	0.0000	
.0000E+00	.1079E-01								
89	0.01	0.000	0.108	0.4158	4.3736	.0000E+00	.2735E-01	0.0000	
.0000E+00	.1043E-01								
90	0.00	0.000	0.104	0.3939	4.0431	.0000E+00	.2703E-01	0.0000	
.0000E+00	.9988E-02								
91	0.00	0.000	0.119	0.3696	3.7146	.0000E+00	.2671E-01	0.0000	
.0000E+00	.9486E-02								
92	0.00	0.000	0.098	0.3489	3.3908	.0000E+00	.2640E-01	0.0000	
.0000E+00	.8949E-02								
93 *	0.07	0.000	0.073	0.3440	3.1169	.0000E+00	.2613E-01	0.0000	
.0000E+00	.8365E-02								
94	0.00	0.000	0.134	0.3174	2.9222	.0000E+00	.2595E-01	0.0000	
.0000E+00	.7749E-02								
95	0.03	0.000	0.089	0.3033	2.6743	.0000E+00	.2571E-01	0.0000	
.0000E+00	.7233E-02								
96	0.00	0.000	0.104	0.2817	2.3050	.0000E+00	.2535E-01	0.0000	
.0000E+00	.6842E-02								
97	0.31	0.000	0.094	0.3135	1.9038	.0000E+00	.2497E-01	0.0000	
.0000E+00	.6464E-02								
98	0.00	0.000	0.133	0.2872	1.7463	.0000E+00	.2481E-01	0.0000	
.0000E+00	.5902E-02								
99	0.00	0.000	0.109	0.2650	1.5821	.0000E+00	.2466E-01	0.0000	
.0000E+00	.5447E-02								
100	0.00	0.000	0.150	0.2359	1.4185	.0000E+00	.2450E-01	0.0000	
.0000E+00	.5078E-02								
101	0.39	0.000	0.081	0.2834	1.2323	.0000E+00	.2432E-01	0.0000	
.0000E+00	.4800E-02								
102	0.00	0.000	0.099	0.2629	1.0137	.0000E+00	.2411E-01	0.0000	
.0000E+00	.4604E-02								
103	0.00	0.000	0.123	0.2383	0.8617	.0000E+00	.2396E-01	0.0000	
.0000E+00	.4400E-02								
104	0.00	0.000	0.129	0.2128	0.7331	.0000E+00	.2384E-01	0.0000	
.0000E+00	.4246E-02								
105	0.00	0.000	0.142	0.1852	0.6134	.0000E+00	.2372E-01	0.0000	
.0000E+00	.4154E-02								
106	0.29	0.000	0.127	0.2083	0.4543	.0000E+00	.2357E-01	0.0000	
.0000E+00	.4155E-02								
107	0.33	0.000	0.103	0.2423	0.1871	.0000E+00	.2331E-01	0.0000	
.0000E+00	.4277E-02								
108	0.98	0.002	0.100	0.3870	0.1571	.0000E+00	.9851E-02	0.0000	
.0000E+00	.1392E-01								
109	0.14	0.000	0.095	0.3902	2.7508	.0000E+00	.2578E-01	0.0000	
.0000E+00	.0000E+00								
110	0.14	0.000	0.165	0.3818	2.8403	.0000E+00	.2587E-01	0.0000	
.0000E+00	.1841E-05								
111	0.00	0.000	0.164	0.3502	2.6851	.0000E+00	.2572E-01	0.0000	
.0000E+00	.1383E-02								
112	0.00	0.000	0.192	0.3139	2.4628	.0000E+00	.2550E-01	0.0000	
.0000E+00	.3262E-02								
113	0.21	0.000	0.146	0.3204	2.2020	.0000E+00	.2525E-01	0.0000	
.0000E+00	.4797E-02								
114	0.08	0.000	0.174	0.3005	1.9737	.0000E+00	.2503E-01	0.0000	
.0000E+00	.5977E-02								

115	0.08	0.000	0.116	0.2903	1.7938	.0000E+00	.2486E-01	0.0000
.0000E+00	.6861E-02							
116	0.02	0.000	0.140	0.2662	1.6305	.0000E+00	.2470E-01	0.0000
.0000E+00	.7543E-02							
117	0.00	0.000	0.174	0.2331	1.4288	.0000E+00	.2451E-01	0.0000
.0000E+00	.8107E-02							
118	0.00	0.000	0.161	0.2023	1.0588	.0000E+00	.2415E-01	0.0000
.0000E+00	.8661E-02							
119	0.00	0.000	0.235	0.1598	0.5555	.0000E+00	.2033E-01	0.0000
.0000E+00	.1160E-01							
120	0.01	0.000	0.159	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2042E-01							
121	0.13	0.000	0.063	0.1462	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1726E-01							
122	0.00	0.000	0.036	0.1402	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1148E-01							
123	0.00	0.000	0.024	0.1361	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7395E-02							
124	0.09	0.000	0.016	0.1484	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4695E-02							
125	0.42	0.000	0.028	0.2138	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3039E-02							
126	0.00	0.000	0.145	0.1897	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2202E-02							
127	0.06	0.000	0.048	0.1917	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2028E-02							
128	0.59	0.000	0.047	0.2822	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2396E-02							
129	0.01	0.000	0.261	0.2404	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3209E-02							
130	0.00	0.000	0.219	0.2039	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4378E-02							
131	0.00	0.000	0.160	0.1773	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5823E-02							
132	0.65	0.000	0.097	0.2695	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7467E-02							
133	0.54	0.000	0.200	0.3251	0.1149	.0000E+00	.5893E-02	0.0000
.0000E+00	.4522E-02							
134	0.31	0.000	0.267	0.3282	0.8734	.0000E+00	.2397E-01	0.0000
.0000E+00	.2436E-02							
135	0.00	0.000	0.241	0.2840	1.3192	.0000E+00	.2440E-01	0.0000
.0000E+00	.8532E-02							
136	0.00	0.000	0.249	0.2384	1.1107	.0000E+00	.2420E-01	0.0000
.0000E+00	.1403E-01							
137	0.00	0.000	0.220	0.1977	0.9476	.0000E+00	.2404E-01	0.0000
.0000E+00	.1879E-01							
138	0.00	0.000	0.210	0.1598	0.5294	.0000E+00	.1781E-01	0.0000
.0000E+00	.2498E-01							
139	0.00	0.000	0.149	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4069E-01							
140	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3467E-01							
141	0.04	0.000	0.014	0.1394	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3049E-01							
142	0.00	0.000	0.012	0.1375	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2754E-01							
143	0.44	0.000	0.035	0.2050	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2548E-01							
144	0.10	0.000	0.064	0.2110	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2405E-01							
145	0.00	0.000	0.288	0.1630	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2311E-01							
146	0.07	0.000	0.070	0.1630	0.0000	.0000E+00	.0000E+00	0.0000

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.0000E+00 .2253E-01
  147         0.00  0.000  0.072  0.1509    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2221E-01
  148         0.00  0.000  0.066  0.1400    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2210E-01
  149         0.37  0.000  0.064  0.1910    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2214E-01
  150         0.00  0.000  0.162  0.1640    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2228E-01
  151         0.00  0.000  0.082  0.1504    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2250E-01
  152         0.00  0.000  0.075  0.1379    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2277E-01
  153         0.16  0.000  0.069  0.1530    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2307E-01
  154         0.00  0.000  0.051  0.1444    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2338E-01
  155         0.00  0.000  0.044  0.1372    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2369E-01
  156         0.00  0.000  0.010  0.1355    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2399E-01
  157         0.00  0.000  0.002  0.1351    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2427E-01
  158         0.14  0.000  0.053  0.1497    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2454E-01
  159         0.09  0.000  0.058  0.1549    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2478E-01
  160         0.00  0.000  0.047  0.1472    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2500E-01
  161         0.00  0.000  0.058  0.1376    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2520E-01
  162         0.00  0.000  0.011  0.1356    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2537E-01
  163         0.00  0.000  0.003  0.1352    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2551E-01
  164         0.00  0.000  0.001  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2563E-01
  165         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2573E-01
  166         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2581E-01
  167         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2587E-01
  168         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2591E-01
  169         0.00  0.000  0.000  0.1350    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2594E-01
  170         0.95  0.000  0.110  0.2749    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2595E-01
  171         0.00  0.000  0.236  0.2355    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2595E-01
  172         0.00  0.000  0.253  0.1934    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2593E-01
  173         0.00  0.000  0.279  0.1468    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2590E-01
  174         0.06  0.000  0.103  0.1397    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2586E-01
  175         0.45  0.000  0.083  0.2009    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2581E-01
  176         0.54  0.000  0.120  0.2710    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2575E-01
  177         0.00  0.000  0.246  0.2299    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2569E-01
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178	0.00	0.000	0.306	0.1789	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2562E-01							
179	0.00	0.000	0.214	0.1432	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2554E-01							
180	0.00	0.000	0.049	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2545E-01							
181	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2537E-01							
182	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2527E-01							
183	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2517E-01							
184	1.14	0.000	0.127	0.3038	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2448E-01							
185	0.00	0.000	0.246	0.2609	0.0437	.0000E+00	.1161E-01	0.0000
.0000E+00	.2208E-01							
186	0.00	0.000	0.272	0.2116	0.1998	.0000E+00	.2332E-01	0.0000
.0000E+00	.2326E-01							
187	0.00	0.000	0.268	0.1641	0.1018	.0000E+00	.1744E-01	0.0000
.0000E+00	.2419E-01							
188	0.00	0.000	0.175	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2888E-01							
189	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2767E-01							
190	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2669E-01							
191	0.21	0.000	0.090	0.1550	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2589E-01							
192	0.24	0.000	0.123	0.1746	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2523E-01							
193	0.00	0.000	0.125	0.1537	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2468E-01							
194	0.10	0.000	0.139	0.1472	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2421E-01							
195	0.02	0.000	0.060	0.1405	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2382E-01							
196	2.50	0.261	0.262	0.4700	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2348E-01							
197	0.00	0.000	0.328	0.4108	4.5915	.0000E+00	.2756E-01	0.0000
.0000E+00	.1983E-01							
198	0.00	0.000	0.319	0.3531	3.7321	.0000E+00	.2673E-01	0.0000
.0000E+00	.2091E-01							
199	0.00	0.000	0.295	0.2996	2.9442	.0000E+00	.2597E-01	0.0000
.0000E+00	.2177E-01							
200	0.00	0.000	0.310	0.2438	2.0504	.0000E+00	.2511E-01	0.0000
.0000E+00	.2246E-01							
201	0.00	0.000	0.285	0.1923	1.1681	.0000E+00	.2426E-01	0.0000
.0000E+00	.2299E-01							
202	0.00	0.000	0.232	0.1515	0.3717	.0000E+00	.1300E-01	0.0000
.0000E+00	.2339E-01							
203	0.00	0.000	0.099	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.3014E-01							
204	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2770E-01							
205	0.36	0.000	0.100	0.1784	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2577E-01							
206	0.59	0.000	0.181	0.2466	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2422E-01							
207	0.00	0.000	0.294	0.1976	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2298E-01							
208	0.87	0.000	0.242	0.3023	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.2198E-01							
209	0.00	0.000	0.274	0.2566	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.2116E-01								
210	0.00	0.000	0.248	0.2133	0.0231	.0000E+00	.1165E-01	0.0000	
.0000E+00	.1517E-01								
211	0.00	0.000	0.270	0.1684	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.2210E-01								
212	0.00	0.000	0.200	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.2122E-01								
213	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.2050E-01								
214	0.09	0.000	0.035	0.1441	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1991E-01								
215	0.06	0.000	0.065	0.1433	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1943E-01								
216	0.00	0.000	0.037	0.1371	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1903E-01								
217	0.00	0.000	0.009	0.1356	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1871E-01								
218	0.00	0.000	0.002	0.1352	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1844E-01								
219	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1823E-01								
220	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1805E-01								
221	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1791E-01								
222	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1779E-01								
223	0.16	0.000	0.086	0.1473	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1770E-01								
224	0.05	0.000	0.078	0.1427	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1763E-01								
225	0.00	0.000	0.034	0.1369	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1757E-01								
226	0.00	0.000	0.008	0.1356	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1752E-01								
227	0.00	0.000	0.003	0.1352	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1748E-01								
228	0.02	0.000	0.021	0.1351	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1745E-01								
229	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1743E-01								
230	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1741E-01								
231	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1739E-01								
232	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1738E-01								
233	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1705E-01								
234	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1413E-01								
235	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1515E-01								
236	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1603E-01								
237	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1678E-01								
238	0.02	0.000	0.020	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1740E-01								
239	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1792E-01								
240	0.14	0.000	0.067	0.1472	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.1835E-01								

241	0.02	0.000	0.064	0.1399	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1869E-01							
242	0.00	0.000	0.021	0.1364	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1896E-01							
243	0.20	0.000	0.082	0.1561	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1918E-01							
244	0.00	0.000	0.046	0.1484	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1934E-01							
245	0.00	0.000	0.066	0.1374	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1945E-01							
246	0.00	0.000	0.011	0.1356	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1953E-01							
247	0.00	0.000	0.003	0.1351	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1957E-01							
248	0.00	0.000	0.001	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1959E-01							
249	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1958E-01							
250	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1956E-01							
251	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1952E-01							
252	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1946E-01							
253	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1940E-01							
254	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1933E-01							
255	0.00	0.000	0.000	0.1350	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1924E-01							
256	0.15	0.000	0.078	0.1471	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1916E-01							
257	0.00	0.000	0.045	0.1396	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1907E-01							
258	0.04	0.000	0.049	0.1382	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1897E-01							
259	0.00	0.000	0.012	0.1363	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1887E-01							
260	2.58	0.290	0.133	0.4958	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1877E-01							
261	0.00	0.000	0.163	0.4638	5.5354	.0000E+00	.2847E-01	0.0000
.0000E+00	.1866E-01							
262	0.00	0.000	0.142	0.4356	4.8142	.0000E+00	.2777E-01	0.0000
.0000E+00	.1856E-01							
263	0.00	0.000	0.157	0.4049	4.2876	.0000E+00	.2726E-01	0.0000
.0000E+00	.1845E-01							
264	0.00	0.000	0.141	0.3770	3.8070	.0000E+00	.2680E-01	0.0000
.0000E+00	.1834E-01							
265	0.13	0.000	0.153	0.3687	3.4592	.0000E+00	.2646E-01	0.0000
.0000E+00	.1824E-01							
266	0.00	0.000	0.117	0.3448	3.1505	.0000E+00	.2617E-01	0.0000
.0000E+00	.1813E-01							
267	0.00	0.000	0.135	0.3181	2.8923	.0000E+00	.2592E-01	0.0000
.0000E+00	.1802E-01							
268	0.00	0.000	0.167	0.2860	2.4884	.0000E+00	.2553E-01	0.0000
.0000E+00	.1791E-01							
269	0.00	0.000	0.153	0.2564	1.9245	.0000E+00	.2499E-01	0.0000
.0000E+00	.1781E-01							
270	0.00	0.000	0.136	0.2295	1.5416	.0000E+00	.2462E-01	0.0000
.0000E+00	.1770E-01							
271	0.00	0.000	0.142	0.2018	1.0304	.0000E+00	.2412E-01	0.0000
.0000E+00	.1760E-01							
272	0.00	0.000	0.154	0.1721	0.6476	.0000E+00	.2375E-01	0.0000

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.0000E+00 .1749E-01
  273         0.00  0.000  0.125  0.1494    0.1269 .0000E+00 .1098E-01    0.0000
.0000E+00 .2199E-01
  274         0.20  0.000  0.137  0.1599    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2982E-01
  275         0.00  0.000  0.102  0.1430    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2570E-01
  276         0.16  0.000  0.111  0.1512    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .2237E-01
  277         0.14  0.000  0.084  0.1605    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1970E-01
  278         0.00  0.000  0.050  0.1522    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1753E-01
  279         0.02  0.000  0.070  0.1438    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1574E-01
  280         0.00  0.000  0.039  0.1373    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1427E-01
  281         0.00  0.000  0.011  0.1355    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1304E-01
  282         0.00  0.000  0.002  0.1351    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1201E-01
  283         0.17  0.000  0.057  0.1540    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1115E-01
  284         0.09  0.000  0.057  0.1594    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .1043E-01
  285         0.00  0.000  0.039  0.1530    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9826E-02
  286         1.32  0.007  0.068  0.3605    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .9327E-02
  287         0.12  0.000  0.080  0.3631    1.6683 .0000E+00 .2474E-01    0.0000
.0000E+00 .1260E-02
  288         0.01  0.000  0.046  0.3529    2.2594 .0000E+00 .2531E-01    0.0000
.0000E+00 .2480E-02
  289         0.00  0.000  0.030  0.3437    2.1789 .0000E+00 .2523E-01    0.0000
.0000E+00 .3654E-02
  290         0.00  0.000  0.052  0.3308    2.0266 .0000E+00 .2508E-01    0.0000
.0000E+00 .4773E-02
  291         0.00  0.000  0.039  0.3201    1.8887 .0000E+00 .2495E-01    0.0000
.0000E+00 .5831E-02
  292         0.00  0.000  0.042  0.3090    1.7577 .0000E+00 .2482E-01    0.0000
.0000E+00 .6821E-02
  293         0.00  0.000  0.047  0.2971    1.6257 .0000E+00 .2470E-01    0.0000
.0000E+00 .7740E-02
  294         0.00  0.000  0.036  0.2870    1.4948 .0000E+00 .2457E-01    0.0000
.0000E+00 .8587E-02
  295  *      0.00  0.000  0.028  0.2783    1.3684 .0000E+00 .2445E-01    0.0000
.0000E+00 .9361E-02
  296         0.00  0.000  0.026  0.2698    1.2450 .0000E+00 .2433E-01    0.0000
.0000E+00 .1009E-01
  297         0.07  0.000  0.053  0.2687    1.1230 .0000E+00 .2421E-01    0.0000
.0000E+00 .1226E-01
  298         0.00  0.000  0.033  0.2592    0.9982 .0000E+00 .2409E-01    0.0000
.0000E+00 .1467E-01
  299         0.18  0.000  0.060  0.2752    0.9107 .0000E+00 .2401E-01    0.0000
.0000E+00 .1643E-01
  300         0.00  0.000  0.038  0.2648    0.7958 .0000E+00 .2390E-01    0.0000
.0000E+00 .1766E-01
  301         0.00  0.000  0.031  0.2557    0.6807 .0000E+00 .2379E-01    0.0000
.0000E+00 .1844E-01
  302         0.00  0.000  0.034  0.2462    0.5666 .0000E+00 .2368E-01    0.0000
.0000E+00 .1882E-01
  303         0.00  0.000  0.038  0.2360    0.4525 .0000E+00 .2357E-01    0.0000
.0000E+00 .1891E-01
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304	0.00	0.000	0.039	0.2255	0.3384	.0000E+00	.2346E-01	0.0000
.0000E+00	.1862E-01							
305	0.00	0.000	0.053	0.2129	0.2311	.0000E+00	.2335E-01	0.0000
.0000E+00	.1739E-01							
306	0.00	0.000	0.046	0.2013	0.1162	.0000E+00	.2324E-01	0.0000
.0000E+00	.1619E-01							
307	0.00	0.000	0.060	0.1899	0.0153	.0000E+00	.8824E-02	0.0000
.0000E+00	.1513E-01							
308	0.00	0.000	0.065	0.1790	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1421E-01							
309	0.00	0.000	0.059	0.1692	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1338E-01							
310	0.00	0.000	0.035	0.1634	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1264E-01							
311	0.16	0.000	0.050	0.1818	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1198E-01							
312	0.00	0.000	0.038	0.1755	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1138E-01							
313	0.00	0.000	0.044	0.1682	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1084E-01							
314	0.00	0.000	0.040	0.1616	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.1034E-01							
315	0.00	0.000	0.032	0.1563	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.9813E-02							
316	0.00	0.000	0.033	0.1507	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.8429E-02							
317	0.00	0.000	0.044	0.1433	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.7019E-02							
318	0.64	0.000	0.062	0.2397	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.5851E-02							
319	0.18	0.000	0.060	0.2596	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.4883E-02							
320	0.45	0.000	0.060	0.3236	0.0882	.0000E+00	.5868E-02	0.0000
.0000E+00	.0000E+00							
321	0.80	0.000	0.062	0.4425	1.8636	.0000E+00	.2493E-01	0.0000
.0000E+00	.0000E+00							
322	0.22	0.000	0.069	0.4631	4.4875	.0000E+00	.2746E-01	0.0000
.0000E+00	.0000E+00							
323	0.00	0.000	0.052	0.4498	4.8324	.0000E+00	.2779E-01	0.0000
.0000E+00	.0000E+00							
324	0.00	0.000	0.056	0.4359	4.5666	.0000E+00	.2753E-01	0.0000
.0000E+00	.0000E+00							
325	0.00	0.000	0.060	0.4213	4.2854	.0000E+00	.2726E-01	0.0000
.0000E+00	.0000E+00							
326	0.00	0.000	0.047	0.4090	4.0156	.0000E+00	.2700E-01	0.0000
.0000E+00	.0000E+00							
327	0.24	0.000	0.058	0.4348	3.8129	.0000E+00	.2681E-01	0.0000
.0000E+00	.1338E-03							
328	0.01	0.000	0.055	0.4228	4.2893	.0000E+00	.2726E-01	0.0000
.0000E+00	.2543E-02							
329	0.00	0.000	0.060	0.4083	4.0822	.0000E+00	.2706E-01	0.0000
.0000E+00	.6242E-02							
330	0.74	0.093	0.063	0.5010	4.5682	.0000E+00	.2753E-01	0.0000
.0000E+00	.8715E-02							
331	1.01	0.917	0.064	0.5010	6.0000	.0000E+00	.2891E-01	0.0000
.0000E+00	.1005E-01							
332	0.00	0.000	0.049	0.4880	5.8665	.0000E+00	.2878E-01	0.0000
.0000E+00	.1251E-01							
333	0.00	0.000	0.067	0.4721	5.4952	.0000E+00	.2843E-01	0.0000
.0000E+00	.1447E-01							
334	0.02	0.000	0.066	0.4597	5.1116	.0000E+00	.2806E-01	0.0000
.0000E+00	.1487E-01							
335	0.00	0.000	0.038	0.4488	4.8972	.0000E+00	.2785E-01	0.0000

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.0000E+00 .1397E-01
  336         0.00  0.000  0.033  0.4388    4.6734 .0000E+00 .2763E-01    0.0000
.0000E+00 .1317E-01
  337         0.07  0.000  0.042  0.4388    4.4689 .0000E+00 .2744E-01    0.0000
.0000E+00 .1246E-01
  338  *      0.31  0.000  0.027  0.4375    4.3336 .0000E+00 .2731E-01    0.0000
.0000E+00 .1181E-01
  339         0.00  0.000  0.015  0.4744    4.5868 .0000E+00 .2755E-01    0.0000
.0000E+00 .1123E-01
  340         0.00  0.000  0.035  0.4638    5.1719 .0000E+00 .2811E-01    0.0000
.0000E+00 .1070E-01
  341         0.02  0.000  0.051  0.4540    4.9755 .0000E+00 .2793E-01    0.0000
.0000E+00 .1021E-01
  342         0.19  0.000  0.044  0.4736    4.8946 .0000E+00 .2785E-01    0.0000
.0000E+00 .9765E-02
  343         0.07  0.000  0.048  0.4725    5.2619 .0000E+00 .2820E-01    0.0000
.0000E+00 .9356E-02
  344         0.00  0.000  0.038  0.4615    5.0984 .0000E+00 .2804E-01    0.0000
.0000E+00 .8978E-02
  345         0.00  0.000  0.045  0.4494    4.8402 .0000E+00 .2780E-01    0.0000
.0000E+00 .8629E-02
  346         0.00  0.000  0.033  0.4393    4.6046 .0000E+00 .2757E-01    0.0000
.0000E+00 .8304E-02
  347         0.00  0.000  0.046  0.4271    4.3767 .0000E+00 .2735E-01    0.0000
.0000E+00 .8002E-02
  348         0.00  0.000  0.059  0.4128    4.1149 .0000E+00 .2710E-01    0.0000
.0000E+00 .7721E-02
  349         0.00  0.000  0.049  0.4002    3.8724 .0000E+00 .2686E-01    0.0000
.0000E+00 .7457E-02
  350         0.00  0.000  0.034  0.3900    3.6834 .0000E+00 .2668E-01    0.0000
.0000E+00 .7211E-02
  351         0.00  0.000  0.031  0.3805    3.5109 .0000E+00 .2651E-01    0.0000
.0000E+00 .6979E-02
  352         0.00  0.000  0.041  0.3692    3.3365 .0000E+00 .2635E-01    0.0000
.0000E+00 .6761E-02
  353         0.00  0.000  0.033  0.3593    3.1576 .0000E+00 .2617E-01    0.0000
.0000E+00 .6556E-02
  354  *      0.00  0.000  0.029  0.3502    2.9911 .0000E+00 .2601E-01    0.0000
.0000E+00 .6363E-02
  355  *      0.00  0.000  0.029  0.3410    2.8440 .0000E+00 .2587E-01    0.0000
.0000E+00 .6180E-02
  356  *      0.00  0.000  0.000  0.3367    2.7100 .0000E+00 .2574E-01    0.0000
.0000E+00 .6007E-02
  357  *      0.00  0.000  0.024  0.3284    2.5841 .0000E+00 .2562E-01    0.0000
.0000E+00 .5843E-02
  358  *      0.00  0.000  0.027  0.3196    2.4455 .0000E+00 .2549E-01    0.0000
.0000E+00 .5687E-02
  359  *      0.00  0.000  0.027  0.3109    2.3059 .0000E+00 .2535E-01    0.0000
.0000E+00 .5539E-02
  360         0.00  0.000  0.032  0.3013    2.2006 .0000E+00 .2525E-01    0.0000
.0000E+00 .5398E-02
  361  *      0.00  0.000  0.027  0.2926    2.0648 .0000E+00 .2512E-01    0.0000
.0000E+00 .5264E-02
  362  *      0.00  0.000  0.031  0.2833    1.9344 .0000E+00 .2499E-01    0.0000
.0000E+00 .5136E-02
  363         0.02  0.000  0.050  0.2742    1.8054 .0000E+00 .2487E-01    0.0000
.0000E+00 .5014E-02
  364         0.41  0.000  0.042  0.3313    1.6758 .0000E+00 .2475E-01    0.0000
.0000E+00 .4898E-02
  365         0.10  0.000  0.049  0.3357    1.5479 .0000E+00 .2462E-01    0.0000
.0000E+00 .4786E-02
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MONTHLY TOTALS (IN INCHES) FOR YEAR 2011

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	1.73	1.45	6.83	3.08	3.82	2.39
	6.03	0.76	2.90	2.48	4.47	1.19
RUNOFF	1.255	0.526	3.647	0.002	0.000	0.000
	0.261	0.000	0.290	0.007	1.010	0.000
EVAPOTRANSPIRATION	0.273	0.555	2.724	3.928	3.608	2.482
	5.562	0.634	2.328	1.577	1.609	1.110
PERCOLATION/LEAKAGE THROUGH	0.0213	0.3977	0.8553	0.7036	0.1203	0.0000
LAYER 2	0.2066	0.0000	0.3228	0.4389	0.4461	0.8240
PERCOLATION/LEAKAGE THROUGH	0.3273	0.7607	0.5870	0.1947	0.4845	0.7553
LAYER 3	0.7388	0.5526	0.5673	0.4073	0.2390	0.2454

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON	0.001	1.280	4.627	1.714	0.158	0.000
TOP OF LAYER 2	0.491	0.000	1.190	0.754	2.124	3.580
STD. DEVIATION OF DAILY	0.003	1.853	0.921	1.027	0.372	0.000
HEAD ON TOP OF LAYER 2	1.183	0.000	1.744	0.794	2.380	1.210

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ANNUAL TOTALS FOR YEAR 2011

	INCHES	CU. FEET	PERCENT
PRECIPITATION	37.13	134781.937	100.00
RUNOFF	6.999	25405.176	18.85
EVAPOTRANSPIRATION	26.390	95795.125	71.07
PERC./LEAKAGE THROUGH LAYER 2	4.336615	15741.911	11.68
AVG. HEAD ON TOP OF LAYER 2	1.3266		
PERC./LEAKAGE THROUGH LAYER 3	5.859787	21271.027	15.78
CHANGE IN WATER STORAGE	-2.118	-7689.365	-5.71

SOIL WATER AT START OF YEAR	56.171	203902.266	
SOIL WATER AT END OF YEAR	54.053	196212.891	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.029	0.00

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AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 2007 THROUGH 2011

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION						
TOTALS	2.23	1.90	5.18	2.26	3.27	3.38
	3.38	2.93	2.16	2.59	2.43	1.80
STD. DEVIATIONS	1.88	1.07	1.34	1.53	0.68	1.28
	1.78	2.28	1.23	1.39	1.68	0.95
RUNOFF						
TOTALS	1.132	0.586	2.180	0.151	0.029	0.166
	0.057	0.069	0.058	0.067	0.418	0.425
STD. DEVIATIONS	1.266	0.566	1.559	0.337	0.040	0.338
	0.115	0.102	0.130	0.136	0.573	0.949
EVAPOTRANSPIRATION						
TOTALS	0.610	0.951	2.174	2.892	2.721	3.492
	3.453	2.426	2.048	1.286	1.455	0.733
STD. DEVIATIONS	0.341	0.574	0.374	0.838	1.071	0.641
	1.855	1.489	1.467	0.602	0.099	0.269
PERCOLATION/LEAKAGE THROUGH LAYER 2						
TOTALS	0.3146	0.3937	0.7509	0.4139	0.1004	0.2075
	0.1283	0.1145	0.1981	0.3713	0.5069	0.5695
STD. DEVIATIONS	0.3948	0.3121	0.1633	0.2117	0.1068	0.1490
	0.1715	0.1844	0.1822	0.3080	0.2374	0.2753
PERCOLATION/LEAKAGE THROUGH LAYER 3						
TOTALS	0.1753	0.2293	0.2890	0.1481	0.2043	0.4871
	0.4878	0.4263	0.4155	0.3331	0.2657	0.1900
STD. DEVIATIONS	0.1060	0.3108	0.2116	0.1287	0.1732	0.1898

	0.1816	0.1472	0.1226	0.0593	0.1051	0.1542

AVERAGES OF MONTHLY AVERAGED DAILY HEADS (INCHES)

DAILY AVERAGE HEAD ON TOP OF LAYER 2

AVERAGES	1.3136	1.5307	3.8057	1.2148	0.1539	0.7011
	0.2338	0.3504	0.4771	1.0649	1.9984	1.9808
STD. DEVIATIONS	2.0243	1.7986	1.0449	0.6500	0.1572	0.5351
	0.3192	0.5341	0.4987	1.2663	1.6924	1.7396

AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 2007 THROUGH 2011

	INCHES	CU. FEET	PERCENT
PRECIPITATION	33.53 (9.450)	121699.4	100.00
RUNOFF	5.338 (3.7022)	19377.15	15.922
EVAPOTRANSPIRATION	24.241 (4.5007)	87996.05	72.306
PERCOLATION/LEAKAGE THROUGH LAYER 2	4.06977 (1.30932)	14773.253	12.13913
AVERAGE HEAD ON TOP OF LAYER 2	1.235 (0.564)		
PERCOLATION/LEAKAGE THROUGH LAYER 3	3.65137 (1.33943)	13254.481	10.89116
CHANGE IN WATER STORAGE	0.295 (2.5666)	1071.69	0.881

PEAK DAILY VALUES FOR YEARS 2007 THROUGH 2011

	(INCHES)	(CU. FT.)
PRECIPITATION	2.58	9365.399
RUNOFF	1.861	6756.8711
PERCOLATION/LEAKAGE THROUGH LAYER 2	0.028913	104.95408
AVERAGE HEAD ON TOP OF LAYER 2	6.000	
PERCOLATION/LEAKAGE THROUGH LAYER 3	0.047753	173.34175

SNOW WATER 2.42 8784.6006

MAXIMUM VEG. SOIL WATER (VOL/VOL) 0.5010

MINIMUM VEG. SOIL WATER (VOL/VOL) 0.1350

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FINAL WATER STORAGE AT END OF YEAR 2011

LAYER	(INCHES)	(VOL/VOL)
1	2.0139	0.3357
2	10.8240	0.4510
3	41.2153	0.2642
SNOW WATER	0.000	

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** HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE **
** HELP MODEL VERSION 3.07 (1 NOVEMBER 1997) **
** DEVELOPED BY ENVIRONMENTAL LABORATORY **
** USAE WATERWAYS EXPERIMENT STATION **
** FOR USEPA RISK REDUCTION ENGINEERING LABORATORY **
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PRECIPITATION DATA FILE: C:\HELP3\EZFSP.D4
TEMPERATURE DATA FILE: C:\HELP3\EZFST.D7
SOLAR RADIATION DATA FILE: C:\HELP3\EZFSS.D13
EVAPOTRANSPIRATION DATA: C:\HELP3\EZFSE.D11
SOIL AND DESIGN DATA FILE: C:\HELP3\EZALT4.D10
OUTPUT DATA FILE: C:\HELP3\EZALT4.OUT

TIME: 10:34 DATE: 2/ 8/2012

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TITLE: Eagle Zinc Alternative 4

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NOTE: INITIAL MOISTURE CONTENT OF THE LAYERS AND SNOW WATER WERE
COMPUTED AS NEARLY STEADY-STATE VALUES BY THE PROGRAM.

LAYER 1

TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 9

THICKNESS	=	6.00	INCHES
POROSITY	=	0.5010	VOL/VOL
FIELD CAPACITY	=	0.2840	VOL/VOL
WILTING POINT	=	0.1350	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.2813	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.190000006000E-03	CM/SEC

NOTE: SATURATED HYDRAULIC CONDUCTIVITY IS MULTIPLIED BY 4.63
FOR ROOT CHANNELS IN TOP HALF OF EVAPORATIVE ZONE.

LAYER 2

TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 6

THICKNESS	=	36.00	INCHES
POROSITY	=	0.4530	VOL/VOL
FIELD CAPACITY	=	0.1900	VOL/VOL
WILTING POINT	=	0.0850	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.2226	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.720000011000E-03	CM/SEC

LAYER 3

TYPE 2 - LATERAL DRAINAGE LAYER
MATERIAL TEXTURE NUMBER 0

THICKNESS	=	0.20	INCHES
POROSITY	=	0.8500	VOL/VOL
FIELD CAPACITY	=	0.0100	VOL/VOL
WILTING POINT	=	0.0050	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.0121	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	1.50000000000	CM/SEC
SLOPE	=	6.60	PERCENT
DRAINAGE LENGTH	=	350.0	FEET

LAYER 4

TYPE 4 - FLEXIBLE MEMBRANE LINER
MATERIAL TEXTURE NUMBER 36

THICKNESS	=	0.04	INCHES
POROSITY	=	0.0000	VOL/VOL
FIELD CAPACITY	=	0.0000	VOL/VOL
WILTING POINT	=	0.0000	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.0000	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.399999993000E-12	CM/SEC
FML PINHOLE DENSITY	=	2.00	HOLES/ACRE
FML INSTALLATION DEFECTS	=	2.00	HOLES/ACRE
FML PLACEMENT QUALITY	=	3 - GOOD	

LAYER 5

TYPE 3 - BARRIER SOIL LINER
MATERIAL TEXTURE NUMBER 17

THICKNESS	=	0.24	INCHES
POROSITY	=	0.7500	VOL/VOL
FIELD CAPACITY	=	0.7470	VOL/VOL
WILTING POINT	=	0.4000	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.7500	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.300000003000E-08	CM/SEC

EZALT4.OUT
LAYER 6

TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 8

THICKNESS	=	156.00	INCHES
POROSITY	=	0.4630	VOL/VOL
FIELD CAPACITY	=	0.2320	VOL/VOL
WILTING POINT	=	0.1160	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.2320	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.369999994000E-03	CM/SEC

GENERAL DESIGN AND EVAPORATIVE ZONE DATA

NOTE: SCS RUNOFF CURVE NUMBER WAS COMPUTED FROM DEFAULT SOIL DATA BASE USING SOIL TEXTURE # 9 WITH A FAIR STAND OF GRASS, A SURFACE SLOPE OF 7.% AND A SLOPE LENGTH OF 350. FEET.

SCS RUNOFF CURVE NUMBER	=	82.10	
FRACTION OF AREA ALLOWING RUNOFF	=	100.0	PERCENT
AREA PROJECTED ON HORIZONTAL PLANE	=	1.000	ACRES
EVAPORATIVE ZONE DEPTH	=	18.0	INCHES
INITIAL WATER IN EVAPORATIVE ZONE	=	4.792	INCHES
UPPER LIMIT OF EVAPORATIVE STORAGE	=	8.442	INCHES
LOWER LIMIT OF EVAPORATIVE STORAGE	=	1.830	INCHES
INITIAL SNOW WATER	=	0.000	INCHES
INITIAL WATER IN LAYER MATERIALS	=	46.077	INCHES
TOTAL INITIAL WATER	=	46.077	INCHES
TOTAL SUBSURFACE INFLOW	=	0.00	INCHES/YEAR

EVAPOTRANSPIRATION AND WEATHER DATA

NOTE: EVAPOTRANSPIRATION DATA WAS OBTAINED FROM East St. Louis Illinois

STATION LATITUDE	=	38.80	DEGREES
MAXIMUM LEAF AREA INDEX	=	3.50	
START OF GROWING SEASON (JULIAN DATE)	=	97	
END OF GROWING SEASON (JULIAN DATE)	=	300	
EVAPORATIVE ZONE DEPTH	=	18.0	INCHES
AVERAGE ANNUAL WIND SPEED	=	10.40	MPH
AVERAGE 1ST QUARTER RELATIVE HUMIDITY	=	73.00	%
AVERAGE 2ND QUARTER RELATIVE HUMIDITY	=	67.00	%
AVERAGE 3RD QUARTER RELATIVE HUMIDITY	=	71.00	%
AVERAGE 4TH QUARTER RELATIVE HUMIDITY	=	74.00	%

NOTE: PRECIPITATION DATA FOR E. ST. LOUIS ILLINOIS WAS ENTERED FROM THE DEFAULT DATA FILE.

EZALT4.OUT

NOTE: TEMPERATURE DATA WAS SYNTHETICALLY GENERATED USING
COEFFICIENTS FOR EAST ST. LOUIS ILLINOIS

NORMAL MEAN MONTHLY TEMPERATURE (DEGREES FAHRENHEIT)

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
29.80	34.60	43.80	56.20	65.20	74.10
77.70	75.70	69.00	57.60	44.90	35.00

NOTE: SOLAR RADIATION DATA WAS SYNTHETICALLY GENERATED USING
COEFFICIENTS FOR EAST ST. LOUIS ILLINOIS
AND STATION LATITUDE = 38.80 DEGREES

HEAD #1: AVERAGE HEAD ON TOP OF LAYER 4
DRAIN #1: LATERAL DRAINAGE FROM LAYER 3 (RECIRCULATION AND COLLECTION)
LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 5
LEAK #2: PERCOLATION OR LEAKAGE THROUGH LAYER 6

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DAILY OUTPUT FOR YEAR 2007

DAY	A	SOIL WATER	RAIN	RUNOFF	ET	E. ZONE WATER	HEAD #1	DRAIN #1	LEAK #1	HEAD #2	DRAIN #2	LEAK #2
	I	I										
	R	L	IN.	IN.	IN.	IN./IN.	IN.	IN.	IN.	IN.	IN.	IN.
1	*		0.00	0.000	0.017	0.2618	0.0009	.1444E-02	.1385E-07	0.0000	.0000E+00	.0000E+00
2	*		0.16	0.000	0.031	0.2576	0.0021	.3273E-02	.1413E-07	0.0000	.0000E+00	.0000E+00
3	*		0.00	0.000	0.032	0.2543	0.0021	.3415E-02	.1415E-07	0.0000	.0000E+00	.0000E+00
4	*		0.00	0.000	0.025	0.2523	0.0021	.3371E-02	.1415E-07	0.0000	.0000E+00	.0000E+00
5	*		0.00	0.000	0.029	0.2489	0.0005	.8617E-03	.1376E-07	0.0000	.0000E+00	.0000E+00
6			0.02	0.000	0.035	0.2466	0.0000	.6536E-04	.1362E-07	0.0000	.0000E+00	.0000E+00
7	*		0.01	0.000	0.027	0.2444	0.0000	.4946E-05	.1361E-07	0.0000	.0000E+00	.0000E+00
8	*		0.08	0.000	0.035	0.2439	0.0000	.3626E-06	.1361E-07	0.0000	.0000E+00	.0000E+00
9			0.34	0.000	0.000	0.2627	0.0000	.1579E-07	.7938E-08	0.0000	.0000E+00	.0000E+00

10	*	2.09	0.000	0.000	0.2624	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00								
11	*	0.00	0.000	0.029	0.2616	0.0003	.4962E-03	.3485E-08	0.0000
.0000E+00	.0000E+00								
12	*	0.00	0.000	0.023	0.2618	0.0003	.5064E-03	.1370E-07	0.0000
.0000E+00	.0000E+00								
13	*	0.00	0.000	0.023	0.2623	0.0000	.3841E-04	.1362E-07	0.0000
.0000E+00	.0000E+00								
14	*	0.06	0.000	0.021	0.2600	0.0040	.6414E-02	.1455E-07	0.0000
.0000E+00	.0000E+00								
15	*	0.00	0.000	0.016	0.2575	0.0066	.1057E-01	.1512E-07	0.0000
.0000E+00	.0000E+00								
16	*	0.00	0.000	0.020	0.2555	0.0014	.2215E-02	.1397E-07	0.0000
.0000E+00	.0000E+00								
17	*	0.00	0.000	0.026	0.2539	0.0001	.1680E-03	.1364E-07	0.0000
.0000E+00	.0000E+00								
18	*	0.00	0.000	0.029	0.2527	0.0000	.1273E-04	.1361E-07	0.0000
.0000E+00	.0000E+00								
19		0.43	0.327	0.000	0.3235	0.0015	.2459E-02	.1397E-07	0.0000
.0000E+00	.0000E+00								
20		0.00	0.000	0.043	0.2788	0.0069	.1098E-01	.1516E-07	0.0000
.0000E+00	.0000E+00								
21		0.00	0.000	0.049	0.2701	0.0788	.1258	.4436E-07	0.0000
.0000E+00	.0000E+00								
22		0.00	0.000	0.036	0.2596	0.1655	.2643	.8561E-07	0.0000
.0000E+00	.0000E+00								
23		0.00	0.000	0.048	0.2515	0.1244	.1986	.6461E-07	0.0000
.0000E+00	.0000E+00								
24		0.21	0.000	0.062	0.2559	0.1183	.1889	.6151E-07	0.0000
.0000E+00	.0000E+00								
25		0.09	0.000	0.055	0.2549	0.1080	.1724	.5624E-07	0.0000
.0000E+00	.0000E+00								
26		0.00	0.000	0.037	0.2506	0.0939	.1499	.4904E-07	0.0000
.0000E+00	.0000E+00								
27		0.00	0.000	0.041	0.2462	0.0819	.1307	.4290E-07	0.0000
.0000E+00	.0000E+00								
28		0.08	0.000	0.052	0.2454	0.0720	.1150	.3786E-07	0.0000
.0000E+00	.0000E+00								
29		0.03	0.000	0.045	0.2428	0.0600	.9573E-01	.3166E-07	0.0000
.0000E+00	.0000E+00								
30		1.41	0.057	0.055	0.2997	0.0475	.7578E-01	.2522E-07	0.0000
.0000E+00	.0000E+00								
31		0.37	0.000	0.052	0.2950	0.0480	.7671E-01	.2752E-07	0.0000
.0000E+00	.0000E+00								
32		0.08	0.000	0.045	0.2880	0.0386	.6157E-01	.2355E-07	0.0000
.0000E+00	.0000E+00								
33	*	0.00	0.000	0.032	0.2732	0.0978	.1561	.5102E-07	0.0000
.0000E+00	.0000E+00								
34		0.00	0.000	0.038	0.2635	0.0842	.1345	.4410E-07	0.0000
.0000E+00	.0000E+00								
35	*	0.04	0.000	0.035	0.2575	0.1252	.1999	.6502E-07	0.0000
.0000E+00	.0000E+00								
36	*	0.11	0.000	0.033	0.2540	0.1234	.1970	.6411E-07	0.0000
.0000E+00	.0000E+00								
37	*	0.00	0.000	0.051	0.2511	0.1091	.1742	.5682E-07	0.0000
.0000E+00	.0000E+00								
38		0.00	0.000	0.057	0.2451	0.1005	.1604	.5240E-07	0.0000
.0000E+00	.0000E+00								
39		0.01	0.000	0.048	0.2415	0.0824	.1315	.4316E-07	0.0000
.0000E+00	.0000E+00								
40		0.01	0.000	0.044	0.2384	0.0735	.1173	.3859E-07	0.0000
.0000E+00	.0000E+00								
41		0.00	0.000	0.061	0.2333	0.0715	.1141	.3757E-07	0.0000

.0000E+00	.0000E+00							
42	0.23	0.000	0.070	0.2404	0.0623	.9945E-01	.3286E-07	0.0000
.0000E+00	.0000E+00							
43	0.00	0.000	0.064	0.2356	0.0483	.7718E-01	.2568E-07	0.0000
.0000E+00	.0000E+00							
44	0.00	0.000	0.066	0.2308	0.0424	.6773E-01	.2262E-07	0.0000
.0000E+00	.0000E+00							
45	0.03	0.000	0.064	0.2280	0.0399	.6373E-01	.2166E-07	0.0000
.0000E+00	.0000E+00							
46	0.03	0.000	0.062	0.2256	0.0360	.5740E-01	.2064E-07	0.0000
.0000E+00	.0000E+00							
47	0.43	0.000	0.058	0.2455	0.0362	.5775E-01	.2068E-07	0.0000
.0000E+00	.0000E+00							
48	0.00	0.000	0.056	0.2415	0.0349	.5578E-01	.2046E-07	0.0000
.0000E+00	.0000E+00							
49	0.02	0.000	0.056	0.2388	0.0311	.4962E-01	.1976E-07	0.0000
.0000E+00	.0000E+00							
50	0.00	0.000	0.054	0.2348	0.0299	.4768E-01	.1954E-07	0.0000
.0000E+00	.0000E+00							
51	0.00	0.000	0.052	0.2309	0.0282	.4502E-01	.1924E-07	0.0000
.0000E+00	.0000E+00							
52	0.00	0.000	0.066	0.2262	0.0257	.4109E-01	.1879E-07	0.0000
.0000E+00	.0000E+00							
53	1.62	0.084	0.050	0.3080	0.0236	.3770E-01	.1840E-07	0.0000
.0000E+00	.0000E+00							
54 *	0.48	0.000	0.032	0.2795	0.0250	.3990E-01	.1864E-07	0.0000
.0000E+00	.0000E+00							
55	0.50	0.006	0.000	0.2997	0.0140	.2234E-01	.1657E-07	0.0000
.0000E+00	.0000E+00							
56 *	0.00	0.000	0.039	0.2752	0.0146	.2331E-01	.1665E-07	0.0000
.0000E+00	.0000E+00							
57	0.00	0.000	0.048	0.2647	0.1443	.2304	.7478E-07	0.0000
.0000E+00	.0000E+00							
58	0.00	0.000	0.063	0.2545	0.1733	.2767	.8959E-07	0.0000
.0000E+00	.0000E+00							
59	0.00	0.000	0.059	0.2468	0.1375	.2195	.7129E-07	0.0000
.0000E+00	.0000E+00							
60	0.02	0.000	0.056	0.2416	0.1184	.1891	.6158E-07	0.0000
.0000E+00	.0000E+00							
61 *	0.00	0.000	0.045	0.2363	0.1038	.1657	.5410E-07	0.0000
.0000E+00	.0000E+00							
62 *	0.00	0.000	0.000	0.2339	0.0880	.1405	.4602E-07	0.0000
.0000E+00	.0000E+00							
63	0.00	0.000	0.054	0.2291	0.0725	.1157	.3809E-07	0.0000
.0000E+00	.0000E+00							
64	0.00	0.000	0.076	0.2232	0.0661	.1055	.3482E-07	0.0000
.0000E+00	.0000E+00							
65	0.03	0.000	0.048	0.2212	0.0574	.9166E-01	.3035E-07	0.0000
.0000E+00	.0000E+00							
66 *	0.36	0.000	0.032	0.2214	0.0517	.8252E-01	.2740E-07	0.0000
.0000E+00	.0000E+00							
67	0.00	0.000	0.071	0.2337	0.0495	.7902E-01	.2627E-07	0.0000
.0000E+00	.0000E+00							
68 *	0.37	0.000	0.034	0.2338	0.0455	.7267E-01	.2422E-07	0.0000
.0000E+00	.0000E+00							
69	0.13	0.000	0.000	0.2533	0.0409	.6532E-01	.2190E-07	0.0000
.0000E+00	.0000E+00							
70 *	0.95	0.000	0.033	0.2536	0.0365	.5822E-01	.2073E-07	0.0000
.0000E+00	.0000E+00							
71 *	0.00	0.000	0.031	0.2539	0.0331	.5287E-01	.2013E-07	0.0000
.0000E+00	.0000E+00							
72 *	0.00	0.000	0.028	0.2538	0.0333	.5322E-01	.2017E-07	0.0000
.0000E+00	.0000E+00							

73 *	0.00	0.000	0.036	0.2543	0.0280	.4478E-01	.1921E-07	0.0000 .0000E+00 .0000E+00
74	0.00	0.000	0.000	0.2848	0.0205	.3267E-01	.1781E-07	0.0000 .0000E+00 .0000E+00
75	0.00	0.000	0.070	0.2764	0.0249	.3977E-01	.1863E-07	0.0000 .0000E+00 .0000E+00
76	0.00	0.000	0.048	0.2708	0.0128	.2047E-01	.1635E-07	0.0000 .0000E+00 .0000E+00
77	0.34	0.000	0.055	0.2830	0.0289	.4612E-01	.1935E-07	0.0000 .0000E+00 .0000E+00
78	0.00	0.000	0.103	0.2710	0.0235	.3748E-01	.1838E-07	0.0000 .0000E+00 .0000E+00
79	0.00	0.000	0.105	0.2626	0.0238	.3805E-01	.1878E-07	0.0000 .0000E+00 .0000E+00
80	0.01	0.000	0.064	0.2525	0.0345	.5507E-01	.2040E-07	0.0000 .0000E+00 .0000E+00
81	0.00	0.000	0.100	0.2419	0.0177	.2830E-01	.1728E-07	0.0000 .0000E+00 .0000E+00
82	0.02	0.000	0.107	0.2341	0.0124	.1986E-01	.1627E-07	0.0000 .0000E+00 .0000E+00
83	0.00	0.000	0.101	0.2263	0.0360	.5750E-01	.2128E-07	0.0000 .0000E+00 .0000E+00
84	0.00	0.000	0.108	0.2181	0.0556	.8883E-01	.2944E-07	0.0000 .0000E+00 .0000E+00
85	0.03	0.000	0.105	0.2126	0.0545	.8694E-01	.2883E-07	0.0000 .0000E+00 .0000E+00
86	1.44	0.029	0.086	0.2849	0.0557	.8893E-01	.2947E-07	0.0000 .0000E+00 .0000E+00
87	0.38	0.000	0.093	0.2894	0.0555	.8856E-01	.2935E-07	0.0000 .0000E+00 .0000E+00
88	0.00	0.000	0.128	0.2781	0.0442	.7060E-01	.2401E-07	0.0000 .0000E+00 .0000E+00
89	0.00	0.000	0.132	0.2612	0.0457	.7300E-01	.2614E-07	0.0000 .0000E+00 .0000E+00
90	0.00	0.000	0.124	0.2469	0.0259	.4131E-01	.1950E-07	0.0000 .0000E+00 .0000E+00
91	0.00	0.000	0.096	0.2369	0.0132	.2104E-01	.1638E-07	0.0000 .0000E+00 .0000E+00
92	0.04	0.000	0.113	0.2294	0.0509	.8121E-01	.2724E-07	0.0000 .0000E+00 .0000E+00
93	0.00	0.000	0.144	0.2192	0.0720	.1150	.3785E-07	0.0000 .0000E+00 .0000E+00
94	0.00	0.000	0.116	0.2105	0.0770	.1229	.4038E-07	0.0000 .0000E+00 .0000E+00
95	0.00	0.000	0.117	0.2021	0.0706	.1128	.3715E-07	0.0000 .0000E+00 .0000E+00
96	0.00	0.000	0.069	0.1969	0.0623	.9947E-01	.3286E-07	0.0000 .0000E+00 .0000E+00
97	0.00	0.000	0.082	0.1914	0.0548	.8745E-01	.2899E-07	0.0000 .0000E+00 .0000E+00
98	0.03	0.000	0.073	0.1882	0.0517	.8249E-01	.2739E-07	0.0000 .0000E+00 .0000E+00
99 *	0.00	0.000	0.072	0.1835	0.0485	.7738E-01	.2574E-07	0.0000 .0000E+00 .0000E+00
100	0.00	0.000	0.139	0.1750	0.0431	.6877E-01	.2295E-07	0.0000 .0000E+00 .0000E+00
101	0.00	0.000	0.120	0.1674	0.0417	.6654E-01	.2223E-07	0.0000 .0000E+00 .0000E+00
102	0.00	0.000	0.083	0.1619	0.0374	.5963E-01	.2089E-07	0.0000 .0000E+00 .0000E+00
103	0.00	0.000	0.064	0.1575	0.0327	.5213E-01	.2005E-07	0.0000 .0000E+00 .0000E+00
104	0.31	0.000	0.066	0.1702	0.0291	.4640E-01	.1940E-07	0.0000

.0000E+00	.0000E+00							
105	0.00	0.000	0.048	0.1668	0.0279	.4462E-01	.1919E-07	0.0000
.0000E+00	.0000E+00							
106	0.19	0.000	0.055	0.1736	0.0246	.3928E-01	.1858E-07	0.0000
.0000E+00	.0000E+00							
107	0.00	0.000	0.040	0.1708	0.0225	.3585E-01	.1818E-07	0.0000
.0000E+00	.0000E+00							
108	0.48	0.000	0.049	0.1943	0.0213	.3408E-01	.1798E-07	0.0000
.0000E+00	.0000E+00							
109	0.00	0.000	0.205	0.1823	0.0220	.3505E-01	.1809E-07	0.0000
.0000E+00	.0000E+00							
110	0.00	0.000	0.223	0.1694	0.0214	.3410E-01	.1798E-07	0.0000
.0000E+00	.0000E+00							
111	0.00	0.000	0.204	0.1581	0.0163	.2609E-01	.1703E-07	0.0000
.0000E+00	.0000E+00							
112	0.00	0.000	0.086	0.1534	0.0166	.2653E-01	.1709E-07	0.0000
.0000E+00	.0000E+00							
113	1.76	0.064	0.077	0.2433	0.0177	.2827E-01	.1729E-07	0.0000
.0000E+00	.0000E+00							
114	1.44	0.101	0.158	0.2930	0.0182	.2906E-01	.1739E-07	0.0000
.0000E+00	.0000E+00							
115	0.00	0.000	0.147	0.2694	0.0257	.4109E-01	.1879E-07	0.0000
.0000E+00	.0000E+00							
116	0.00	0.000	0.174	0.2518	0.0137	.2186E-01	.1648E-07	0.0000
.0000E+00	.0000E+00							
117	0.00	0.000	0.186	0.2362	0.0011	.1807E-02	.1391E-07	0.0000
.0000E+00	.0000E+00							
118	0.00	0.000	0.162	0.2238	0.0001	.1371E-03	.1364E-07	0.0000
.0000E+00	.0000E+00							
119	0.31	0.000	0.172	0.2289	0.0141	.2244E-01	.1653E-07	0.0000
.0000E+00	.0000E+00							
120	0.00	0.000	0.150	0.2182	0.0426	.6796E-01	.2311E-07	0.0000
.0000E+00	.0000E+00							
121	0.00	0.000	0.121	0.2098	0.0527	.8416E-01	.2793E-07	0.0000
.0000E+00	.0000E+00							
122	0.00	0.000	0.153	0.1997	0.0541	.8636E-01	.2864E-07	0.0000
.0000E+00	.0000E+00							
123	0.10	0.000	0.126	0.1967	0.0540	.8630E-01	.2862E-07	0.0000
.0000E+00	.0000E+00							
124	0.00	0.000	0.205	0.1840	0.0483	.7711E-01	.2566E-07	0.0000
.0000E+00	.0000E+00							
125	0.00	0.000	0.172	0.1732	0.0444	.7087E-01	.2363E-07	0.0000
.0000E+00	.0000E+00							
126	0.46	0.000	0.192	0.1868	0.0433	.6918E-01	.2309E-07	0.0000
.0000E+00	.0000E+00							
127	0.11	0.000	0.219	0.1798	0.0373	.5955E-01	.2088E-07	0.0000
.0000E+00	.0000E+00							
128	0.57	0.000	0.166	0.2016	0.0336	.5363E-01	.2022E-07	0.0000
.0000E+00	.0000E+00							
129	0.00	0.000	0.255	0.1866	0.0328	.5242E-01	.2008E-07	0.0000
.0000E+00	.0000E+00							
130	0.00	0.000	0.216	0.1744	0.0307	.4901E-01	.1969E-07	0.0000
.0000E+00	.0000E+00							
131	0.49	0.000	0.155	0.1929	0.0269	.4296E-01	.1900E-07	0.0000
.0000E+00	.0000E+00							
132	0.00	0.000	0.253	0.1789	0.0281	.4480E-01	.1921E-07	0.0000
.0000E+00	.0000E+00							
133	0.00	0.000	0.271	0.1639	0.0283	.4522E-01	.1926E-07	0.0000
.0000E+00	.0000E+00							
134	0.00	0.000	0.215	0.1519	0.0276	.4406E-01	.1913E-07	0.0000
.0000E+00	.0000E+00							
135	0.00	0.000	0.258	0.1376	0.0264	.4211E-01	.1891E-07	0.0000
.0000E+00	.0000E+00							

136	0.00	0.000	0.139	0.1298	0.0250	.3986E-01	.1865E-07	0.0000 .0000E+00 .0000E+00
137	0.00	0.000	0.122	0.1231	0.0235	.3757E-01	.1838E-07	0.0000 .0000E+00 .0000E+00
138	0.00	0.000	0.093	0.1179	0.0221	.3536E-01	.1813E-07	0.0000 .0000E+00 .0000E+00
139	0.47	0.000	0.146	0.1349	0.0224	.3575E-01	.1817E-07	0.0000 .0000E+00 .0000E+00
140	0.03	0.000	0.119	0.1299	0.0185	.2959E-01	.1745E-07	0.0000 .0000E+00 .0000E+00
141	0.00	0.000	0.125	0.1230	0.0175	.2798E-01	.1726E-07	0.0000 .0000E+00 .0000E+00
142	0.00	0.000	0.159	0.1141	0.0169	.2696E-01	.1714E-07	0.0000 .0000E+00 .0000E+00
143	0.00	0.000	0.161	0.1051	0.0162	.2594E-01	.1702E-07	0.0000 .0000E+00 .0000E+00
144	0.08	0.000	0.070	0.1057	0.0156	.2491E-01	.1689E-07	0.0000 .0000E+00 .0000E+00
145	0.12	0.000	0.040	0.1102	0.0150	.2391E-01	.1677E-07	0.0000 .0000E+00 .0000E+00
146	0.00	0.000	0.063	0.1067	0.0144	.2294E-01	.1666E-07	0.0000 .0000E+00 .0000E+00
147	0.00	0.000	0.067	0.1030	0.0138	.2201E-01	.1654E-07	0.0000 .0000E+00 .0000E+00
148	0.48	0.000	0.085	0.1249	0.0132	.2114E-01	.1644E-07	0.0000 .0000E+00 .0000E+00
149	0.15	0.000	0.093	0.1281	0.0127	.2030E-01	.1634E-07	0.0000 .0000E+00 .0000E+00
150	0.17	0.000	0.164	0.1284	0.0122	.1952E-01	.1624E-07	0.0000 .0000E+00 .0000E+00
151	0.00	0.000	0.181	0.1184	0.0118	.1878E-01	.1615E-07	0.0000 .0000E+00 .0000E+00
152	0.19	0.000	0.145	0.1209	0.0113	.1809E-01	.1607E-07	0.0000 .0000E+00 .0000E+00
153	0.00	0.000	0.221	0.1086	0.0109	.1743E-01	.1598E-07	0.0000 .0000E+00 .0000E+00
154	0.00	0.000	0.101	0.1030	0.0105	.1684E-01	.1591E-07	0.0000 .0000E+00 .0000E+00
155	0.00	0.000	0.017	0.1020	0.0102	.1624E-01	.1584E-07	0.0000 .0000E+00 .0000E+00
156	0.00	0.000	0.005	0.1017	0.0100	.1593E-01	.1580E-07	0.0000 .0000E+00 .0000E+00
157	0.00	0.000	0.001	0.1017	0.0095	.1519E-01	.1571E-07	0.0000 .0000E+00 .0000E+00
158	0.00	0.000	0.000	0.1017	0.0092	.1462E-01	.1563E-07	0.0000 .0000E+00 .0000E+00
159	0.00	0.000	0.000	0.1017	0.0089	.1417E-01	.1558E-07	0.0000 .0000E+00 .0000E+00
160	0.00	0.000	0.000	0.1017	0.0086	.1374E-01	.1552E-07	0.0000 .0000E+00 .0000E+00
161	0.00	0.000	0.000	0.1017	0.0084	.1334E-01	.1547E-07	0.0000 .0000E+00 .0000E+00
162	0.00	0.000	0.000	0.1017	0.0081	.1296E-01	.1542E-07	0.0000 .0000E+00 .0000E+00
163	0.00	0.000	0.000	0.1017	0.0079	.1260E-01	.1538E-07	0.0000 .0000E+00 .0000E+00
164	0.02	0.000	0.020	0.1017	0.0077	.1225E-01	.1533E-07	0.0000 .0000E+00 .0000E+00
165	0.35	0.000	0.099	0.1156	0.0075	.1192E-01	.1529E-07	0.0000 .0000E+00 .0000E+00
166	0.25	0.000	0.114	0.1232	0.0073	.1161E-01	.1525E-07	0.0000 .0000E+00 .0000E+00
167	1.08	0.000	0.094	0.1779	0.0071	.1131E-01	.1521E-07	0.0000

.0000E+00	.0000E+00							
168	0.41	0.000	0.199	0.1897	0.0069	.1103E-01	.1518E-07	0.0000
.0000E+00	.0000E+00							
169	0.00	0.000	0.254	0.1755	0.0067	.1076E-01	.1514E-07	0.0000
.0000E+00	.0000E+00							
170	0.00	0.000	0.238	0.1623	0.0066	.1050E-01	.1511E-07	0.0000
.0000E+00	.0000E+00							
171	0.00	0.000	0.228	0.1497	0.0064	.1025E-01	.1508E-07	0.0000
.0000E+00	.0000E+00							
172	0.00	0.000	0.298	0.1331	0.0063	.1001E-01	.1505E-07	0.0000
.0000E+00	.0000E+00							
173	0.47	0.000	0.310	0.1420	0.0061	.9783E-02	.1502E-07	0.0000
.0000E+00	.0000E+00							
174	0.22	0.000	0.233	0.1413	0.0060	.9565E-02	.1499E-07	0.0000
.0000E+00	.0000E+00							
175	0.00	0.000	0.326	0.1232	0.0059	.9355E-02	.1496E-07	0.0000
.0000E+00	.0000E+00							
176	0.79	0.000	0.272	0.1520	0.0057	.9154E-02	.1493E-07	0.0000
.0000E+00	.0000E+00							
177	0.00	0.000	0.252	0.1380	0.0056	.8960E-02	.1491E-07	0.0000
.0000E+00	.0000E+00							
178	0.00	0.000	0.259	0.1236	0.0055	.8775E-02	.1488E-07	0.0000
.0000E+00	.0000E+00							
179	0.00	0.000	0.269	0.1086	0.0054	.8596E-02	.1486E-07	0.0000
.0000E+00	.0000E+00							
180	0.00	0.000	0.116	0.1022	0.0053	.8424E-02	.1484E-07	0.0000
.0000E+00	.0000E+00							
181	0.00	0.000	0.005	0.1019	0.0052	.8258E-02	.1482E-07	0.0000
.0000E+00	.0000E+00							
182	0.00	0.000	0.005	0.1017	0.0051	.8098E-02	.1480E-07	0.0000
.0000E+00	.0000E+00							
183	0.00	0.000	0.000	0.1017	0.0050	.7944E-02	.1477E-07	0.0000
.0000E+00	.0000E+00							
184	0.00	0.000	0.000	0.1017	0.0049	.7795E-02	.1476E-07	0.0000
.0000E+00	.0000E+00							
185	0.00	0.000	0.000	0.1017	0.0048	.7651E-02	.1474E-07	0.0000
.0000E+00	.0000E+00							
186	0.85	0.000	0.087	0.1441	0.0047	.7512E-02	.1472E-07	0.0000
.0000E+00	.0000E+00							
187	0.54	0.000	0.199	0.1630	0.0046	.7378E-02	.1470E-07	0.0000
.0000E+00	.0000E+00							
188	0.00	0.000	0.223	0.1506	0.0045	.7249E-02	.1468E-07	0.0000
.0000E+00	.0000E+00							
189	0.00	0.000	0.217	0.1386	0.0045	.7123E-02	.1467E-07	0.0000
.0000E+00	.0000E+00							
190	0.00	0.000	0.231	0.1257	0.0044	.7002E-02	.1465E-07	0.0000
.0000E+00	.0000E+00							
191	0.00	0.000	0.242	0.1123	0.0044	.6990E-02	.1465E-07	0.0000
.0000E+00	.0000E+00							
192	0.00	0.000	0.155	0.1036	0.0057	.9146E-02	.1493E-07	0.0000
.0000E+00	.0000E+00							
193	0.20	0.000	0.084	0.1101	0.0059	.9396E-02	.1497E-07	0.0000
.0000E+00	.0000E+00							
194	0.10	0.000	0.119	0.1090	0.0054	.8666E-02	.1487E-07	0.0000
.0000E+00	.0000E+00							
195	0.00	0.000	0.077	0.1047	0.0050	.8012E-02	.1478E-07	0.0000
.0000E+00	.0000E+00							
196	0.00	0.000	0.045	0.1022	0.0052	.8368E-02	.1483E-07	0.0000
.0000E+00	.0000E+00							
197	0.00	0.000	0.006	0.1018	0.0051	.8097E-02	.1480E-07	0.0000
.0000E+00	.0000E+00							
198	0.06	0.000	0.049	0.1024	0.0049	.7800E-02	.1476E-07	0.0000
.0000E+00	.0000E+00							

199	0.30	0.000	0.073	0.1151	0.0047	.7519E-02	.1472E-07	0.0000
.0000E+00	.0000E+00							
200	0.09	0.000	0.101	0.1145	0.0045	.7257E-02	.1468E-07	0.0000
.0000E+00	.0000E+00							
201	0.00	0.000	0.140	0.1066	0.0044	.7011E-02	.1465E-07	0.0000
.0000E+00	.0000E+00							
202	0.00	0.000	0.063	0.1032	0.0042	.6781E-02	.1462E-07	0.0000
.0000E+00	.0000E+00							
203	0.00	0.000	0.020	0.1021	0.0041	.6565E-02	.1459E-07	0.0000
.0000E+00	.0000E+00							
204	0.20	0.000	0.055	0.1101	0.0040	.6361E-02	.1456E-07	0.0000
.0000E+00	.0000E+00							
205	0.00	0.000	0.090	0.1051	0.0039	.6170E-02	.1454E-07	0.0000
.0000E+00	.0000E+00							
206	0.00	0.000	0.048	0.1025	0.0038	.5988E-02	.1451E-07	0.0000
.0000E+00	.0000E+00							
207	0.00	0.000	0.011	0.1019	0.0036	.5817E-02	.1449E-07	0.0000
.0000E+00	.0000E+00							
208	0.00	0.000	0.003	0.1017	0.0035	.5646E-02	.1447E-07	0.0000
.0000E+00	.0000E+00							
209	0.00	0.000	0.001	0.1017	0.0034	.5498E-02	.1444E-07	0.0000
.0000E+00	.0000E+00							
210	0.00	0.000	0.000	0.1017	0.0033	.5327E-02	.1442E-07	0.0000
.0000E+00	.0000E+00							
211	0.16	0.000	0.047	0.1079	0.0033	.5208E-02	.1440E-07	0.0000
.0000E+00	.0000E+00							
212	0.06	0.000	0.096	0.1059	0.0032	.5085E-02	.1439E-07	0.0000
.0000E+00	.0000E+00							
213	0.12	0.000	0.067	0.1089	0.0031	.4960E-02	.1437E-07	0.0000
.0000E+00	.0000E+00							
214	0.10	0.000	0.100	0.1089	0.0030	.4840E-02	.1435E-07	0.0000
.0000E+00	.0000E+00							
215	0.00	0.000	0.075	0.1047	0.0030	.4725E-02	.1434E-07	0.0000
.0000E+00	.0000E+00							
216	0.00	0.000	0.042	0.1024	0.0029	.4615E-02	.1432E-07	0.0000
.0000E+00	.0000E+00							
217	0.36	0.000	0.098	0.1170	0.0028	.4510E-02	.1431E-07	0.0000
.0000E+00	.0000E+00							
218	0.00	0.000	0.088	0.1121	0.0028	.4409E-02	.1429E-07	0.0000
.0000E+00	.0000E+00							
219	0.00	0.000	0.132	0.1047	0.0027	.4313E-02	.1428E-07	0.0000
.0000E+00	.0000E+00							
220	0.00	0.000	0.043	0.1023	0.0026	.4220E-02	.1427E-07	0.0000
.0000E+00	.0000E+00							
221	0.00	0.000	0.010	0.1018	0.0026	.4132E-02	.1425E-07	0.0000
.0000E+00	.0000E+00							
222	0.00	0.000	0.001	0.1017	0.0025	.4046E-02	.1424E-07	0.0000
.0000E+00	.0000E+00							
223	0.00	0.000	0.000	0.1017	0.0025	.3964E-02	.1423E-07	0.0000
.0000E+00	.0000E+00							
224	0.00	0.000	0.000	0.1017	0.0024	.3885E-02	.1422E-07	0.0000
.0000E+00	.0000E+00							
225	0.17	0.000	0.045	0.1086	0.0024	.3809E-02	.1421E-07	0.0000
.0000E+00	.0000E+00							
226	0.37	0.000	0.078	0.1248	0.0023	.3736E-02	.1420E-07	0.0000
.0000E+00	.0000E+00							
227	0.56	0.000	0.106	0.1501	0.0023	.3665E-02	.1419E-07	0.0000
.0000E+00	.0000E+00							
228	0.00	0.000	0.140	0.1423	0.0023	.3597E-02	.1418E-07	0.0000
.0000E+00	.0000E+00							
229	0.48	0.000	0.181	0.1589	0.0022	.3531E-02	.1417E-07	0.0000
.0000E+00	.0000E+00							
230	0.00	0.000	0.212	0.1471	0.0022	.3468E-02	.1416E-07	0.0000

.0000E+00	.0000E+00								
231	0.00	0.000	0.194	0.1363	0.0021	.3406E-02	.1415E-07	0.0000	
.0000E+00	.0000E+00								
232	0.00	0.000	0.153	0.1278	0.0020	.3145E-02	.1411E-07	0.0000	
.0000E+00	.0000E+00								
233	0.00	0.000	0.202	0.1166	0.0020	.3226E-02	.1412E-07	0.0000	
.0000E+00	.0000E+00								
234	0.00	0.000	0.204	0.1053	0.0017	.2686E-02	.1404E-07	0.0000	
.0000E+00	.0000E+00								
235	0.00	0.000	0.055	0.1022	0.0002	.3730E-03	.1368E-07	0.0000	
.0000E+00	.0000E+00								
236	0.00	0.000	0.008	0.1018	0.0000	.2829E-04	.1361E-07	0.0000	
.0000E+00	.0000E+00								
237	1.15	0.000	0.062	0.1622	0.0000	.2133E-05	.1361E-07	0.0000	
.0000E+00	.0000E+00								
238	0.58	0.000	0.156	0.1858	0.0000	.1493E-06	.1361E-07	0.0000	
.0000E+00	.0000E+00								
239	0.00	0.000	0.188	0.1753	0.0000	.2886E-08	.3326E-08	0.0000	
.0000E+00	.0000E+00								
240	0.02	0.000	0.130	0.1692	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
241	1.53	0.051	0.171	0.2419	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
242	0.00	0.000	0.212	0.2301	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
243	0.00	0.000	0.188	0.2196	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
244	0.00	0.000	0.180	0.2096	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
245	0.00	0.000	0.200	0.1985	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
246	0.00	0.000	0.197	0.1876	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
247	0.00	0.000	0.225	0.1751	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
248	0.00	0.000	0.183	0.1649	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
249	0.00	0.000	0.178	0.1550	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
250	0.00	0.000	0.170	0.1456	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
251	0.00	0.000	0.146	0.1375	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
252	0.00	0.000	0.155	0.1289	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
253	0.26	0.000	0.135	0.1358	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
254	0.85	0.000	0.128	0.1759	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
255	0.00	0.000	0.161	0.1670	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
256	0.00	0.000	0.142	0.1591	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
257	0.00	0.000	0.114	0.1528	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
258	0.00	0.000	0.175	0.1431	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
259	0.02	0.000	0.114	0.1379	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
260	0.26	0.000	0.116	0.1459	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
261	0.00	0.000	0.143	0.1380	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								

262	0.95	0.000	0.147	0.1826	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
263	0.00	0.000	0.118	0.1760	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
264	0.00	0.000	0.137	0.1684	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
265	0.00	0.000	0.130	0.1612	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
266	0.00	0.000	0.110	0.1550	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
267	0.00	0.000	0.105	0.1492	0.0001	.1323E-03	.3427E-08	0.0000
.0000E+00	.0000E+00							
268	0.00	0.000	0.121	0.1425	0.0002	.3646E-03	.1368E-07	0.0000
.0000E+00	.0000E+00							
269	0.00	0.000	0.105	0.1365	0.0000	.5079E-04	.1362E-07	0.0000
.0000E+00	.0000E+00							
270	0.00	0.000	0.122	0.1296	0.0009	.1383E-02	.1385E-07	0.0000
.0000E+00	.0000E+00							
271	0.00	0.000	0.094	0.1244	0.0002	.3629E-03	.1368E-07	0.0000
.0000E+00	.0000E+00							
272	0.01	0.000	0.088	0.1200	0.0010	.1610E-02	.1388E-07	0.0000
.0000E+00	.0000E+00							
273	0.13	0.000	0.095	0.1220	0.0001	.1733E-03	.1364E-07	0.0000
.0000E+00	.0000E+00							
274	0.00	0.000	0.047	0.1194	0.0000	.1314E-04	.1361E-07	0.0000
.0000E+00	.0000E+00							
275	0.00	0.000	0.055	0.1163	0.0000	.9841E-06	.1361E-07	0.0000
.0000E+00	.0000E+00							
276	0.00	0.000	0.045	0.1138	0.0000	.6171E-07	.1303E-07	0.0000
.0000E+00	.0000E+00							
277	0.00	0.000	0.070	0.1100	0.0000	.1228E-32	.2965E-20	0.0000
.0000E+00	.0000E+00							
278	0.00	0.000	0.048	0.1073	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
279	0.00	0.000	0.068	0.1035	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
280	0.00	0.000	0.033	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
281	0.03	0.000	0.027	0.1019	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
282	0.00	0.000	0.002	0.1018	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
283	0.00	0.000	0.001	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
284	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
285	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
286	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
287	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
288	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
289	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
290	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
291	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
292	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
293	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.0000E+00							
294	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
295	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
296	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
297	0.04	0.000	0.029	0.1023	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
298	0.00	0.000	0.002	0.1022	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
299	0.00	0.000	0.003	0.1020	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
300	0.00	0.000	0.003	0.1019	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
301	0.05	0.000	0.034	0.1028	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
302	0.09	0.000	0.035	0.1058	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
303	0.00	0.000	0.002	0.1057	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
304	0.00	0.000	0.011	0.1051	0.0000	.1300E-05	.3402E-08	0.0000
.0000E+00	.0000E+00							
305	0.10	0.000	0.047	0.1080	0.0000	.1317E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
306	0.11	0.000	0.048	0.1114	0.0000	.8734E-07	.1361E-07	0.0000
.0000E+00	.0000E+00							
307	0.66	0.000	0.046	0.1455	0.0000	.1536E-09	.9746E-09	0.0000
.0000E+00	.0000E+00							
308	0.01	0.000	0.026	0.1446	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
309	0.00	0.000	0.026	0.1432	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
310	0.18	0.000	0.062	0.1497	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
311	0.00	0.000	0.035	0.1478	0.0000	.6247E-10	.6382E-09	0.0000
.0000E+00	.0000E+00							
312	0.00	0.000	0.040	0.1455	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
313	0.25	0.000	0.058	0.1562	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
314	0.00	0.000	0.042	0.1539	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
315	0.00	0.000	0.039	0.1517	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
316	0.00	0.000	0.038	0.1496	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
317	0.00	0.000	0.034	0.1477	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
318	0.00	0.000	0.028	0.1462	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
319	0.00	0.000	0.033	0.1444	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
320	0.00	0.000	0.034	0.1425	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
321	0.00	0.000	0.023	0.1412	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
322	0.00	0.000	0.019	0.1402	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
323	0.00	0.000	0.016	0.1393	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
324	0.15	0.000	0.051	0.1448	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							

325	0.00	0.000	0.016	0.1439	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
326	0.00	0.000	0.017	0.1429	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
327	0.00	0.000	0.015	0.1421	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
328	0.00	0.000	0.014	0.1413	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
329	0.00	0.000	0.015	0.1405	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
330	0.76	0.000	0.053	0.1797	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
331	0.00	0.000	0.015	0.1789	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
332	0.00	0.000	0.016	0.1780	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
333	0.34	0.000	0.054	0.1939	0.0000	.4713E-04	.3412E-08	0.0000
.0000E+00	.0000E+00							
334	0.06	0.000	0.042	0.1949	0.0000	.6236E-04	.1362E-07	0.0000
.0000E+00	.0000E+00							
335	0.00	0.000	0.018	0.1939	0.0000	.4718E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
336	0.00	0.000	0.013	0.1932	0.0000	.3454E-06	.1361E-07	0.0000
.0000E+00	.0000E+00							
337	0.00	0.000	0.014	0.1924	0.0000	.1466E-07	.7648E-08	0.0000
.0000E+00	.0000E+00							
338	0.00	0.000	0.012	0.1917	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
339	0.08	0.000	0.042	0.1938	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
340	0.02	0.000	0.030	0.1932	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
341	0.00	0.000	0.013	0.1925	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
342	0.13	0.000	0.049	0.1970	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
343	0.00	0.000	0.018	0.1960	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
344	0.00	0.000	0.012	0.1953	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
345 *	0.00	0.000	0.000	0.1953	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
346 *	0.04	0.000	0.023	0.1963	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
347 *	0.00	0.000	0.000	0.1963	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
348 *	0.89	0.000	0.013	0.1974	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
349 *	0.30	0.000	0.000	0.1985	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
350	0.00	0.000	0.000	0.2148	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
351	0.00	0.000	0.000	0.2601	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
352	0.00	0.000	0.040	0.2594	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
353 *	0.00	0.000	0.010	0.2589	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
354 *	0.00	0.000	0.000	0.2589	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
355 *	0.00	0.000	0.000	0.2561	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
356	0.00	0.000	0.012	0.2520	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.0000E+00							
357	0.00	0.000	0.017	0.2482	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
358	0.00	0.000	0.022	0.2446	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
359	0.25	0.000	0.053	0.2536	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
360	0.00	0.000	0.021	0.2507	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
361	0.00	0.000	0.021	0.2483	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
362	0.15	0.000	0.056	0.2515	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
363	0.42	0.000	0.054	0.2705	0.0002	.3866E-03	.3468E-08	0.0000
.0000E+00	.0000E+00							
364	0.00	0.000	0.028	0.2682	0.0010	.1543E-02	.1387E-07	0.0000
.0000E+00	.0000E+00							
365	0.00	0.000	0.021	0.2666	0.0012	.1980E-02	.1394E-07	0.0000
.0000E+00	.0000E+00							

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MONTHLY TOTALS (IN INCHES) FOR YEAR 2007

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	5.38	3.59	4.08	4.56	3.23	3.78
	2.56	5.44	2.48	0.21	2.62	2.28
RUNOFF	0.385	0.090	0.029	0.165	0.000	0.000
	0.000	0.051	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	0.993	1.402	2.075	3.493	4.802	4.076
	2.487	3.342	4.233	0.515	1.003	0.615
LATERAL DRAINAGE COLLECTED	1.6401	2.9590	2.2303	1.5814	1.3402	0.3616
FROM LAYER 3	0.2205	0.0873	0.0041	0.0000	0.0001	0.0039
PERCOLATION/LEAKAGE THROUGH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAYER 6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON	0.033	0.066	0.045	0.033	0.027	0.008
TOP OF LAYER 4	0.004	0.002	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY	0.048	0.045	0.025	0.021	0.013	0.002
HEAD ON TOP OF LAYER 4	0.001	0.001	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 2007

	INCHES	CU. FEET	PERCENT
PRECIPITATION	40.21	145962.297	100.00
RUNOFF	0.720	2614.571	1.79
EVAPOTRANSPIRATION	29.035	105398.602	72.21
DRAINAGE COLLECTED FROM LAYER 3	10.4285	37855.578	25.94
PERC./LEAKAGE THROUGH LAYER 5	0.000005	0.020	0.00
AVG. HEAD ON TOP OF LAYER 4	0.0182		
PERC./LEAKAGE THROUGH LAYER 6	0.000000	0.000	0.00
CHANGE IN WATER STORAGE	0.026	93.580	0.06
SOIL WATER AT START OF YEAR	46.077	167257.750	
SOIL WATER AT END OF YEAR	46.102	167351.328	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.032	0.00

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WARNING: TEMPERATURE FOR YEAR 1976 USED WITH PRECIPITATION FOR YEAR 2008

WARNING: SOLAR RADIATION FOR YEAR 1976 USED WITH PRECIPITATION FOR YEAR 2008

HEAD #1: AVERAGE HEAD ON TOP OF LAYER 4
DRAIN #1: LATERAL DRAINAGE FROM LAYER 3 (RECIRCULATION AND COLLECTION)
LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 5
LEAK #2: PERCOLATION OR LEAKAGE THROUGH LAYER 6

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DAILY OUTPUT FOR YEAR 2008

DAY	A	S O L I	RAIN	RUNOFF	ET	E. ZONE WATER	HEAD #1	DRAIN #1	LEAK #1	HEAD #2	DRAIN #2
	I	I									
	R	L	IN.	IN.	IN.	IN./IN.	IN.	IN.	IN.	IN.	IN.
1			0.01	0.000	0.028	0.2617	0.0008	.1293E-02	.1383E-07	0.0000	.0000E+00
2	*		0.00	0.000	0.017	0.2554	0.0021	.3343E-02	.1414E-07	0.0000	.0000E+00
3	*		0.00	0.000	0.017	0.2511	0.0022	.3501E-02	.1416E-07	0.0000	.0000E+00
4	*		0.00	0.000	0.017	0.2472	0.0022	.3455E-02	.1416E-07	0.0000	.0000E+00
5			0.00	0.000	0.019	0.2435	0.0006	.1026E-02	.1379E-07	0.0000	.0000E+00
6			0.00	0.000	0.022	0.2400	0.0000	.7782E-04	.1362E-07	0.0000	.0000E+00
7			0.28	0.000	0.049	0.2510	0.0000	.5891E-05	.1361E-07	0.0000	.0000E+00
8	*		0.00	0.000	0.018	0.2482	0.0000	.4343E-06	.1361E-07	0.0000	.0000E+00
9	*		0.00	0.000	0.000	0.2470	0.0000	.2071E-07	.8902E-08	0.0000	.0000E+00
10	*		0.00	0.000	0.000	0.2453	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00
11	*		0.00	0.000	0.000	0.2438	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00
12	*		0.00	0.000	0.000	0.2428	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00
13	*		0.08	0.000	0.016	0.2432	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00
14	*		0.00	0.000	0.018	0.2440	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00
15	*		0.00	0.000	0.007	0.2435	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00
16	*	*	0.00	0.000	0.000	0.2435	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00
17	*	*	0.00	0.000	0.000	0.2435	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00
18	*	*	0.00	0.000	0.000	0.2435	0.0000	.1603E-04	.3405E-08	0.0000	.0000E+00
19		*	0.06	0.000	0.022	0.2456	0.0016	.2563E-02	.1402E-07	0.0000	.0000E+00
20	*	*	0.00	0.000	0.000	0.2456	0.0046	.7295E-02	.1469E-07	0.0000	.0000E+00
21		*	0.00	0.000	0.000	0.2456	0.0070	.1121E-01	.1520E-07	0.0000	.0000E+00
22	*	*	0.00	0.000	0.000	0.2456	0.0088	.1412E-01	.1557E-07	0.0000	.0000E+00
23	*	*	0.00	0.000	0.000	0.2456	0.0101	.1619E-01	.1583E-07	0.0000	.0000E+00
24	*	*	0.00	0.000	0.000	0.2456	0.0110	.1760E-01	.1601E-07	0.0000	.0000E+00
25	*	*	0.38	0.000	0.023	0.2456	0.0116	.1850E-01	.1612E-07	0.0000	.0000E+00
26	*	*	0.00	0.000	0.017	0.2456	0.0119	.1900E-01	.1618E-07	0.0000	.0000E+00

27	*	*	0.00	0.000	0.028	0.2456	0.0120	.1921E-01	.1620E-07	0.0000
.0000E+00	.0000E+00									
28	*	*	0.00	0.000	0.030	0.2456	0.0120	.1921E-01	.1620E-07	0.0000
.0000E+00	.0000E+00									
29	*	*	0.00	0.000	0.024	0.2456	0.0119	.1906E-01	.1618E-07	0.0000
.0000E+00	.0000E+00									
30	*	*	0.00	0.000	0.022	0.2456	0.0118	.1879E-01	.1615E-07	0.0000
.0000E+00	.0000E+00									
31	*	*	0.02	0.000	0.000	0.2456	0.0116	.1845E-01	.1611E-07	0.0000
.0000E+00	.0000E+00									
32		*	0.00	0.021	0.029	0.2524	0.0113	.1806E-01	.1606E-07	0.0000
.0000E+00	.0000E+00									
33	*	*	0.27	0.000	0.029	0.2524	0.0110	.1763E-01	.1601E-07	0.0000
.0000E+00	.0000E+00									
34	*	*	0.00	0.000	0.025	0.2524	0.0108	.1719E-01	.1595E-07	0.0000
.0000E+00	.0000E+00									
35	*	*	0.00	0.000	0.030	0.2524	0.0105	.1674E-01	.1590E-07	0.0000
.0000E+00	.0000E+00									
36	*	*	0.44	0.000	0.028	0.2524	0.0102	.1630E-01	.1584E-07	0.0000
.0000E+00	.0000E+00									
37	*	*	0.00	0.000	0.029	0.2524	0.0099	.1585E-01	.1579E-07	0.0000
.0000E+00	.0000E+00									
38		*	0.00	0.018	0.015	0.2591	0.0097	.1541E-01	.1573E-07	0.0000
.0000E+00	.0000E+00									
39		*	0.00	0.175	0.009	0.2710	0.0094	.1499E-01	.1568E-07	0.0000
.0000E+00	.0000E+00									
40		*	0.00	0.008	0.070	0.2724	0.0091	.1458E-01	.1563E-07	0.0000
.0000E+00	.0000E+00									
41		*	0.00	0.000	0.000	0.2724	0.0089	.1418E-01	.1558E-07	0.0000
.0000E+00	.0000E+00									
42		*	0.00	0.000	0.000	0.2724	0.0086	.1379E-01	.1553E-07	0.0000
.0000E+00	.0000E+00									
43		*	0.00	0.000	0.000	0.2724	0.0084	.1342E-01	.1548E-07	0.0000
.0000E+00	.0000E+00									
44	*	*	0.00	0.000	0.000	0.2724	0.0082	.1306E-01	.1544E-07	0.0000
.0000E+00	.0000E+00									
45	*	*	0.00	0.000	0.000	0.2724	0.0080	.1272E-01	.1539E-07	0.0000
.0000E+00	.0000E+00									
46	*	*	0.00	0.000	0.000	0.2724	0.0078	.1239E-01	.1535E-07	0.0000
.0000E+00	.0000E+00									
47		*	0.01	0.000	0.008	0.2725	0.0076	.1207E-01	.1531E-07	0.0000
.0000E+00	.0000E+00									
48	*	*	0.00	0.000	0.000	0.2725	0.0074	.1177E-01	.1527E-07	0.0000
.0000E+00	.0000E+00									
49	*	*	0.00	0.000	0.000	0.2725	0.0072	.1148E-01	.1524E-07	0.0000
.0000E+00	.0000E+00									
50	*	*	0.00	0.000	0.000	0.2725	0.0070	.1120E-01	.1520E-07	0.0000
.0000E+00	.0000E+00									
51		*	0.15	0.028	0.018	0.2782	0.0068	.1093E-01	.1517E-07	0.0000
.0000E+00	.0000E+00									
52		*	0.21	0.068	0.018	0.2851	0.0067	.1067E-01	.1513E-07	0.0000
.0000E+00	.0000E+00									
53	*	*	0.00	0.000	0.000	0.2851	0.0065	.1042E-01	.1510E-07	0.0000
.0000E+00	.0000E+00									
54	*	*	0.00	0.000	0.000	0.2851	0.0064	.1019E-01	.1507E-07	0.0000
.0000E+00	.0000E+00									
55		*	0.00	0.000	0.000	0.2851	0.0062	.9957E-02	.1504E-07	0.0000
.0000E+00	.0000E+00									
56	*	*	0.00	0.000	0.000	0.2851	0.0061	.9738E-02	.1501E-07	0.0000
.0000E+00	.0000E+00									
57	*	*	0.00	0.000	0.000	0.2851	0.0060	.9526E-02	.1498E-07	0.0000
.0000E+00	.0000E+00									
58		*	0.00	0.000	0.000	0.2851	0.0058	.9323E-02	.1496E-07	0.0000

.0000E+00 .0000E+00
59 * * 0.00 0.000 0.000 0.2851 0.0057 .9128E-02 .1493E-07 0.0000
.0000E+00 .0000E+00
60 * * 0.00 0.000 0.000 0.2851 0.0056 .8939E-02 .1491E-07 0.0000
.0000E+00 .0000E+00
61 * * 0.00 0.000 0.000 0.2851 0.0055 .8758E-02 .1488E-07 0.0000
.0000E+00 .0000E+00
62 * * 0.00 0.000 0.000 0.2851 0.0054 .8583E-02 .1486E-07 0.0000
.0000E+00 .0000E+00
63 * * 1.49 0.000 0.000 0.2851 0.0053 .8414E-02 .1484E-07 0.0000
.0000E+00 .0000E+00
64 * * 0.93 0.000 0.024 0.2851 0.0052 .8251E-02 .1482E-07 0.0000
.0000E+00 .0000E+00
65 * 0.00 0.201 0.000 0.2944 0.0051 .8094E-02 .1479E-07 0.0000
.0000E+00 .0000E+00
66 * 0.00 1.239 0.000 0.3054 0.0050 .7942E-02 .1477E-07 0.0000
.0000E+00 .0000E+00
67 * 0.00 0.438 0.007 0.3135 0.0049 .7795E-02 .1476E-07 0.0000
.0000E+00 .0000E+00
68 * 0.00 0.000 0.000 0.3135 0.0048 .7654E-02 .1474E-07 0.0000
.0000E+00 .0000E+00
69 * 0.00 0.000 0.000 0.3135 0.0047 .7517E-02 .1472E-07 0.0000
.0000E+00 .0000E+00
70 * 0.01 0.000 0.007 0.3137 0.0046 .7384E-02 .1470E-07 0.0000
.0000E+00 .0000E+00
71 * 0.26 0.150 0.016 0.3189 0.0045 .7255E-02 .1468E-07 0.0000
.0000E+00 .0000E+00
72 * 0.00 0.000 0.000 0.3189 0.0045 .7131E-02 .1467E-07 0.0000
.0000E+00 .0000E+00
73 * 0.00 0.000 0.000 0.3189 0.0044 .7011E-02 .1465E-07 0.0000
.0000E+00 .0000E+00
74 0.00 0.000 0.088 0.2709 0.0053 .8517E-02 .1485E-07 0.0000
.0000E+00 .0000E+00
75 0.28 0.000 0.068 0.2735 0.0060 .9597E-02 .1499E-07 0.0000
.0000E+00 .0000E+00
76 0.20 0.000 0.075 0.2737 0.0015 .2429E-02 .1400E-07 0.0000
.0000E+00 .0000E+00
77 0.00 0.000 0.098 0.2633 0.0001 .1843E-03 .1364E-07 0.0000
.0000E+00 .0000E+00
78 0.00 0.000 0.049 0.2569 0.0000 .1397E-04 .1361E-07 0.0000
.0000E+00 .0000E+00
79 * 0.00 0.000 0.068 0.2518 0.0000 .1047E-05 .1361E-07 0.0000
.0000E+00 .0000E+00
80 * 0.01 0.000 0.055 0.2460 0.0012 .1936E-02 .1391E-07 0.0000
.0000E+00 .0000E+00
81 0.00 0.000 0.088 0.2380 0.0073 .1173E-01 .1527E-07 0.0000
.0000E+00 .0000E+00
82 0.01 0.000 0.054 0.2331 0.0118 .1879E-01 .1615E-07 0.0000
.0000E+00 .0000E+00
83 0.00 0.000 0.079 0.2267 0.0183 .2927E-01 .1740E-07 0.0000
.0000E+00 .0000E+00
84 0.05 0.000 0.090 0.2224 0.0309 .4938E-01 .1974E-07 0.0000
.0000E+00 .0000E+00
85 0.00 0.000 0.128 0.2140 0.0303 .4831E-01 .1961E-07 0.0000
.0000E+00 .0000E+00
86 0.51 0.000 0.127 0.2338 0.0365 .5821E-01 .2073E-07 0.0000
.0000E+00 .0000E+00
87 0.16 0.000 0.094 0.2365 0.0363 .5797E-01 .2071E-07 0.0000
.0000E+00 .0000E+00
88 0.01 0.000 0.076 0.2321 0.0352 .5620E-01 .2051E-07 0.0000
.0000E+00 .0000E+00
89 0.36 0.000 0.085 0.2464 0.0367 .5866E-01 .2078E-07 0.0000
.0000E+00 .0000E+00

90	0.00	0.000	0.128	0.2384	0.0357	.5701E-01	.2060E-07	0.0000
.0000E+00	.0000E+00							
91	0.00	0.000	0.092	0.2323	0.0331	.5284E-01	.2013E-07	0.0000
.0000E+00	.0000E+00							
92	0.00	0.000	0.141	0.2236	0.0299	.4773E-01	.1955E-07	0.0000
.0000E+00	.0000E+00							
93	0.00	0.000	0.171	0.2132	0.0290	.4625E-01	.1938E-07	0.0000
.0000E+00	.0000E+00							
94	0.00	0.000	0.153	0.2038	0.0266	.4252E-01	.1895E-07	0.0000
.0000E+00	.0000E+00							
95	0.00	0.000	0.120	0.1965	0.0235	.3750E-01	.1837E-07	0.0000
.0000E+00	.0000E+00							
96	0.00	0.000	0.133	0.1887	0.0219	.3499E-01	.1808E-07	0.0000
.0000E+00	.0000E+00							
97	0.00	0.000	0.103	0.1830	0.0183	.2924E-01	.1741E-07	0.0000
.0000E+00	.0000E+00							
98	0.00	0.000	0.105	0.1768	0.0211	.3362E-01	.1792E-07	0.0000
.0000E+00	.0000E+00							
99	0.00	0.000	0.141	0.1684	0.0239	.3823E-01	.1846E-07	0.0000
.0000E+00	.0000E+00							
100	0.00	0.000	0.136	0.1604	0.0221	.3533E-01	.1812E-07	0.0000
.0000E+00	.0000E+00							
101	0.00	0.000	0.084	0.1558	0.0184	.2936E-01	.1742E-07	0.0000
.0000E+00	.0000E+00							
102	0.00	0.000	0.065	0.1521	0.0170	.2721E-01	.1717E-07	0.0000
.0000E+00	.0000E+00							
103	0.00	0.000	0.055	0.1491	0.0176	.2804E-01	.1727E-07	0.0000
.0000E+00	.0000E+00							
104	0.00	0.000	0.049	0.1463	0.0177	.2833E-01	.1730E-07	0.0000
.0000E+00	.0000E+00							
105	0.00	0.000	0.045	0.1438	0.0176	.2810E-01	.1727E-07	0.0000
.0000E+00	.0000E+00							
106	0.00	0.000	0.042	0.1415	0.0172	.2753E-01	.1721E-07	0.0000
.0000E+00	.0000E+00							
107	0.00	0.000	0.039	0.1393	0.0168	.2676E-01	.1711E-07	0.0000
.0000E+00	.0000E+00							
108	0.00	0.000	0.037	0.1372	0.0162	.2588E-01	.1701E-07	0.0000
.0000E+00	.0000E+00							
109	0.00	0.000	0.037	0.1352	0.0156	.2495E-01	.1690E-07	0.0000
.0000E+00	.0000E+00							
110	0.71	0.000	0.047	0.1720	0.0150	.2401E-01	.1679E-07	0.0000
.0000E+00	.0000E+00							
111	0.29	0.000	0.154	0.1796	0.0145	.2308E-01	.1667E-07	0.0000
.0000E+00	.0000E+00							
112	0.00	0.000	0.205	0.1682	0.0139	.2219E-01	.1657E-07	0.0000
.0000E+00	.0000E+00							
113	0.00	0.000	0.189	0.1577	0.0134	.2132E-01	.1646E-07	0.0000
.0000E+00	.0000E+00							
114	0.00	0.000	0.093	0.1525	0.0128	.2050E-01	.1636E-07	0.0000
.0000E+00	.0000E+00							
115	0.18	0.000	0.082	0.1580	0.0124	.1972E-01	.1627E-07	0.0000
.0000E+00	.0000E+00							
116	0.13	0.000	0.073	0.1611	0.0119	.1899E-01	.1618E-07	0.0000
.0000E+00	.0000E+00							
117	0.00	0.000	0.056	0.1580	0.0115	.1829E-01	.1609E-07	0.0000
.0000E+00	.0000E+00							
118	0.06	0.000	0.064	0.1578	0.0110	.1763E-01	.1601E-07	0.0000
.0000E+00	.0000E+00							
119	0.00	0.000	0.051	0.1549	0.0107	.1701E-01	.1593E-07	0.0000
.0000E+00	.0000E+00							
120	0.00	0.000	0.049	0.1522	0.0105	.1682E-01	.1591E-07	0.0000
.0000E+00	.0000E+00							
121	0.00	0.000	0.050	0.1494	0.0099	.1579E-01	.1578E-07	0.0000

.0000E+00	.0000E+00							
122	0.01	0.000	0.052	0.1471	0.0096	.1525E-01	.1571E-07	0.0000
.0000E+00	.0000E+00							
123	0.00	0.000	0.048	0.1444	0.0093	.1477E-01	.1565E-07	0.0000
.0000E+00	.0000E+00							
124	0.00	0.000	0.048	0.1417	0.0090	.1432E-01	.1560E-07	0.0000
.0000E+00	.0000E+00							
125	0.00	0.000	0.054	0.1387	0.0087	.1389E-01	.1554E-07	0.0000
.0000E+00	.0000E+00							
126	0.03	0.000	0.063	0.1369	0.0084	.1349E-01	.1549E-07	0.0000
.0000E+00	.0000E+00							
127	0.20	0.000	0.063	0.1445	0.0082	.1310E-01	.1544E-07	0.0000
.0000E+00	.0000E+00							
128	0.00	0.000	0.064	0.1409	0.0080	.1273E-01	.1540E-07	0.0000
.0000E+00	.0000E+00							
129	0.00	0.000	0.062	0.1375	0.0078	.1238E-01	.1535E-07	0.0000
.0000E+00	.0000E+00							
130	0.00	0.000	0.065	0.1339	0.0075	.1205E-01	.1531E-07	0.0000
.0000E+00	.0000E+00							
131	0.00	0.000	0.071	0.1299	0.0073	.1173E-01	.1527E-07	0.0000
.0000E+00	.0000E+00							
132	0.00	0.000	0.071	0.1259	0.0072	.1143E-01	.1523E-07	0.0000
.0000E+00	.0000E+00							
133	0.00	0.000	0.072	0.1220	0.0070	.1114E-01	.1519E-07	0.0000
.0000E+00	.0000E+00							
134	0.60	0.000	0.081	0.1508	0.0068	.1087E-01	.1516E-07	0.0000
.0000E+00	.0000E+00							
135	0.06	0.000	0.095	0.1489	0.0066	.1060E-01	.1512E-07	0.0000
.0000E+00	.0000E+00							
136	0.32	0.000	0.089	0.1617	0.0065	.1035E-01	.1509E-07	0.0000
.0000E+00	.0000E+00							
137	0.00	0.000	0.178	0.1505	0.0072	.1150E-01	.1524E-07	0.0000
.0000E+00	.0000E+00							
138	0.04	0.000	0.177	0.1429	0.0063	.1006E-01	.1505E-07	0.0000
.0000E+00	.0000E+00							
139	0.00	0.000	0.210	0.1312	0.0056	.8948E-02	.1491E-07	0.0000
.0000E+00	.0000E+00							
140	0.00	0.000	0.153	0.1227	0.0055	.8772E-02	.1488E-07	0.0000
.0000E+00	.0000E+00							
141	0.00	0.000	0.142	0.1148	0.0055	.8827E-02	.1489E-07	0.0000
.0000E+00	.0000E+00							
142	0.00	0.000	0.161	0.1059	0.0054	.8680E-02	.1487E-07	0.0000
.0000E+00	.0000E+00							
143	0.00	0.000	0.065	0.1023	0.0053	.8434E-02	.1484E-07	0.0000
.0000E+00	.0000E+00							
144	0.00	0.000	0.008	0.1018	0.0052	.8309E-02	.1482E-07	0.0000
.0000E+00	.0000E+00							
145	0.00	0.000	0.003	0.1017	0.0051	.8173E-02	.1481E-07	0.0000
.0000E+00	.0000E+00							
146	0.00	0.000	0.000	0.1017	0.0050	.8063E-02	.1479E-07	0.0000
.0000E+00	.0000E+00							
147	0.00	0.000	0.000	0.1017	0.0050	.7954E-02	.1478E-07	0.0000
.0000E+00	.0000E+00							
148	0.04	0.000	0.028	0.1023	0.0049	.7845E-02	.1476E-07	0.0000
.0000E+00	.0000E+00							
149	0.11	0.000	0.028	0.1069	0.0048	.7737E-02	.1475E-07	0.0000
.0000E+00	.0000E+00							
150	0.02	0.000	0.041	0.1057	0.0048	.7629E-02	.1473E-07	0.0000
.0000E+00	.0000E+00							
151	1.78	0.067	0.091	0.1958	0.0047	.7522E-02	.1472E-07	0.0000
.0000E+00	.0000E+00							
152	0.69	0.000	0.159	0.2253	0.0046	.7415E-02	.1470E-07	0.0000
.0000E+00	.0000E+00							

153	0.00	0.000	0.210	0.2137	0.0046	.7310E-02	.1469E-07	0.0000
.0000E+00	.0000E+00							
154	0.00	0.000	0.217	0.2016	0.0045	.7207E-02	.1468E-07	0.0000
.0000E+00	.0000E+00							
155	0.00	0.000	0.230	0.1888	0.0044	.7105E-02	.1466E-07	0.0000
.0000E+00	.0000E+00							
156	0.04	0.000	0.245	0.1775	0.0044	.7004E-02	.1465E-07	0.0000
.0000E+00	.0000E+00							
157	0.10	0.000	0.253	0.1690	0.0043	.6905E-02	.1464E-07	0.0000
.0000E+00	.0000E+00							
158	0.00	0.000	0.264	0.1543	0.0043	.6807E-02	.1462E-07	0.0000
.0000E+00	.0000E+00							
159	0.00	0.000	0.264	0.1395	0.0046	.7304E-02	.1469E-07	0.0000
.0000E+00	.0000E+00							
160	0.00	0.000	0.343	0.1205	0.0042	.6732E-02	.1461E-07	0.0000
.0000E+00	.0000E+00							
161	0.00	0.000	0.268	0.1056	0.0040	.6436E-02	.1457E-07	0.0000
.0000E+00	.0000E+00							
162	0.00	0.000	0.070	0.1017	0.0040	.6338E-02	.1456E-07	0.0000
.0000E+00	.0000E+00							
163	0.00	0.000	0.000	0.1017	0.0048	.7705E-02	.1474E-07	0.0000
.0000E+00	.0000E+00							
164	0.00	0.000	0.000	0.1017	0.0056	.8951E-02	.1491E-07	0.0000
.0000E+00	.0000E+00							
165	0.00	0.000	0.000	0.1017	0.0055	.8714E-02	.1488E-07	0.0000
.0000E+00	.0000E+00							
166	0.00	0.000	0.000	0.1017	0.0052	.8379E-02	.1483E-07	0.0000
.0000E+00	.0000E+00							
167	0.01	0.000	0.010	0.1017	0.0050	.8058E-02	.1479E-07	0.0000
.0000E+00	.0000E+00							
168	0.00	0.000	0.000	0.1017	0.0049	.7760E-02	.1475E-07	0.0000
.0000E+00	.0000E+00							
169	0.00	0.000	0.000	0.1017	0.0047	.7481E-02	.1471E-07	0.0000
.0000E+00	.0000E+00							
170	0.00	0.000	0.000	0.1017	0.0045	.7221E-02	.1468E-07	0.0000
.0000E+00	.0000E+00							
171	0.00	0.000	0.000	0.1017	0.0044	.6978E-02	.1465E-07	0.0000
.0000E+00	.0000E+00							
172	0.00	0.000	0.000	0.1017	0.0042	.6750E-02	.1462E-07	0.0000
.0000E+00	.0000E+00							
173	0.00	0.000	0.000	0.1017	0.0041	.6536E-02	.1459E-07	0.0000
.0000E+00	.0000E+00							
174	0.00	0.000	0.000	0.1017	0.0040	.6334E-02	.1456E-07	0.0000
.0000E+00	.0000E+00							
175	1.52	0.024	0.093	0.1796	0.0038	.6144E-02	.1453E-07	0.0000
.0000E+00	.0000E+00							
176	0.65	0.000	0.164	0.2066	0.0037	.5964E-02	.1451E-07	0.0000
.0000E+00	.0000E+00							
177	0.00	0.000	0.209	0.1950	0.0036	.5794E-02	.1449E-07	0.0000
.0000E+00	.0000E+00							
178	0.00	0.000	0.211	0.1833	0.0035	.5633E-02	.1446E-07	0.0000
.0000E+00	.0000E+00							
179	0.00	0.000	0.255	0.1691	0.0034	.5480E-02	.1444E-07	0.0000
.0000E+00	.0000E+00							
180	0.00	0.000	0.311	0.1518	0.0033	.5335E-02	.1442E-07	0.0000
.0000E+00	.0000E+00							
181	0.00	0.000	0.265	0.1371	0.0033	.5197E-02	.1440E-07	0.0000
.0000E+00	.0000E+00							
182	0.00	0.000	0.263	0.1225	0.0032	.5066E-02	.1438E-07	0.0000
.0000E+00	.0000E+00							
183	0.00	0.000	0.323	0.1045	0.0031	.4941E-02	.1437E-07	0.0000
.0000E+00	.0000E+00							
184	0.33	0.000	0.152	0.1144	0.0030	.4821E-02	.1435E-07	0.0000

.0000E+00	.0000E+00								
185	0.00	0.000	0.128	0.1073	0.0029	.4707E-02	.1434E-07	0.0000	
.0000E+00	.0000E+00								
186	0.00	0.000	0.066	0.1036	0.0029	.4598E-02	.1432E-07	0.0000	
.0000E+00	.0000E+00								
187	0.00	0.000	0.027	0.1022	0.0028	.4494E-02	.1431E-07	0.0000	
.0000E+00	.0000E+00								
188	0.00	0.000	0.007	0.1018	0.0028	.4394E-02	.1429E-07	0.0000	
.0000E+00	.0000E+00								
189	0.25	0.000	0.045	0.1132	0.0027	.4298E-02	.1428E-07	0.0000	
.0000E+00	.0000E+00								
190	0.00	0.000	0.119	0.1065	0.0026	.4206E-02	.1426E-07	0.0000	
.0000E+00	.0000E+00								
191	0.00	0.000	0.062	0.1031	0.0026	.4118E-02	.1425E-07	0.0000	
.0000E+00	.0000E+00								
192	0.00	0.000	0.019	0.1020	0.0025	.4033E-02	.1424E-07	0.0000	
.0000E+00	.0000E+00								
193	0.00	0.000	0.005	0.1018	0.0025	.3951E-02	.1423E-07	0.0000	
.0000E+00	.0000E+00								
194	0.00	0.000	0.001	0.1017	0.0024	.3873E-02	.1422E-07	0.0000	
.0000E+00	.0000E+00								
195	0.00	0.000	0.000	0.1017	0.0024	.3797E-02	.1421E-07	0.0000	
.0000E+00	.0000E+00								
196	0.00	0.000	0.000	0.1017	0.0023	.3725E-02	.1420E-07	0.0000	
.0000E+00	.0000E+00								
197	0.00	0.000	0.000	0.1017	0.0023	.3654E-02	.1419E-07	0.0000	
.0000E+00	.0000E+00								
198	0.00	0.000	0.000	0.1017	0.0022	.3587E-02	.1418E-07	0.0000	
.0000E+00	.0000E+00								
199	0.00	0.000	0.000	0.1017	0.0022	.3521E-02	.1417E-07	0.0000	
.0000E+00	.0000E+00								
200	0.00	0.000	0.000	0.1017	0.0022	.3458E-02	.1416E-07	0.0000	
.0000E+00	.0000E+00								
201	0.00	0.000	0.000	0.1017	0.0021	.3397E-02	.1415E-07	0.0000	
.0000E+00	.0000E+00								
202	0.00	0.000	0.000	0.1017	0.0021	.3338E-02	.1414E-07	0.0000	
.0000E+00	.0000E+00								
203	0.40	0.000	0.140	0.1161	0.0021	.3281E-02	.1413E-07	0.0000	
.0000E+00	.0000E+00								
204	0.00	0.000	0.126	0.1091	0.0012	.1848E-02	.1392E-07	0.0000	
.0000E+00	.0000E+00								
205	0.00	0.000	0.113	0.1028	0.0001	.1620E-03	.1364E-07	0.0000	
.0000E+00	.0000E+00								
206	0.00	0.000	0.015	0.1019	0.0000	.1227E-04	.1361E-07	0.0000	
.0000E+00	.0000E+00								
207	0.00	0.000	0.004	0.1017	0.0000	.9186E-06	.1361E-07	0.0000	
.0000E+00	.0000E+00								
208	0.05	0.000	0.046	0.1019	0.0000	.5663E-07	.1273E-07	0.0000	
.0000E+00	.0000E+00								
209	0.00	0.000	0.003	0.1018	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
210	0.68	0.000	0.112	0.1333	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
211	0.00	0.000	0.118	0.1268	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
212	0.00	0.000	0.163	0.1177	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
213	0.57	0.000	0.189	0.1389	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
214	0.00	0.000	0.219	0.1268	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
215	0.00	0.000	0.184	0.1165	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								

216	0.00	0.000	0.221	0.1043	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
217	0.00	0.000	0.038	0.1021	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
218	0.21	0.000	0.055	0.1108	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
219	0.04	0.000	0.094	0.1077	0.0001	.1585E-03	.6835E-08	0.0000
.0000E+00	.0000E+00							
220	0.00	0.000	0.070	0.1039	0.0003	.5108E-03	.1370E-07	0.0000
.0000E+00	.0000E+00							
221	0.00	0.000	0.026	0.1024	0.0000	.3874E-04	.1362E-07	0.0000
.0000E+00	.0000E+00							
222	0.00	0.000	0.010	0.1019	0.0000	.2926E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
223	0.00	0.000	0.003	0.1017	0.0000	.2094E-06	.1361E-07	0.0000
.0000E+00	.0000E+00							
224	0.00	0.000	0.001	0.1017	0.0000	.5923E-08	.5227E-08	0.0000
.0000E+00	.0000E+00							
225	0.00	0.000	0.000	0.1017	0.0000	.4310E-08	.4411E-08	0.0000
.0000E+00	.0000E+00							
226	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
227	0.75	0.000	0.108	0.1373	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
228	0.01	0.000	0.090	0.1329	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
229	0.00	0.000	0.160	0.1240	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
230	0.00	0.000	0.074	0.1199	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
231	0.00	0.000	0.174	0.1102	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
232	0.00	0.000	0.145	0.1022	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
233	0.00	0.000	0.007	0.1018	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
234	0.00	0.000	0.002	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
235	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
236	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
237	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
238	0.26	0.000	0.052	0.1132	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
239	0.00	0.000	0.088	0.1083	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
240	0.00	0.000	0.103	0.1026	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
241	0.00	0.000	0.013	0.1019	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
242	0.00	0.000	0.003	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
243	0.00	0.000	0.001	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
244	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
245	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
246	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
247	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.0000E+00							
248	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
249	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
250	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
251	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
252	0.02	0.000	0.020	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
253	0.26	0.000	0.046	0.1136	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
254	0.00	0.000	0.046	0.1110	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
255	0.00	0.000	0.071	0.1071	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
256	0.00	0.000	0.072	0.1030	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
257	0.00	0.000	0.022	0.1018	0.0000	.6488E-08	.4730E-08	0.0000
.0000E+00	.0000E+00							
258	0.00	0.000	0.002	0.1017	0.0000	.1266E-08	.2443E-08	0.0000
.0000E+00	.0000E+00							
259	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
260	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
261	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
262	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
263	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
264	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
265	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
266	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
267	0.03	0.000	0.025	0.1020	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
268	0.00	0.000	0.003	0.1018	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
269	0.17	0.000	0.044	0.1088	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
270	0.29	0.000	0.053	0.1220	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
271	0.13	0.000	0.050	0.1264	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
272	0.00	0.000	0.020	0.1253	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
273	0.00	0.000	0.020	0.1242	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
274	0.00	0.000	0.015	0.1234	0.0000	.3787E-05	.6804E-08	0.0000
.0000E+00	.0000E+00							
275	0.00	0.000	0.015	0.1226	0.0000	.1331E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
276	0.00	0.000	0.015	0.1218	0.0000	.8840E-07	.1361E-07	0.0000
.0000E+00	.0000E+00							
277	0.00	0.000	0.015	0.1209	0.0000	.1763E-09	.1039E-08	0.0000
.0000E+00	.0000E+00							
278	0.08	0.000	0.049	0.1227	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							

279	0.77	0.000	0.056	0.1624	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
280	0.00	0.000	0.051	0.1595	0.0000	.1539E-09	.9755E-09	0.0000
.0000E+00	.0000E+00							
281	0.00	0.000	0.038	0.1574	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
282	0.00	0.000	0.045	0.1549	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
283	0.00	0.000	0.038	0.1528	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
284	0.00	0.000	0.038	0.1507	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
285	0.00	0.000	0.046	0.1482	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
286	0.00	0.000	0.051	0.1453	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
287	0.00	0.000	0.062	0.1419	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
288	0.00	0.000	0.078	0.1376	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
289	0.00	0.000	0.055	0.1345	0.0000	.2472E-04	.6809E-08	0.0000
.0000E+00	.0000E+00							
290	0.00	0.000	0.051	0.1317	0.0000	.8683E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
291	0.00	0.000	0.045	0.1292	0.0000	.4757E-04	.1362E-07	0.0000
.0000E+00	.0000E+00							
292	0.00	0.000	0.040	0.1270	0.0001	.1392E-03	.1364E-07	0.0000
.0000E+00	.0000E+00							
293	0.17	0.000	0.065	0.1328	0.0001	.1100E-03	.1363E-07	0.0000
.0000E+00	.0000E+00							
294	0.01	0.000	0.033	0.1316	0.0000	.3573E-04	.1362E-07	0.0000
.0000E+00	.0000E+00							
295	0.00	0.000	0.029	0.1299	0.0000	.2698E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
296	0.00	0.000	0.024	0.1286	0.0000	.1921E-06	.1361E-07	0.0000
.0000E+00	.0000E+00							
297	1.38	0.010	0.059	0.2014	0.0000	.4952E-08	.4779E-08	0.0000
.0000E+00	.0000E+00							
298	0.12	0.000	0.060	0.2048	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
299	0.00	0.000	0.035	0.2029	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
300	0.00	0.000	0.029	0.2013	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
301	0.00	0.000	0.029	0.1996	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
302	0.00	0.000	0.042	0.1973	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
303	0.06	0.000	0.051	0.1978	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
304	0.78	0.000	0.054	0.2381	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
305	0.00	0.000	0.039	0.2360	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
306	0.00	0.000	0.032	0.2342	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
307	0.00	0.000	0.032	0.2324	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
308	0.00	0.000	0.047	0.2298	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
309	0.00	0.000	0.036	0.2278	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
310	0.00	0.000	0.036	0.2258	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.0000E+00								
311	0.00	0.000	0.042	0.2235	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
312	0.00	0.000	0.047	0.2209	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
313	0.00	0.000	0.024	0.2196	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
314	0.00	0.000	0.034	0.2177	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
315	0.00	0.000	0.041	0.2154	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
316	0.00	0.000	0.035	0.2135	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
317	0.00	0.000	0.028	0.2119	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
318	0.00	0.000	0.031	0.2100	0.0003	.4947E-03	.1030E-07	0.0000	
.0000E+00	.0000E+00								
319	0.00	0.000	0.038	0.2078	0.0004	.6183E-03	.1372E-07	0.0000	
.0000E+00	.0000E+00								
320	0.00	0.000	0.037	0.2054	0.0005	.7205E-03	.1374E-07	0.0000	
.0000E+00	.0000E+00								
321	0.00	0.000	0.036	0.2028	0.0000	.5464E-04	.1362E-07	0.0000	
.0000E+00	.0000E+00								
322	0.00	0.000	0.038	0.2001	0.0000	.4133E-05	.1361E-07	0.0000	
.0000E+00	.0000E+00								
323	0.00	0.000	0.041	0.1973	0.0000	.3010E-06	.1361E-07	0.0000	
.0000E+00	.0000E+00								
324	0.00	0.000	0.042	0.1944	0.0000	.1189E-07	.6779E-08	0.0000	
.0000E+00	.0000E+00								
325	0.00	0.000	0.040	0.1916	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
326	0.00	0.000	0.038	0.1888	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
327	0.00	0.000	0.025	0.1868	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
328 *	0.03	0.000	0.032	0.1863	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
329	0.00	0.000	0.036	0.1839	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
330	0.02	0.000	0.040	0.1824	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
331	0.66	0.000	0.054	0.2157	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
332	0.02	0.000	0.054	0.2135	0.0000	.3182E-04	.6811E-08	0.0000	
.0000E+00	.0000E+00								
333	0.00	0.000	0.050	0.2104	0.0002	.3587E-03	.1368E-07	0.0000	
.0000E+00	.0000E+00								
334	0.00	0.000	0.046	0.2077	0.0005	.7798E-03	.1375E-07	0.0000	
.0000E+00	.0000E+00								
335	0.00	0.000	0.043	0.2053	0.0001	.1395E-03	.1364E-07	0.0000	
.0000E+00	.0000E+00								
336	0.00	0.000	0.042	0.2029	0.0000	.1057E-04	.1361E-07	0.0000	
.0000E+00	.0000E+00								
337	0.00	0.000	0.055	0.1999	0.0000	.7894E-06	.1361E-07	0.0000	
.0000E+00	.0000E+00								
338	0.00	0.000	0.036	0.1978	0.0000	.4678E-07	.1199E-07	0.0000	
.0000E+00	.0000E+00								
339	0.00	0.000	0.030	0.1962	0.0000	.1585E-29	.1065E-18	0.0000	
.0000E+00	.0000E+00								
340	0.00	0.000	0.034	0.1943	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
341	0.89	0.000	0.050	0.2410	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								

342	*	0.01	0.000	0.032	0.2397	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00								
343	*	0.02	0.000	0.020	0.2397	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00								
344	*	0.00	0.000	0.000	0.2397	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00								
345	*	0.05	0.000	0.024	0.2408	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00								
346	*	0.00	0.000	0.006	0.2408	0.0000	.1881E-05	.3402E-08	0.0000
.0000E+00	.0000E+00								
347	*	0.00	0.000	0.000	0.2408	0.0001	.9537E-04	.1363E-07	0.0000
.0000E+00	.0000E+00								
348	*	0.00	0.000	0.000	0.2408	0.0002	.2746E-03	.1366E-07	0.0000
.0000E+00	.0000E+00								
349	*	0.00	0.000	0.000	0.2408	0.0003	.4554E-03	.1370E-07	0.0000
.0000E+00	.0000E+00								
350	*	0.00	0.000	0.000	0.2408	0.0004	.6287E-03	.1373E-07	0.0000
.0000E+00	.0000E+00								
351		0.00	0.000	0.029	0.2392	0.0005	.8182E-03	.1376E-07	0.0000
.0000E+00	.0000E+00								
352	*	0.00	0.000	0.022	0.2375	0.0023	.3647E-02	.1418E-07	0.0000
.0000E+00	.0000E+00								
353	*	0.00	0.000	0.000	0.2367	0.0029	.4654E-02	.1433E-07	0.0000
.0000E+00	.0000E+00								
354	*	0.00	0.000	0.022	0.2347	0.0029	.4628E-02	.1432E-07	0.0000
.0000E+00	.0000E+00								
355	*	0.00	0.000	0.024	0.2323	0.0028	.4528E-02	.1431E-07	0.0000
.0000E+00	.0000E+00								
356		0.00	0.000	0.029	0.2298	0.0028	.4428E-02	.1430E-07	0.0000
.0000E+00	.0000E+00								
357		0.00	0.000	0.033	0.2272	0.0027	.4330E-02	.1428E-07	0.0000
.0000E+00	.0000E+00								
358		0.00	0.000	0.031	0.2247	0.0027	.4237E-02	.1427E-07	0.0000
.0000E+00	.0000E+00								
359	*	0.00	0.000	0.028	0.2224	0.0026	.4148E-02	.1426E-07	0.0000
.0000E+00	.0000E+00								
360	*	0.00	0.000	0.023	0.2204	0.0025	.4062E-02	.1424E-07	0.0000
.0000E+00	.0000E+00								
361	*	0.00	0.000	0.000	0.2197	0.0025	.3979E-02	.1423E-07	0.0000
.0000E+00	.0000E+00								
362	*	* 0.00	0.000	0.000	0.2197	0.0012	.1910E-02	.1392E-07	0.0000
.0000E+00	.0000E+00								
363	*	* 0.16	0.000	0.025	0.2197	0.0001	.1449E-03	.1364E-07	0.0000
.0000E+00	.0000E+00								
364		* 0.00	0.005	0.027	0.2253	0.0000	.1098E-04	.1361E-07	0.0000
.0000E+00	.0000E+00								
365		* 0.00	0.000	0.000	0.2253	0.0000	.8204E-06	.1361E-07	0.0000
.0000E+00	.0000E+00								
366		* 0.00	0.000	0.000	0.2253	0.0000	.4912E-07	.1219E-07	0.0000
.0000E+00	.0000E+00								

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MONTHLY TOTALS (IN INCHES) FOR YEAR 2008

JAN/JUL FEB/AUG MAR/SEP APR/OCT MAY/NOV JUN/DEC

PRECIPITATION	0.83	1.08	4.28	1.37	3.90	2.32
	2.28	1.27	0.90	3.37	0.73	1.13
RUNOFF	0.000	0.319	2.028	0.000	0.067	0.024
	0.000	0.000	0.000	0.010	0.000	0.005
EVAPOTRANSPIRATION	0.394	0.307	1.597	2.770	2.443	4.147
	1.984	1.940	0.509	1.334	1.155	0.624
LATERAL DRAINAGE COLLECTED	0.2139	0.3716	0.6229	0.8269	0.3240	0.2046
FROM LAYER 3	0.0862	0.0007	0.0000	0.0004	0.0032	0.0470
PERCOLATION/LEAKAGE THROUGH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAYER 6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON	0.004	0.008	0.013	0.017	0.007	0.004
TOP OF LAYER 4	0.002	0.000	0.000	0.000	0.000	0.001
STD. DEVIATION OF DAILY	0.005	0.002	0.014	0.005	0.002	0.001
HEAD ON TOP OF LAYER 4	0.001	0.000	0.000	0.000	0.000	0.001

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ANNUAL TOTALS FOR YEAR 2008

	INCHES	CU. FEET	PERCENT
PRECIPITATION	23.46	85159.820	100.00
RUNOFF	2.452	8900.363	10.45
EVAPOTRANSPIRATION	19.203	69708.359	81.86
DRAINAGE COLLECTED FROM LAYER 3	2.7014	9806.237	11.52
PERC./LEAKAGE THROUGH LAYER 5	0.000004	0.014	0.00
AVG. HEAD ON TOP OF LAYER 4	0.0046		
PERC./LEAKAGE THROUGH LAYER 6	0.000000	0.000	0.00
CHANGE IN WATER STORAGE	-0.897	-3255.125	-3.82
SOIL WATER AT START OF YEAR	46.102	167351.328	
SOIL WATER AT END OF YEAR	45.206	164096.203	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00

SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.020	0.00

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HEAD #1: AVERAGE HEAD ON TOP OF LAYER 4
DRAIN #1: LATERAL DRAINAGE FROM LAYER 3 (RECIRCULATION AND COLLECTION)
LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 5
LEAK #2: PERCOLATION OR LEAKAGE THROUGH LAYER 6

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DAILY OUTPUT FOR YEAR 2009

DAY	A I R	SOIL L IN.	RAIN IN.	RUNOFF IN.	ET IN.	E. ZONE WATER IN./IN.	HEAD #1 IN.	DRAIN #1 IN.	LEAK #1 IN.	HEAD #2 IN.	DRAIN #2 IN.	LEAK #2 IN.
1		*	0.01	0.000	0.007	0.2255	0.0000	.6517E-31	.2160E-19	0.0000	.0000E+00	.0000E+00
2		*	0.00	0.000	0.000	0.2255	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
3		*	0.00	0.000	0.000	0.2255	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
4	*	*	0.00	0.000	0.000	0.2255	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
5		*	0.00	0.000	0.000	0.2255	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
6		*	0.00	0.000	0.000	0.2255	0.0000	.0000E+00	.0000E+00	0.0000	.0000E+00	.0000E+00
7	*	*	0.28	0.000	0.024	0.2255	0.0001	.9193E-04	.1363E-07	0.0000	.0000E+00	.0000E+00
8	*	*	0.00	0.000	0.017	0.2255	0.0002	.3561E-03	.1368E-07	0.0000	.0000E+00	.0000E+00
9	*	*	0.00	0.000	0.023	0.2255	0.0004	.6334E-03	.1373E-07	0.0000	.0000E+00	.0000E+00
10		*	0.00	0.010	0.025	0.2317	0.0006	.8970E-03	.1377E-07	0.0000	.0000E+00	.0000E+00
11		*	0.00	0.000	0.037	0.2335	0.0007	.1145E-02	.1381E-07	0.0000	.0000E+00	.0000E+00
12	*	*	0.00	0.000	0.000	0.2335	0.0009	.1379E-02	.1385E-07	0.0000	.0000E+00	.0000E+00
13		*	0.08	0.000	0.011	0.2373	0.0010	.1598E-02	.1388E-07	0.0000	.0000E+00	.0000E+00
14		*	0.00	0.000	0.000	0.2373	0.0011	.1803E-02	.1391E-07	0.0000		

.0000E+00	.0000E+00								
15	*	0.00	0.000	0.000	0.2373	0.0012	.1994E-02	.1394E-07	0.0000
.0000E+00	.0000E+00								
16	*	0.00	0.000	0.000	0.2373	0.0014	.2173E-02	.1397E-07	0.0000
.0000E+00	.0000E+00								
17		0.00	0.000	0.036	0.2347	0.0028	.4506E-02	.1430E-07	0.0000
.0000E+00	.0000E+00								
18	*	0.00	0.000	0.036	0.2320	0.0040	.6315E-02	.1456E-07	0.0000
.0000E+00	.0000E+00								
19		0.06	0.000	0.052	0.2317	0.0039	.6269E-02	.1455E-07	0.0000
.0000E+00	.0000E+00								
20		0.00	0.000	0.039	0.2288	0.0038	.6093E-02	.1453E-07	0.0000
.0000E+00	.0000E+00								
21		0.00	0.000	0.046	0.2256	0.0037	.5917E-02	.1450E-07	0.0000
.0000E+00	.0000E+00								
22	*	0.00	0.000	0.035	0.2231	0.0036	.5750E-02	.1448E-07	0.0000
.0000E+00	.0000E+00								
23		0.00	0.000	0.047	0.2200	0.0035	.5591E-02	.1446E-07	0.0000
.0000E+00	.0000E+00								
24	*	0.00	0.000	0.033	0.2176	0.0034	.5440E-02	.1444E-07	0.0000
.0000E+00	.0000E+00								
25	*	0.38	0.000	0.024	0.2181	0.0033	.5297E-02	.1442E-07	0.0000
.0000E+00	.0000E+00								
26	*	0.00	0.000	0.023	0.2187	0.0032	.5161E-02	.1440E-07	0.0000
.0000E+00	.0000E+00								
27		0.00	0.000	0.032	0.2193	0.0030	.4738E-02	.1434E-07	0.0000
.0000E+00	.0000E+00								
28	*	0.00	0.000	0.027	0.2200	0.0028	.4491E-02	.1430E-07	0.0000
.0000E+00	.0000E+00								
29		0.00	0.000	0.040	0.2283	0.0022	.3513E-02	.1417E-07	0.0000
.0000E+00	.0000E+00								
30		0.00	0.000	0.059	0.2246	0.0018	.2947E-02	.1408E-07	0.0000
.0000E+00	.0000E+00								
31		0.02	0.000	0.059	0.2221	0.0019	.2998E-02	.1409E-07	0.0000
.0000E+00	.0000E+00								
32		0.00	0.000	0.056	0.2190	0.0008	.1217E-02	.1382E-07	0.0000
.0000E+00	.0000E+00								
33		0.27	0.000	0.047	0.2312	0.0002	.2397E-03	.1366E-07	0.0000
.0000E+00	.0000E+00								
34		0.00	0.000	0.046	0.2283	0.0008	.1319E-02	.1384E-07	0.0000
.0000E+00	.0000E+00								
35		0.00	0.000	0.052	0.2255	0.0007	.1142E-02	.1381E-07	0.0000
.0000E+00	.0000E+00								
36		0.44	0.000	0.063	0.2463	0.0001	.1123E-03	.1363E-07	0.0000
.0000E+00	.0000E+00								
37		0.00	0.000	0.050	0.2434	0.0010	.1621E-02	.1388E-07	0.0000
.0000E+00	.0000E+00								
38		0.00	0.000	0.056	0.2401	0.0006	.8868E-03	.1376E-07	0.0000
.0000E+00	.0000E+00								
39	*	0.00	0.000	0.043	0.2374	0.0022	.3572E-02	.1417E-07	0.0000
.0000E+00	.0000E+00								
40		0.00	0.000	0.058	0.2339	0.0021	.3421E-02	.1415E-07	0.0000
.0000E+00	.0000E+00								
41		0.00	0.000	0.051	0.2310	0.0013	.2110E-02	.1396E-07	0.0000
.0000E+00	.0000E+00								
42		0.00	0.000	0.062	0.2275	0.0001	.2057E-03	.1365E-07	0.0000
.0000E+00	.0000E+00								
43		0.00	0.000	0.081	0.2230	0.0000	.1559E-04	.1361E-07	0.0000
.0000E+00	.0000E+00								
44		0.00	0.000	0.054	0.2200	0.0000	.1170E-05	.1361E-07	0.0000
.0000E+00	.0000E+00								
45		0.00	0.000	0.062	0.2166	0.0000	.7622E-07	.1361E-07	0.0000
.0000E+00	.0000E+00								

46	0.00	0.000	0.045	0.2140	0.0002	.3400E-03	.1047E-07	0.0000 .0000E+00 .0000E+00
47 *	0.01	0.000	0.054	0.2111	0.0030	.4769E-02	.1434E-07	0.0000 .0000E+00 .0000E+00
48	0.00	0.000	0.065	0.2067	0.0039	.6294E-02	.1455E-07	0.0000 .0000E+00 .0000E+00
49 *	0.00	0.000	0.051	0.2033	0.0039	.6231E-02	.1454E-07	0.0000 .0000E+00 .0000E+00
50 *	0.00	0.000	0.051	0.1996	0.0038	.6056E-02	.1452E-07	0.0000 .0000E+00 .0000E+00
51 *	0.15	0.000	0.045	0.1998	0.0037	.5882E-02	.1450E-07	0.0000 .0000E+00 .0000E+00
52	0.21	0.000	0.036	0.2134	0.0036	.5716E-02	.1447E-07	0.0000 .0000E+00 .0000E+00
53 *	0.00	0.000	0.060	0.2094	0.0035	.5559E-02	.1445E-07	0.0000 .0000E+00 .0000E+00
54 *	0.00	0.000	0.059	0.2055	0.0034	.5410E-02	.1443E-07	0.0000 .0000E+00 .0000E+00
55 *	0.00	0.000	0.056	0.2018	0.0033	.5268E-02	.1441E-07	0.0000 .0000E+00 .0000E+00
56	0.00	0.000	0.064	0.1977	0.0028	.4546E-02	.1431E-07	0.0000 .0000E+00 .0000E+00
57	0.00	0.000	0.070	0.1932	0.0022	.3551E-02	.1417E-07	0.0000 .0000E+00 .0000E+00
58	0.00	0.000	0.076	0.1884	0.0013	.2135E-02	.1396E-07	0.0000 .0000E+00 .0000E+00
59	0.00	0.000	0.062	0.1845	0.0007	.1050E-02	.1379E-07	0.0000 .0000E+00 .0000E+00
60	0.00	0.000	0.070	0.1803	0.0002	.2956E-03	.1367E-07	0.0000 .0000E+00 .0000E+00
61 *	0.00	0.000	0.053	0.1768	0.0007	.1151E-02	.1381E-07	0.0000 .0000E+00 .0000E+00
62	0.00	0.000	0.088	0.1716	0.0004	.6849E-03	.1373E-07	0.0000 .0000E+00 .0000E+00
63	1.49	0.024	0.081	0.2481	0.0005	.8738E-03	.1377E-07	0.0000 .0000E+00 .0000E+00
64 *	0.93	0.000	0.033	0.2489	0.0001	.1855E-03	.1365E-07	0.0000 .0000E+00 .0000E+00
65	0.00	0.001	0.000	0.2975	0.0000	.1406E-04	.1361E-07	0.0000 .0000E+00 .0000E+00
66	0.00	0.000	0.092	0.2723	0.0020	.3189E-02	.1410E-07	0.0000 .0000E+00 .0000E+00
67	0.00	0.000	0.073	0.2603	0.0037	.5852E-02	.1449E-07	0.0000 .0000E+00 .0000E+00
68	0.00	0.000	0.089	0.2490	0.0033	.5202E-02	.1440E-07	0.0000 .0000E+00 .0000E+00
69	0.00	0.000	0.061	0.2414	0.0005	.7870E-03	.1375E-07	0.0000 .0000E+00 .0000E+00
70 *	0.01	0.000	0.053	0.2359	0.0000	.5969E-04	.1362E-07	0.0000 .0000E+00 .0000E+00
71 *	0.26	0.000	0.021	0.2345	0.0000	.4516E-05	.1361E-07	0.0000 .0000E+00 .0000E+00
72	0.00	0.000	0.058	0.2368	0.0000	.3300E-06	.1361E-07	0.0000 .0000E+00 .0000E+00
73 *	0.00	0.000	0.069	0.2358	0.0000	.1368E-07	.7366E-08	0.0000 .0000E+00 .0000E+00
74	0.00	0.000	0.089	0.2291	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
75 *	0.28	0.000	0.036	0.2289	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
76	0.20	0.000	0.000	0.2513	0.0015	.2373E-02	.1058E-07	0.0000 .0000E+00 .0000E+00
77	0.00	0.000	0.085	0.2456	0.0094	.1494E-01	.1567E-07	0.0000

.0000E+00	.0000E+00								
78	0.00	0.000	0.079	0.2404	0.0134	.2138E-01	.1646E-07	0.0000	
.0000E+00	.0000E+00								
79	0.00	0.000	0.096	0.2339	0.0212	.3377E-01	.1794E-07	0.0000	
.0000E+00	.0000E+00								
80	0.01	0.000	0.074	0.2290	0.0255	.4065E-01	.1874E-07	0.0000	
.0000E+00	.0000E+00								
81	0.00	0.000	0.094	0.2233	0.0195	.3117E-01	.1763E-07	0.0000	
.0000E+00	.0000E+00								
82	0.01	0.000	0.088	0.2181	0.0233	.3719E-01	.1834E-07	0.0000	
.0000E+00	.0000E+00								
83	0.00	0.000	0.102	0.2121	0.0204	.3260E-01	.1780E-07	0.0000	
.0000E+00	.0000E+00								
84	0.05	0.000	0.092	0.2090	0.0241	.3851E-01	.1849E-07	0.0000	
.0000E+00	.0000E+00								
85	0.00	0.000	0.100	0.2034	0.0211	.3369E-01	.1793E-07	0.0000	
.0000E+00	.0000E+00								
86	0.51	0.000	0.094	0.2261	0.0211	.3367E-01	.1793E-07	0.0000	
.0000E+00	.0000E+00								
87 *	0.16	0.000	0.052	0.2271	0.0208	.3319E-01	.1787E-07	0.0000	
.0000E+00	.0000E+00								
88	0.01	0.000	0.063	0.2289	0.0212	.3391E-01	.1796E-07	0.0000	
.0000E+00	.0000E+00								
89	0.36	0.000	0.066	0.2448	0.0225	.3585E-01	.1818E-07	0.0000	
.0000E+00	.0000E+00								
90	0.00	0.000	0.092	0.2396	0.0206	.3285E-01	.1783E-07	0.0000	
.0000E+00	.0000E+00								
91	0.00	0.000	0.097	0.2338	0.0204	.3253E-01	.1780E-07	0.0000	
.0000E+00	.0000E+00								
92	0.00	0.000	0.115	0.2269	0.0203	.3246E-01	.1779E-07	0.0000	
.0000E+00	.0000E+00								
93	0.00	0.000	0.122	0.2194	0.0202	.3230E-01	.1777E-07	0.0000	
.0000E+00	.0000E+00								
94	0.00	0.000	0.127	0.2115	0.0198	.3163E-01	.1769E-07	0.0000	
.0000E+00	.0000E+00								
95	0.00	0.000	0.104	0.2051	0.0160	.2558E-01	.1697E-07	0.0000	
.0000E+00	.0000E+00								
96	0.00	0.000	0.136	0.1970	0.0136	.2176E-01	.1651E-07	0.0000	
.0000E+00	.0000E+00								
97	0.00	0.000	0.115	0.1903	0.0119	.1903E-01	.1618E-07	0.0000	
.0000E+00	.0000E+00								
98	0.00	0.000	0.130	0.1830	0.0082	.1316E-01	.1545E-07	0.0000	
.0000E+00	.0000E+00								
99	0.00	0.000	0.146	0.1749	0.0087	.1387E-01	.1554E-07	0.0000	
.0000E+00	.0000E+00								
100	0.00	0.000	0.166	0.1652	0.0124	.1976E-01	.1627E-07	0.0000	
.0000E+00	.0000E+00								
101	0.00	0.000	0.161	0.1557	0.0146	.2325E-01	.1669E-07	0.0000	
.0000E+00	.0000E+00								
102	0.00	0.000	0.084	0.1508	0.0122	.1946E-01	.1623E-07	0.0000	
.0000E+00	.0000E+00								
103	0.00	0.000	0.065	0.1472	0.0086	.1381E-01	.1553E-07	0.0000	
.0000E+00	.0000E+00								
104	0.00	0.000	0.055	0.1441	0.0087	.1395E-01	.1555E-07	0.0000	
.0000E+00	.0000E+00								
105	0.00	0.000	0.049	0.1414	0.0094	.1505E-01	.1569E-07	0.0000	
.0000E+00	.0000E+00								
106	0.00	0.000	0.045	0.1389	0.0099	.1586E-01	.1579E-07	0.0000	
.0000E+00	.0000E+00								
107	0.00	0.000	0.042	0.1366	0.0103	.1639E-01	.1586E-07	0.0000	
.0000E+00	.0000E+00								
108	0.00	0.000	0.040	0.1343	0.0104	.1668E-01	.1589E-07	0.0000	
.0000E+00	.0000E+00								

109	0.00	0.000	0.039	0.1322	0.0105	.1679E-01	.1591E-07	0.0000
.0000E+00	.0000E+00							
110	0.71	0.000	0.044	0.1692	0.0105	.1677E-01	.1590E-07	0.0000
.0000E+00	.0000E+00							
111	0.29	0.000	0.042	0.1829	0.0104	.1664E-01	.1589E-07	0.0000
.0000E+00	.0000E+00							
112	0.00	0.000	0.177	0.1731	0.0103	.1644E-01	.1586E-07	0.0000
.0000E+00	.0000E+00							
113	0.00	0.000	0.232	0.1602	0.0101	.1619E-01	.1583E-07	0.0000
.0000E+00	.0000E+00							
114	0.00	0.000	0.211	0.1485	0.0100	.1589E-01	.1579E-07	0.0000
.0000E+00	.0000E+00							
115	0.18	0.000	0.097	0.1531	0.0098	.1558E-01	.1575E-07	0.0000
.0000E+00	.0000E+00							
116	0.13	0.000	0.082	0.1558	0.0095	.1524E-01	.1571E-07	0.0000
.0000E+00	.0000E+00							
117	0.00	0.000	0.068	0.1520	0.0093	.1490E-01	.1567E-07	0.0000
.0000E+00	.0000E+00							
118	0.06	0.000	0.068	0.1516	0.0091	.1455E-01	.1563E-07	0.0000
.0000E+00	.0000E+00							
119	0.00	0.000	0.057	0.1484	0.0089	.1420E-01	.1558E-07	0.0000
.0000E+00	.0000E+00							
120	0.00	0.000	0.060	0.1451	0.0087	.1386E-01	.1554E-07	0.0000
.0000E+00	.0000E+00							
121	0.00	0.000	0.056	0.1420	0.0085	.1352E-01	.1550E-07	0.0000
.0000E+00	.0000E+00							
122	0.01	0.000	0.059	0.1393	0.0083	.1319E-01	.1545E-07	0.0000
.0000E+00	.0000E+00							
123	0.00	0.000	0.053	0.1362	0.0086	.1372E-01	.1552E-07	0.0000
.0000E+00	.0000E+00							
124	0.00	0.000	0.055	0.1332	0.0079	.1255E-01	.1537E-07	0.0000
.0000E+00	.0000E+00							
125	0.00	0.000	0.060	0.1298	0.0075	.1205E-01	.1531E-07	0.0000
.0000E+00	.0000E+00							
126	0.03	0.000	0.067	0.1277	0.0074	.1177E-01	.1527E-07	0.0000
.0000E+00	.0000E+00							
127	0.20	0.000	0.070	0.1350	0.0072	.1151E-01	.1524E-07	0.0000
.0000E+00	.0000E+00							
128	0.00	0.000	0.067	0.1312	0.0070	.1125E-01	.1521E-07	0.0000
.0000E+00	.0000E+00							
129	0.00	0.000	0.076	0.1270	0.0069	.1101E-01	.1518E-07	0.0000
.0000E+00	.0000E+00							
130	0.00	0.000	0.084	0.1224	0.0067	.1077E-01	.1514E-07	0.0000
.0000E+00	.0000E+00							
131	0.00	0.000	0.077	0.1181	0.0066	.1053E-01	.1511E-07	0.0000
.0000E+00	.0000E+00							
132	0.00	0.000	0.076	0.1138	0.0065	.1031E-01	.1508E-07	0.0000
.0000E+00	.0000E+00							
133	0.00	0.000	0.083	0.1092	0.0063	.1009E-01	.1506E-07	0.0000
.0000E+00	.0000E+00							
134	0.60	0.000	0.098	0.1371	0.0062	.9877E-02	.1503E-07	0.0000
.0000E+00	.0000E+00							
135	0.06	0.000	0.196	0.1295	0.0061	.9672E-02	.1500E-07	0.0000
.0000E+00	.0000E+00							
136	0.32	0.000	0.083	0.1427	0.0059	.9474E-02	.1498E-07	0.0000
.0000E+00	.0000E+00							
137	0.00	0.000	0.187	0.1324	0.0058	.9281E-02	.1495E-07	0.0000
.0000E+00	.0000E+00							
138	0.04	0.000	0.096	0.1292	0.0057	.9096E-02	.1493E-07	0.0000
.0000E+00	.0000E+00							
139	0.00	0.000	0.159	0.1204	0.0056	.8916E-02	.1490E-07	0.0000
.0000E+00	.0000E+00							
140	0.00	0.000	0.107	0.1145	0.0055	.8779E-02	.1489E-07	0.0000

.0000E+00	.0000E+00							
141	0.00	0.000	0.129	0.1073	0.0054	.8603E-02	.1486E-07	0.0000
.0000E+00	.0000E+00							
142	0.00	0.000	0.086	0.1025	0.0053	.8402E-02	.1484E-07	0.0000
.0000E+00	.0000E+00							
143	0.00	0.000	0.012	0.1019	0.0052	.8243E-02	.1481E-07	0.0000
.0000E+00	.0000E+00							
144	0.00	0.000	0.003	0.1017	0.0051	.8091E-02	.1479E-07	0.0000
.0000E+00	.0000E+00							
145	0.00	0.000	0.001	0.1017	0.0050	.7944E-02	.1477E-07	0.0000
.0000E+00	.0000E+00							
146	0.00	0.000	0.000	0.1017	0.0049	.7801E-02	.1476E-07	0.0000
.0000E+00	.0000E+00							
147	0.00	0.000	0.000	0.1017	0.0048	.7663E-02	.1474E-07	0.0000
.0000E+00	.0000E+00							
148	0.04	0.000	0.031	0.1022	0.0047	.7529E-02	.1472E-07	0.0000
.0000E+00	.0000E+00							
149	0.11	0.000	0.027	0.1068	0.0046	.7399E-02	.1470E-07	0.0000
.0000E+00	.0000E+00							
150	0.02	0.000	0.041	0.1056	0.0046	.7273E-02	.1469E-07	0.0000
.0000E+00	.0000E+00							
151	1.78	0.066	0.151	0.1924	0.0045	.7151E-02	.1467E-07	0.0000
.0000E+00	.0000E+00							
152	0.69	0.000	0.239	0.2175	0.0044	.7033E-02	.1465E-07	0.0000
.0000E+00	.0000E+00							
153	0.00	0.000	0.297	0.2010	0.0043	.6917E-02	.1464E-07	0.0000
.0000E+00	.0000E+00							
154	0.00	0.000	0.304	0.1841	0.0043	.6806E-02	.1462E-07	0.0000
.0000E+00	.0000E+00							
155	0.00	0.000	0.316	0.1666	0.0054	.8602E-02	.1486E-07	0.0000
.0000E+00	.0000E+00							
156	0.04	0.000	0.242	0.1554	0.0059	.9355E-02	.1496E-07	0.0000
.0000E+00	.0000E+00							
157	0.10	0.000	0.272	0.1458	0.0057	.9043E-02	.1492E-07	0.0000
.0000E+00	.0000E+00							
158	0.00	0.000	0.256	0.1316	0.0054	.8679E-02	.1487E-07	0.0000
.0000E+00	.0000E+00							
159	0.00	0.000	0.160	0.1227	0.0052	.8337E-02	.1483E-07	0.0000
.0000E+00	.0000E+00							
160	0.00	0.000	0.236	0.1096	0.0050	.8018E-02	.1478E-07	0.0000
.0000E+00	.0000E+00							
161	0.00	0.000	0.142	0.1017	0.0048	.7723E-02	.1475E-07	0.0000
.0000E+00	.0000E+00							
162	0.00	0.000	0.000	0.1017	0.0047	.7447E-02	.1471E-07	0.0000
.0000E+00	.0000E+00							
163	0.00	0.000	0.000	0.1017	0.0045	.7189E-02	.1467E-07	0.0000
.0000E+00	.0000E+00							
164	0.00	0.000	0.000	0.1017	0.0044	.6948E-02	.1464E-07	0.0000
.0000E+00	.0000E+00							
165	0.00	0.000	0.000	0.1017	0.0042	.6722E-02	.1461E-07	0.0000
.0000E+00	.0000E+00							
166	0.00	0.000	0.000	0.1017	0.0041	.6509E-02	.1458E-07	0.0000
.0000E+00	.0000E+00							
167	0.01	0.000	0.010	0.1017	0.0040	.6309E-02	.1456E-07	0.0000
.0000E+00	.0000E+00							
168	0.00	0.000	0.000	0.1017	0.0038	.6120E-02	.1453E-07	0.0000
.0000E+00	.0000E+00							
169	0.00	0.000	0.000	0.1017	0.0037	.5941E-02	.1451E-07	0.0000
.0000E+00	.0000E+00							
170	0.00	0.000	0.000	0.1017	0.0036	.5773E-02	.1448E-07	0.0000
.0000E+00	.0000E+00							
171	0.00	0.000	0.000	0.1017	0.0035	.5613E-02	.1446E-07	0.0000
.0000E+00	.0000E+00							

172	0.00	0.000	0.000	0.1017	0.0034	.5461E-02	.1444E-07	0.0000
.0000E+00	.0000E+00							
173	0.00	0.000	0.000	0.1017	0.0033	.5317E-02	.1442E-07	0.0000
.0000E+00	.0000E+00							
174	0.00	0.000	0.000	0.1017	0.0032	.5180E-02	.1440E-07	0.0000
.0000E+00	.0000E+00							
175	1.52	0.024	0.091	0.1797	0.0032	.5049E-02	.1438E-07	0.0000
.0000E+00	.0000E+00							
176	0.65	0.000	0.256	0.2016	0.0031	.4925E-02	.1437E-07	0.0000
.0000E+00	.0000E+00							
177	0.00	0.000	0.263	0.1870	0.0030	.4806E-02	.1435E-07	0.0000
.0000E+00	.0000E+00							
178	0.00	0.000	0.225	0.1745	0.0029	.4693E-02	.1433E-07	0.0000
.0000E+00	.0000E+00							
179	0.00	0.000	0.235	0.1615	0.0029	.4584E-02	.1432E-07	0.0000
.0000E+00	.0000E+00							
180	0.00	0.000	0.218	0.1493	0.0028	.4481E-02	.1430E-07	0.0000
.0000E+00	.0000E+00							
181	0.00	0.000	0.239	0.1360	0.0027	.4381E-02	.1429E-07	0.0000
.0000E+00	.0000E+00							
182	0.00	0.000	0.210	0.1244	0.0027	.4286E-02	.1428E-07	0.0000
.0000E+00	.0000E+00							
183	0.00	0.000	0.243	0.1109	0.0026	.4194E-02	.1426E-07	0.0000
.0000E+00	.0000E+00							
184	0.33	0.000	0.164	0.1201	0.0026	.4107E-02	.1425E-07	0.0000
.0000E+00	.0000E+00							
185	0.00	0.000	0.182	0.1100	0.0025	.4022E-02	.1424E-07	0.0000
.0000E+00	.0000E+00							
186	0.00	0.000	0.130	0.1027	0.0025	.3941E-02	.1423E-07	0.0000
.0000E+00	.0000E+00							
187	0.00	0.000	0.014	0.1019	0.0024	.3863E-02	.1422E-07	0.0000
.0000E+00	.0000E+00							
188	0.00	0.000	0.004	0.1017	0.0024	.3788E-02	.1421E-07	0.0000
.0000E+00	.0000E+00							
189	0.25	0.000	0.043	0.1132	0.0023	.3715E-02	.1420E-07	0.0000
.0000E+00	.0000E+00							
190	0.00	0.000	0.125	0.1063	0.0023	.3645E-02	.1419E-07	0.0000
.0000E+00	.0000E+00							
191	0.00	0.000	0.059	0.1030	0.0022	.3578E-02	.1418E-07	0.0000
.0000E+00	.0000E+00							
192	0.00	0.000	0.018	0.1020	0.0022	.3513E-02	.1417E-07	0.0000
.0000E+00	.0000E+00							
193	0.00	0.000	0.005	0.1018	0.0022	.3450E-02	.1416E-07	0.0000
.0000E+00	.0000E+00							
194	0.00	0.000	0.001	0.1017	0.0021	.3389E-02	.1415E-07	0.0000
.0000E+00	.0000E+00							
195	0.00	0.000	0.000	0.1017	0.0021	.3330E-02	.1414E-07	0.0000
.0000E+00	.0000E+00							
196	0.00	0.000	0.000	0.1017	0.0021	.3274E-02	.1413E-07	0.0000
.0000E+00	.0000E+00							
197	0.00	0.000	0.000	0.1017	0.0009	.1483E-02	.1386E-07	0.0000
.0000E+00	.0000E+00							
198	0.00	0.000	0.000	0.1017	0.0001	.1125E-03	.1363E-07	0.0000
.0000E+00	.0000E+00							
199	0.00	0.000	0.000	0.1017	0.0000	.8521E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
200	0.00	0.000	0.000	0.1017	0.0000	.6338E-06	.1361E-07	0.0000
.0000E+00	.0000E+00							
201	0.00	0.000	0.000	0.1017	0.0000	.3530E-07	.1069E-07	0.0000
.0000E+00	.0000E+00							
202	0.00	0.000	0.000	0.1017	0.0000	.3909E-29	.1673E-18	0.0000
.0000E+00	.0000E+00							
203	0.40	0.000	0.113	0.1176	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.0000E+00							
204	0.00	0.000	0.120	0.1109	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
205	0.00	0.000	0.131	0.1037	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
206	0.00	0.000	0.033	0.1019	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
207	0.00	0.000	0.003	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
208	0.05	0.000	0.045	0.1020	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
209	0.00	0.000	0.003	0.1018	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
210	0.68	0.000	0.075	0.1354	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
211	0.00	0.000	0.106	0.1295	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
212	0.00	0.000	0.191	0.1189	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
213	0.57	0.000	0.128	0.1435	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
214	0.00	0.000	0.214	0.1316	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
215	0.00	0.000	0.186	0.1212	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
216	0.00	0.000	0.184	0.1110	0.0001	.9685E-04	.1023E-07	0.0000
.0000E+00	.0000E+00							
217	0.00	0.000	0.142	0.1031	0.0000	.5010E-04	.1362E-07	0.0000
.0000E+00	.0000E+00							
218	0.21	0.000	0.073	0.1107	0.0000	.1344E-04	.1361E-07	0.0000
.0000E+00	.0000E+00							
219	0.04	0.000	0.119	0.1063	0.0000	.1007E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
220	0.00	0.000	0.048	0.1037	0.0000	.6347E-07	.1313E-07	0.0000
.0000E+00	.0000E+00							
221	0.00	0.000	0.025	0.1023	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
222	0.00	0.000	0.008	0.1019	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
223	0.00	0.000	0.002	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
224	0.00	0.000	0.001	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
225	0.00	0.000	0.000	0.1017	0.0000	.1133E-07	.6680E-08	0.0000
.0000E+00	.0000E+00							
226	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
227	0.75	0.000	0.073	0.1393	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
228	0.01	0.000	0.126	0.1328	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
229	0.00	0.000	0.149	0.1245	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
230	0.00	0.000	0.115	0.1181	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
231	0.00	0.000	0.224	0.1057	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
232	0.00	0.000	0.063	0.1022	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
233	0.00	0.000	0.007	0.1018	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
234	0.00	0.000	0.002	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							

235	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
236	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
237	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
238	0.26	0.000	0.043	0.1137	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
239	0.00	0.000	0.097	0.1084	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
240	0.00	0.000	0.101	0.1027	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
241	0.00	0.000	0.014	0.1019	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
242	0.00	0.000	0.004	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
243	0.00	0.000	0.001	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
244	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
245	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
246	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
247	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
248	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
249	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
250	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
251	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
252	0.02	0.000	0.020	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
253	0.26	0.000	0.053	0.1132	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
254	0.00	0.000	0.059	0.1099	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
255	0.00	0.000	0.083	0.1053	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
256	0.00	0.000	0.055	0.1022	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
257	0.00	0.000	0.007	0.1018	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
258	0.00	0.000	0.002	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
259	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
260	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
261	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
262	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
263	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
264	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
265	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
266	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.0000E+00								
267	0.03	0.000	0.026	0.1019	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
268	0.00	0.000	0.002	0.1018	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
269	0.17	0.000	0.046	0.1087	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
270	0.29	0.000	0.065	0.1212	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
271	0.13	0.000	0.060	0.1251	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
272	0.00	0.000	0.035	0.1231	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
273	0.00	0.000	0.043	0.1207	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
274	0.00	0.000	0.044	0.1183	0.0000	.3028E-05	.6804E-08	0.0000	
.0000E+00	.0000E+00								
275	0.00	0.000	0.038	0.1162	0.0000	.1060E-05	.1361E-07	0.0000	
.0000E+00	.0000E+00								
276	0.00	0.000	0.038	0.1141	0.0000	.6760E-07	.1334E-07	0.0000	
.0000E+00	.0000E+00								
277	0.00	0.000	0.036	0.1120	0.0000	.1228E-32	.2965E-20	0.0000	
.0000E+00	.0000E+00								
278	0.08	0.000	0.064	0.1129	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
279	0.77	0.000	0.062	0.1522	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
280	0.00	0.000	0.072	0.1482	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
281	0.00	0.000	0.074	0.1441	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
282	0.00	0.000	0.072	0.1401	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
283	0.00	0.000	0.071	0.1362	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
284	0.00	0.000	0.065	0.1326	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
285	0.00	0.000	0.043	0.1301	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
286	0.00	0.000	0.048	0.1275	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
287	0.00	0.000	0.066	0.1238	0.0000	.0000E+00	.0000E+00	0.0000	
.0000E+00	.0000E+00								
288	0.00	0.000	0.045	0.1213	0.0000	.1844E-04	.6808E-08	0.0000	
.0000E+00	.0000E+00								
289	0.00	0.000	0.044	0.1189	0.0000	.6473E-05	.1361E-07	0.0000	
.0000E+00	.0000E+00								
290	0.00	0.000	0.050	0.1161	0.0000	.2342E-04	.1361E-07	0.0000	
.0000E+00	.0000E+00								
291	0.00	0.000	0.026	0.1147	0.0000	.3734E-04	.1362E-07	0.0000	
.0000E+00	.0000E+00								
292	0.00	0.000	0.019	0.1136	0.0000	.3147E-04	.1361E-07	0.0000	
.0000E+00	.0000E+00								
293	0.17	0.000	0.061	0.1197	0.0001	.9272E-04	.1363E-07	0.0000	
.0000E+00	.0000E+00								
294 *	0.01	0.000	0.025	0.1188	0.0000	.7022E-05	.1361E-07	0.0000	
.0000E+00	.0000E+00								
295 *	0.00	0.000	0.000	0.1188	0.0000	.5201E-06	.1361E-07	0.0000	
.0000E+00	.0000E+00								
296 *	0.00	0.000	0.020	0.1177	0.0000	.2694E-07	.9715E-08	0.0000	
.0000E+00	.0000E+00								
297	1.38	0.010	0.057	0.1907	0.0000	.4810E-04	.6814E-08	0.0000	
.0000E+00	.0000E+00								

298	0.12	0.000	0.059	0.1941	0.0000	.1690E-04	.1361E-07	0.0000
.0000E+00	.0000E+00							
299	0.00	0.000	0.039	0.1919	0.0000	.1269E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
300	0.00	0.000	0.041	0.1896	0.0000	.8372E-07	.1361E-07	0.0000
.0000E+00	.0000E+00							
301	0.00	0.000	0.037	0.1876	0.0000	.8638E-10	.7444E-09	0.0000
.0000E+00	.0000E+00							
302	0.00	0.000	0.045	0.1851	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
303	0.06	0.000	0.052	0.1856	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
304	0.78	0.000	0.065	0.2253	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
305	0.00	0.000	0.047	0.2226	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
306	0.00	0.000	0.046	0.2201	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
307	0.00	0.000	0.032	0.2183	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
308	0.00	0.000	0.041	0.2160	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
309	0.00	0.000	0.041	0.2137	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
310	0.00	0.000	0.055	0.2107	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
311	0.00	0.000	0.036	0.2087	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
312	0.00	0.000	0.029	0.2071	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
313	0.00	0.000	0.028	0.2055	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
314	0.00	0.000	0.032	0.2038	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
315	0.00	0.000	0.038	0.2017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
316	0.00	0.000	0.044	0.1992	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
317	0.00	0.000	0.032	0.1975	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
318	0.00	0.000	0.034	0.1956	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
319	0.00	0.000	0.042	0.1932	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
320	0.00	0.000	0.052	0.1903	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
321	0.00	0.000	0.044	0.1879	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
322	0.00	0.000	0.038	0.1858	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
323	0.00	0.000	0.036	0.1838	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
324	0.00	0.000	0.035	0.1818	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
325 *	0.00	0.000	0.023	0.1805	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
326	0.00	0.000	0.031	0.1788	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
327	0.00	0.000	0.026	0.1774	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
328	0.03	0.000	0.045	0.1766	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
329	0.00	0.000	0.042	0.1742	0.0000	.0000E+00	.0000E+00	0.0000

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.0000E+00 .0000E+00
  330         0.02  0.000  0.046  0.1728    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  331         0.66  0.000  0.042  0.2072    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  332  *      0.02  0.000  0.020  0.2072    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  333         0.00  0.000  0.025  0.2058    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  334  *      0.00  0.000  0.024  0.2045    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  335         0.00  0.000  0.028  0.2029    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  336         0.00  0.000  0.027  0.2014    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  337  *      0.00  0.000  0.024  0.2001    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  338  *      0.00  0.000  0.021  0.1990    0.0000 .1504E-04 .1021E-07    0.0000
.0000E+00 .0000E+00
  339  *      0.00  0.000  0.000  0.1990    0.0000 .2337E-05 .1361E-07    0.0000
.0000E+00 .0000E+00
  340  *      0.00  0.000  0.000  0.1989    0.0001 .1045E-03 .1363E-07    0.0000
.0000E+00 .0000E+00
  341  *      0.89  0.000  0.017  0.2000    0.0001 .8109E-04 .1362E-07    0.0000
.0000E+00 .0000E+00
  342  *      0.01  0.000  0.016  0.2011    0.0001 .1734E-03 .1364E-07    0.0000
.0000E+00 .0000E+00
  343  *      0.02  0.000  0.000  0.2022    0.0000 .2115E-04 .1361E-07    0.0000
.0000E+00 .0000E+00
  344         0.00  0.000  0.032  0.2033    0.0000 .4884E-04 .1362E-07    0.0000
.0000E+00 .0000E+00
  345         0.05  0.000  0.000  0.2187    0.0001 .8819E-04 .1363E-07    0.0000
.0000E+00 .0000E+00
  346  *      0.00  0.000  0.027  0.2198    0.0000 .6678E-05 .1361E-07    0.0000
.0000E+00 .0000E+00
  347         0.00  0.000  0.027  0.2229    0.0000 .4940E-06 .1361E-07    0.0000
.0000E+00 .0000E+00
  348  *      0.00  0.000  0.028  0.2240    0.0000 .2502E-07 .9497E-08    0.0000
.0000E+00 .0000E+00
  349         0.00  0.000  0.012  0.2361    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  350  *      0.00  0.000  0.030  0.2372    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  351  *  *   0.00  0.000  0.028  0.2372    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  352  *  *   0.00  0.000  0.027  0.2372    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  353  *  *   0.00  0.000  0.030  0.2372    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  354     *   0.00  0.000  0.008  0.2372    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  355     *   0.00  0.000  0.000  0.2372    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  356     *   0.00  0.000  0.000  0.2372    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  357     *   0.00  0.000  0.000  0.2372    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  358     *   0.00  0.000  0.000  0.2372    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  359     *   0.00  0.000  0.000  0.2372    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
  360  *  *   0.00  0.000  0.000  0.2372    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
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361	*	*	0.00	0.000	0.000	0.2372	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
362	*	*	0.00	0.000	0.000	0.2372	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
363	*	*	0.16	0.000	0.026	0.2372	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
364	*	*	0.00	0.000	0.027	0.2372	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00
365		*	0.00	0.000	0.037	0.2372	0.0000	.0000E+00	.0000E+00	0.0000 .0000E+00 .0000E+00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 2009

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.83	1.08	4.28	1.37	3.21	3.01
	1.71	1.84	0.90	3.37	0.73	1.13
RUNOFF	0.010	0.000	0.025	0.000	0.066	0.024
	0.000	0.000	0.000	0.010	0.000	0.000
EVAPOTRANSPIRATION	0.734	1.575	2.143	2.976	2.291	4.002
	2.018	2.150	0.557	1.479	1.104	0.469
LATERAL DRAINAGE COLLECTED	0.0871	0.0787	0.4741	0.5636	0.3035	0.1940
FROM LAYER 3	0.0577	0.0002	0.0000	0.0003	0.0000	0.0005
PERCOLATION/LEAKAGE THROUGH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAYER 6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON	0.002	0.002	0.010	0.012	0.006	0.004
TOP OF LAYER 4	0.001	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY	0.001	0.001	0.010	0.004	0.001	0.001
HEAD ON TOP OF LAYER 4	0.001	0.000	0.000	0.000	0.000	0.000

ANNUAL TOTALS FOR YEAR 2009

	INCHES	CU. FEET	PERCENT
PRECIPITATION	23.46	85159.820	100.00
RUNOFF	0.134	486.991	0.57
EVAPOTRANSPIRATION	21.498	78038.859	91.64
DRAINAGE COLLECTED FROM LAYER 3	1.7595	6387.163	7.50
PERC./LEAKAGE THROUGH LAYER 5	0.000003	0.012	0.00
AVG. HEAD ON TOP OF LAYER 4	0.0030		
PERC./LEAKAGE THROUGH LAYER 6	0.000000	0.000	0.00
CHANGE IN WATER STORAGE	0.068	246.802	0.29
SOIL WATER AT START OF YEAR	45.206	164096.203	
SOIL WATER AT END OF YEAR	45.202	164084.609	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.071	258.392	0.30
ANNUAL WATER BUDGET BALANCE	0.0000	0.003	0.00

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WARNING: TEMPERATURE FOR YEAR 1977 USED WITH PRECIPITATION FOR YEAR 2010

WARNING: SOLAR RADIATION FOR YEAR 1977 USED WITH PRECIPITATION FOR YEAR 2010

HEAD #1: AVERAGE HEAD ON TOP OF LAYER 4
DRAIN #1: LATERAL DRAINAGE FROM LAYER 3 (RECIRCULATION AND COLLECTION)
LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 5
LEAK #2: PERCOLATION OR LEAKAGE THROUGH LAYER 6

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DAILY OUTPUT FOR YEAR 2010

DAY	A I R	S O I L	RAIN IN.	RUNOFF IN.	ET IN.	E. ZONE WATER IN./IN.	HEAD #1 IN.	DRAIN #1 IN.	LEAK #1 IN.	HEAD #2 IN.	DRAIN #2 IN.	LEAK #2 IN.
1												

1	*	*	0.00	0.000	0.035	0.2372	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
2	*	*	0.00	0.000	0.025	0.2372	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
3	*	*	0.22	0.000	0.000	0.2372	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
4	*	*	0.01	0.000	0.026	0.2372	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
5		*	0.61	0.510	0.000	0.2547	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
6		*	0.01	0.000	0.007	0.2549	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
7		*	0.14	0.019	0.012	0.2609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
8		*	0.00	0.000	0.000	0.2609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
9		*	0.00	0.000	0.000	0.2609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
10	*	*	0.39	0.000	0.031	0.2609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
11	*	*	0.03	0.000	0.024	0.2609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
12	*	*	0.00	0.000	0.020	0.2609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
13	*	*	0.00	0.000	0.026	0.2609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
14	*	*	0.33	0.000	0.023	0.2609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
15	*	*	0.02	0.000	0.017	0.2609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
16	*	*	0.09	0.000	0.016	0.2609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
17	*	*	0.00	0.000	0.013	0.2609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
18	*	*	0.00	0.000	0.019	0.2609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
19	*	*	0.01	0.000	0.000	0.2609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
20	*	*	0.12	0.000	0.000	0.2609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
21	*	*	0.00	0.000	0.017	0.2609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
22	*	*	0.00	0.000	0.021	0.2609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
23	*	*	0.00	0.000	0.024	0.2609	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
24		*	0.32	0.407	0.000	0.2736	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
25		*	0.00	0.114	0.009	0.2814	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
26		*	0.02	0.063	0.030	0.2862	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
27		*	0.00	0.000	0.000	0.2862	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
28		*	0.03	0.000	0.010	0.2874	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
29		*	0.03	0.000	0.010	0.2885	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
30		*	0.00	0.000	0.000	0.2885	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00									
31		*	0.00	0.000	0.000	0.2885	0.0000	.0000E+00	.0000E+00	0.0000

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.0000E+00 .0000E+00
   32     *   0.00  0.000  0.000  0.2885    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   33         0.00  0.000  0.051  0.2677    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   34         0.00  0.000  0.046  0.2598    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   35         0.00  0.000  0.041  0.2507    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   36  *      0.00  0.000  0.042  0.2436    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   37  *      0.00  0.000  0.050  0.2374    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   38  *      0.00  0.000  0.000  0.2347    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   39  *  *   0.00  0.000  0.000  0.2347    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   40  *  *   0.00  0.000  0.000  0.2347    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   41     *   0.00  0.000  0.000  0.2347    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   42     *   0.00  0.000  0.000  0.2347    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   43     *   0.00  0.000  0.000  0.2347    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   44     *   0.38  0.121  0.009  0.2486    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   45     *   0.00  0.000  0.000  0.2486    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   46     *   0.01  0.000  0.006  0.2488    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   47     *   0.00  0.000  0.000  0.2488    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   48     *   0.00  0.000  0.000  0.2488    0.0000 .0000E+00 .0000E+00    0.0000
.0000E+00 .0000E+00
   49     *   0.00  0.000  0.000  0.2488    0.0007 .1151E-02 .1381E-07    0.0000
.0000E+00 .0000E+00
   50         0.00  0.000  0.064  0.2429    0.0072 .1156E-01 .1523E-07    0.0000
.0000E+00 .0000E+00
   51         0.11  0.000  0.061  0.2437    0.0114 .1824E-01 .1608E-07    0.0000
.0000E+00 .0000E+00
   52         0.00  0.000  0.080  0.2377    0.0109 .1735E-01 .1597E-07    0.0000
.0000E+00 .0000E+00
   53         0.00  0.000  0.055  0.2335    0.0079 .1268E-01 .1539E-07    0.0000
.0000E+00 .0000E+00
   54         0.00  0.000  0.073  0.2283    0.0060 .9597E-02 .1499E-07    0.0000
.0000E+00 .0000E+00
   55         0.74  0.000  0.065  0.2647    0.0031 .4990E-02 .1437E-07    0.0000
.0000E+00 .0000E+00
   56         0.00  0.000  0.060  0.2600    0.0054 .8636E-02 .1486E-07    0.0000
.0000E+00 .0000E+00
   57         0.00  0.000  0.057  0.2559    0.0055 .8846E-02 .1489E-07    0.0000
.0000E+00 .0000E+00
   58         1.01  0.006  0.057  0.3065    0.0010 .1632E-02 .1388E-07    0.0000
.0000E+00 .0000E+00
   59         0.05  0.000  0.059  0.2780    0.0073 .1161E-01 .1525E-07    0.0000
.0000E+00 .0000E+00
   60         0.17  0.000  0.066  0.2759    0.0013 .2091E-02 .1395E-07    0.0000
.0000E+00 .0000E+00
   61  *      0.01  0.000  0.049  0.2674    0.0001 .1586E-03 .1364E-07    0.0000
.0000E+00 .0000E+00
   62  *      0.10  0.000  0.049  0.2635    0.0000 .1202E-04 .1361E-07    0.0000
.0000E+00 .0000E+00
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63	*	0.02	0.000	0.040	0.2613	0.0014	.2253E-02	.1393E-07	0.0000
.0000E+00	.0000E+00								
64	*	0.00	0.000	0.053	0.2545	0.0251	.4004E-01	.1865E-07	0.0000
.0000E+00	.0000E+00								
65		0.00	0.000	0.070	0.2477	0.0361	.5764E-01	.2068E-07	0.0000
.0000E+00	.0000E+00								
66		0.00	0.000	0.065	0.2413	0.0470	.7511E-01	.2501E-07	0.0000
.0000E+00	.0000E+00								
67		0.00	0.000	0.066	0.2351	0.0505	.8058E-01	.2678E-07	0.0000
.0000E+00	.0000E+00								
68		0.00	0.000	0.086	0.2281	0.0498	.7950E-01	.2643E-07	0.0000
.0000E+00	.0000E+00								
69		0.00	0.000	0.066	0.2228	0.0461	.7365E-01	.2454E-07	0.0000
.0000E+00	.0000E+00								
70		0.00	0.000	0.084	0.2166	0.0465	.7424E-01	.2473E-07	0.0000
.0000E+00	.0000E+00								
71		2.26	0.236	0.073	0.3240	0.0453	.7235E-01	.2411E-07	0.0000
.0000E+00	.0000E+00								
72		0.26	0.000	0.065	0.2868	0.0458	.7309E-01	.2526E-07	0.0000
.0000E+00	.0000E+00								
73		0.00	0.000	0.082	0.2776	0.0398	.6362E-01	.2581E-07	0.0000
.0000E+00	.0000E+00								
74	*	0.00	0.000	0.056	0.2653	0.1344	.2145	.6970E-07	0.0000
.0000E+00	.0000E+00								
75	*	0.00	0.000	0.068	0.2539	0.1079	.1723	.5622E-07	0.0000
.0000E+00	.0000E+00								
76	*	0.00	0.000	0.068	0.2453	0.1004	.1603	.5238E-07	0.0000
.0000E+00	.0000E+00								
77		0.17	0.000	0.073	0.2472	0.1104	.1762	.5747E-07	0.0000
.0000E+00	.0000E+00								
78		0.02	0.000	0.070	0.2416	0.1027	.1640	.5356E-07	0.0000
.0000E+00	.0000E+00								
79		0.02	0.000	0.069	0.2369	0.0891	.1423	.4661E-07	0.0000
.0000E+00	.0000E+00								
80		0.00	0.000	0.134	0.2275	0.0780	.1246	.4093E-07	0.0000
.0000E+00	.0000E+00								
81		0.17	0.000	0.077	0.2310	0.0704	.1124	.3701E-07	0.0000
.0000E+00	.0000E+00								
82		0.00	0.000	0.106	0.2239	0.0561	.8965E-01	.2970E-07	0.0000
.0000E+00	.0000E+00								
83		0.00	0.000	0.079	0.2184	0.0526	.8402E-01	.2789E-07	0.0000
.0000E+00	.0000E+00								
84	*	0.00	0.000	0.074	0.2135	0.0477	.7623E-01	.2537E-07	0.0000
.0000E+00	.0000E+00								
85	*	0.00	0.000	0.061	0.2093	0.0432	.6897E-01	.2302E-07	0.0000
.0000E+00	.0000E+00								
86		0.00	0.000	0.098	0.2030	0.0420	.6711E-01	.2242E-07	0.0000
.0000E+00	.0000E+00								
87		0.87	0.000	0.093	0.2452	0.0384	.6127E-01	.2107E-07	0.0000
.0000E+00	.0000E+00								
88		2.38	0.466	0.103	0.3194	0.0339	.5417E-01	.2028E-07	0.0000
.0000E+00	.0000E+00								
89		0.00	0.000	0.090	0.2782	0.0285	.4544E-01	.1940E-07	0.0000
.0000E+00	.0000E+00								
90		0.00	0.000	0.074	0.2666	0.0400	.6387E-01	.2712E-07	0.0000
.0000E+00	.0000E+00								
91		0.00	0.000	0.076	0.2545	0.1303	.2080	.6762E-07	0.0000
.0000E+00	.0000E+00								
92		0.20	0.000	0.075	0.2565	0.1347	.2151	.6989E-07	0.0000
.0000E+00	.0000E+00								
93		0.02	0.000	0.124	0.2472	0.1282	.2046	.6654E-07	0.0000
.0000E+00	.0000E+00								
94		0.00	0.000	0.092	0.2395	0.1097	.1751	.5710E-07	0.0000

.0000E+00	.0000E+00							
95	0.05	0.000	0.122	0.2327	0.0971	.1551	.5069E-07	0.0000
.0000E+00	.0000E+00							
96	0.01	0.000	0.095	0.2262	0.0768	.1226	.4029E-07	0.0000
.0000E+00	.0000E+00							
97	0.00	0.000	0.147	0.2171	0.0647	.1034	.3411E-07	0.0000
.0000E+00	.0000E+00							
98	0.00	0.000	0.159	0.2071	0.0637	.1017	.3358E-07	0.0000
.0000E+00	.0000E+00							
99	0.00	0.000	0.174	0.1959	0.0590	.9413E-01	.3115E-07	0.0000
.0000E+00	.0000E+00							
100	0.00	0.000	0.159	0.1866	0.0462	.7372E-01	.2456E-07	0.0000
.0000E+00	.0000E+00							
101	0.00	0.000	0.145	0.1780	0.0415	.6626E-01	.2215E-07	0.0000
.0000E+00	.0000E+00							
102	0.00	0.000	0.169	0.1680	0.0430	.6864E-01	.2291E-07	0.0000
.0000E+00	.0000E+00							
103	0.00	0.000	0.085	0.1625	0.0401	.6403E-01	.2157E-07	0.0000
.0000E+00	.0000E+00							
104	0.00	0.000	0.066	0.1579	0.0357	.5701E-01	.2060E-07	0.0000
.0000E+00	.0000E+00							
105	0.00	0.000	0.055	0.1541	0.0324	.5180E-01	.2001E-07	0.0000
.0000E+00	.0000E+00							
106	0.00	0.000	0.049	0.1507	0.0277	.4419E-01	.1914E-07	0.0000
.0000E+00	.0000E+00							
107	0.00	0.000	0.044	0.1477	0.0249	.3974E-01	.1863E-07	0.0000
.0000E+00	.0000E+00							
108	0.00	0.000	0.042	0.1450	0.0233	.3728E-01	.1835E-07	0.0000
.0000E+00	.0000E+00							
109	0.00	0.000	0.040	0.1424	0.0223	.3567E-01	.1816E-07	0.0000
.0000E+00	.0000E+00							
110	0.30	0.000	0.044	0.1563	0.0215	.3438E-01	.1801E-07	0.0000
.0000E+00	.0000E+00							
111	0.01	0.000	0.041	0.1542	0.0208	.3320E-01	.1787E-07	0.0000
.0000E+00	.0000E+00							
112	0.33	0.000	0.040	0.1701	0.0201	.3205E-01	.1774E-07	0.0000
.0000E+00	.0000E+00							
113	0.00	0.000	0.034	0.1681	0.0190	.3039E-01	.1754E-07	0.0000
.0000E+00	.0000E+00							
114	0.00	0.000	0.034	0.1661	0.0172	.2742E-01	.1719E-07	0.0000
.0000E+00	.0000E+00							
115	0.00	0.000	0.034	0.1643	0.0173	.2760E-01	.1721E-07	0.0000
.0000E+00	.0000E+00							
116	0.00	0.000	0.033	0.1625	0.0173	.2768E-01	.1722E-07	0.0000
.0000E+00	.0000E+00							
117	0.00	0.000	0.034	0.1605	0.0171	.2736E-01	.1719E-07	0.0000
.0000E+00	.0000E+00							
118	0.00	0.000	0.035	0.1586	0.0168	.2676E-01	.1711E-07	0.0000
.0000E+00	.0000E+00							
119	0.00	0.000	0.036	0.1566	0.0163	.2599E-01	.1702E-07	0.0000
.0000E+00	.0000E+00							
120	0.00	0.000	0.035	0.1546	0.0157	.2513E-01	.1692E-07	0.0000
.0000E+00	.0000E+00							
121	0.07	0.000	0.047	0.1559	0.0152	.2424E-01	.1681E-07	0.0000
.0000E+00	.0000E+00							
122	0.21	0.000	0.049	0.1649	0.0146	.2334E-01	.1670E-07	0.0000
.0000E+00	.0000E+00							
123	0.00	0.000	0.049	0.1621	0.0141	.2246E-01	.1660E-07	0.0000
.0000E+00	.0000E+00							
124	0.01	0.000	0.054	0.1597	0.0135	.2160E-01	.1649E-07	0.0000
.0000E+00	.0000E+00							
125	0.38	0.000	0.051	0.1779	0.0130	.2078E-01	.1639E-07	0.0000
.0000E+00	.0000E+00							

126	0.08	0.000	0.167	0.1731	0.0125	.1999E-01	.1630E-07	0.0000
.0000E+00	.0000E+00							
127	0.69	0.000	0.193	0.2007	0.0121	.1925E-01	.1621E-07	0.0000
.0000E+00	.0000E+00							
128	0.02	0.000	0.228	0.1891	0.0116	.1854E-01	.1612E-07	0.0000
.0000E+00	.0000E+00							
129	0.00	0.000	0.251	0.1752	0.0112	.1788E-01	.1604E-07	0.0000
.0000E+00	.0000E+00							
130	0.00	0.000	0.255	0.1610	0.0108	.1725E-01	.1596E-07	0.0000
.0000E+00	.0000E+00							
131	0.00	0.000	0.295	0.1446	0.0104	.1665E-01	.1589E-07	0.0000
.0000E+00	.0000E+00							
132	0.00	0.000	0.277	0.1292	0.0101	.1609E-01	.1582E-07	0.0000
.0000E+00	.0000E+00							
133	0.00	0.000	0.154	0.1207	0.0097	.1556E-01	.1575E-07	0.0000
.0000E+00	.0000E+00							
134	0.00	0.000	0.133	0.1133	0.0094	.1506E-01	.1569E-07	0.0000
.0000E+00	.0000E+00							
135	0.00	0.000	0.133	0.1059	0.0091	.1458E-01	.1563E-07	0.0000
.0000E+00	.0000E+00							
136	0.00	0.000	0.077	0.1017	0.0089	.1414E-01	.1557E-07	0.0000
.0000E+00	.0000E+00							
137	0.00	0.000	0.000	0.1017	0.0086	.1371E-01	.1552E-07	0.0000
.0000E+00	.0000E+00							
138	0.00	0.000	0.000	0.1017	0.0083	.1331E-01	.1547E-07	0.0000
.0000E+00	.0000E+00							
139	0.00	0.000	0.000	0.1017	0.0081	.1293E-01	.1542E-07	0.0000
.0000E+00	.0000E+00							
140	0.00	0.000	0.000	0.1017	0.0079	.1256E-01	.1537E-07	0.0000
.0000E+00	.0000E+00							
141	0.00	0.000	0.000	0.1017	0.0077	.1222E-01	.1533E-07	0.0000
.0000E+00	.0000E+00							
142	0.00	0.000	0.000	0.1017	0.0074	.1189E-01	.1529E-07	0.0000
.0000E+00	.0000E+00							
143	0.00	0.000	0.000	0.1017	0.0073	.1158E-01	.1525E-07	0.0000
.0000E+00	.0000E+00							
144	0.00	0.000	0.000	0.1017	0.0071	.1128E-01	.1521E-07	0.0000
.0000E+00	.0000E+00							
145	0.00	0.000	0.000	0.1017	0.0069	.1100E-01	.1517E-07	0.0000
.0000E+00	.0000E+00							
146	0.56	0.000	0.065	0.1292	0.0067	.1072E-01	.1514E-07	0.0000
.0000E+00	.0000E+00							
147	0.00	0.000	0.048	0.1265	0.0066	.1047E-01	.1511E-07	0.0000
.0000E+00	.0000E+00							
148	0.00	0.000	0.088	0.1216	0.0064	.1022E-01	.1507E-07	0.0000
.0000E+00	.0000E+00							
149	0.00	0.000	0.096	0.1163	0.0063	.9980E-02	.1504E-07	0.0000
.0000E+00	.0000E+00							
150	0.00	0.000	0.109	0.1102	0.0061	.9753E-02	.1501E-07	0.0000
.0000E+00	.0000E+00							
151	0.18	0.000	0.134	0.1128	0.0060	.9535E-02	.1498E-07	0.0000
.0000E+00	.0000E+00							
152	0.00	0.000	0.108	0.1068	0.0058	.9326E-02	.1496E-07	0.0000
.0000E+00	.0000E+00							
153	0.00	0.000	0.069	0.1030	0.0057	.9126E-02	.1493E-07	0.0000
.0000E+00	.0000E+00							
154	0.00	0.000	0.018	0.1020	0.0056	.8933E-02	.1491E-07	0.0000
.0000E+00	.0000E+00							
155	0.00	0.000	0.005	0.1018	0.0055	.8748E-02	.1488E-07	0.0000
.0000E+00	.0000E+00							
156	0.00	0.000	0.001	0.1017	0.0054	.8570E-02	.1486E-07	0.0000
.0000E+00	.0000E+00							
157	0.00	0.000	0.000	0.1017	0.0053	.8398E-02	.1484E-07	0.0000

.0000E+00	.0000E+00							
158	0.00	0.000	0.000	0.1017	0.0052	.8233E-02	.1481E-07	0.0000
.0000E+00	.0000E+00							
159	0.00	0.000	0.000	0.1017	0.0051	.8074E-02	.1479E-07	0.0000
.0000E+00	.0000E+00							
160	0.10	0.000	0.023	0.1059	0.0050	.7920E-02	.1477E-07	0.0000
.0000E+00	.0000E+00							
161	0.00	0.000	0.017	0.1050	0.0049	.7772E-02	.1475E-07	0.0000
.0000E+00	.0000E+00							
162	0.00	0.000	0.047	0.1024	0.0048	.7629E-02	.1473E-07	0.0000
.0000E+00	.0000E+00							
163	0.00	0.000	0.011	0.1018	0.0047	.7491E-02	.1471E-07	0.0000
.0000E+00	.0000E+00							
164	0.00	0.000	0.002	0.1017	0.0046	.7357E-02	.1470E-07	0.0000
.0000E+00	.0000E+00							
165	0.73	0.000	0.092	0.1372	0.0045	.7228E-02	.1468E-07	0.0000
.0000E+00	.0000E+00							
166	0.00	0.000	0.112	0.1310	0.0044	.7103E-02	.1466E-07	0.0000
.0000E+00	.0000E+00							
167	0.00	0.000	0.166	0.1217	0.0044	.6982E-02	.1465E-07	0.0000
.0000E+00	.0000E+00							
168	0.00	0.000	0.219	0.1096	0.0046	.7278E-02	.1469E-07	0.0000
.0000E+00	.0000E+00							
169	0.00	0.000	0.128	0.1025	0.0059	.9368E-02	.1496E-07	0.0000
.0000E+00	.0000E+00							
170	0.00	0.000	0.011	0.1019	0.0059	.9341E-02	.1496E-07	0.0000
.0000E+00	.0000E+00							
171	0.00	0.000	0.003	0.1017	0.0056	.8976E-02	.1491E-07	0.0000
.0000E+00	.0000E+00							
172	0.00	0.000	0.000	0.1017	0.0054	.8613E-02	.1486E-07	0.0000
.0000E+00	.0000E+00							
173	1.24	0.002	0.102	0.1648	0.0052	.8275E-02	.1482E-07	0.0000
.0000E+00	.0000E+00							
174	0.08	0.000	0.180	0.1593	0.0050	.7961E-02	.1478E-07	0.0000
.0000E+00	.0000E+00							
175	0.40	0.000	0.160	0.1726	0.0048	.7669E-02	.1474E-07	0.0000
.0000E+00	.0000E+00							
176	0.85	0.000	0.217	0.2078	0.0046	.7397E-02	.1470E-07	0.0000
.0000E+00	.0000E+00							
177	0.01	0.000	0.241	0.1949	0.0045	.7143E-02	.1467E-07	0.0000
.0000E+00	.0000E+00							
178	1.28	0.029	0.165	0.2553	0.0043	.6904E-02	.1464E-07	0.0000
.0000E+00	.0000E+00							
179	0.68	0.000	0.230	0.2803	0.0042	.6681E-02	.1461E-07	0.0000
.0000E+00	.0000E+00							
180	0.04	0.000	0.323	0.2645	0.0041	.6470E-02	.1458E-07	0.0000
.0000E+00	.0000E+00							
181	0.00	0.000	0.309	0.2396	0.0039	.6272E-02	.1455E-07	0.0000
.0000E+00	.0000E+00							
182	0.06	0.000	0.241	0.2245	0.0038	.6086E-02	.1453E-07	0.0000
.0000E+00	.0000E+00							
183	0.00	0.000	0.273	0.2060	0.0037	.5909E-02	.1450E-07	0.0000
.0000E+00	.0000E+00							
184	0.00	0.000	0.305	0.1872	0.0036	.5742E-02	.1448E-07	0.0000
.0000E+00	.0000E+00							
185	0.00	0.000	0.302	0.1687	0.0031	.4891E-02	.1436E-07	0.0000
.0000E+00	.0000E+00							
186	0.00	0.000	0.300	0.1497	0.0033	.5232E-02	.1441E-07	0.0000
.0000E+00	.0000E+00							
187	0.00	0.000	0.191	0.1367	0.0027	.4235E-02	.1427E-07	0.0000
.0000E+00	.0000E+00							
188	0.00	0.000	0.291	0.1171	0.0029	.4552E-02	.1431E-07	0.0000
.0000E+00	.0000E+00							

189	0.00	0.000	0.143	0.1092	0.0004	.7023E-03	.1374E-07	0.0000
.0000E+00	.0000E+00							
190	0.07	0.000	0.168	0.1038	0.0000	.5326E-04	.1362E-07	0.0000
.0000E+00	.0000E+00							
191	0.00	0.000	0.026	0.1023	0.0000	.4028E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
192	1.31	0.005	0.120	0.1681	0.0000	.2930E-06	.1361E-07	0.0000
.0000E+00	.0000E+00							
193	0.23	0.000	0.117	0.1744	0.0000	.1133E-07	.6681E-08	0.0000
.0000E+00	.0000E+00							
194	0.11	0.000	0.180	0.1705	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
195	0.00	0.000	0.245	0.1569	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
196	0.00	0.000	0.235	0.1438	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
197	0.00	0.000	0.279	0.1283	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
198	0.00	0.000	0.260	0.1139	0.0001	.1089E-03	.6826E-08	0.0000
.0000E+00	.0000E+00							
199	0.00	0.000	0.135	0.1064	0.0007	.1179E-02	.1381E-07	0.0000
.0000E+00	.0000E+00							
200	0.00	0.000	0.074	0.1022	0.0016	.2563E-02	.1403E-07	0.0000
.0000E+00	.0000E+00							
201	0.00	0.000	0.008	0.1018	0.0024	.3807E-02	.1421E-07	0.0000
.0000E+00	.0000E+00							
202	0.00	0.000	0.002	0.1017	0.0031	.4886E-02	.1436E-07	0.0000
.0000E+00	.0000E+00							
203	1.49	0.020	0.125	0.1764	0.0036	.5810E-02	.1449E-07	0.0000
.0000E+00	.0000E+00							
204	0.00	0.000	0.211	0.1647	0.0041	.6595E-02	.1459E-07	0.0000
.0000E+00	.0000E+00							
205	0.00	0.000	0.229	0.1520	0.0045	.7254E-02	.1468E-07	0.0000
.0000E+00	.0000E+00							
206	0.31	0.000	0.250	0.1553	0.0049	.7802E-02	.1476E-07	0.0000
.0000E+00	.0000E+00							
207	0.76	0.000	0.207	0.1860	0.0052	.8251E-02	.1482E-07	0.0000
.0000E+00	.0000E+00							
208	0.00	0.000	0.271	0.1710	0.0054	.8613E-02	.1486E-07	0.0000
.0000E+00	.0000E+00							
209	0.00	0.000	0.264	0.1563	0.0056	.8900E-02	.1490E-07	0.0000
.0000E+00	.0000E+00							
210	0.00	0.000	0.238	0.1431	0.0057	.9122E-02	.1493E-07	0.0000
.0000E+00	.0000E+00							
211	0.00	0.000	0.250	0.1292	0.0058	.9288E-02	.1495E-07	0.0000
.0000E+00	.0000E+00							
212	0.00	0.000	0.255	0.1151	0.0059	.9405E-02	.1497E-07	0.0000
.0000E+00	.0000E+00							
213	0.00	0.000	0.213	0.1032	0.0059	.9481E-02	.1498E-07	0.0000
.0000E+00	.0000E+00							
214	0.00	0.000	0.028	0.1017	0.0060	.9521E-02	.1498E-07	0.0000
.0000E+00	.0000E+00							
215	0.00	0.000	0.000	0.1017	0.0060	.9532E-02	.1498E-07	0.0000
.0000E+00	.0000E+00							
216	0.00	0.000	0.000	0.1017	0.0060	.9518E-02	.1498E-07	0.0000
.0000E+00	.0000E+00							
217	0.00	0.000	0.000	0.1017	0.0059	.9483E-02	.1498E-07	0.0000
.0000E+00	.0000E+00							
218	0.00	0.000	0.000	0.1017	0.0059	.9430E-02	.1497E-07	0.0000
.0000E+00	.0000E+00							
219	0.00	0.000	0.000	0.1017	0.0059	.9362E-02	.1496E-07	0.0000
.0000E+00	.0000E+00							
220	0.63	0.000	0.104	0.1309	0.0058	.9283E-02	.1495E-07	0.0000

.0000E+00	.0000E+00							
221	1.20	0.007	0.123	0.1903	0.0058	.9194E-02	.1494E-07	0.0000
.0000E+00	.0000E+00							
222	0.77	0.000	0.184	0.2229	0.0057	.9097E-02	.1493E-07	0.0000
.0000E+00	.0000E+00							
223	0.60	0.000	0.224	0.2438	0.0056	.8993E-02	.1491E-07	0.0000
.0000E+00	.0000E+00							
224	0.02	0.000	0.229	0.2322	0.0056	.8885E-02	.1490E-07	0.0000
.0000E+00	.0000E+00							
225	0.00	0.000	0.258	0.2179	0.0055	.8773E-02	.1488E-07	0.0000
.0000E+00	.0000E+00							
226	0.00	0.000	0.263	0.2033	0.0054	.8658E-02	.1487E-07	0.0000
.0000E+00	.0000E+00							
227	0.00	0.000	0.271	0.1882	0.0053	.8542E-02	.1485E-07	0.0000
.0000E+00	.0000E+00							
228	0.00	0.000	0.257	0.1740	0.0053	.8424E-02	.1484E-07	0.0000
.0000E+00	.0000E+00							
229	0.00	0.000	0.227	0.1613	0.0052	.8306E-02	.1482E-07	0.0000
.0000E+00	.0000E+00							
230	0.00	0.000	0.206	0.1499	0.0051	.8187E-02	.1481E-07	0.0000
.0000E+00	.0000E+00							
231	0.00	0.000	0.254	0.1358	0.0051	.8069E-02	.1479E-07	0.0000
.0000E+00	.0000E+00							
232	0.00	0.000	0.224	0.1233	0.0050	.7952E-02	.1478E-07	0.0000
.0000E+00	.0000E+00							
233	0.00	0.000	0.216	0.1113	0.0049	.7835E-02	.1476E-07	0.0000
.0000E+00	.0000E+00							
234	0.00	0.000	0.165	0.1021	0.0048	.7720E-02	.1475E-07	0.0000
.0000E+00	.0000E+00							
235	0.00	0.000	0.008	0.1017	0.0048	.7606E-02	.1473E-07	0.0000
.0000E+00	.0000E+00							
236	1.58	0.031	0.075	0.1836	0.0047	.7493E-02	.1471E-07	0.0000
.0000E+00	.0000E+00							
237	0.00	0.000	0.202	0.1723	0.0046	.7383E-02	.1470E-07	0.0000
.0000E+00	.0000E+00							
238	0.00	0.000	0.252	0.1583	0.0046	.7274E-02	.1469E-07	0.0000
.0000E+00	.0000E+00							
239	0.00	0.000	0.213	0.1465	0.0045	.7167E-02	.1467E-07	0.0000
.0000E+00	.0000E+00							
240	0.00	0.000	0.196	0.1356	0.0044	.7062E-02	.1466E-07	0.0000
.0000E+00	.0000E+00							
241	0.47	0.000	0.122	0.1549	0.0044	.6958E-02	.1464E-07	0.0000
.0000E+00	.0000E+00							
242	0.07	0.000	0.110	0.1527	0.0043	.6857E-02	.1463E-07	0.0000
.0000E+00	.0000E+00							
243	0.00	0.000	0.188	0.1422	0.0042	.6758E-02	.1462E-07	0.0000
.0000E+00	.0000E+00							
244	0.00	0.000	0.213	0.1304	0.0042	.6661E-02	.1460E-07	0.0000
.0000E+00	.0000E+00							
245	0.00	0.000	0.206	0.1190	0.0041	.6565E-02	.1459E-07	0.0000
.0000E+00	.0000E+00							
246	0.00	0.000	0.174	0.1094	0.0047	.7429E-02	.1471E-07	0.0000
.0000E+00	.0000E+00							
247	0.07	0.000	0.136	0.1057	0.0057	.9127E-02	.1493E-07	0.0000
.0000E+00	.0000E+00							
248	0.01	0.000	0.063	0.1028	0.0056	.8948E-02	.1491E-07	0.0000
.0000E+00	.0000E+00							
249	0.58	0.000	0.097	0.1296	0.0054	.8600E-02	.1486E-07	0.0000
.0000E+00	.0000E+00							
250	0.00	0.000	0.089	0.1247	0.0052	.8264E-02	.1482E-07	0.0000
.0000E+00	.0000E+00							
251	0.00	0.000	0.112	0.1184	0.0050	.7951E-02	.1478E-07	0.0000
.0000E+00	.0000E+00							

252	0.00	0.000	0.111	0.1123	0.0048	.7660E-02	.1474E-07	0.0000
.0000E+00	.0000E+00							
253	0.00	0.000	0.102	0.1066	0.0046	.7388E-02	.1470E-07	0.0000
.0000E+00	.0000E+00							
254	0.00	0.000	0.084	0.1020	0.0045	.7134E-02	.1467E-07	0.0000
.0000E+00	.0000E+00							
255	0.00	0.000	0.004	0.1017	0.0043	.6897E-02	.1463E-07	0.0000
.0000E+00	.0000E+00							
256	0.63	0.000	0.089	0.1317	0.0040	.6391E-02	.1457E-07	0.0000
.0000E+00	.0000E+00							
257	0.14	0.000	0.093	0.1343	0.0040	.6413E-02	.1457E-07	0.0000
.0000E+00	.0000E+00							
258	0.66	0.000	0.126	0.1640	0.0039	.6282E-02	.1455E-07	0.0000
.0000E+00	.0000E+00							
259	0.15	0.000	0.118	0.1658	0.0038	.6099E-02	.1453E-07	0.0000
.0000E+00	.0000E+00							
260	0.00	0.000	0.142	0.1579	0.0037	.5922E-02	.1450E-07	0.0000
.0000E+00	.0000E+00							
261	0.00	0.000	0.124	0.1510	0.0036	.5754E-02	.1448E-07	0.0000
.0000E+00	.0000E+00							
262	0.90	0.000	0.109	0.1949	0.0035	.5595E-02	.1446E-07	0.0000
.0000E+00	.0000E+00							
263	0.00	0.000	0.078	0.1906	0.0034	.5444E-02	.1444E-07	0.0000
.0000E+00	.0000E+00							
264	0.00	0.000	0.074	0.1864	0.0033	.5301E-02	.1442E-07	0.0000
.0000E+00	.0000E+00							
265	0.00	0.000	0.089	0.1815	0.0032	.5165E-02	.1440E-07	0.0000
.0000E+00	.0000E+00							
266	0.00	0.000	0.070	0.1776	0.0032	.5035E-02	.1438E-07	0.0000
.0000E+00	.0000E+00							
267	0.00	0.000	0.097	0.1722	0.0031	.4911E-02	.1436E-07	0.0000
.0000E+00	.0000E+00							
268	0.32	0.000	0.086	0.1852	0.0030	.4793E-02	.1435E-07	0.0000
.0000E+00	.0000E+00							
269	0.18	0.000	0.117	0.1887	0.0029	.4680E-02	.1433E-07	0.0000
.0000E+00	.0000E+00							
270	0.00	0.000	0.065	0.1851	0.0029	.4573E-02	.1432E-07	0.0000
.0000E+00	.0000E+00							
271	0.00	0.000	0.072	0.1811	0.0028	.4469E-02	.1430E-07	0.0000
.0000E+00	.0000E+00							
272	0.00	0.000	0.067	0.1774	0.0027	.4370E-02	.1429E-07	0.0000
.0000E+00	.0000E+00							
273	0.00	0.000	0.064	0.1738	0.0027	.4275E-02	.1427E-07	0.0000
.0000E+00	.0000E+00							
274	0.00	0.000	0.044	0.1714	0.0026	.4184E-02	.1426E-07	0.0000
.0000E+00	.0000E+00							
275	0.04	0.000	0.056	0.1705	0.0025	.4021E-02	.1424E-07	0.0000
.0000E+00	.0000E+00							
276	0.00	0.000	0.031	0.1687	0.0025	.4004E-02	.1424E-07	0.0000
.0000E+00	.0000E+00							
277	0.00	0.000	0.046	0.1662	0.0025	.3935E-02	.1423E-07	0.0000
.0000E+00	.0000E+00							
278	0.13	0.000	0.066	0.1697	0.0024	.3858E-02	.1422E-07	0.0000
.0000E+00	.0000E+00							
279	0.68	0.000	0.063	0.2040	0.0024	.3783E-02	.1420E-07	0.0000
.0000E+00	.0000E+00							
280	0.00	0.000	0.027	0.2025	0.0023	.3711E-02	.1419E-07	0.0000
.0000E+00	.0000E+00							
281	1.65	0.125	0.065	0.2836	0.0023	.3641E-02	.1418E-07	0.0000
.0000E+00	.0000E+00							
282	0.00	0.000	0.040	0.2757	0.0022	.3574E-02	.1417E-07	0.0000
.0000E+00	.0000E+00							
283	0.00	0.000	0.049	0.2678	0.0022	.3509E-02	.1417E-07	0.0000

.0000E+00	.0000E+00							
284	0.04	0.000	0.061	0.2595	0.0022	.3446E-02	.1416E-07	0.0000
.0000E+00	.0000E+00							
285	0.01	0.000	0.041	0.2525	0.0021	.3385E-02	.1415E-07	0.0000
.0000E+00	.0000E+00							
286	0.00	0.000	0.046	0.2462	0.0021	.3327E-02	.1414E-07	0.0000
.0000E+00	.0000E+00							
287	0.00	0.000	0.053	0.2410	0.0020	.3270E-02	.1413E-07	0.0000
.0000E+00	.0000E+00							
288	0.00	0.000	0.060	0.2358	0.0009	.1430E-02	.1385E-07	0.0000
.0000E+00	.0000E+00							
289	0.02	0.000	0.032	0.2332	0.0001	.1108E-03	.1363E-07	0.0000
.0000E+00	.0000E+00							
290	0.00	0.000	0.045	0.2290	0.0000	.8393E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
291	0.00	0.000	0.041	0.2249	0.0000	.6241E-06	.1361E-07	0.0000
.0000E+00	.0000E+00							
292	0.00	0.000	0.019	0.2225	0.0000	.3460E-07	.1059E-07	0.0000
.0000E+00	.0000E+00							
293	0.00	0.000	0.017	0.2203	0.0000	.3256E-29	.1527E-18	0.0000
.0000E+00	.0000E+00							
294	0.00	0.000	0.024	0.2177	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
295	0.00	0.000	0.031	0.2148	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
296	0.00	0.000	0.031	0.2121	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
297	0.00	0.000	0.026	0.2097	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
298	0.95	0.000	0.055	0.2585	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
299	0.01	0.000	0.023	0.2567	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
300	0.00	0.000	0.024	0.2544	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
301	0.00	0.000	0.013	0.2537	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
302	0.00	0.000	0.034	0.2510	0.0002	.3575E-03	.3464E-08	0.0000
.0000E+00	.0000E+00							
303	0.00	0.000	0.022	0.2469	0.0078	.1243E-01	.1536E-07	0.0000
.0000E+00	.0000E+00							
304	0.00	0.000	0.031	0.2423	0.0094	.1504E-01	.1569E-07	0.0000
.0000E+00	.0000E+00							
305	0.23	0.000	0.050	0.2499	0.0059	.9462E-02	.1497E-07	0.0000
.0000E+00	.0000E+00							
306	0.21	0.000	0.054	0.2565	0.0007	.1151E-02	.1381E-07	0.0000
.0000E+00	.0000E+00							
307	0.10	0.000	0.060	0.2571	0.0001	.2344E-03	.1365E-07	0.0000
.0000E+00	.0000E+00							
308	0.06	0.000	0.053	0.2560	0.0000	.5829E-04	.1362E-07	0.0000
.0000E+00	.0000E+00							
309	0.02	0.000	0.050	0.2524	0.0006	.9149E-03	.1375E-07	0.0000
.0000E+00	.0000E+00							
310	0.00	0.000	0.043	0.2485	0.0006	.9350E-03	.1377E-07	0.0000
.0000E+00	.0000E+00							
311	0.14	0.000	0.063	0.2524	0.0000	.7092E-04	.1362E-07	0.0000
.0000E+00	.0000E+00							
312	0.06	0.000	0.062	0.2522	0.0000	.5367E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
313	0.00	0.000	0.052	0.2476	0.0075	.1203E-01	.1523E-07	0.0000
.0000E+00	.0000E+00							
314	0.18	0.000	0.062	0.2520	0.0206	.3285E-01	.1783E-07	0.0000
.0000E+00	.0000E+00							

315	0.00	0.000	0.052	0.2477	0.0125	.1991E-01	.1628E-07	0.0000
.0000E+00	.0000E+00							
316	0.00	0.000	0.055	0.2430	0.0068	.1092E-01	.1515E-07	0.0000
.0000E+00	.0000E+00							
317	0.00	0.000	0.052	0.2384	0.0115	.1844E-01	.1611E-07	0.0000
.0000E+00	.0000E+00							
318	0.00	0.000	0.040	0.2350	0.0080	.1272E-01	.1539E-07	0.0000
.0000E+00	.0000E+00							
319	0.00	0.000	0.030	0.2324	0.0069	.1097E-01	.1517E-07	0.0000
.0000E+00	.0000E+00							
320	1.20	0.016	0.043	0.2949	0.0086	.1373E-01	.1552E-07	0.0000
.0000E+00	.0000E+00							
321 *	0.02	0.000	0.036	0.2744	0.0133	.2127E-01	.1644E-07	0.0000
.0000E+00	.0000E+00							
322	0.00	0.000	0.028	0.2654	0.0179	.2861E-01	.1730E-07	0.0000
.0000E+00	.0000E+00							
323	0.00	0.000	0.030	0.2573	0.0078	.1242E-01	.1532E-07	0.0000
.0000E+00	.0000E+00							
324	0.64	0.000	0.049	0.2859	0.0008	.1323E-02	.1384E-07	0.0000
.0000E+00	.0000E+00							
325	0.33	0.000	0.057	0.2820	0.0309	.4926E-01	.2086E-07	0.0000
.0000E+00	.0000E+00							
326	0.00	0.000	0.035	0.2751	0.0246	.3920E-01	.1986E-07	0.0000
.0000E+00	.0000E+00							
327	0.00	0.000	0.032	0.2697	0.0728	.1162	.3823E-07	0.0000
.0000E+00	.0000E+00							
328	0.04	0.000	0.041	0.2615	0.1045	.1669	.5448E-07	0.0000
.0000E+00	.0000E+00							
329	0.00	0.000	0.038	0.2539	0.0651	.1039	.3430E-07	0.0000
.0000E+00	.0000E+00							
330	0.00	0.000	0.042	0.2484	0.0670	.1070	.3528E-07	0.0000
.0000E+00	.0000E+00							
331	0.05	0.000	0.050	0.2458	0.0840	.1342	.4401E-07	0.0000
.0000E+00	.0000E+00							
332	0.32	0.000	0.041	0.2588	0.0825	.1317	.4322E-07	0.0000
.0000E+00	.0000E+00							
333 *	0.00	0.000	0.024	0.2551	0.0743	.1186	.3900E-07	0.0000
.0000E+00	.0000E+00							
334	0.00	0.000	0.032	0.2517	0.0601	.9591E-01	.3172E-07	0.0000
.0000E+00	.0000E+00							
335	0.96	0.004	0.041	0.3009	0.0603	.9632E-01	.3185E-07	0.0000
.0000E+00	.0000E+00							
336	0.08	0.000	0.044	0.2804	0.0503	.8026E-01	.2723E-07	0.0000
.0000E+00	.0000E+00							
337	0.00	0.000	0.030	0.2697	0.0278	.4437E-01	.1954E-07	0.0000
.0000E+00	.0000E+00							
338 *	0.01	0.000	0.031	0.2633	0.0324	.5177E-01	.2038E-07	0.0000
.0000E+00	.0000E+00							
339	0.14	0.000	0.045	0.2632	0.0780	.1246	.4094E-07	0.0000
.0000E+00	.0000E+00							
340 *	0.86	0.000	0.029	0.2601	0.0856	.1366	.4480E-07	0.0000
.0000E+00	.0000E+00							
341	0.00	0.000	0.030	0.2578	0.0822	.1313	.4308E-07	0.0000
.0000E+00	.0000E+00							
342 *	0.02	0.000	0.025	0.2555	0.0810	.1294	.4246E-07	0.0000
.0000E+00	.0000E+00							
343 *	0.40	0.000	0.022	0.2549	0.0679	.1084	.3572E-07	0.0000
.0000E+00	.0000E+00							
344 *	0.00	0.000	0.021	0.2554	0.0626	.9991E-01	.3301E-07	0.0000
.0000E+00	.0000E+00							
345 *	0.00	0.000	0.027	0.2553	0.0675	.1078	.3555E-07	0.0000
.0000E+00	.0000E+00							
346	0.00	0.000	0.020	0.2599	0.0662	.1056	.3485E-07	0.0000

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.0000E+00 .0000E+00
  347  *      0.00  0.000  0.028  0.2593    0.0528 .8427E-01 .2796E-07    0.0000
.0000E+00 .0000E+00
  348         0.70  0.098  0.000  0.3074    0.0464 .7411E-01 .2482E-07    0.0000
.0000E+00 .0000E+00
  349  *      0.01  0.000  0.033  0.2768    0.0364 .5807E-01 .2275E-07    0.0000
.0000E+00 .0000E+00
  350  *      0.00  0.000  0.000  0.2702    0.0720 .1149     .4043E-07    0.0000
.0000E+00 .0000E+00
  351  *      0.03  0.000  0.027  0.2637    0.1748 .2791     .9033E-07    0.0000
.0000E+00 .0000E+00
  352  *      0.03  0.000  0.028  0.2584    0.1374 .2194     .7126E-07    0.0000
.0000E+00 .0000E+00
  353  *      0.00  0.000  0.000  0.2543    0.1110 .1772     .5778E-07    0.0000
.0000E+00 .0000E+00
  354  *      0.00  0.000  0.000  0.2521    0.0958 .1529     .5000E-07    0.0000
.0000E+00 .0000E+00
  355  *  *   0.00  0.000  0.000  0.2521    0.0870 .1390     .4554E-07    0.0000
.0000E+00 .0000E+00
  356     *   0.02  0.000  0.010  0.2526    0.0857 .1368     .4485E-07    0.0000
.0000E+00 .0000E+00
  357     *   0.00  0.000  0.000  0.2526    0.0771 .1231     .4046E-07    0.0000
.0000E+00 .0000E+00
  358     *   0.00  0.000  0.000  0.2526    0.0657 .1049     .3460E-07    0.0000
.0000E+00 .0000E+00
  359     *   0.00  0.000  0.000  0.2526    0.0559 .8923E-01 .2957E-07    0.0000
.0000E+00 .0000E+00
  360     *   0.00  0.000  0.000  0.2526    0.0482 .7691E-01 .2559E-07    0.0000
.0000E+00 .0000E+00
  361     *   0.00  0.000  0.000  0.2526    0.0421 .6725E-01 .2246E-07    0.0000
.0000E+00 .0000E+00
  362     *   0.00  0.000  0.000  0.2526    0.0373 .5956E-01 .2088E-07    0.0000
.0000E+00 .0000E+00
  363     *   0.00  0.000  0.000  0.2526    0.0334 .5335E-01 .2018E-07    0.0000
.0000E+00 .0000E+00
  364  *  *   0.00  0.000  0.000  0.2526    0.0302 .4823E-01 .1961E-07    0.0000
.0000E+00 .0000E+00
  365  *  *   0.00  0.000  0.000  0.2526    0.0275 .4397E-01 .1912E-07    0.0000
.0000E+00 .0000E+00
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MONTHLY TOTALS (IN INCHES) FOR YEAR 2010

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	2.38	2.30	6.45	0.92	2.20	5.41
	4.34	5.34	3.64	3.53	3.60	3.26
RUNOFF	1.113	0.128	0.702	0.000	0.000	0.031
	0.025	0.038	0.000	0.125	0.016	0.102
EVAPOTRANSPIRATION	0.414	0.876	2.306	2.318	2.953	2.957
	6.195	4.813	3.071	1.217	1.360	0.492

LATERAL DRAINAGE COLLECTED	0.0000	0.1063	2.5718	2.2360	0.4686	0.2372
FROM LAYER 3	0.1310	0.2588	0.1881	0.0810	1.2709	3.3186
PERCOLATION/LEAKAGE THROUGH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAYER 6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON	0.000	0.002	0.052	0.047	0.009	0.005
TOP OF LAYER 4	0.003	0.005	0.004	0.002	0.027	0.067
STD. DEVIATION OF DAILY	0.000	0.004	0.034	0.038	0.003	0.001
HEAD ON TOP OF LAYER 4	0.002	0.001	0.001	0.002	0.032	0.033

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ANNUAL TOTALS FOR YEAR 2010

	INCHES	CU. FEET	PERCENT
PRECIPITATION	43.37	157433.109	100.00
RUNOFF	2.280	8276.909	5.26
EVAPOTRANSPIRATION	28.973	105170.516	66.80
DRAINAGE COLLECTED FROM LAYER 3	10.8682	39451.484	25.06
PERC./LEAKAGE THROUGH LAYER 5	0.000006	0.023	0.00
AVG. HEAD ON TOP OF LAYER 4	0.0185		
PERC./LEAKAGE THROUGH LAYER 6	0.000000	0.000	0.00
CHANGE IN WATER STORAGE	1.249	4534.163	2.88
SOIL WATER AT START OF YEAR	45.202	164084.609	
SOIL WATER AT END OF YEAR	46.523	168877.172	
SNOW WATER AT START OF YEAR	0.071	258.392	0.16
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.041	0.00

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WARNING: TEMPERATURE FOR YEAR 1978 USED WITH PRECIPITATION FOR YEAR 2011

WARNING: SOLAR RADIATION FOR YEAR 1978 USED WITH PRECIPITATION FOR YEAR 2011

HEAD #1: AVERAGE HEAD ON TOP OF LAYER 4
DRAIN #1: LATERAL DRAINAGE FROM LAYER 3 (RECIRCULATION AND COLLECTION)
LEAK #1: PERCOLATION OR LEAKAGE THROUGH LAYER 5
LEAK #2: PERCOLATION OR LEAKAGE THROUGH LAYER 6

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DAILY OUTPUT FOR YEAR 2011

DAY	A I R	SOIL LEAK	RAIN IN.	RUNOFF IN.	ET IN.	E. ZONE WATER IN./IN.	HEAD #1 IN.	DRAIN #1 IN.	LEAK #1 IN.	HEAD #2 IN.	DRAIN #2 IN.	LEAK #2 IN.
1		*	0.04	0.000	0.012	0.2542	0.0253	.4036E-01	.1870E-07	0.0000	.0000E+00	.0000E+00
2		*	0.00	0.000	0.000	0.2542	0.0233	.3727E-01	.1835E-07	0.0000	.0000E+00	.0000E+00
3		*	0.00	0.000	0.000	0.2542	0.0217	.3459E-01	.1804E-07	0.0000	.0000E+00	.0000E+00
4	*	*	0.00	0.000	0.000	0.2542	0.0202	.3226E-01	.1776E-07	0.0000	.0000E+00	.0000E+00
5	*	*	0.00	0.000	0.000	0.2542	0.0189	.3021E-01	.1752E-07	0.0000	.0000E+00	.0000E+00
6	*	*	0.00	0.000	0.000	0.2542	0.0178	.2839E-01	.1731E-07	0.0000	.0000E+00	.0000E+00
7		*	0.00	0.000	0.000	0.2542	0.0168	.2677E-01	.1712E-07	0.0000	.0000E+00	.0000E+00
8		*	0.04	0.000	0.011	0.2558	0.0159	.2532E-01	.1694E-07	0.0000	.0000E+00	.0000E+00
9		*	0.00	0.000	0.000	0.2558	0.0150	.2400E-01	.1678E-07	0.0000	.0000E+00	.0000E+00
10	*	*	0.00	0.000	0.000	0.2558	0.0143	.2282E-01	.1664E-07	0.0000	.0000E+00	.0000E+00
11		*	0.00	0.000	0.000	0.2558	0.0136	.2173E-01	.1651E-07	0.0000	.0000E+00	.0000E+00
12	*	*	0.00	0.000	0.000	0.2558	0.0130	.2075E-01	.1639E-07	0.0000	.0000E+00	.0000E+00
13	*	*	0.11	0.000	0.023	0.2558	0.0124	.1984E-01	.1628E-07	0.0000	.0000E+00	.0000E+00
14	*	*	0.02	0.000	0.031	0.2558	0.0119	.1900E-01	.1618E-07	0.0000	.0000E+00	.0000E+00
15	*	*	0.01	0.000	0.026	0.2558	0.0114	.1823E-01	.1608E-07	0.0000	.0000E+00	.0000E+00
16	*	*	0.05	0.000	0.017	0.2558	0.0110	.1752E-01	.1600E-07	0.0000	.0000E+00	.0000E+00

17	*	*	0.84	0.000	0.019	0.2558	0.0106	.1686E-01	.1591E-07	0.0000
.0000E+00	.0000E+00									
18	*	*	0.16	0.000	0.019	0.2558	0.0102	.1624E-01	.1584E-07	0.0000
.0000E+00	.0000E+00									
19	*	*	0.00	0.000	0.016	0.2558	0.0098	.1567E-01	.1577E-07	0.0000
.0000E+00	.0000E+00									
20	*	*	0.00	0.000	0.014	0.2558	0.0095	.1513E-01	.1570E-07	0.0000
.0000E+00	.0000E+00									
21	*	*	0.01	0.000	0.017	0.2558	0.0092	.1463E-01	.1564E-07	0.0000
.0000E+00	.0000E+00									
22	*	*	0.00	0.000	0.021	0.2558	0.0089	.1416E-01	.1558E-07	0.0000
.0000E+00	.0000E+00									
23		*	0.00	0.000	0.000	0.2558	0.0086	.1371E-01	.1552E-07	0.0000
.0000E+00	.0000E+00									
24	*	*	0.00	0.000	0.031	0.2558	0.0083	.1329E-01	.1547E-07	0.0000
.0000E+00	.0000E+00									
25		*	0.23	0.085	0.000	0.2674	0.0081	.1290E-01	.1542E-07	0.0000
.0000E+00	.0000E+00									
26		*	0.20	0.388	0.000	0.2823	0.0078	.1252E-01	.1537E-07	0.0000
.0000E+00	.0000E+00									
27		*	0.00	0.242	0.010	0.2932	0.0076	.1217E-01	.1532E-07	0.0000
.0000E+00	.0000E+00									
28		*	0.00	0.000	0.000	0.2932	0.0074	.1184E-01	.1528E-07	0.0000
.0000E+00	.0000E+00									
29		*	0.00	0.000	0.000	0.2932	0.0072	.1152E-01	.1524E-07	0.0000
.0000E+00	.0000E+00									
30		*	0.00	0.000	0.000	0.2932	0.0070	.1122E-01	.1520E-07	0.0000
.0000E+00	.0000E+00									
31		*	0.02	0.000	0.008	0.2938	0.0068	.1093E-01	.1517E-07	0.0000
.0000E+00	.0000E+00									
32		*	0.01	0.000	0.006	0.2940	0.0067	.1066E-01	.1513E-07	0.0000
.0000E+00	.0000E+00									
33		*	0.00	0.000	0.000	0.2940	0.0065	.1039E-01	.1510E-07	0.0000
.0000E+00	.0000E+00									
34			0.00	0.000	0.057	0.2678	0.0078	.1248E-01	.1536E-07	0.0000
.0000E+00	.0000E+00									
35			0.00	0.000	0.041	0.2591	0.0068	.1094E-01	.1516E-07	0.0000
.0000E+00	.0000E+00									
36	*		0.08	0.000	0.038	0.2540	0.0085	.1355E-01	.1550E-07	0.0000
.0000E+00	.0000E+00									
37	*		0.00	0.000	0.050	0.2476	0.0072	.1151E-01	.1524E-07	0.0000
.0000E+00	.0000E+00									
38	*		0.00	0.000	0.047	0.2414	0.0011	.1729E-02	.1390E-07	0.0000
.0000E+00	.0000E+00									
39	*	*	0.00	0.000	0.000	0.2414	0.0001	.1311E-03	.1363E-07	0.0000
.0000E+00	.0000E+00									
40	*	*	0.00	0.000	0.000	0.2414	0.0000	.9936E-05	.1361E-07	0.0000
.0000E+00	.0000E+00									
41	*	*	0.00	0.000	0.000	0.2414	0.0000	.7412E-06	.1361E-07	0.0000
.0000E+00	.0000E+00									
42	*	*	0.00	0.000	0.000	0.2414	0.0001	.2360E-03	.1365E-07	0.0000
.0000E+00	.0000E+00									
43	*	*	0.00	0.000	0.000	0.2414	0.0045	.7258E-02	.1467E-07	0.0000
.0000E+00	.0000E+00									
44	*	*	0.24	0.000	0.021	0.2414	0.0108	.1727E-01	.1596E-07	0.0000
.0000E+00	.0000E+00									
45	*	*	0.78	0.000	0.022	0.2414	0.0151	.2412E-01	.1680E-07	0.0000
.0000E+00	.0000E+00									
46	*	*	0.01	0.000	0.022	0.2414	0.0176	.2813E-01	.1728E-07	0.0000
.0000E+00	.0000E+00									
47	*	*	0.00	0.000	0.020	0.2414	0.0189	.3014E-01	.1751E-07	0.0000
.0000E+00	.0000E+00									
48	*	*	0.00	0.000	0.031	0.2414	0.0193	.3085E-01	.1760E-07	0.0000

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.0000E+00 .0000E+00
   49     *   0.00  0.059  0.000  0.2532    0.0193 .3074E-01 .1759E-07    0.0000
.0000E+00 .0000E+00
   50     *   0.00  0.133  0.000  0.2662    0.0189 .3014E-01 .1751E-07    0.0000
.0000E+00 .0000E+00
   51     *   0.00  0.087  0.041  0.2744    0.0183 .2925E-01 .1741E-07    0.0000
.0000E+00 .0000E+00
   52     *   0.01  0.000  0.006  0.2746    0.0177 .2822E-01 .1729E-07    0.0000
.0000E+00 .0000E+00
   53     *   0.00  0.000  0.000  0.2746    0.0170 .2712E-01 .1716E-07    0.0000
.0000E+00 .0000E+00
   54     *   0.08  0.002  0.008  0.2785    0.0163 .2601E-01 .1703E-07    0.0000
.0000E+00 .0000E+00
   55     *   0.02  0.000  0.007  0.2792    0.0156 .2493E-01 .1690E-07    0.0000
.0000E+00 .0000E+00
   56     *   0.00  0.000  0.000  0.2792    0.0150 .2388E-01 .1677E-07    0.0000
.0000E+00 .0000E+00
   57     *   0.00  0.000  0.000  0.2792    0.0143 .2288E-01 .1665E-07    0.0000
.0000E+00 .0000E+00
   58         0.00  0.000  0.074  0.2586    0.0169 .2705E-01 .1715E-07    0.0000
.0000E+00 .0000E+00
   59         0.22  0.000  0.066  0.2635    0.0180 .2870E-01 .1734E-07    0.0000
.0000E+00 .0000E+00
   60  *      0.16  0.000  0.043  0.2623    0.0119 .1908E-01 .1618E-07    0.0000
.0000E+00 .0000E+00
   61  *      0.00  0.000  0.053  0.2600    0.0094 .1508E-01 .1569E-07    0.0000
.0000E+00 .0000E+00
   62         0.34  0.000  0.007  0.2763    0.0108 .1723E-01 .1595E-07    0.0000
.0000E+00 .0000E+00
   63         0.02  0.000  0.060  0.2723    0.0021 .3338E-02 .1413E-07    0.0000
.0000E+00 .0000E+00
   64         0.00  0.000  0.080  0.2669    0.0016 .2499E-02 .1401E-07    0.0000
.0000E+00 .0000E+00
   65  *      0.00  0.000  0.052  0.2571    0.0121 .1939E-01 .1616E-07    0.0000
.0000E+00 .0000E+00
   66         0.02  0.000  0.052  0.2498    0.0156 .2483E-01 .1687E-07    0.0000
.0000E+00 .0000E+00
   67         1.80  0.153  0.063  0.3161    0.0018 .2943E-02 .1407E-07    0.0000
.0000E+00 .0000E+00
   68         0.50  0.000  0.100  0.2990    0.0126 .2016E-01 .1630E-07    0.0000
.0000E+00 .0000E+00
   69         0.00  0.000  0.153  0.2718    0.0635 .1014     .3874E-07    0.0000
.0000E+00 .0000E+00
   70         0.00  0.000  0.156  0.2568    0.1586 .2533     .8209E-07    0.0000
.0000E+00 .0000E+00
   71         0.06  0.000  0.090  0.2489    3.7982 .3177     .2472E-05    0.0000
.0000E+00 .0000E+00
   72         0.01  0.000  0.074  0.2411    0.1577 .2518     .8162E-07    0.0000
.0000E+00 .0000E+00
   73         0.75  0.000  0.079  0.2750    0.1253 .2001     .6509E-07    0.0000
.0000E+00 .0000E+00
   74         0.00  0.000  0.120  0.2656    0.1005 .1605     .5243E-07    0.0000
.0000E+00 .0000E+00
   75         0.00  0.000  0.132  0.2575    0.0832 .1329     .4358E-07    0.0000
.0000E+00 .0000E+00
   76         0.00  0.000  0.189  0.2422    0.0868 .1386     .4543E-07    0.0000
.0000E+00 .0000E+00
   77         0.08  0.000  0.078  0.2381    0.0672 .1072     .3535E-07    0.0000
.0000E+00 .0000E+00
   78         0.00  0.000  0.121  0.2280    0.0406 .6486E-01 .2200E-07    0.0000
.0000E+00 .0000E+00
   79         0.00  0.000  0.086  0.2208    0.0365 .5824E-01 .2073E-07    0.0000
.0000E+00 .0000E+00
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80	0.28	0.000	0.103	0.2285	0.0435	.6941E-01	.2316E-07	0.0000 .0000E+00 .0000E+00
81	0.00	0.000	0.090	0.2219	0.0439	.7012E-01	.2339E-07	0.0000 .0000E+00 .0000E+00
82	0.00	0.000	0.083	0.2160	0.0456	.7274E-01	.2424E-07	0.0000 .0000E+00 .0000E+00
83	0.50	0.000	0.058	0.2390	0.0482	.7690E-01	.2559E-07	0.0000 .0000E+00 .0000E+00
84	1.90	0.218	0.059	0.3117	0.0416	.6640E-01	.2250E-07	0.0000 .0000E+00 .0000E+00
85	0.35	0.000	0.067	0.2943	0.0385	.6144E-01	.2347E-07	0.0000 .0000E+00 .0000E+00
86	0.05	0.000	0.064	0.2860	0.0367	.5859E-01	.2678E-07	0.0000 .0000E+00 .0000E+00
87	0.00	0.000	0.115	0.2677	0.1212	.1936	.6300E-07	0.0000 .0000E+00 .0000E+00
88	0.00	0.000	0.081	0.2550	0.1181	.1886	.6142E-07	0.0000 .0000E+00 .0000E+00
89	0.01	0.000	0.107	0.2444	0.1339	.2139	.6949E-07	0.0000 .0000E+00 .0000E+00
90	0.00	0.000	0.104	0.2346	0.1302	.2079	.6758E-07	0.0000 .0000E+00 .0000E+00
91	0.00	0.000	0.119	0.2252	0.1100	.1756	.5725E-07	0.0000 .0000E+00 .0000E+00
92	0.00	0.000	0.097	0.2179	0.0944	.1507	.4929E-07	0.0000 .0000E+00 .0000E+00
93 *	0.07	0.000	0.073	0.2165	0.0819	.1307	.4290E-07	0.0000 .0000E+00 .0000E+00
94	0.00	0.000	0.133	0.2076	0.0760	.1214	.3991E-07	0.0000 .0000E+00 .0000E+00
95	0.03	0.000	0.089	0.2031	0.0634	.1012	.3343E-07	0.0000 .0000E+00 .0000E+00
96	0.00	0.000	0.104	0.1962	0.0543	.8678E-01	.2877E-07	0.0000 .0000E+00 .0000E+00
97	0.31	0.000	0.094	0.2070	0.0505	.8060E-01	.2678E-07	0.0000 .0000E+00 .0000E+00
98	0.00	0.000	0.132	0.1987	0.0416	.6634E-01	.2217E-07	0.0000 .0000E+00 .0000E+00
99	0.00	0.000	0.108	0.1918	0.0387	.6175E-01	.2113E-07	0.0000 .0000E+00 .0000E+00
100	0.00	0.000	0.149	0.1826	0.0353	.5633E-01	.2052E-07	0.0000 .0000E+00 .0000E+00
101	0.39	0.000	0.081	0.1988	0.0331	.5278E-01	.2012E-07	0.0000 .0000E+00 .0000E+00
102	0.00	0.000	0.099	0.1924	0.0313	.4991E-01	.1980E-07	0.0000 .0000E+00 .0000E+00
103	0.00	0.000	0.122	0.1848	0.0272	.4341E-01	.1905E-07	0.0000 .0000E+00 .0000E+00
104	0.00	0.000	0.129	0.1770	0.0249	.3972E-01	.1863E-07	0.0000 .0000E+00 .0000E+00
105	0.00	0.000	0.142	0.1686	0.0237	.3790E-01	.1842E-07	0.0000 .0000E+00 .0000E+00
106	0.29	0.000	0.136	0.1767	0.0229	.3652E-01	.1826E-07	0.0000 .0000E+00 .0000E+00
107	0.33	0.000	0.103	0.1892	0.0215	.3437E-01	.1801E-07	0.0000 .0000E+00 .0000E+00
108	0.98	0.000	0.100	0.2381	0.0194	.3102E-01	.1762E-07	0.0000 .0000E+00 .0000E+00
109	0.14	0.000	0.095	0.2406	0.0204	.3255E-01	.1780E-07	0.0000 .0000E+00 .0000E+00
110	0.14	0.000	0.164	0.2392	0.0209	.3342E-01	.1790E-07	0.0000 .0000E+00 .0000E+00
111	0.00	0.000	0.163	0.2302	0.0209	.3331E-01	.1789E-07	0.0000

.0000E+00	.0000E+00							
112	0.00	0.000	0.195	0.2194	0.0204	.3258E-01	.1780E-07	0.0000
.0000E+00	.0000E+00							
113	0.21	0.000	0.145	0.2229	0.0197	.3152E-01	.1768E-07	0.0000
.0000E+00	.0000E+00							
114	0.08	0.000	0.173	0.2178	0.0190	.3030E-01	.1753E-07	0.0000
.0000E+00	.0000E+00							
115	0.08	0.000	0.118	0.2156	0.0184	.2931E-01	.1742E-07	0.0000
.0000E+00	.0000E+00							
116	0.02	0.000	0.139	0.2089	0.0178	.2847E-01	.1732E-07	0.0000
.0000E+00	.0000E+00							
117	0.00	0.000	0.187	0.1985	0.0166	.2649E-01	.1708E-07	0.0000
.0000E+00	.0000E+00							
118	0.00	0.000	0.164	0.1894	0.0155	.2476E-01	.1688E-07	0.0000
.0000E+00	.0000E+00							
119	0.00	0.000	0.231	0.1763	0.0169	.2703E-01	.1715E-07	0.0000
.0000E+00	.0000E+00							
120	0.01	0.000	0.160	0.1679	0.0139	.2226E-01	.1657E-07	0.0000
.0000E+00	.0000E+00							
121	0.13	0.000	0.196	0.1643	0.0129	.2056E-01	.1637E-07	0.0000
.0000E+00	.0000E+00							
122	0.00	0.000	0.087	0.1594	0.0125	.1991E-01	.1629E-07	0.0000
.0000E+00	.0000E+00							
123	0.00	0.000	0.064	0.1559	0.0121	.1936E-01	.1622E-07	0.0000
.0000E+00	.0000E+00							
124	0.09	0.000	0.062	0.1574	0.0117	.1876E-01	.1615E-07	0.0000
.0000E+00	.0000E+00							
125	0.42	0.000	0.056	0.1777	0.0114	.1814E-01	.1607E-07	0.0000
.0000E+00	.0000E+00							
126	0.00	0.000	0.175	0.1679	0.0110	.1758E-01	.1600E-07	0.0000
.0000E+00	.0000E+00							
127	0.06	0.000	0.053	0.1683	0.0107	.1703E-01	.1594E-07	0.0000
.0000E+00	.0000E+00							
128	0.59	0.000	0.052	0.1982	0.0103	.1651E-01	.1587E-07	0.0000
.0000E+00	.0000E+00							
129	0.01	0.000	0.277	0.1833	0.0100	.1600E-01	.1581E-07	0.0000
.0000E+00	.0000E+00							
130	0.00	0.000	0.220	0.1711	0.0097	.1551E-01	.1575E-07	0.0000
.0000E+00	.0000E+00							
131	0.00	0.000	0.168	0.1618	0.0094	.1504E-01	.1569E-07	0.0000
.0000E+00	.0000E+00							
132	0.65	0.000	0.157	0.1891	0.0091	.1460E-01	.1563E-07	0.0000
.0000E+00	.0000E+00							
133	0.54	0.000	0.202	0.2079	0.0089	.1417E-01	.1558E-07	0.0000
.0000E+00	.0000E+00							
134	0.31	0.000	0.267	0.2103	0.0086	.1376E-01	.1553E-07	0.0000
.0000E+00	.0000E+00							
135	0.00	0.000	0.243	0.1967	0.0084	.1338E-01	.1548E-07	0.0000
.0000E+00	.0000E+00							
136	0.00	0.000	0.252	0.1828	0.0081	.1300E-01	.1543E-07	0.0000
.0000E+00	.0000E+00							
137	0.00	0.000	0.248	0.1690	0.0079	.1265E-01	.1539E-07	0.0000
.0000E+00	.0000E+00							
138	0.00	0.000	0.210	0.1574	0.0077	.1231E-01	.1534E-07	0.0000
.0000E+00	.0000E+00							
139	0.00	0.000	0.160	0.1485	0.0075	.1199E-01	.1530E-07	0.0000
.0000E+00	.0000E+00							
140	0.00	0.000	0.116	0.1420	0.0073	.1168E-01	.1526E-07	0.0000
.0000E+00	.0000E+00							
141	0.04	0.000	0.104	0.1385	0.0071	.1138E-01	.1522E-07	0.0000
.0000E+00	.0000E+00							
142	0.00	0.000	0.093	0.1333	0.0070	.1110E-01	.1519E-07	0.0000
.0000E+00	.0000E+00							

143	0.44	0.000	0.089	0.1528	0.0068	.1083E-01	.1515E-07	0.0000
.0000E+00	.0000E+00							
144	0.10	0.000	0.096	0.1531	0.0066	.1057E-01	.1512E-07	0.0000
.0000E+00	.0000E+00							
145	0.00	0.000	0.319	0.1354	0.0065	.1033E-01	.1509E-07	0.0000
.0000E+00	.0000E+00							
146	0.07	0.000	0.099	0.1337	0.0063	.1009E-01	.1506E-07	0.0000
.0000E+00	.0000E+00							
147	0.00	0.000	0.104	0.1280	0.0062	.9859E-02	.1503E-07	0.0000
.0000E+00	.0000E+00							
148	0.00	0.000	0.115	0.1216	0.0060	.9641E-02	.1500E-07	0.0000
.0000E+00	.0000E+00							
149	0.37	0.000	0.119	0.1356	0.0059	.9430E-02	.1497E-07	0.0000
.0000E+00	.0000E+00							
150	0.00	0.000	0.228	0.1229	0.0058	.9228E-02	.1494E-07	0.0000
.0000E+00	.0000E+00							
151	0.00	0.000	0.149	0.1146	0.0057	.9034E-02	.1492E-07	0.0000
.0000E+00	.0000E+00							
152	0.00	0.000	0.127	0.1075	0.0055	.8847E-02	.1489E-07	0.0000
.0000E+00	.0000E+00							
153	0.16	0.000	0.110	0.1103	0.0054	.8667E-02	.1487E-07	0.0000
.0000E+00	.0000E+00							
154	0.00	0.000	0.089	0.1054	0.0053	.8494E-02	.1485E-07	0.0000
.0000E+00	.0000E+00							
155	0.00	0.000	0.041	0.1031	0.0052	.8329E-02	.1483E-07	0.0000
.0000E+00	.0000E+00							
156	0.00	0.000	0.019	0.1021	0.0051	.8167E-02	.1480E-07	0.0000
.0000E+00	.0000E+00							
157	0.00	0.000	0.005	0.1018	0.0051	.8138E-02	.1480E-07	0.0000
.0000E+00	.0000E+00							
158	0.14	0.000	0.026	0.1081	0.0050	.7962E-02	.1478E-07	0.0000
.0000E+00	.0000E+00							
159	0.09	0.000	0.089	0.1082	0.0048	.7689E-02	.1474E-07	0.0000
.0000E+00	.0000E+00							
160	0.00	0.000	0.053	0.1052	0.0047	.7542E-02	.1472E-07	0.0000
.0000E+00	.0000E+00							
161	0.00	0.000	0.050	0.1024	0.0046	.7409E-02	.1470E-07	0.0000
.0000E+00	.0000E+00							
162	0.00	0.000	0.010	0.1019	0.0046	.7281E-02	.1469E-07	0.0000
.0000E+00	.0000E+00							
163	0.00	0.000	0.003	0.1017	0.0045	.7156E-02	.1467E-07	0.0000
.0000E+00	.0000E+00							
164	0.00	0.000	0.001	0.1017	0.0044	.7035E-02	.1465E-07	0.0000
.0000E+00	.0000E+00							
165	0.00	0.000	0.000	0.1017	0.0043	.6919E-02	.1464E-07	0.0000
.0000E+00	.0000E+00							
166	0.00	0.000	0.000	0.1017	0.0046	.7290E-02	.1469E-07	0.0000
.0000E+00	.0000E+00							
167	0.00	0.000	0.000	0.1017	0.0058	.9329E-02	.1496E-07	0.0000
.0000E+00	.0000E+00							
168	0.00	0.000	0.000	0.1017	0.0058	.9282E-02	.1495E-07	0.0000
.0000E+00	.0000E+00							
169	0.00	0.000	0.000	0.1017	0.0056	.8920E-02	.1490E-07	0.0000
.0000E+00	.0000E+00							
170	0.95	0.000	0.102	0.1488	0.0054	.8561E-02	.1486E-07	0.0000
.0000E+00	.0000E+00							
171	0.00	0.000	0.174	0.1391	0.0052	.8227E-02	.1481E-07	0.0000
.0000E+00	.0000E+00							
172	0.00	0.000	0.208	0.1275	0.0050	.7916E-02	.1477E-07	0.0000
.0000E+00	.0000E+00							
173	0.00	0.000	0.256	0.1133	0.0048	.7628E-02	.1473E-07	0.0000
.0000E+00	.0000E+00							
174	0.06	0.000	0.230	0.1039	0.0046	.7358E-02	.1470E-07	0.0000

.0000E+00	.0000E+00							
175	0.45	0.000	0.095	0.1236	0.0045	.7106E-02	.1466E-07	0.0000
.0000E+00	.0000E+00							
176	0.54	0.000	0.070	0.1497	0.0043	.6870E-02	.1463E-07	0.0000
.0000E+00	.0000E+00							
177	0.00	0.000	0.172	0.1401	0.0042	.6649E-02	.1460E-07	0.0000
.0000E+00	.0000E+00							
178	0.00	0.000	0.237	0.1269	0.0040	.6440E-02	.1457E-07	0.0000
.0000E+00	.0000E+00							
179	0.00	0.000	0.266	0.1122	0.0039	.6244E-02	.1455E-07	0.0000
.0000E+00	.0000E+00							
180	0.00	0.000	0.165	0.1030	0.0038	.6059E-02	.1452E-07	0.0000
.0000E+00	.0000E+00							
181	0.00	0.000	0.018	0.1020	0.0037	.5883E-02	.1450E-07	0.0000
.0000E+00	.0000E+00							
182	0.00	0.000	0.005	0.1018	0.0036	.5718E-02	.1447E-07	0.0000
.0000E+00	.0000E+00							
183	0.00	0.000	0.002	0.1017	0.0035	.5561E-02	.1445E-07	0.0000
.0000E+00	.0000E+00							
184	1.14	0.000	0.074	0.1609	0.0034	.5412E-02	.1443E-07	0.0000
.0000E+00	.0000E+00							
185	0.00	0.000	0.171	0.1514	0.0033	.5270E-02	.1441E-07	0.0000
.0000E+00	.0000E+00							
186	0.00	0.000	0.224	0.1390	0.0032	.5135E-02	.1439E-07	0.0000
.0000E+00	.0000E+00							
187	0.00	0.000	0.259	0.1246	0.0031	.5007E-02	.1438E-07	0.0000
.0000E+00	.0000E+00							
188	0.00	0.000	0.169	0.1152	0.0031	.4884E-02	.1436E-07	0.0000
.0000E+00	.0000E+00							
189	0.00	0.000	0.216	0.1032	0.0030	.4767E-02	.1434E-07	0.0000
.0000E+00	.0000E+00							
190	0.00	0.000	0.022	0.1020	0.0029	.4656E-02	.1433E-07	0.0000
.0000E+00	.0000E+00							
191	0.21	0.000	0.050	0.1109	0.0028	.4549E-02	.1431E-07	0.0000
.0000E+00	.0000E+00							
192	0.24	0.000	0.125	0.1173	0.0028	.4447E-02	.1430E-07	0.0000
.0000E+00	.0000E+00							
193	0.00	0.000	0.120	0.1106	0.0027	.4349E-02	.1428E-07	0.0000
.0000E+00	.0000E+00							
194	0.10	0.000	0.162	0.1072	0.0027	.4255E-02	.1427E-07	0.0000
.0000E+00	.0000E+00							
195	0.02	0.000	0.047	0.1057	0.0026	.4164E-02	.1426E-07	0.0000
.0000E+00	.0000E+00							
196	2.50	0.264	0.192	0.2192	0.0026	.4078E-02	.1425E-07	0.0000
.0000E+00	.0000E+00							
197	0.00	0.000	0.300	0.2026	0.0025	.3995E-02	.1423E-07	0.0000
.0000E+00	.0000E+00							
198	0.00	0.000	0.291	0.1864	0.0025	.3914E-02	.1422E-07	0.0000
.0000E+00	.0000E+00							
199	0.00	0.000	0.321	0.1686	0.0024	.3837E-02	.1421E-07	0.0000
.0000E+00	.0000E+00							
200	0.00	0.000	0.326	0.1505	0.0024	.3763E-02	.1420E-07	0.0000
.0000E+00	.0000E+00							
201	0.00	0.000	0.276	0.1352	0.0023	.3691E-02	.1419E-07	0.0000
.0000E+00	.0000E+00							
202	0.00	0.000	0.255	0.1210	0.0023	.3622E-02	.1418E-07	0.0000
.0000E+00	.0000E+00							
203	0.00	0.000	0.242	0.1075	0.0022	.3556E-02	.1417E-07	0.0000
.0000E+00	.0000E+00							
204	0.00	0.000	0.106	0.1017	0.0022	.3491E-02	.1416E-07	0.0000
.0000E+00	.0000E+00							
205	0.36	0.000	0.102	0.1160	0.0021	.3429E-02	.1415E-07	0.0000
.0000E+00	.0000E+00							

206	0.59	0.000	0.125	0.1418	0.0021	.3369E-02	.1415E-07	0.0000
.0000E+00	.0000E+00							
207	0.00	0.000	0.214	0.1299	0.0021	.3311E-02	.1414E-07	0.0000
.0000E+00	.0000E+00							
208	0.87	0.000	0.177	0.1684	0.0019	.3075E-02	.1410E-07	0.0000
.0000E+00	.0000E+00							
209	0.00	0.000	0.225	0.1559	0.0004	.6419E-03	.1373E-07	0.0000
.0000E+00	.0000E+00							
210	0.00	0.000	0.214	0.1440	0.0000	.4868E-04	.1362E-07	0.0000
.0000E+00	.0000E+00							
211	0.00	0.000	0.240	0.1307	0.0000	.3681E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
212	0.00	0.000	0.281	0.1151	0.0000	.2667E-06	.1361E-07	0.0000
.0000E+00	.0000E+00							
213	0.00	0.000	0.214	0.1032	0.0000	.7167E-04	.1362E-07	0.0000
.0000E+00	.0000E+00							
214	0.09	0.000	0.067	0.1045	0.0000	.5425E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
215	0.06	0.000	0.043	0.1054	0.0000	.3990E-06	.1361E-07	0.0000
.0000E+00	.0000E+00							
216	0.00	0.000	0.015	0.1046	0.0000	.1824E-07	.8468E-08	0.0000
.0000E+00	.0000E+00							
217	0.00	0.000	0.041	0.1023	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
218	0.00	0.000	0.010	0.1018	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
219	0.00	0.000	0.001	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
220	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
221	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
222	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
223	0.16	0.000	0.048	0.1079	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
224	0.05	0.000	0.082	0.1061	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
225	0.00	0.000	0.035	0.1041	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
226	0.00	0.000	0.035	0.1022	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
227	0.00	0.000	0.007	0.1018	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
228	0.02	0.000	0.022	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
229	0.00	0.000	0.001	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
230	0.00	0.000	0.000	0.1017	0.0000	.6466E-09	.1852E-08	0.0000
.0000E+00	.0000E+00							
231	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
232	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
233	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
234	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
235	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
236	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
237	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.0000E+00							
238	0.02	0.000	0.020	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
239	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
240	0.14	0.000	0.044	0.1070	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
241	0.02	0.000	0.049	0.1054	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
242	0.00	0.000	0.041	0.1031	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
243	0.20	0.000	0.062	0.1107	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
244	0.00	0.000	0.098	0.1053	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
245	0.00	0.000	0.050	0.1025	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
246	0.00	0.000	0.012	0.1019	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
247	0.00	0.000	0.003	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
248	0.00	0.000	0.001	0.1017	0.0000	.1018E-04	.3404E-08	0.0000
.0000E+00	.0000E+00							
249	0.00	0.000	0.000	0.1017	0.0000	.1568E-04	.1361E-07	0.0000
.0000E+00	.0000E+00							
250	0.00	0.000	0.000	0.1017	0.0000	.2652E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
251	0.00	0.000	0.000	0.1017	0.0000	.1886E-06	.1361E-07	0.0000
.0000E+00	.0000E+00							
252	0.00	0.000	0.000	0.1017	0.0000	.4765E-08	.4679E-08	0.0000
.0000E+00	.0000E+00							
253	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
254	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
255	0.00	0.000	0.000	0.1017	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
256	0.15	0.000	0.046	0.1074	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
257	0.00	0.000	0.052	0.1046	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
258	0.04	0.000	0.050	0.1040	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
259	0.00	0.000	0.014	0.1032	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
260	2.58	0.290	0.109	0.2244	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
261	0.00	0.000	0.149	0.2161	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
262	0.00	0.000	0.136	0.2086	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
263	0.00	0.000	0.151	0.2002	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
264	0.00	0.000	0.130	0.1930	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
265	0.13	0.000	0.149	0.1919	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
266	0.00	0.000	0.107	0.1860	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
267	0.00	0.000	0.124	0.1791	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
268	0.00	0.000	0.153	0.1706	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							

269	0.00	0.000	0.143	0.1626	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
270	0.00	0.000	0.129	0.1555	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
271	0.00	0.000	0.134	0.1481	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
272	0.00	0.000	0.145	0.1400	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
273	0.00	0.000	0.135	0.1325	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
274	0.20	0.000	0.135	0.1361	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
275	0.00	0.000	0.175	0.1264	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
276	0.16	0.000	0.135	0.1278	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
277	0.14	0.000	0.117	0.1290	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
278	0.00	0.000	0.104	0.1233	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
279	0.02	0.000	0.087	0.1195	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
280	0.00	0.000	0.078	0.1151	0.0001	.2261E-03	.1365E-07	0.0000
.0000E+00	.0000E+00							
281	0.00	0.000	0.051	0.1123	0.0000	.1714E-04	.1361E-07	0.0000
.0000E+00	.0000E+00							
282	0.00	0.000	0.082	0.1077	0.0000	.1288E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
283	0.17	0.000	0.083	0.1126	0.0000	.8513E-07	.1361E-07	0.0000
.0000E+00	.0000E+00							
284	0.09	0.000	0.088	0.1127	0.0000	.1106E-09	.8361E-09	0.0000
.0000E+00	.0000E+00							
285	0.00	0.000	0.050	0.1099	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
286	1.32	0.006	0.074	0.1788	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
287	0.12	0.000	0.076	0.1813	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
288	0.01	0.000	0.037	0.1798	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
289	0.00	0.000	0.022	0.1785	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
290	0.00	0.000	0.041	0.1762	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
291	0.00	0.000	0.030	0.1746	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
292	0.00	0.000	0.034	0.1727	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
293	0.00	0.000	0.038	0.1706	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
294	0.00	0.000	0.028	0.1691	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
295 *	0.00	0.000	0.021	0.1679	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
296	0.00	0.000	0.020	0.1667	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
297	0.07	0.000	0.050	0.1679	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
298	0.00	0.000	0.025	0.1665	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
299	0.18	0.000	0.059	0.1732	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
300	0.00	0.000	0.030	0.1715	0.0000	.0000E+00	.0000E+00	0.0000

.0000E+00	.0000E+00							
301	0.00	0.000	0.022	0.1702	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
302	0.00	0.000	0.026	0.1688	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
303	0.00	0.000	0.030	0.1671	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
304	0.00	0.000	0.030	0.1655	0.0000	.1388E-04	.3405E-08	0.0000
.0000E+00	.0000E+00							
305	0.00	0.000	0.041	0.1632	0.0000	.4116E-04	.1362E-07	0.0000
.0000E+00	.0000E+00							
306	0.00	0.000	0.035	0.1612	0.0000	.3110E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
307	0.00	0.000	0.046	0.1587	0.0000	.2234E-06	.1361E-07	0.0000
.0000E+00	.0000E+00							
308	0.00	0.000	0.050	0.1559	0.0000	.6754E-08	.5541E-08	0.0000
.0000E+00	.0000E+00							
309	0.00	0.000	0.044	0.1535	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
310	0.00	0.000	0.025	0.1521	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
311	0.16	0.000	0.049	0.1583	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
312	0.00	0.000	0.028	0.1567	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
313	0.00	0.000	0.033	0.1548	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
314	0.00	0.000	0.029	0.1532	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
315	0.00	0.000	0.023	0.1520	0.0001	.1132E-03	.3424E-08	0.0000
.0000E+00	.0000E+00							
316	0.00	0.000	0.025	0.1505	0.0001	.1156E-03	.1363E-07	0.0000
.0000E+00	.0000E+00							
317	0.00	0.000	0.032	0.1488	0.0000	.8754E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
318	0.64	0.000	0.057	0.1812	0.0000	.6516E-06	.1361E-07	0.0000
.0000E+00	.0000E+00							
319	0.18	0.000	0.057	0.1880	0.0000	.3657E-07	.1087E-07	0.0000
.0000E+00	.0000E+00							
320	0.45	0.000	0.057	0.2098	0.0000	.5967E-29	.2067E-18	0.0000
.0000E+00	.0000E+00							
321	0.80	0.001	0.058	0.2510	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
322	0.22	0.000	0.063	0.2597	0.0000	.6471E-04	.3415E-08	0.0000
.0000E+00	.0000E+00							
323	0.00	0.000	0.036	0.2577	0.0000	.6604E-04	.1362E-07	0.0000
.0000E+00	.0000E+00							
324	0.00	0.000	0.037	0.2554	0.0000	.6037E-04	.1362E-07	0.0000
.0000E+00	.0000E+00							
325	0.00	0.000	0.042	0.2510	0.0000	.5688E-04	.1362E-07	0.0000
.0000E+00	.0000E+00							
326	0.00	0.000	0.032	0.2461	0.0000	.4302E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
327	0.24	0.000	0.055	0.2534	0.0000	.3138E-06	.1361E-07	0.0000
.0000E+00	.0000E+00							
328	0.01	0.000	0.041	0.2493	0.0000	.1268E-07	.7040E-08	0.0000
.0000E+00	.0000E+00							
329	0.00	0.000	0.044	0.2451	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
330	0.74	0.000	0.059	0.2807	0.0000	.0000E+00	.0000E+00	0.0000
.0000E+00	.0000E+00							
331	1.01	0.023	0.060	0.2992	0.0002	.3877E-03	.3469E-08	0.0000
.0000E+00	.0000E+00							

332	0.00	0.000	0.036	0.2761	0.0012	.1839E-02	.1392E-07	0.0000
.0000E+00	.0000E+00							
333	0.00	0.000	0.050	0.2650	0.0001	.1951E-03	.1365E-07	0.0000
.0000E+00	.0000E+00							
334	0.02	0.000	0.054	0.2562	0.0000	.1478E-04	.1361E-07	0.0000
.0000E+00	.0000E+00							
335	0.00	0.000	0.028	0.2497	0.0000	.1109E-05	.1361E-07	0.0000
.0000E+00	.0000E+00							
336	0.00	0.000	0.025	0.2453	0.0000	.7148E-07	.1352E-07	0.0000
.0000E+00	.0000E+00							
337	0.07	0.000	0.042	0.2446	0.0001	.1171E-03	.6828E-08	0.0000
.0000E+00	.0000E+00							
338 *	0.31	0.000	0.027	0.2436	0.0190	.3040E-01	.1752E-07	0.0000
.0000E+00	.0000E+00							
339	0.00	0.000	0.015	0.2555	0.0365	.5820E-01	.2096E-07	0.0000
.0000E+00	.0000E+00							
340	0.00	0.000	0.028	0.2521	0.0463	.7396E-01	.2463E-07	0.0000
.0000E+00	.0000E+00							
341	0.02	0.000	0.045	0.2495	0.0422	.6745E-01	.2254E-07	0.0000
.0000E+00	.0000E+00							
342	0.19	0.000	0.045	0.2556	0.0468	.7465E-01	.2486E-07	0.0000
.0000E+00	.0000E+00							
343	0.07	0.000	0.048	0.2555	0.0425	.6788E-01	.2266E-07	0.0000
.0000E+00	.0000E+00							
344	0.00	0.000	0.031	0.2531	0.0326	.5208E-01	.2004E-07	0.0000
.0000E+00	.0000E+00							
345	0.00	0.000	0.036	0.2498	0.0415	.6632E-01	.2220E-07	0.0000
.0000E+00	.0000E+00							
346	0.00	0.000	0.027	0.2483	0.0302	.4824E-01	.1960E-07	0.0000
.0000E+00	.0000E+00							
347	0.00	0.000	0.038	0.2456	0.0318	.5076E-01	.1989E-07	0.0000
.0000E+00	.0000E+00							
348	0.00	0.000	0.049	0.2412	0.0402	.6423E-01	.2159E-07	0.0000
.0000E+00	.0000E+00							
349	0.00	0.000	0.041	0.2370	0.0367	.5852E-01	.2077E-07	0.0000
.0000E+00	.0000E+00							
350	0.00	0.000	0.029	0.2336	0.0280	.4478E-01	.1921E-07	0.0000
.0000E+00	.0000E+00							
351	0.00	0.000	0.026	0.2306	0.0220	.3514E-01	.1810E-07	0.0000
.0000E+00	.0000E+00							
352	0.00	0.000	0.035	0.2274	0.0173	.2757E-01	.1721E-07	0.0000
.0000E+00	.0000E+00							
353	0.00	0.000	0.028	0.2247	0.0163	.2598E-01	.1702E-07	0.0000
.0000E+00	.0000E+00							
354 *	0.00	0.000	0.024	0.2221	0.0171	.2732E-01	.1718E-07	0.0000
.0000E+00	.0000E+00							
355 *	0.00	0.000	0.025	0.2196	0.0176	.2806E-01	.1727E-07	0.0000
.0000E+00	.0000E+00							
356 *	0.00	0.000	0.000	0.2186	0.0174	.2784E-01	.1724E-07	0.0000
.0000E+00	.0000E+00							
357 *	0.00	0.000	0.021	0.2165	0.0181	.2883E-01	.1736E-07	0.0000
.0000E+00	.0000E+00							
358 *	0.00	0.000	0.024	0.2143	0.0180	.2877E-01	.1735E-07	0.0000
.0000E+00	.0000E+00							
359 *	0.00	0.000	0.023	0.2123	0.0173	.2764E-01	.1722E-07	0.0000
.0000E+00	.0000E+00							
360	0.00	0.000	0.028	0.2101	0.0179	.2859E-01	.1733E-07	0.0000
.0000E+00	.0000E+00							
361 *	0.00	0.000	0.023	0.2080	0.0192	.3062E-01	.1757E-07	0.0000
.0000E+00	.0000E+00							
362 *	0.00	0.000	0.027	0.2058	0.0190	.3038E-01	.1754E-07	0.0000
.0000E+00	.0000E+00							
363	0.02	0.000	0.047	0.2037	0.0184	.2938E-01	.1742E-07	0.0000

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.0000E+00 .0000E+00
  364         0.41  0.000  0.043  0.2235    0.0179 .2853E-01 .1732E-07    0.0000
.0000E+00 .0000E+00
  365         0.10  0.000  0.049  0.2258    0.0173 .2764E-01 .1722E-07    0.0000
.0000E+00 .0000E+00
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MONTHLY TOTALS (IN INCHES) FOR YEAR 2011

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	1.73	1.45	6.83	3.08	3.82	2.39
	6.03	0.76	2.90	2.48	4.47	1.19
RUNOFF	0.715	0.282	0.371	0.000	0.000	0.000
	0.264	0.000	0.290	0.006	0.024	0.000
EVAPOTRANSPIRATION	0.273	0.555	2.720	3.943	4.780	2.616
	5.530	0.839	2.219	1.880	1.300	0.973
LATERAL DRAINAGE COLLECTED	0.6218	0.5083	3.1906	1.7090	0.4235	0.2294
FROM LAYER 3	0.1160	0.0001	0.0000	0.0003	0.0030	1.1899
PERCOLATION/LEAKAGE THROUGH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAYER 6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON	0.013	0.011	0.181	0.036	0.009	0.005
TOP OF LAYER 4	0.002	0.000	0.000	0.000	0.000	0.024
STD. DEVIATION OF DAILY	0.005	0.007	0.673	0.025	0.002	0.001
HEAD ON TOP OF LAYER 4	0.001	0.000	0.000	0.000	0.000	0.013

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ANNUAL TOTALS FOR YEAR 2011

	INCHES	CU. FEET	PERCENT
PRECIPITATION	37.13	134781.937	100.00
RUNOFF	1.951	7081.958	5.25

EVAPOTRANSPIRATION	27.627	100286.695	74.41
DRAINAGE COLLECTED FROM LAYER 3	7.9919	29010.598	21.52
PERC./LEAKAGE THROUGH LAYER 5	0.000008	0.027	0.00
AVG. HEAD ON TOP OF LAYER 4	0.0233		
PERC./LEAKAGE THROUGH LAYER 6	0.000000	0.000	0.00
CHANGE IN WATER STORAGE	-0.440	-1597.333	-1.19
SOIL WATER AT START OF YEAR	46.523	168877.172	
SOIL WATER AT END OF YEAR	46.083	167279.844	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.010	0.00

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AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 2007 THROUGH 2011

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION						
TOTALS	2.23	1.90	5.18	2.26	3.27	3.38
	3.38	2.93	2.16	2.59	2.43	1.80
STD. DEVIATIONS	1.88	1.07	1.34	1.53	0.68	1.28
	1.78	2.28	1.23	1.39	1.68	0.95
RUNOFF						
TOTALS	0.445	0.164	0.631	0.033	0.026	0.016
	0.058	0.018	0.058	0.030	0.008	0.021
STD. DEVIATIONS	0.477	0.134	0.830	0.074	0.036	0.014
	0.116	0.025	0.130	0.053	0.011	0.045
EVAPOTRANSPIRATION						
TOTALS	0.562	0.943	2.168	3.100	3.454	3.559
	3.643	2.617	2.118	1.285	1.184	0.634
STD. DEVIATIONS	0.295	0.541	0.406	0.633	1.245	0.718
	2.050	1.515	1.614	0.498	0.145	0.202
LATERAL DRAINAGE COLLECTED FROM LAYER 3						

TOTALS	0.5126	0.8048	1.8179	1.3834	0.5719	0.2454
	0.1223	0.0694	0.0384	0.0164	0.2554	0.9120
STD. DEVIATIONS	0.6738	1.2177	1.2100	0.6808	0.4349	0.0674
	0.0617	0.1124	0.0837	0.0361	0.5676	1.4381

PERCOLATION/LEAKAGE THROUGH LAYER 5

TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

PERCOLATION/LEAKAGE THROUGH LAYER 6

TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

AVERAGES OF MONTHLY AVERAGED DAILY HEADS (INCHES)

DAILY AVERAGE HEAD ON TOP OF LAYER 4

AVERAGES	0.0104	0.0179	0.0600	0.0289	0.0116	0.0051
	0.0025	0.0014	0.0008	0.0003	0.0053	0.0184
STD. DEVIATIONS	0.0136	0.0273	0.0700	0.0142	0.0088	0.0014
	0.0012	0.0023	0.0017	0.0007	0.0119	0.0291

AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 2007 THROUGH 2011

	INCHES		CU. FEET		PERCENT
PRECIPITATION	33.53	(9.450)	121699.4		100.00
RUNOFF	1.507	(1.0236)	5472.16		4.496
EVAPOTRANSPIRATION	25.267	(4.5955)	91720.60		75.367
LATERAL DRAINAGE COLLECTED FROM LAYER 3	6.74992	(4.28161)	24502.213		20.13339
PERCOLATION/LEAKAGE THROUGH LAYER 5	0.00001	(0.00000)	0.019		0.00002
AVERAGE HEAD ON TOP OF LAYER 4	0.014	(0.009)			
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.00000	(0.00000)	0.000		0.00000

CHANGE IN WATER STORAGE	0.001	(0.8005)	4.42	0.004

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PEAK DAILY VALUES FOR YEARS 2007 THROUGH 2011

	(INCHES)	(CU. FT.)
PRECIPITATION	2.58	9365.399
RUNOFF	1.239	4497.9663
DRAINAGE COLLECTED FROM LAYER 3	0.31772	1153.31909
PERCOLATION/LEAKAGE THROUGH LAYER 5	0.000002	0.00897
AVERAGE HEAD ON TOP OF LAYER 4	3.798	
MAXIMUM HEAD ON TOP OF LAYER 4	6.943	
LOCATION OF MAXIMUM HEAD IN LAYER 3 (DISTANCE FROM DRAIN)	24.3 FEET	
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.000000	0.00000
SNOW WATER	2.42	8784.6006

MAXIMUM VEG. SOIL WATER (VOL/VOL)	0.3240
MINIMUM VEG. SOIL WATER (VOL/VOL)	0.1017

*** Maximum heads are computed using McEnroe's equations. ***

Reference: Maximum Saturated Depth over Landfill Liner
by Bruce M. McEnroe, University of Kansas
ASCE Journal of Environmental Engineering
Vol. 119, No. 2, March 1993, pp. 262-270.

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FINAL WATER STORAGE AT END OF YEAR 2011

LAYER	(INCHES)	(VOL/VOL)
1	1.7439	0.2906
2	7.9514	0.2209

3	0.0163	0.0814
4	0.0000	0.0000
5	0.1800	0.7500
6	36.1911	0.2320
SNOW WATER	0.000	

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Appendix D
Cost Estimates

Cost Comparison for
Total Costs of Remedial
Alternatives
OU2 Eagle Zinc
Hillsboro, Illinois
Feasibility Study Supplement

4/6/2012

	Alternative 1	Alternative 2		Alternative 3		Alternative 4	
	No Action	**Immobilization, Regrade and Soil Cover (18 ac.)**	**Offsite Disposal of Piles, Regrade and Soil Cover (18 ac.)**	**Immobilization, Regrade, Soil Cover and Creek Re-Alignment (22 ac.)**	**Offsite Disposal of Piles, Regrade, Soil Cover and Creek Re-Alignment (22 ac.)**	**Immobilization, Regrade, IAC 811 Cap and Creek Re-Alignment (22 ac.)**	**Offsite Disposal of Piles, Regrade, IAC 811 Cap and Creek Re-Alignment (22 ac.)**
Main Components		- Institutional Controls - Monitoring and Assessment - Onsite Immobilization of Residue Piles (2,100 cy) - Consolidation, grading, and 18 acre Soil Cover	- Same as Alternative 2 - Off-site Disposal of Piles	- Same as Alternative 2 - Cover Area of 22 acres -Creek Re-alignment	- Same as Alternative 3 - Off-site Disposal of Piles	- Same as Alternative 3 - IAC 811 Cover	- Same as Alternative 4 - Off-site Disposal of Piles
Total Project Duration (Years)	30	30	30	30	30	30	30
Capital Cost	$0	$12,600,000	$12,900,000	$15,600,000	$15,900,000	$20,100,000	$20,500,000
Annual O&M Cost	$0	$300,069	$300,069	$317,029	$317,029	$409,896	$409,896
Total Periodic Cost	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000
Total Present Value	$100,000	$16,300,000	$16,600,000	$19,500,000	$19,800,000	$25,500,000	$25,900,000

Disclaimer: The information in this cost estimate is based on the best available information regarding the anticipated scope of the remedial alternatives. Changes in the cost elements are likely to occur as a result of new information and data collected during the engineering design of the remedial alternatives. This is an order-of-magnitude cost estimate that is expected to be within -30 to +50 percent of the actual project costs.

Alternative: **Alternative 1**
Name: **No Action**

COST ESTIMATE SUMMARY

Site: OU2 Eagle Zinc
Location: Hillsboro, Illinois
Phase: Feasibility Study Supplement
Base Year: 2012
Date: 6-Apr

Description:
5 Year review.

CAPITAL COSTS

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
Alternative					
Horizontal Extraction Wells					
Horizontal Injection Wells					
Permeable Reactive Barrier					
Air Sparge/SVE System					
River Trench					
Phytoremediation					
Microorganism Injection Well System					
Oxygen Injection System					
No construction				$0	
Vapor Treatment System					
Groundwater Treatment (≤400 gpm)					
TOTAL CAPITAL COST				**$0**	

OPERATIONS AND MAINTENANCE COST

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
TOTAL ANNUAL O&M COST				**$0**	

PERIODIC COSTS

DESCRIPTION	YEAR	QTY	UNIT	UNIT COST	TOTAL	NOTES
5 year Review	5	1	LS	$15,000	$15,000	
5 year Review	10	1	LS	$15,000	$15,000	
5 year Review	15	1	LS	$15,000	$15,000	
5 year Review	20	1	LS	$15,000	$15,000	
5 year Review	25	1	LS	$15,000	$15,000	
5 year Review	30	1	LS	$15,000	$15,000	
				Total	$90,000	
TOTAL ANNUAL PERIODIC COST					**$90,000**	

PRESENT VALUE ANALYSIS

Discount Rate = 2.0%

COST TYPE	YEAR	TOTAL COST	TOTAL COST PER YEAR	DISCOUNT FACTOR	PRESENT VALUE	NOTES
CAPITAL COST	0	$0	$0	1.000	$0	
ANNUAL O&M COST	1 to 2	$0	$0	1.9	$0	
ANNUAL O&M COST	3 to 30	$0	$0	31.4	$0	
PERIODIC COST	5	$15,000	$15,000	0.91	$13,586	
PERIODIC COST	10	$15,000	$15,000	0.82	$12,305	
PERIODIC COST	15	$15,000	$15,000	0.74	$11,145	
PERIODIC COST	20	$15,000	$15,000	0.67	$10,095	
PERIODIC COST	25	$15,000	$15,000	0.61	$9,143	
PERIODIC COST	30	$15,000	$15,000	0.55	$8,281	
		$100,000			$64,555	
TOTAL PRESENT VALUE OF ALTERNATIVE					**$100,000**	

SOURCE INFORMATION

1. United States Environmental Protection Agency. July 2000. A Guide to Preparing and Documenting Cost Estimates During the Feasibility Study. EPA 540-R-00-002. (USEPA, 2000). This is an order-of-magnitude cost estimate that is expected to be within -30 to +50 percent of the actual project costs.

Alternative: **Alternative 2**

Name: **Immobilization, Regrade and Soil Cover (18 ac.)**

COST ESTIMATE SUMMARY

Site: OU2 Eagle Zinc
Location: Hillsboro, Illinois
Phase: Feasibility Study Supplement
Base Year: 2012
Date: 6-Apr

Description: - Institutional Controls
- Monitoring and Assessment
- Onsite Immobilization of Residue Piles (2,100 cy)
- Consolidation, grading, and 18 acre Soil Cover

CAPITAL COSTS

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
Institutional Controls					
Site Development Plan	1	LS	$20,000	$20,000	
SUBTOTAL				$20,000	
Predesign Investigations					
Survey site	1	LS	$30,000	$30,000	
Bench scale for Immobilization	1	LS	$25,000	$25,000	
Permits	1	LS	$8,000	$8,000	
SUBTOTAL				$63,000	
Site Preparation					
Silt Fencing	7,600	FT	$3.45	$26,220	Recent 2012 Supply and Install Quotations
Clear and Grub Excavation and Consolidation Areas	26.0	AC	$8,000	$208,000	MEANS 31 11 10.10 0260
				$234,220	
Mobilization/Demobilization	5%			$11,711	
Subcontractor General Conditions	15%			$35,133	
SUBTOTAL				$281,064	
Immobilization					
Immobilization Staging Area	600	Ton	$20	$12,000	
Soil Excavation and Truck Loading	2,100	CY	$5.33	$11,193	MEANS 17-03-0276
Roller, grader, residue stabilization	2,310	CY	$3.39	$7,831	MEANS 17-03-0602
Spread Reagent Prior to Mixing	94	Sack	$200	$18,711	
Sulfide reagent	94	Sack	$425	$39,761	Quote from Premier Magnesia 2012 ($425 per sack)
Freight for sulfide reagent	5	Trip	$1,400.00	$7,000	Quote from Premier Magnesia 2012 ($1400 per trip)
Metal TCLP Analysis	23	EA	$251	$5,798	
SUBTOTAL				$102,294	
Mobilization/Demobilization	5%			$5,115	
Subcontractor General Conditions	15%			$15,344	
SUBTOTAL				$122,753	
Excavate Piles and Soil and Consolidation					
Residue Consolidation	190,693	CY	$15.00	$2,860,395	Excavate, Haul, Place and Compact (includes NE pond and South Ditch Sediment removal)
Surface Soil Consolidation	62,220	CY	$10.00	$622,200	Excavate, Haul, Place and Compact
Re-locate waste from On-Site Management Cell	11,200	CY	$15.00	$168,000	Relocate waste under new cover.
Strip and Stockpile Top Soil and Clay for Re-Use	3,000	CY	$12.00	$36,000	Stockpile onsite for re-use in cover.
SUBTOTAL				$3,686,595	
Mobilization/Demobilization	5%			$184,330	
Subcontractor General Conditions	15%			$552,989	
SUBTOTAL				$4,423,914	
18 Acre Cover Construction					18 Acre Cover
Rough Grading of Consolidation Area	87,120	SY	$5.00	$435,600	Recent 2012 Similar project quotations
Compacted Soil Layer (24-inch thick)	58,080	CY	$17.00	$987,360	Recent 2012 Similar project quotations
Vegetation Layer (6-inches thick)	14,520	CY	$27.00	$392,040	Recent 2012 Similar project quotations
Seeding Vegetation Cover	18	AC	$2,000	$36,000	Recent 2012 Similar project quotations
Surfacewater Improvements (swales)	3,138	LF	$4.74	$14,875	Recent 2012 Similar project quotations
Check Dams	20	EA	$1,500	$30,000	200 feet apart along perimeter Swale
Outlet Protection	1	LS	$3,000	$3,000	
SUBTOTAL				$1,898,875	
Mobilization/Demobilization	5%			$94,944	
Subcontractor General Conditions	15%			$284,831	
SUBTOTAL				$2,278,650	
Fencing					
6 ft chain link fence	4,000	FT	$35.30	$141,200	Recent 2012 Supply and Install Quotations
Double Swing Gate	1	LS	$4,700	$4,700	
Gravel Entrance	1	LS	$3,000	$3,000	
SUBTOTAL				$148,900	
Mobilization/Demobilization	5%			$7,445	
Subcontractor General Conditions	15%			$22,335	
SUBTOTAL				$178,680	
Third Party Oversight (Soil testing, lab and field)					
Field Inspections of Soil	250	HR	$85.00	$21,250	
Geotechnical Laboratory Testing	1	LS	$15,000	$15,000	
SUBTOTAL				$36,250	
Soil/Residue Verification Sampling					
Verification Sampling (50-foot centers)	240	HR	$100	$24,000	Engineer's Estimate
Analytical Laboratory (including QA/QC)	815	EA	$160	$130,432	Engineer's Estimate
Reporting	100	HR	$100	$10,000	Engineer's Estimate
SUBTOTAL				$164,432	
SUBTOTAL				$7,570,000	
General Contractor	17.2%			$1,302,040	
Contingency	25%			$1,892,500	10% Scope + 15% Bid
SUBTOTAL				$10,764,540	
Project Management	5%			$538,227	USEPA 2000, p. 5-13, >$10M
Remedial Design	6%			$645,872	USEPA 2000, p. 5-13, >$10M
Construction Management	6%			$645,872	USEPA 2000, p. 5-13, >$10M
SUBTOTAL				$1,829,972	
TOTAL CAPITAL COST				**$12,600,000**	

OPERATIONS AND MAINTENANCE COST

Habitat Survey					
Labor	16	HR	$120	$1,920	
Travel	1	LS	$400	$400	
SUBTOTAL				$2,320	
Groundwater, Surface Water, and Sediment Sampling/ Event					
GW (8 MWs) and SW (5 SWs) Sample Metal Analysis	13	EA	$160	$2,080	MEANS 33-02-1701; 4 GW + 4 SW
QC Samples	10	EA	$160	$1,600	MEANS 33-02-1701
Sediment Sample Metal Analysis	5	EA	$160	$800	MEANS 33-02-1710; 10 metals/sample
QC Samples	5	EA	$160	$800	
GW, SW and Sediment Sampling, Level D					
Labor	56	HRS	$110	$6,160	2 person crew
Equipment - meters	1	LS	$1,200	$1,200	
Consumables	1	LS	$350	$350	
Travel	1	LS	$500	$500	
Data Validation	20	HRS	$100	$2,000	
Reporting	50	HRS	$100	$5,000	
SUBTOTAL				$20,490	
SUBTOTAL FOR YEARS 1 & 2				$107,466	Cover Inspect/Repair, Survey, Yrs 1 & 2- quarterly.

Alternative: **Alternative 2**

Name: **Immobilization, Regrade and Soil Cover (18 ac.)**

COST ESTIMATE SUMMARY

SUBTOTAL FOR YEARS 3 - 30		$66,486	Cover Inspect/Repail, Survey, Yrs 3 to 30- semiannual
Allowance for Misc. Items (Years 1 & 2)	20%	$21,493	
Allowance for Misc. Items (Years 3 - 30)	20%	$13,297	
SUBTOTAL FOR YEARS 1 & 2		$128,960	
SUBTOTAL FOR YEARS 3 - 30		$79,784	
Contingency (Years 1 & 2)	25%	$32,240	10% Scope + 15% Bid
Contingency (Years 3 - 30)	25%	$19,946	10% Scope + 15% Bid
SUBTOTAL FOR YEARS 1 & 2		$161,200	
SUBTOTAL FOR YEARS 3 - 30		$99,730	
Project Management & Technical Support (Years 1 & 2)	15%	$24,180	
Project Management & Technical Support (Years 3 - 30)	15%	$14,959	
TOTAL ANNUAL O&M COST (Years 1-2)		**$185,380**	Reflects quarterly sampling 2 years
TOTAL ANNUAL O&M COST (Years 3-30)		**$114,689**	Reflects semiannual sampling Year 3 to 30

PERIODIC COSTS

DESCRIPTION	YEAR	QTY	UNIT	UNIT COST	TOTAL	NOTES
5 year Review	5	1	LS	$15,000	$15,000	
5 year Review	10	1	LS	$15,000	$15,000	
5 year Review	15	1	LS	$15,000	$15,000	
5 year Review	20	1	LS	$15,000	$15,000	
5 year Review	25	1	LS	$15,000	$15,000	
5 year Review	30	1	LS	$15,000	$15,000	
				Total	$90,000	
TOTAL ANNUAL PERIODIC COST					**$90,000**	

PRESENT VALUE ANALYSIS

Discount Rate = 2.0%

COST TYPE	YEAR	TOTAL COST	TOTAL COST PER YEAR	DISCOUNT FACTOR	PRESENT VALUE	NOTES
CAPITAL COST	0	$12,600,000	$12,600,000	1.000	$12,600,000	
ANNUAL O&M COST	1 to 2	$370,759	$185,380	1.9	$359,926	
ANNUAL O&M COST	3 to 30	$3,211,298	$114,689	31.4	$3,244,023	
PERIODIC COST	5	$15,000	$15,000	0.91	$13,586	
PERIODIC COST	10	$15,000	$15,000	0.82	$12,305	
PERIODIC COST	15	$15,000	$15,000	0.74	$11,145	
PERIODIC COST	20	$15,000	$15,000	0.67	$10,095	
PERIODIC COST	25	$15,000	$15,000	0.61	$9,143	
PERIODIC COST	30	$15,000	$15,000	0.55	$8,281	
		$16,300,000			$16,268,504	
TOTAL PRESENT VALUE OF ALTERNATIVE					**$16,300,000**	

SOURCE INFORMATION

1. United States Environmental Protection Agency. July 2000. A Guide to Preparing and Documenting Cost Estimates During the Feasibility Study. EPA 540-R-00-002. (USEPA, 2000). This is an order-of-magnitude cost estimate that is expected to be within -30 to +50 percent of the actual project costs.

Alternative: **Alternative 2 with Offsite Disposal Option** — **COST ESTIMATE SUMMARY**

Name: **Offsite Disposal of Piles, Regrade and Soil Cover (18 ac.)**

Site: OU2 Eagle Zinc
Location: Hillsboro, Illinois
Phase: Feasibility Study Supplement
Base Year: 2012
Date: 6-Apr

Description: - Same as Alternative 2
- Off-site Disposal of Piles

CAPITAL COSTS

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
Institutional Controls					
Site Development Plan	1	LS	$20,000	$20,000	
SUBTOTAL				$20,000	
Predesign Investigations					
Survey site	1	LS	$30,000	$30,000	
Bench scale for Immobilization	1	LS	$25,000	$25,000	
Permits	1	LS	$8,000	$8,000	
SUBTOTAL				$63,000	
Site Preparation					
Silt Fencing	7,600	FT	$3.45	$26,220	Recent 2012 Supply and Install Quotations
Clear and Grub Excavation and Consolidation Areas	26.0	AC	$8,000	$208,000	MEANS 31 11 10.10 0260
				$234,220	
Mobilization/Demobilization	5%			$11,711	
Subcontractor General Conditions	15%			$35,133	
SUBTOTAL				$281,064	
Immobilization/Disposal of Piles					
Immobilize by Peoria Disposal Company	1	LS	$2,000	$2,000	Peoria Disposal Co. Quote 2012 (Assumed Hazardous for costing)
Disposal by Peoria Disposal Company	3,465	Tons	$90.00	$311,850	Peoria Disposal Co. Quote 2012 (Assumed Hazardous for costing, if non-hazardous, $25 per ton)
SUBTOTAL				$313,850	
Excavate Piles and Soil and Consolidation					
Residue Consolidation	190,693	CY	$15.00	$2,860,395	Excavate, Haul, Place and Compact (includes NE pond and South Ditch Sediment removal)
Surface Soil Consolidation	62,220	CY	$10.00	$622,200	Excavate, Haul, Place and Compact
Re-locate waste from On-Site Management Cell	11,200	CY	$15.00	$168,000	Relcoate waste under new cover.
Strip and Stockpile Top Soil and Clay for Re-Use	3,000	CY	$12.00	$36,000	Stockpile on-site for re-use in cover.
SUBTOTAL				$3,686,595	
Mobilization/Demobilization	5%			$184,330	
Subcontractor General Conditions	15%			$552,989	
SUBTOTAL				$4,423,914	
18 Acre Cover Construction					18 Acre Cover
Rough Grading of Consolidation Area	87,120	SY	$5.00	$435,600	Recent 2012 Similar project quotations
Compacted Soil Layer (24-inch thick)	58,080	CY	$17.00	$987,360	Recent 2012 Similar project quotations
Vegetation Layer (6-inches thick)	14,520	CY	$27.00	$392,040	Recent 2012 Similar project quotations
Seeding Vegetation Cover	18	AC	$2,000	$36,000	Recent 2012 Similar project quotations
Surfacewater Improvements (swales)	3,138	LF	$4.74	$14,875	Recent 2012 Similar project quotations
Check Dams	20	EA	$1,500	$30,000	200 feet apart along perimeter Swale
Outlet Protection	1	LS	$3,000	$3,000	0
SUBTOTAL				$1,898,875	
Mobilization/Demobilization	5%			$94,944	
Subcontractor General Conditions	15%			$284,831	
SUBTOTAL				$2,278,650	
Fencing					
6 ft chain link fence	4,000	FT	$35.30	$141,200	Recent 2012 Supply and Install Quotations
Double Swing Gate	1	LS	$4,700	$4,700	
Gravel Entrance	1	LS	$3,000	$3,000	
SUBTOTAL				$148,900	
Mobilization/Demobilization	5%			$7,445	
Subcontractor General Conditions	15%			$22,335	
SUBTOTAL				$178,680	
Third Party Oversight (Soil testing, lab and field)					
Field Inspections of Soil	250	HR	$85.00	$21,250	
Geotechnical Laboratory Testing	1	LS	$15,000	$15,000	
SUBTOTAL				$36,250	
Soil/Residue Verification Sampling					
Verification Sampling (50-foot centers)	240	HR	$100	$24,000	Engineer's Estimate
Analytical Laboratory (including QA/QC)	815	EA	$160	$130,432	Engineer's Estimate
Reporting	100	HR	$100	$10,000	Engineer's Estimate
SUBTOTAL				$164,432	
SUBTOTAL				$7,760,000	
General Contractor	17.2%			$1,334,720	
Contingency	25%			$1,940,000	10% Scope + 15% Bid
SUBTOTAL				$11,034,720	
Project Management	5%			$551,736	USEPA 2000, p. 5-13, >$10M
Remedial Design	6%			$662,083	USEPA 2000, p. 5-13, >$10M
Construction Management	6%			$662,083	USEPA 2000, p. 5-13, >$10M
SUBTOTAL				$1,875,902	
TOTAL CAPITAL COST				**$12,900,000**	

OPERATIONS AND MAINTENANCE COST

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
Cover Inspection and Repair					
Cover Annual Inspection	4	Hr	$100	$400	
Cover Repair	1	LS	$22,786	$22,786	Assumes 1% of area repaired
SUBTOTAL				$23,186	
Habitat Survey					
QC Samples	5	EA	$160	$800	
GW, SW and Sediment Sampling, Level D					
Labor	56	HRS	$110	$6,160	2 person crew
Equipment - meters	1	LS	$1,200	$1,200	
Consumables	1	LS	$350	$350	
Travel	1	LS	$500	$500	
Data Validation	20	HRS	$100	$2,000	
Reporting	50	HRS	$100	$5,000	
SUBTOTAL				$20,490	
SUBTOTAL FOR YEARS 1 & 2				$107,466	Cover Inspect/Repair, Survey, Yrs 1 & 2- quarterly.
SUBTOTAL FOR YEARS 3 - 30				$66,486	Cover Inspect/Repail, Survey, Yrs 3 to 30- semiannual
Allowance for Misc. Items (Years 1 & 2)	20%			$21,493	
Allowance for Misc. Items (Years 3 - 30)	20%			$13,297	
SUBTOTAL FOR YEARS 1 & 2				$128,960	
SUBTOTAL FOR YEARS 3 - 30				$79,784	

Alternative: **Alternative 2 with Offsite Disposal Option** **COST ESTIMATE SUMMARY**

Name: **Offsite Disposal of Piles, Regrade and Soil Cover (18 ac.)**

Contingency (Years 1 & 2)	25%	$32,240	10% Scope + 15% Bid
Contingency (Years 3 - 30)	25%	$19,946	10% Scope + 15% Bid
SUBTOTAL FOR YEARS 1 & 2		$161,200	
SUBTOTAL FOR YEARS 3 - 30		$99,730	
Project Management & Technical Support (Years 1 & 2)	15%	$24,180	
Project Management & Technical Support (Years 3 - 30)	15%	$14,959	
TOTAL ANNUAL O&M COST (Years 1-2)		**$185,380**	Reflects quarterly sampling 2 years
TOTAL ANNUAL O&M COST (Years 3-30)		**$114,689**	Reflects semiannual sampling Year 3 to 30

PERIODIC COSTS

DESCRIPTION	YEAR	QTY	UNIT	UNIT COST	TOTAL	NOTES
5 year Review	5	1	LS	$15,000	$15,000	
5 year Review	10	1	LS	$15,000	$15,000	
5 year Review	15	1	LS	$15,000	$15,000	
5 year Review	20	1	LS	$15,000	$15,000	
5 year Review	25	1	LS	$15,000	$15,000	
5 year Review	30	1	LS	$15,000	$15,000	
				Total	$90,000	
TOTAL ANNUAL PERIODIC COST					**$90,000**	

PRESENT VALUE ANALYSIS

Discount Rate = 2.0%

COST TYPE	YEAR	TOTAL COST	TOTAL COST PER YEAR	DISCOUNT FACTOR	PRESENT VALUE	NOTES
CAPITAL COST	0	$12,900,000	$12,900,000	1.000	$12,900,000	
ANNUAL O&M COST	1 to 2	$370,759	$185,380	1.9	$359,926	
ANNUAL O&M COST	3 to 30	$3,211,298	$114,689	31.4	$3,244,023	
PERIODIC COST	5	$15,000	$15,000	0.91	$13,586	
PERIODIC COST	10	$15,000	$15,000	0.82	$12,305	
PERIODIC COST	15	$15,000	$15,000	0.74	$11,145	
PERIODIC COST	20	$15,000	$15,000	0.67	$10,095	
PERIODIC COST	25	$15,000	$15,000	0.61	$9,143	
PERIODIC COST	30	$15,000	$15,000	0.55	$8,281	
		$16,600,000			$16,568,504	
TOTAL PRESENT VALUE OF ALTERNATIVE					**$16,600,000**	

SOURCE INFORMATION

1. United States Environmental Protection Agency. July 2000. A Guide to Preparing and Documenting Cost Estimates During the Feasibility Study. EPA 540-R-00-002. (USEPA, 2000). This is an order-of-magnitude cost estimate that is expected to be within -30 to +50 percent of the actual project costs.

Alternative: **Alternative 3** **COST ESTIMATE SUMMARY**

Name: **Immobilization, Regrade, Soil Cover and Creek Re-Alignment (22 ac.)**

Site: OU2 Eagle Zinc
Location: Hillsboro, Illinois
Phase: Feasibility Study Supplement
Base Year: 2012
Date: 6-Apr

Description: - Same as Alternative 2
- Cover Area of 22 acres
-Creek Re-alignment

CAPITAL COSTS

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
Institutional Controls					
Site Development Plan	1	LS	$15,000	$15,000	
SUBTOTAL				$15,000	
Predesign Investigations					
Survey site	1	LS	$30,000	$30,000	
Bench scale for Immobilization	1	LS	$25,000	$25,000	
Permits	1	LS	$8,000	$8,000	
SUBTOTAL				$33,000	
Site Preparation					
Silt Fencing	7,600	FT	$3.45	$26,220	Recent 2012 Supply and Install Quotations
Clear and Grub Excavation and Consolidation Areas	39.0	AC	$8,000	$312,000	MEANS 31 11 10.10 0260
Abandon Southwest Pond	1.0	LS	$35,000	$35,000	
SUBTOTAL				$373,220	
Mobilization/Demobilization	5%			$18,661	
Subcontractor General Conditions	15%			$55,983	
SUBTOTAL				$447,864	
Immobilization					
Immobilization Staging Area	600	Ton	$20	$12,000	
Soil Excavation and Truck Loading	2,100	CY	$5.33	$11,193	MEANS 17-03-0276
Roller, grader, residue stabilization	2,310	CY	$3.39	$7,831	MEANS 17-03-0602
Spread Reagent Prior to Mixing	94	Sack	$200	$18,711	
Sulfide reagent	94	Sack	$425	$39,761	Quote from Premier Magnesia 2012 ($425 per sack)
Freight for sulfide reagent	5	Trip	$1,400.00	$7,000	Quote from Premier Magnesia 2012 ($1400 per trip)
Metal TCLP Analysis	23	EA	$251	$5,798	
SUBTOTAL				$102,294	
Mobilization/Demobilization	5%			$5,115	
Subcontractor General Conditions	15%			$15,344	
SUBTOTAL				$122,753	
Excavate Piles and Soil and Consolidation					
Residue Consolidation	172,816	CY	$15.00	$2,592,240	Excavate, Haul, Place and Compact (includes NE pond and South Ditch Sediment removal)
Surface Soil Consolidation	58,000	CY	$10.00	$580,000	Excavate, Haul, Place and Compact
Re-locate waste from On-Site Management Cell	11,200	CY	$15.00	$168,000	Relcoate waste under new cover.
Strip and Stockpile Top Soil and Clay for Re-Use	3,000	CY	$12.00	$36,000	Stockpile on-site for re-use in cover.
SUBTOTAL				$3,376,240	
Mobilization/Demobilization	5%			$168,812	
Subcontractor General Conditions	15%			$506,436	
SUBTOTAL				$4,051,488	
22 Acre Cover Construction					22 Acre Cover
Rough Grading of Consolidation Area	106,480	SY	$5.00	$532,400	Recent 2012 Similar project quotations
Compacted Soil Layer (24-inch thick)	70,987	CY	$17.00	$1,206,773	Recent 2012 Similar project quotations
Vegetation Layer (6-inches thick)	17,747	CY	$27.00	$479,160	Recent 2012 Similar project quotations
Seeding Vegetation Cover	22	AC	$2,000	$44,000	Recent 2012 Similar project quotations
Surfacewater Improvements (swales)	3,469	LF	$4.74	$16,445	Recent 2012 Similar project quotations
Check Dams	25	EA	$1,500	$36,750	200 feet apart along perimeter Swale
Outlet Protection	1	LS	$3,000	$3,000	
SUBTOTAL				$2,318,528	
Mobilization/Demobilization	5%			$115,926	
Subcontractor General Conditions	15%			$347,779	
SUBTOTAL				$2,782,234	
Stream and Wetland Features					
Warning (Orange) Barrier and Tree Protection Fence	3,500	LF	$2.00	$7,000	
Mulch and Temporary Seeding	42,000	SY	$1.00	$42,000	
Temporary Stream Crossing	3	EA	$2,000.00	$6,000	
Excavation, Existing Stream Bed Sediments	2,700	CY	$10.00	$27,000	
Excavation, Placed Onsite as Fill	26,800	CY	$15.00	$402,000	
Temporary Stream Bypass Pumping	1	LS	$10,000.00	$10,000	
900 gram Coir Fabric, installed	11,300	SY	$6.00	$67,800	
Soil Encapsulated Lifts, installed	200	LF	$50.00	$10,000	
Soil Preparation	42,000	SY	$1.00	$42,000	
Native Seed	42,000	SY	$2.50	$105,000	Specialized seed separate from Cover restoration.
Live Stake	4,400	EA	$3.00	$13,200	
Containerized Plant - 1 Gallon	800	EA	$20.00	$16,000	
Containerized Plant - 3 Gallon	1,800	EA	$50.00	$90,000	
Tree - 1" Caliper	80	EA	$150.00	$12,000	
Cross Vane Structure	25	EA	$5,000.00	$125,000	ASSUME 40' SPACING, 90 TOTAL
J-Hook Vane Structure	25	EA	$5,000.00	$125,000	ASSUME 40' SPACING, 90 TOTAL
J-Hook Log Vane Structure	20	EA	$3,500.00	$70,000	ASSUME 40' SPACING, 90 TOTAL
Log Sill Structure	20	EA	$3,500.00	$70,000	ASSUME 40' SPACING, 90 TOTAL
Wetland Outfall Structure	1	LS	$5,000.00	$5,000	
Additional Naturalized Limestone Boulders	20	CY	$300.00	$6,000	Including hand or machine placement
Additional Naturalized River Cobble	20	CY	$250.00	$5,000	Including hand or machine placement
Additional RR-3 Riprap	20	CY	$90.00	$1,800	Including hand or machine placement
Additional RR-4 Riprap	20	CY	$70.00	$1,400	Including hand or machine placement
Additional #57 Stone	20	CY	$50.00	$1,000	Including hand or machine placement
SUBTOTAL				$1,260,200	
Mobilization/Demobilization	5%			$63,010	
Subcontractor General Conditions	15%			$189,030	
SUBTOTAL				$1,512,240	
Fencing					
6 ft chain link fence	4,900	EA	$35.30	$172,970	Recent 2012 Supply and Install Quotations
Double Swing Gate	1	LS	$4,700	$4,700	
Gravel Entrance	1	LS	$3,000	$3,000	
Geotechnical Laboratory Testing	1	LS	$20,000	$20,000	
SUBTOTAL				$45,500	
Soil/Residue Verification Sampling					
Verification Sampling (50-foot centers)	240	HR	$100	$24,000	Engineer's Estimate
Analytical Laboratory (including QA/QC)	760	EA	$160	$121,600	Engineer's Estimate
Reporting	100	HR	$100	$10,000	Engineer's Estimate
SUBTOTAL				$155,600	

Alternative: **Alternative 3**

Name: **Immobilization, Regrade, Soil Cover and Creek Re-Alignment (22 ac.)**

COST ESTIMATE SUMMARY

SUBTOTAL		$9,380,000	
General Contractor	17.2%	$1,613,360	
Contingency	25%	$2,345,000	10% Scope + 15% Bid
SUBTOTAL		$13,338,360	
Project Management	5%	$666,918	USEPA 2000, p. 5-13, >$10M
Remedial Design	6%	$800,302	USEPA 2000, p. 5-13, >$10M
Construction Management	6%	$800,302	USEPA 2000, p. 5-13, >$10M
SUBTOTAL		$2,267,521	
TOTAL CAPITAL COST		**$15,600,000**	

OPERATIONS AND MAINTENANCE COST

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
Cover Inspection and Repair					
Cover and Cap Annual Inspection	8	Hr	$100	$800	
Cap and Cover Repair	1	LS	$27,822	$27,822	Assumes 1% of area repaired
SUBTOTAL				$28,622	
Habitat Survey					
Labor	16	HR	$100	$1,600	
Travel	1	LS	$200	$200	
SUBTOTAL				$1,800	
Groundwater, Surface Water, and Sediment Sampling/ Event					
GW (8 MWs) and SW (5 sxs) Sample Metal	13	EA	$160	$2,080	MEANS 33-02-1701; 4 GW + 4 SW
QC Samples	10	EA	$160	$1,600	MEANS 33-02-1701
Sediment Sample Metal Analysis	5	EA	$160	$800	MEANS 33-02-1710; 10 metals/sample
QC Samples	5	EA	$160	$800	
GW, SW and Sediment Sampling, Level D					
Labor	56	HRS	$110	$6,160	2 person crew
Equipment - meters	1	LS	$1,200	$1,200	
Consumables	1	LS	$350	$350	
Travel	1	LS	$500	$500	
Data Validation	20	HRS	$100	$2,000	
Reporting	50	HRS	$100	$5,000	
SUBTOTAL				$20,490	
SUBTOTAL FOR YEARS 1 & 2				$112,382	Cover Inspect/Repair, Survey, Yrs 1 & 2- quarterly.
SUBTOTAL FOR YEARS 3 - 30				$71,402	Cover Inspect/Repail, Survey, Yrs 3 to 30- semiannual
Allowance for Misc. Items (Years 1 & 2)	20%			$22,476	
Allowance for Misc. Items (Years 3 - 30)	20%			$14,280	
SUBTOTAL FOR YEARS 1 & 2				$134,859	
SUBTOTAL FOR YEARS 3 - 30				$85,683	
Contingency (Years 1 & 2)	25%			$33,715	10% Scope + 15% Bid
Contingency (Years 3 - 30)	25%			$21,421	10% Scope + 15% Bid
SUBTOTAL FOR YEARS 1 & 2				$168,574	
SUBTOTAL FOR YEARS 3 - 30				$107,104	
Project Management & Technical Support (Years 1 & 2)	15%			$25,286	
Project Management & Technical Support (Years 3 - 30)	15%			$16,066	
TOTAL ANNUAL O&M COST (Years 1-2)				**$193,860**	Reflects quarterly sampling 2 years
TOTAL ANNUAL O&M COST (Years 3-30)				**$123,169**	Reflects semiannual sampling Year 3 to 30

PERIODIC COSTS

DESCRIPTION	YEAR	QTY	UNIT	UNIT COST	TOTAL	NOTES
5 year Review	5	1	LS	$15,000	$15,000	
5 year Review	10	1	LS	$15,000	$15,000	
5 year Review	15	1	LS	$15,000	$15,000	
5 year Review	20	1	LS	$15,000	$15,000	
5 year Review	25	1	LS	$15,000	$15,000	
5 year Review	30	1	LS	$15,000	$15,000	
				Total	$90,000	
TOTAL ANNUAL PERIODIC COST					**$90,000**	

PRESENT VALUE ANALYSIS

Discount Rate = 2.0%

COST TYPE	YEAR	TOTAL COST	TOTAL COST PER YEAR	DISCOUNT FACTOR	PRESENT VALUE	NOTES
CAPITAL COST	0	$15,600,000	$15,600,000	1.000	$15,600,000	
ANNUAL O&M COST	1 to 2	$387,719	$193,860	1.9	$376,390	
ANNUAL O&M COST	3 to 30	$3,448,733	$123,169	31.4	$3,494,025	
PERIODIC COST	5	$15,000	$15,000	0.91	$13,586	
PERIODIC COST	10	$15,000	$15,000	0.82	$12,305	
PERIODIC COST	15	$15,000	$15,000	0.74	$11,145	
PERIODIC COST	20	$15,000	$15,000	0.67	$10,095	
PERIODIC COST	25	$15,000	$15,000	0.61	$9,143	
PERIODIC COST	30	$15,000	$15,000	0.55	$8,281	
		$19,500,000			$19,534,970	
TOTAL PRESENT VALUE OF ALTERNATIVE					**$19,500,000**	

SOURCE INFORMATION

1. United States Environmental Protection Agency. July 2000. A Guide to Preparing and Documenting Cost Estimates During the Feasibility Study. EPA 540-R-00-002. (USEPA, 2000). This is an order-of-magnitude cost estimate that is expected to be within -30 to +50 percent of the actual project costs.

Alternative: **Alternative 3 with Offsite Disposal Option** **COST ESTIMATE SUMMARY**

Name: **Offsite Disposal of Piles, Regrade, Soil Cover and Creek Re-Alignment (22 ac.)**

Site: OU2 Eagle Zinc
Location: Hillsboro, Illinois
Phase: Feasibility Study Supplement
Base Year: 2012
Date: 6-Apr

Description: - Same as Alternative 3
- Off-site Disposal of Piles

CAPITAL COSTS

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
Institutional Controls					
Site Development Plan	1	LS	$15,000	$15,000	
SUBTOTAL				$15,000	
Predesign Investigations					
Survey site	1	LS	$30,000	$30,000	
Bench scale for Immobilization	1	LS	$25,000	$25,000	
Permits	1	LS	$8,000	$8,000	
SUBTOTAL				$55,000	
Site Preparation					
Silt Fencing	7,600	FT	$3.45	$26,220	Recent 2012 Supply and Install Quotations
Clear and Grub Excavation and Consolidation Areas	39.0	22	$8,000	$312,000	MEANS 31 11 10.10 0260
Abandon Southwest Pond	1.0	LS	$35,000	$35,000	
SUBTOTAL				$373,220	
Mobilization/Demobilization	5%			$18,661	
Subcontractor General Conditions	15%			$55,983	
SUBTOTAL				$447,864	
Immobilization/Disposal of Piles					
Immobilize by Peoria Disposal Company	1	LS	$2,000	$2,000	Peoria Disposal Co. Quote 2012 (Assumed Hazardous for costing)
Disposal by Peoria Disposal Company	3,465	Tons	$90.00	$311,850	Peoria Disposal Co. Quote 2012 (Assumed Hazardous for costing, if non-hazardous, $25 per ton)
SUBTOTAL				$313,850	
Excavate Piles and Soil and Consolidation					
Residue Consolidation	172,816	CY	$15.00	$2,592,240	Excavate, Haul, Place and Compact (includes NE pond and South Ditch Sediment removal)
Surface Soil Consolidation	58,000	CY	$10.00	$580,000	Excavate, Haul, Place and Compact
Re-locate waste from On-Site Management Cell	11,200	CY	$15.00	$168,000	Relcoate waste under new cover.
Strip and Stockpile Top Soil and Clay for Re-Use	3,000	CY	$12.00	$36,000	Stockpile on-site for re-use in cover.
SUBTOTAL				$3,376,240	
Mobilization/Demobilization	5%			$168,812	
Subcontractor General Conditions	15%			$506,436	
SUBTOTAL				$4,051,488	
22 Acre Cover Construction					22 Acre Cover
Rough Grading of Consolidation Area	106,480	SY	$5.00	$532,400	Recent 2012 Similar project quotations
Compacted Soil Layer (24-inch thick)	70,987	CY	$17.00	$1,206,773	Recent 2012 Similar project quotations
Vegetation Layer (6-inches thick)	17,747	CY	$27.00	$479,160	Recent 2012 Similar project quotations
Seeding Vegetation Cover	22	AC	$2,000	$44,000	Recent 2012 Similar project quotations
Surfacewater Improvements (swales)	3,469	LF	$4.74	$16,445	Recent 2012 Similar project quotations
Check Dams	24.5	EA	$1,500	$36,750	200 feet apart along perimeter Swale
Outlet Protection	1	LS	$3,000	$3,000	
SUBTOTAL				$2,318,528	
Mobilization/Demobilization	5%			$115,926	
Subcontractor General Conditions	15%			$347,779	
SUBTOTAL				$2,782,234	
Stream and Wetland Features					
Warning (Orange) Barrier and Tree Protection Fence	3,500	LF	$2.00	$7,000	
Mulch and Temporary Seeding	42,000	SY	$1.00	$42,000	
Temporary Stream Crossing	3	EA	$6,000.00	$18,000	Assume lay CMP in streambed and build Gravel bridge
Excavation, Existing Stream Bed Sediments	2,700	CY	$10.00	$27,000	
Excavation, Placed Onsite as Fill	26,800	CY	$15.00	$402,000	
Temporary Stream Bypass Pumping	1	LS	$10,000.00	$10,000	
900 gram Coir Fabric, installed	11,300	SY	$6.00	$67,800	
Soil Encapsulated Lifts, installed	200	LF	$50.00	$10,000	
Soil Preparation	42,000	SY	$1.00	$42,000	
Native Seed	42,000	SY	$2.50	$105,000	Specialized seed separate from Cover restoration.
Live Stake	4,400	EA	$3.00	$13,200	
Containerized Plant - 1 Gallon	800	EA	$20.00	$16,000	
Containerized Plant - 3 Gallon	1,800	EA	$50.00	$90,000	
Tree - 1" Caliper	80	EA	$150.00	$12,000	
Cross Vane Structure	25	EA	$5,000.00	$125,000	ASSUME 40' SPACING, 90 TOTAL
J-Hook Vane Structure	25	EA	$5,000.00	$125,000	ASSUME 40' SPACING, 90 TOTAL
J-Hook Log Vane Structure	20	EA	$3,500.00	$70,000	ASSUME 40' SPACING, 90 TOTAL
Log Sill Structure	20	EA	$3,500.00	$70,000	ASSUME 40' SPACING, 90 TOTAL
Wetland Outfall Structure	1	LS	$5,000.00	$5,000	
Additional Naturalized Limestone Boulders	20	CY	$300.00	$6,000	Including hand or machine placement
Additional Naturalized River Cobble	20	CY	$250.00	$5,000	Including hand or machine placement
Additional RR-3 Riprap	20	CY	$90.00	$1,800	Including hand or machine placement
Additional RR-4 Riprap	20	CY	$70.00	$1,400	Including hand or machine placement
Additional #57 Stone	20	CY	$50.00	$1,000	Including hand or machine placement
SUBTOTAL				$1,272,200	
Mobilization/Demobilization	5%			$63,610	
Subcontractor General Conditions	15%			$190,830	
SUBTOTAL				$1,526,640	
Fencing					
6 ft chain link fence	4,000	EA	$35.30	$141,200	Recent 2012 Supply and Install Quotations
Double Swing Gate	1	LS	$4,700	$4,700	
Gravel Entrance	1	LS	$3,000	$3,000	
SUBTOTAL				$148,900	
Mobilization/Demobilization	5%			$7,445	
Subcontractor General Conditions	15%			$22,335	
SUBTOTAL				$178,680	
Third Party Oversight (Soil testing, lab and field)					
Field Inspections of Soil	300	HR	$85.00	$25,500	
Geotechnical Laboratory Testing	1	LS	$20,000	$20,000	
SUBTOTAL				$9,570,000	
General Contractor	17.2%			$1,646,040	
Contingency	25%			$2,392,500	10% Scope + 15% Bid
SUBTOTAL				$13,608,540	

Alternative: **Alternative 3 with Offsite Disposal Option** **COST ESTIMATE SUMMARY**

Name: **Offsite Disposal of Piles, Regrade, Soil Cover and Creek Re-Alignment (22 ac.)**

Project Management	5%	$680,427	USEPA 2000, p. 5-13, >$10M
Remedial Design	6%	$816,512	USEPA 2000, p. 5-13, >$10M
Construction Management	6%	$816,512	USEPA 2000, p. 5-13, >$10M
SUBTOTAL		$2,313,452	
TOTAL CAPITAL COST		**$15,900,000**	

OPERATIONS AND MAINTENANCE COST

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
Cover Inspection and Repair					
Cover and Cap Annual Inspection	8	Hr	$100	$800	
Cap and Cover Repair	1	LS	$27,822	$27,822	Assumes 1% of area repaired
SUBTOTAL				$28,622	
Habitat Survey					
Labor	16	HR	$100	$1,600	
Travel	1	LS	$200	$200	
SUBTOTAL				$1,800	
Groundwater, Surface Water, and Sediment Sampling/ Event					Yrs 1 & 2- quarterly. Yrs 3 to 30- semiannual
GW (8 MWs) and SW (5 sxs) Sample Metal	13	EA	$160	$2,080	MEANS 33-02-1701; 4 GW + 4 SW
QC Samples	10	EA	$160	$1,600	MEANS 33-02-1701
Sediment Sample Metal Analysis	5	EA	$160	$800	MEANS 33-02-1710; 10 metals/sample
QC Samples	5	EA	$160	$800	
GW, SW and Sediment Sampling, Level D					
Labor	56	HRS	$110	$6,160	2 person crew
Equipment - meters	1	LS	$1,200	$1,200	
Consumables	1	LS	$350	$350	
Travel	1	LS	$500	$500	
Data Validation	20	HRS	$100	$2,000	
Reporting	50	HRS	$100	$5,000	
SUBTOTAL				$20,490	
SUBTOTAL FOR YEARS 1 & 2				$112,382	Cover Inspect/Repair, Survey, Yrs 1 & 2- quarterly.
SUBTOTAL FOR YEARS 3 - 30				$71,402	Cover Inspect/Repail, Survey, Yrs 3 to 30- semiannual
Allowance for Misc. Items (Years 1 & 2)	20%			$22,476	
Allowance for Misc. Items (Years 3 - 30)	20%			$14,280	
SUBTOTAL FOR YEARS 1 & 2				$134,859	
SUBTOTAL FOR YEARS 3 - 30				$85,683	
Contingency (Years 1 & 2)	25%			$33,715	10% Scope + 15% Bid
Contingency (Years 3 - 30)	25%			$21,421	10% Scope + 15% Bid
SUBTOTAL FOR YEARS 1 & 2				$168,574	
SUBTOTAL FOR YEARS 3 - 30				$107,104	
Project Management & Technical Support (Years 1 & 2)	15%			$25,286	
Project Management & Technical Support (Years 3 - 30)	15%			$16,066	
TOTAL ANNUAL O&M COST (Years 1-2)				**$193,860**	Reflects quarterly sampling 2 years
TOTAL ANNUAL O&M COST (Years 3-30)				**$123,169**	Reflects semiannual sampling Year 3 to 30

PERIODIC COSTS

DESCRIPTION	YEAR	QTY	UNIT	UNIT COST	TOTAL	NOTES
5 year Review	5	1	LS	$15,000	$15,000	
5 year Review	10	1	LS	$15,000	$15,000	
5 year Review	15	1	LS	$15,000	$15,000	
5 year Review	20	1	LS	$15,000	$15,000	
5 year Review	25	1	LS	$15,000	$15,000	
5 year Review	30	1	LS	$15,000	$15,000	
				Total	$90,000	
TOTAL ANNUAL PERIODIC COST					**$90,000**	

PRESENT VALUE ANALYSIS

Discount Rate = 2.0%

COST TYPE	YEAR	TOTAL COST	TOTAL COST PER YEAR	DISCOUNT FACTOR	PRESENT VALUE	NOTES
CAPITAL COST	0	$15,900,000	$15,900,000	1.000	$15,900,000	
ANNUAL O&M COST	1 to 2	$387,719	$193,860	1.9	$376,390	
ANNUAL O&M COST	3 to 30	$3,448,733	$123,169	31.4	$3,494,025	
PERIODIC COST	5	$15,000	$15,000	0.91	$13,586	
PERIODIC COST	10	$15,000	$15,000	0.82	$12,305	
PERIODIC COST	15	$15,000	$15,000	0.74	$11,145	
PERIODIC COST	20	$15,000	$15,000	0.67	$10,095	
PERIODIC COST	25	$15,000	$15,000	0.61	$9,143	
PERIODIC COST	30	$15,000	$15,000	0.55	$8,281	
		$19,800,000			$19,834,970	
TOTAL PRESENT VALUE OF ALTERNATIVE					**$19,800,000**	

SOURCE INFORMATION

1. United States Environmental Protection Agency. July 2000. A Guide to Preparing and Documenting Cost Estimates During the Feasibility Study. EPA 540-R-00-002. (USEPA, 2000). This is an order-of-magnitude cost estimate that is expected to be within -30 to +50 percent of the actual project costs.

Alternative: **Alternative 4** **COST ESTIMATE SUMMARY**

Name: **Immobilization, Regrade, IAC 811 Cap and Creek Re-Alignment (22 ac.)**

Site: OU2 Eagle Zinc
Location: Hillsboro, Illinois
Phase: Feasibility Study Supplement
Base Year: 2012
Date: 6-Apr

Description: - Same as Alternative 3
- IAC 811 Cover

CAPITAL COSTS

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
Institutional Controls					
Site Development Plan	1	LS	$15,000	$15,000	
SUBTOTAL				$15,000	
Predesign Investigations					
Survey site	1	LS	$30,000	$30,000	
Bench scale for Immobilization	1	LS	$25,000	$25,000	
Permits	1	LS	$8,000	$8,000	
SUBTOTAL				$63,000	
Site Preparation					
Silt Fencing	7,600	FT	$3.45	$26,220	Recent 2012 Supply and Install Quotations
Clear and Grub Excavation and Consolidation Areas	39.0	AC	$8,000	$312,000	MEANS 31 11 10.10 0260
Abandon SouthWest Pond	1.0	LS	$35,000	$35,000	
SUBTOTAL				$373,220	
Mobilization/Demobilization	5%			$18,661	
Subcontractor General Conditions	15%			$55,983	
SUBTOTAL				$447,864	
Immobilization					
Immobilization Staging Area	600	Ton	$20	$12,000	
Soil Excavation and Truck Loading	2,100	CY	$5.33	$11,193	MEANS 17-03-0276
Roller, grader, residue stabilization	2,310	CY	$3.39	$7,831	MEANS 17-03-0602
Spread Reagent Prior to Mixing	94	Sack	$200	$18,711	
Sulfide reagent	94	Sack	$425	$39,761	Quote from Premier Magnesia 2012 ($425 per sack)
Freight for sulfide reagent	5	Trip	$1,400.00	$7,000	Quote from Premier Magnesia 2012 ($1400 per trip)
Metal TCLP Analysis	23	EA	$251	$5,798	
SUBTOTAL				$102,294	
Mobilization/Demobilization	5%			$5,115	
Subcontractor General Conditions	15%			$15,344	
SUBTOTAL				$122,753	
Excavate Piles and Soil and Consolidation					
Residue Consolidation	172,816	CY	$15.00	$2,592,240	Excavate, Haul, Place and Compact (includes NE pond and South Ditch Sediment removal)
Surface Soil Consolidation	58,000	CY	$10.00	$580,000	Excavate, Haul, Place and Compact
Re-locate waste from On-Site Management Cell	11,200	CY	$15.00	$168,000	Relcoate waste under new cover.
Strip and Stockpile Top Soil and Clay for Re-Use	3,000	CY	$12.00	$36,000	Stockpile on-site for re-use in cover.
SUBTOTAL				$3,376,240	
Mobilization/Demobilization	5%			$168,812	
Subcontractor General Conditions	15%			$506,436	
SUBTOTAL				$4,051,488	
22 Acre IAC 811 Cover Construction					22 Acre Cover
Rough Grading of Consolidation Area	106,480	SY	$5.00	$532,400	Recent 2012 Similar project quotations
Bentomat Geosynthetic Clay Liner	127,776	SY	$5.50	$702,768	Cetco October 2011 (replaces 24-inch low permeability clay soil)
40-mil LLDPE Geomembrane	127,776	SY	$7.50	$958,320	Area of cover plus 20% for overlap and waste
Double-Sided Drainage Geocomposite	127,776	SY	$4.00	$511,104	Area of cover plus 20% for overlap and waste
Freeze/Thaw Soil (3-feet thick)	106,480	CY	$12.00	$1,277,760	General Fill Import, Place Compact
Vegetation Layer (6-inches thick)	17,747	CY	$27.00	$479,160	Recent 2012 Similar project quotations
Seeding Vegetation Cover	22	AC	$2,000	$44,000	Recent 2012 Similar project quotations
Surfacewater Improvements (swales)	3,469	LF	$4.74	$16,445	Recent 2012 Similar project quotations
Check Dams	25	EA	$1,500	$36,750	200 feet apart along perimeter Swale
Outlet Protection	1	LS	$3,000	$3,000	
SUBTOTAL				$4,561,707	
Mobilization/Demobilization	5%			$228,085	
Subcontractor General Conditions	15%			$684,256	
SUBTOTAL				$5,474,048	
Stream and Wetland Features					
Warning (Orange) Barrier and Tree Protection Fence	3,500	LF	$2.00	$7,000	
Mulch and Temporary Seeding	42,000	SY	$1.00	$42,000	
Temporary Stream Crossing	3	EA	$2,000.00	$6,000	
Excavation, Existing Stream Bed Sediments	2,700	CY	$10.00	$27,000	
Excavation, Placed Onsite as Fill	26,800	CY	$15.00	$402,000	
Temporary Stream Bypass Pumping	1	LS	$10,000.00	$10,000	
900 gram Coir Fabric, installed	11,300	SY	$6.00	$67,800	
Soil Encapsulated Lifts, installed	200	LF	$50.00	$10,000	
Soil Preparation	42,000	SY	$1.00	$42,000	
Native Seed	42,000	SY	$2.50	$105,000	Specialized seed separate from Cover restoration.
Live Stake	4,400	EA	$3.00	$13,200	
Containerized Plant - 1 Gallon	800	EA	$20.00	$16,000	
Containerized Plant - 3 Gallon	1,800	EA	$50.00	$90,000	
Tree - 1" Caliper	80	EA	$150.00	$12,000	
Cross Vane Structure	25	EA	$5,000.00	$125,000	ASSUME 40' SPACING, 90 TOTAL
J-Hook Vane Structure	25	EA	$5,000.00	$125,000	ASSUME 40' SPACING, 90 TOTAL
J-Hook Log Vane Structure	20	EA	$3,500.00	$70,000	ASSUME 40' SPACING, 90 TOTAL
Log Sill Structure	20	EA	$3,500.00	$70,000	ASSUME 40' SPACING, 90 TOTAL
Wetland Outfall Structure	1	LS	$5,000.00	$5,000	
Additional Naturalized Limestone Boulders	20	CY	$300.00	$6,000	Including hand or machine placement
Additional Naturalized River Cobble	20	CY	$250.00	$5,000	Including hand or machine placement
Additional RR-3 Riprap	20	CY	$90.00	$1,800	Including hand or machine placement
Additional RR-4 Riprap	20	CY	$70.00	$1,400	Including hand or machine placement
Additional #57 Stone	20	CY	$50.00	$1,000	Including hand or machine placement
SUBTOTAL				$1,260,200	
Mobilization/Demobilization	5%			$63,010	
Subcontractor General Conditions	15%			$189,030	
SUBTOTAL				$1,512,240	
Fencing					
Third Party Oversight (Soil testing, lab and field)					
Field Inspections of Soil	300	HR	$85.00	$25,500	
Geotechnical Laboratory Testing	1	LS	$20,000	$20,000	
Geosynthetic Laboratory Testing	1	HR	$10,000	$10,000	
Geosynthetic Field Inspections	360	HR	$85	$30,600	
SUBTOTAL				$86,100	

Alternative: **Alternative 4** — **COST ESTIMATE SUMMARY**

Name: **Immobilization, Regrade, IAC 811 Cap and Creek Re-Alignment (22 ac.)**

Soil/Residue Verification Sampling					
Verification Sampling (50-foot centers)	240	HR	$100	$24,000	Engineer's Estimate
Analytical Laboratory (including QA/QC)	760	EA	$160	$121,600	Engineer's Estimate
Reporting	100	HR	$100	$10,000	Engineer's Estimate
SUBTOTAL				$155,600	
SUBTOTAL				$12,110,000	
General Contractor	17.2%			$2,082,920	
Contingency	25%			$3,027,500	10% Scope + 15% Bid
SUBTOTAL				$17,220,420	
Project Management	5%			$861,021	USEPA 2000, p. 5-13, >$10M
Remedial Design	6%			$1,033,225	USEPA 2000, p. 5-13, >$10M
Construction Management	6%			$1,033,225	USEPA 2000, p. 5-13, >$10M
SUBTOTAL				$2,927,471	
TOTAL CAPITAL COST				**$20,100,000**	

OPERATIONS AND MAINTENANCE COST

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
Cover Inspection and Repair					
Cover and Cap Annual Inspection	8	Hr	$100	$800	
Cap and Cover Repair	1	LS	$54,740	$54,740	Assumes 1% of area repaired
SUBTOTAL				$55,540	
Habitat Survey					
Labor	16	HR	$100	$1,600	
Travel	1	LS	$200	$200	
SUBTOTAL				$1,800	
Groundwater, Surface Water, and Sediment Sampling/ Event					Yrs 1 & 2- quarterly. Yrs 3 to 30- semiannual
GW (8 MWs) and SW (5 sxs) Sample Metal	13	EA	$160	$2,080	MEANS 33-02-1701; 4 GW + 4 SW
QC Samples	10	EA	$160	$1,600	MEANS 33-02-1701
Sediment Sample Metal Analysis	5	EA	$160	$800	MEANS 33-02-1710; 10 metals/sample
QC Samples	5	EA	$160	$800	
GW, SW and Sediment Sampling, Level D					
Labor	56	HRS	$110	$6,160	2 person crew
Equipment - meters	1	LS	$1,200	$1,200	
Consumables	1	LS	$350	$350	
Travel	1	LS	$500	$500	
Data Validation	20	HRS	$100	$2,000	
Reporting	50	HRS	$100	$5,000	
SUBTOTAL				$20,490	
SUBTOTAL FOR YEARS 1 & 2				$139,300	Cover Inspect/Repair, Survey, Yrs 1 & 2- quarterly.
SUBTOTAL FOR YEARS 3 - 30				$98,320	Cover Inspect/Repail, Survey, Yrs 3 to 30- semiannual
Allowance for Misc. Items (Years 1 & 2)	20%			$27,860	
Allowance for Misc. Items (Years 3 - 30)	20%			$19,664	
SUBTOTAL FOR YEARS 1 & 2				$167,161	
SUBTOTAL FOR YEARS 3 - 30				$117,985	
Contingency (Years 1 & 2)	25%			$41,790	10% Scope + 15% Bid
Contingency (Years 3 - 30)	25%			$29,496	10% Scope + 15% Bid
SUBTOTAL FOR YEARS 1 & 2				$208,951	
SUBTOTAL FOR YEARS 3 - 30				$147,481	
Project Management & Technical Support (Years 1 & 2)	15%			$31,343	
Project Management & Technical Support (Years 3 - 30)	15%			$22,122	
TOTAL ANNUAL O&M COST (Years 1-2)				**$240,293**	Reflects quarterly sampling 2 years
TOTAL ANNUAL O&M COST (Years 3-30)				**$169,603**	Reflects semiannual sampling Year 3 to 30

PERIODIC COSTS

DESCRIPTION	YEAR	QTY	UNIT	UNIT COST	TOTAL	NOTES
5 year Review	5	1	LS	$15,000	$15,000	
5 year Review	10	1	LS	$15,000	$15,000	
5 year Review	15	1	LS	$15,000	$15,000	
5 year Review	20	1	LS	$15,000	$15,000	
5 year Review	25	1	LS	$15,000	$15,000	
5 year Review	30	1	LS	$15,000	$15,000	
				Total	$90,000	
TOTAL ANNUAL PERIODIC COST					**$90,000**	

PRESENT VALUE ANALYSIS

Discount Rate = 2.0%

COST TYPE	YEAR	TOTAL COST	TOTAL COST PER YEAR	DISCOUNT FACTOR	PRESENT VALUE	NOTES
CAPITAL COST	0	$20,100,000	$20,100,000	1.000	$20,100,000	
ANNUAL O&M COST	1 to 2	$480,587	$240,293	1.9	$466,544	
ANNUAL O&M COST	3 to 30	$4,748,879	$169,603	31.4	$4,862,988	
PERIODIC COST	5	$15,000	$15,000	0.91	$13,586	
PERIODIC COST	10	$15,000	$15,000	0.82	$12,305	
PERIODIC COST	15	$15,000	$15,000	0.74	$11,145	
PERIODIC COST	20	$15,000	$15,000	0.67	$10,095	
PERIODIC COST	25	$15,000	$15,000	0.61	$9,143	
PERIODIC COST	30	$15,000	$15,000	0.55	$8,281	
		$25,400,000			$25,494,088	
TOTAL PRESENT VALUE OF ALTERNATIVE					**$25,500,000**	

SOURCE INFORMATION

1. United States Environmental Protection Agency. July 2000. A Guide to Preparing and Documenting Cost Estimates During the Feasibility Study. EPA 540-R-00-002. (USEPA, 2000). This is an order-of-magnitude cost estimate that is expected to be within -30 to +50 percent of the actual project costs.

Alternative: **Alternative 4 with Offsite Disposal Option** **COST ESTIMATE SUMMARY**

Name: **Offsite Disposal of Piles, Regrade, IAC 811 Cap and Creek Re-Alignment (22 ac.)**

Site: OU2 Eagle Zinc
Location: Hillsboro, Illinois
Phase: Feasibility Study Supplement
Base Year: 2012
Date: 6-Apr

Description: - Same as Alternative 4
- Off-site Disposal of Piles

CAPITAL COSTS

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
Institutional Controls					
Site Development Plan	1	LS	$15,000	$15,000	
SUBTOTAL				$15,000	
Predesign Investigations					
Survey site	1	LS	$30,000	$30,000	
Bench scale for Immobilization	1	LS	$25,000	$25,000	
Permits	1	LS	$8,000	$8,000	
SUBTOTAL				$63,000	
Site Preparation					
Silt Fencing	7,600	FT	$3.45	$26,220	Recent 2012 Supply and Install Quotations
Clear and Grub Excavation and Consolidation Areas	39.0	AC	$8,000	$312,000	MEANS 31 11 10.10 0260
Abandon SouthWest Pond	1.0	LS	$35,000	$35,000	
SUBTOTAL				$373,220	
Mobilization/Demobilization	5%			$18,661	
Subcontractor General Conditions	15%			$55,983	
SUBTOTAL				$447,864	
Immobilization/Disposal of Piles					
Immobilize by Peoria Disposal Company	1	LS	$2,000	$2,000	Peoria Disposal Co. Quote 2012 (Assumed Hazardous for costing)
Disposal by Peoria Disposal Company	3,465	Tons	$90.00	$311,850	Peoria Disposal Co. Quote 2012 (Assumed Hazardous for costing, if non-hazardous, $25 per ton)
SUBTOTAL				$313,850	
Excavate Piles and Soil and Consolidation					
Residue Consolidation	172,816	CY	$15.00	$2,592,240	Excavate, Haul, Place and Compact (includes NE pond and South Ditch Sediment removal)
Surface Soil Consolidation	58,000	CY	$10.00	$580,000	Excavate, Haul, Place and Compact
Re-locate waste from On-Site Management Cell	11,200	CY	$15.00	$168,000	Relcoate waste under new cover.
Strip and Stockpile Top Soil and Clay for Re-Use	3,000	CY	$12.00	$36,000	Stockpile on-site for re-use in cover.
SUBTOTAL				$3,376,240	
Mobilization/Demobilization	5%			$168,812	
Subcontractor General Conditions	15%			$506,436	
SUBTOTAL				$4,051,488	
22 Acre IAC 811 Cover Construction					22 Acre Cover
Rough Grading of Consolidation Area	106,480	SY	$5.00	$532,400	Recent 2012 Similar project quotations
Bentomat Geosynthetic Clay Liner	127,776	CY	$5.50	$702,768	Cetco October 2011 (replaces 24-inch low permeability clay soil)
40-mil LLDPE Geomembrane	127,776	SY	$7.50	$958,320	Area of cover plus 20% for overlap and waste
Double-Sided Drainage Geocomposite	127,776	SY	$4.00	$511,104	Area of cover plus 20% for overlap and waste
Freeze/Thaw Soil (3-feet thick)	106,480	CY	$12.00	$1,277,760	General Fill Import, Place Compact
Vegetation Layer (6-inches thick)	17,747	CY	$27.00	$479,160	Recent 2012 Similar project quotations
Seeding Vegetation Cover	22	AC	$2,000	$44,000	Recent 2012 Similar project quotations
Surfacewater Improvements (swales)	3,469	LF	$4.74	$16,445	Recent 2012 Similar project quotations
Check Dams	25	EA	$1,500	$36,750	200 feet apart along perimeter Swale
Outlet Protection	1	LS	$3,000	$3,000	
SUBTOTAL				$4,561,707	
Mobilization/Demobilization	5%			$228,085	
Subcontractor General Conditions	15%			$684,256	
SUBTOTAL				$5,474,048	
Stream and Wetland Features					
Warning (Orange) Barrier and Tree Protection Fence	3,500	LF	$2.00	$7,000	
Mulch and Temporary Seeding	42,000	SY	$1.00	$42,000	
Temporary Stream Crossing	3	EA	$2,000.00	$6,000	
Excavation, Existing Stream Bed Sediments	2,700	CY	$10.00	$27,000	
Excavation, Placed Onsite as Fill	26,800	CY	$15.00	$402,000	
Temporary Stream Bypass Pumping	1	LS	$10,000.00	$10,000	
900 gram Coir Fabric, installed	11,300	SY	$6.00	$67,800	
Soil Encapsulated Lifts, installed	200	LF	$50.00	$10,000	
Soil Preparation	42,000	SY	$1.00	$42,000	
Native Seed	42,000	SY	$2.50	$105,000	Specialized seed separate from Cover restoration.
Live Stake	4,400	EA	$3.00	$13,200	
Containerized Plant - 1 Gallon	800	EA	$20.00	$16,000	
Containerized Plant - 3 Gallon	1,800	EA	$50.00	$90,000	
Tree - 1" Caliper	80	EA	$150.00	$12,000	
Cross Vane Structure	25	EA	$5,000.00	$125,000	ASSUME 40' SPACING, 90 TOTAL
J-Hook Vane Structure	25	EA	$5,000.00	$125,000	ASSUME 40' SPACING, 90 TOTAL
J-Hook Log Vane Structure	20	EA	$3,500.00	$70,000	ASSUME 40' SPACING, 90 TOTAL
Log Sill Structure	20	EA	$3,500.00	$70,000	ASSUME 40' SPACING, 90 TOTAL
Wetland Outfall Structure	1	LS	$5,000.00	$5,000	
Additional Naturalized Limestone Boulders	20	CY	$300.00	$6,000	Including hand or machine placement
Additional Naturalized River Cobble	20	CY	$250.00	$5,000	Including hand or machine placement
Additional RR-3 Riprap	20	CY	$90.00	$1,800	Including hand or machine placement
Additional RR-4 Riprap	20	CY	$70.00	$1,400	Including hand or machine placement
Additional #57 Stone	20	CY	$50.00	$1,000	Including hand or machine placement
SUBTOTAL				$1,260,200	
Mobilization/Demobilization	5%			$63,010	
Subcontractor General Conditions	15%			$189,030	
SUBTOTAL				$1,512,240	
Fencing					
6 ft chain link fence	4,000	EA	$35.30	$141,200	Recent 2012 Supply and Install Quotations
Double Swing Gate	1	LS	$4,700	$4,700	
Gravel Entrance	1	LS	$3,000	$3,000	
SUBTOTAL				$148,900	
Mobilization/Demobilization	5%			$7,445	
Subcontractor General Conditions	15%			$22,335	
SUBTOTAL				$178,680	
Soil/Residue Verification Sampling					
Verification Sampling (50-foot centers)	240	HR	$100	$24,000	Engineer's Estimate
Analytical Laboratory (including QA/QC)	760	EA	$160	$121,600	Engineer's Estimate
Reporting	100	HR	$100	$10,000	Engineer's Estimate

Alternative: **Alternative 4 with Offsite Disposal Option** **COST ESTIMATE SUMMARY**

Name: **Offsite Disposal of Piles, Regrade, IAC 811 Cap and Creek Re-Alignment (22 ac.)**

SUBTOTAL		$155,600	
SUBTOTAL		$12,300,000	
General Contractor	17.2%	$2,115,600	
Contingency	25%	$3,075,000	10% Scope + 15% Bid
SUBTOTAL		$17,490,600	
Project Management	5%	$874,530	USEPA 2000, p. 5-13, >$10M
Remedial Design	6%	$1,049,436	USEPA 2000, p. 5-13, >$10M
Construction Management	6%	$1,049,436	USEPA 2000, p. 5-13, >$10M
SUBTOTAL		$2,973,402	
TOTAL CAPITAL COST		**$20,500,000**	

OPERATIONS AND MAINTENANCE COST

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
Cover Inspection and Repair					
Cover and Cap Annual Inspection	8	Hr	$100	$800	
Cap and Cover Repair	1	LS	$54,740	$54,740	Assumes 1% of area repaired
SUBTOTAL				$55,540	
Habitat Survey					
Labor	16	HR	$100	$1,600	
Travel	1	LS	$200	$200	
SUBTOTAL				$1,800	
Groundwater, Surface Water, and Sediment Sampling/ Event					Yrs 1 & 2- quarterly. Yrs 3 to 30- semiannual
GW (8 MWs) and SW (5 sxs) Sample Metal	13	EA	$160	$2,080	MEANS 33-02-1701; 4 GW + 4 SW
QC Samples	10	EA	$160	$1,600	MEANS 33-02-1701
Sediment Sample Metal Analysis	5	EA	$160	$800	MEANS 33-02-1710; 10 metals/sample
QC Samples	5	EA	$160	$800	
GW, SW and Sediment Sampling, Level D					
Labor	56	HRS	$110	$6,160	2 person crew
Equipment - meters	1	LS	$1,200	$1,200	
Consumables	1	LS	$350	$350	
Travel	1	LS	$500	$500	
Data Validation	20	HRS	$100	$2,000	
Reporting	50	HRS	$100	$5,000	
SUBTOTAL				$20,490	
SUBTOTAL FOR YEARS 1 & 2				$139,300	Cover Inspect/Repair, Survey, Yrs 1 & 2- quarterly.
SUBTOTAL FOR YEARS 3 - 30				$98,320	Cover Inspect/Repail, Survey, Yrs 3 to 30- semiannual
Allowance for Misc. Items (Years 1 & 2)	20%			$27,860	
Allowance for Misc. Items (Years 3 - 30)	20%			$19,664	
SUBTOTAL FOR YEARS 1 & 2				$167,161	
SUBTOTAL FOR YEARS 3 - 30				$117,985	
Contingency (Years 1 & 2)	25%			$41,790	10% Scope + 15% Bid
Contingency (Years 3 - 30)	25%			$29,496	10% Scope + 15% Bid
SUBTOTAL FOR YEARS 1 & 2				$208,951	
SUBTOTAL FOR YEARS 3 - 30				$147,481	
(Years 1 & 2)	15%			$31,343	
(Years 3 - 30)	15%			$22,122	
TOTAL ANNUAL O&M COST (Years 1-2)				**$240,293**	Reflects quarterly sampling 2 years
TOTAL ANNUAL O&M COST (Years 3-30)				**$169,603**	Reflects semiannual sampling Year 3 to 30

PERIODIC COSTS

DESCRIPTION	YEAR	QTY	UNIT	UNIT COST	TOTAL	NOTES
5 year Review	5	1	LS	$15,000	$15,000	
5 year Review	10	1	LS	$15,000	$15,000	
5 year Review	15	1	LS	$15,000	$15,000	
5 year Review	20	1	LS	$15,000	$15,000	
5 year Review	25	1	LS	$15,000	$15,000	
5 year Review	30	1	LS	$15,000	$15,000	
				Total	$90,000	
TOTAL ANNUAL PERIODIC COST					**$90,000**	

PRESENT VALUE ANALYSIS

Discount Rate = 2.0%

COST TYPE	YEAR	TOTAL COST	TOTAL COST PER YEAR	DISCOUNT FACTOR	PRESENT VALUE	NOTES
CAPITAL COST	0	$20,500,000	$20,500,000	1.000	$20,500,000	
ANNUAL O&M COST	1 to 2	$480,587	$240,293	1.9	$466,544	
ANNUAL O&M COST	3 to 30	$4,748,879	$169,603	31.4	$4,862,988	
PERIODIC COST	5	$15,000	$15,000	0.91	$13,586	
PERIODIC COST	10	$15,000	$15,000	0.82	$12,305	
PERIODIC COST	15	$15,000	$15,000	0.74	$11,145	
PERIODIC COST	20	$15,000	$15,000	0.67	$10,095	
PERIODIC COST	25	$15,000	$15,000	0.61	$9,143	
PERIODIC COST	30	$15,000	$15,000	0.55	$8,281	
		$25,800,000			$25,894,088	
TOTAL PRESENT VALUE OF ALTERNATIVE					**$25,900,000**	

SOURCE INFORMATION

1. United States Environmental Protection Agency. July 2000. A Guide to Preparing and Documenting Cost Estimates During the Feasibility Study. EPA 540-R-00-002. (USEPA, 2000). This is an order-of-magnitude cost estimate that is expected to be within -30 to +50 percent of the actual project costs.